

US Army Corps of Engineers Engineer Research and Development Center



The Environmental Assessment and Management (TEAM) Guide

Nevada Supplement Revised October 2000

Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency (DLA), and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency.

Since 1984, the U.S. Army Construction Engineering Research Laboratory, in cooperation with numerous Department of Defense (DOD) components, has developed environmental compliance assessment checklist manuals. The Environmental Assessment and Management (TEAM) Guide was developed for use by all DOD components. Currently there are five participating DOD components: the Air Force, Air National Guard, Army, Civil Works, and DLA. These agencies have agreed to share the development and maintenance of this Guide.

The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The Nevada Supplement was developed to be used in conjunction with the TEAM Guide, using existing Nevada state environmental legislation and regulations as well as suggested management practices.

FOREWORD

This is USACERL Special Report 96/09. The report is based on the information available on Enflex Federal and State Regulations of August 2000.

The research was performed for the Air National Guard under Military Interdepartmental Purchase Request (MIPR) number OMAF57/3400/357/A/9830147/PO, technical monitor Chuck Smith; and the U.S. Postal Service under MIPR number 102590-99-Z-093, technical monitor Paul Fennewald.

The research was performed by the Environmental Processes Branch (CN-E), Installations Division (CN), of the U.S. Army Construction Engineering Research Laboratory (CERL). The CERL Principal Investigator was Carolyn O'Rourke. Dr. Ilker Adiguzel is Chief, CN-E, and Dr. John T. Bandy is Chief, CN. The associated Technical Director is Gary Schanche. Mr. Bill Goran is Acting Director of CERL.

CERL is an element of the U.S. Army Engineer Research and Development Center (ERDC), U.S. Army Corps of Engineers. The Director of ERDC is Dr. James R. Houston, and the Commander is COL James S. Weller.

NOTICE

This manual is intended as general guidance for personnel at Department of Defense (DOD) installations/CW facilities. It is not, nor is it intended to be, a complete treatise on environmental laws and regulations. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information contained herein. For any specific questions about, or interpretations of, the legal references herein, consult appropriate legal counsel.

NEVADA SUPPLEMENT

The Nevada Supplement to the U.S. TEAM Guide contains the protocols necessary for determining compliance with Nevada environmental regulations. This manual is a supplement to the U.S. TEAM Guide; it does not replace the Guide.

The following Nevada agencies issue regulations and have responsibility in the areas indicated.

- Department of Agriculture administers the pesticide program and certification of applicators.
- Department of Conservation and Natural Resources (DCNR) manages most of the state's environmental programs. The DCNR's Environmental Protection Divisions has sections which administer the air quality, water pollution, solid and hazardous waste, groundwater, and underground storage tank programs. The Water Resources Division administers all water use issues. The Division of Emergency Management (702/687-4240 and 702/687-5300) is the responsible agency for spills of oil and hazardous substances. The DCNR also regulates POLs, PCBs, and asbestos.
- Division of Forestry and Division of Wildlife oversees the endangered plant and wildlife programs.
- State Historic Preservation Office, Department of Museums, Library, and Arts is responsible for the
 preservation of historic properties, archaeological and Native American site, and collection management and
 curation.

ACRONYMS

ACGIH American Conference of Governmental Industrial Hygienists

AQMA air quality management area

ASTM American Society for Testing and Materials

AWWA American Water Works Association
BACT best available control technology
BOD biochemical oxygen demand

BTEX benzene, toluene, elthylbenzene, xylene

CAR control area responsible party
CAS Chemical Abstract Service
CEM continuous emission monitoring

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CFC chlorofluorocarbons CWA Clean Water Act

dB decibel

dBA decibels using A-weighting network
dBC decibels using C-weighting network
DEQ Department of Environmental Quality

ESA Endangered Species Act

FIFRA Federal Insecticide, Fungicide, and Rodenticide Act

GVWR gross vehicle weight rating
HEPA Filter high efficiency particulate air filter
HWM hazardous waste management

IARC International Agency for Research on Cancer

ICRU International Commission on Radiological Units and Measurements

IUPAC International Union of Pure and Applied Chemistry

LAER lowest achievable emission rate
Ldn day-night airport noise level
Leq equivalent noise level
LPG Liquefied Petroleum Gas

MC medium curing

maximum contaminant level **MCL** MFL million fibers per liter **MSDS** material safety data sheet **MSW** municipal-type solid waste **MSWLF** municipal solid waste landfill **MWC** municipal waste combustor NBS National Bureau of Standards National Environmental Policy Act **NEPA NFPA** National Fire Protection Association **NHPA** National Historic Preservation Act

NPDES National Pollutant Discharge Elimination System
NTNCWS nontransient noncommunity water system
OSHA Occupational Safety and Health Administration

PAH polycyclic aromatic hydrocarbons

PCB polychlorinated biphenyl
PEL permissible exposure limit
POTW publicly owned treatment works
PUC Public Utility Commission of Oregon
RACT reasonably available control technology

ACRONYMS

RC rapid curing

RCRA Resource Conservation and Recovery Act

RDF refuse-derived fuel

REL recommended exposure level
RGF recirculating gravel filter
RVP Reid vapor pressure

SAE Society of Automotive Engineers

SARA Superfund Amendments and Reauthorization Act

SC slow curing

SDWA Safe Drinking Water Act

SIC Standard Industrial Classification
SMCL secondary maximum contaminant level
SPCC spill prevention countermeasure and control

SPL sound pressure level Solid Waste Disposal Act **SWDA** TLV threshold limit value **TNTC** too numerous to count TPH total petroleum hydrocarbons TRI toxic release inventory **TSCA** Toxic Substance Control Act treatment, storage, and disposal **TSD TSDF** treatment, storage, and disposal facility

TSP total suspended particulate
TSS total suspended solids

TTHM total trihalomethane
UL Underwriters Laboratory
UFC Uniform Fire Code

USEPA United States Environmental Protection Agency

UST underground storage tank
VOC volatile organic compound
VOL volatile organic liquid

WPCF Water Pollution Control Facilities

COMMONLY USED ABBREVIATIONS

bbl	barrel	mg	milligram
Btu	British thermal unit	mi	mile
C	Celsius	min	minute
cfs	cubic feet per second	MJ	megajoule
cm	centimeter	mL	milliliter
cm ²	square centimeter	mm	millimeter
dscf	dry standard cubic foot	mo	month
dscm	dry standard cubic meter	mrem	millirem
F	Fahrenheit	MW	megawatt
ft	foot	ng	nanogram
ft^2	square feet	NTU	nephelometric turbidity unit
ft^3	cubic feet	OZ	ounce
g	gram	pCi	picoCurie
gal	gallon	ppm	part per million
gJ	gigajoule	ppmv	part per million by volume
gr	grain	ppmw	part per million by weight
h	hour	psi	pound per square inch
ha	hectare	psia	pounds per square inch absolute
hp	horsepower	psig	pounds per square inch gauge
in.	inch	qt	quart
J	Joule	S	second
kg	kilogram	scf	standard cubic foot
km	kilometer	scm	standard cubic meter
kPa	kilopascals	sdcf	standard dry cubic foot
L	liter	sdcm	standard dry cubic meter
lb	pound	TU	turbidity unit
m	meter	V	volt
m^3	cubic meter	yd	yard
MBtu	million British thermal units	yd^2	square yard
meq	milligram equivalent	yr	year
CO	carbon monoxide	NO_2	nitrogen dioxide
CO_2	carbon dioxide	NO_x	nitrogen oxides
Hg	mercury	SO_2	sulfur dioxide

METRIC CONVERSION TABLE

The following conversion table may be used throughout this manual to make approximate conversions between U.S. units and metric units.

1 in.	=	2.54 cm or 25.4 mm
1 ft	=	0.3048 m
1 ft^2	=	0.093 m^2
1 ft ³	=	0.028 m^3
1 psi	=	6.895 kPa
1 lb	=	0.454 kg
1 mi	=	1.61 km
1 gal	=	3.78 L
°F	=	$(^{\circ}C + 17.78) \times 1.8$
°C	=	0.55 (°F - 32)
1 yd	=	0.9144 m
1 Btu	=	4.184 kJ
1 acre	=	4046.9 m^2
1 acre	=	0.405 hectare

Comment Form

Comments and questions regarding the Nevada Supplement can be addressed to:

Carolyn O'Rourke e-mail c-orourke@cecer.army.mil phone 217-398-5553 or 1-800-USACERL fax 217-373-3430

Please include the following information with your comment:			
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OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate to any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations, 1215 Jefferson Davis Highway, Suite 12-4. Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503 AGENCY USE ONLY (Leave blank) REPORT DATE REPORT TYPE AND DATES COVERED October 2000 Final TITLE AND SUBTITLE FUNDING NUMBERS OMAF57/3400/357/A/9830147/PO (ANG) The Environmental Assessment and Management (TEAM) Guide 102590-99-Z-093 (USPS) Nevada Supplement, Revised 6. AUTHOR(S) Carolyn O'Rourke PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) PERFORMING ORGANIZATION REPORT NUMBER U.S. Army Construction Engineering Research Laboratory (CERL) SR 96/9. October 95 P.O. Box 9005 Champaign, IL 61826-9005 SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) SPONSORING/MONITORING AGENCY REPORT NUMBER See the report Foreword for a complete list of the sponsors. 11. SUPPLEMENTARY NOTES Original document prepared by U.S. Army Construction Engineering Research Laboratory (CERL). Copies of this revised document are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA. or can be downloaded from the HQ AFCEE or CERL (Denix) Bulletin Boards. This guide updates and supercedes ADA301174. 12a. DISTRIBUTION/AVAILABILITY STATEMENT 12b. DISTRIBUTION CODE Approved for public release; distribution is unlimited. 13. ABSTRACT (Maximum 200 words) Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency (DLA), and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency. Since 1984, the U.S. Army Construction Engineering Research Laboratory, in cooperation with numerous Department of Defense (DOD) components, has developed environmental compliance assessment checklist manuals. The Environmental Assessment and Management (TEAM) Guide was developed for use by all DOD components. Currently there are five participating DOD components: the Air Force, Air National Guard, Army, Civil Works, and DLA. These agencies have agreed to share the development and maintenance of this Guide. The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The Nevada Supplement was developed to be used in conjunction with the TEAM Guide, using existing Nevada state environmental legislation and regulations as well as suggested management practices. NUMBER OF PAGES Environmental Compliance Assessment and Management Program The Environmental Assessment and Management (TEAM) Guide **Environmental Compliance Laws and Regulations Environmental Compliance Checklists**

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SECTION 1

AIR EMISSIONS MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Air Emissions Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations

Definitions and requirements for Air Emissions Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

Federal Regulations Adopted by Reference

- Nevada adopts by reference 40 CFR 51.100(hh) through 51.100(kk), 51.100(nn), 51.165, and 52.21, as well as Appendix S and Appendix W of 40 CFR 51, as they existed on 1 July 1997 (Nevada Administrative Code (NAC) 445B.221.1) [Revised October 1998].
- Nevada adopts by reference the following subparts of 40 CFR 60, as they existed on 1 July 1997:
 - 1. Subpart A, General Provisions
 - 2. Subpart D, Standards of Performance for Fossil-Fuel Fired Steam Generators for which construction is commenced after 17 August 1971
 - 3. Subpart Da, Standards of Performance for Electric Utility Steam-Generating Units for which construction is commenced after 18 September 1978
 - 4. Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
 - 5. Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam-Generating Units
 - 6. Subpart E, Standards of Performance for Incinerators
 - 7. Subpart Ea, Standards of Performance for Municipal Waste Combustors
 - 8. Subpart G, Standards of Performance for Nitric Acid Plants
 - 9. Subpart H, Standards of Performance for Sulfuric Acid Plants
 - 10. Subpart K, Standards of Performance for Storage Vessels for Petroleum Liquids for which construction, reconstruction, or modification commenced after 11 June 1973 and prior to 19 May 1978
 - 11. Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for which construction, reconstruction, or modification commenced after 18 May 1978 and prior to 23 July 1984
 - 12. Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which construction, reconstruction, or modification commenced after 23 July 1984
 - 13. Subpart O, Standards of Performance for Sewage Treatment Plants
 - 14. Subpart GG, Standards of Performance for Stationary Gas Turbines
 - 15. Subpart QQ, Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing
 - 16. Subpart XX, Standards of Performance for Bulk Gasoline Terminals
 - 17. Subpart JJJ, Standards of Performance for Petroleum Dry Cleaners
 - 18. Subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants

- 19. Subpart LLL, Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions (NAC 445B.221.2) [Revised October 1998].
- Nevada adopts by reference 40 CFR 60, Subpart Ec, Standards of Performance for Hospitals/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996, as it existed on 15 September 1997 (NAC 445B.221.3) [Added October 1998].
- Nevada adopts by reference the following subparts of 40 CFR 61, as they existed on 1 July 1998:
 - 1. Subpart A, General Provisions
 - 2. Subpart C, National Emission Standard for Beryllium
 - 3. Subpart D, National Emission Standard for Beryllium Rocket Motor Firing
 - 4. Subpart E, National Emission Standard for Mercury
 - 5. Subpart F, National Emission Standard for Vinyl Chloride
 - 6. Subpart BB, National Emission Standard for Benzene Emissions from Benzene Transfer Operations
 - 7. Subpart FF, National Emission Standard for Benzene Waste Operations (NAC 445B.221.4) [Revised October 1998].
- Nevada adopts by reference the following subparts of 40 CFR 63, as they existed on 1 July 1998:
 - 1. Subpart A, General Provisions
 - 2. Subpart M, National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities
 - 3. Subpart N, National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks
 - 4. Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers
 - 5. Subpart T, National Emission Standards for Halogenated Solvent Cleaning
 - 6. Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations
 - 7. Subpart KK, National Emission for the Printing and Publishing Industry
 - 8. Subpart OO, National Emission Standards for the Tanks Level 1
 - 9. Subpart PP, National Emission Standards for Containers
 - 10. Subpart QQ, National Emissions Standards for Surface Impoundments
 - 11. Subpart RR, National Emission Standards for Individual Drain Systems
 - 12. Subpart VV, National Emission Standards for Oil-Water Separators and Organic-Water Separators (NAC 45B.221.5) [Added October 1998].
- Nevada adopts by reference Title 42, United States Code (USC), Section 7412(b), List of Hazardous Air Pollutants, and the amendments to section 7412 contained in 40 CFR 63, Subpart C, as they existed on 1 July 1997(NAC 445B.221.8) [Revised October 1998].
- Nevada adopts by reference the Standard Industrial Classification Manual, 1987 Edition, published by the U.S.
 Office of Management and Budget (NAC 445B.221.9) [Revised October 1998].

Definitions

- *Air Contaminant* any substance discharged into the atmosphere except water vapor and water droplets (NAC 445B.010).
- *Air Pollution* the presence in the outdoor atmosphere of one or more air contaminants or any combination thereof in such quantity and duration as may tend to:
 - 1. injure human health or welfare, animals or plant life or property
 - 2. limit visibility or interfere with scenic, aesthetic and historic values of the state

- 3. interfere with the enjoyment of life or property (NAC 445B.011, NRS 445B.115) [Revised October 1998].
- Allowable Emissions the emissions from a source at its designated maximum capacity or at its actual maximum capacity, whichever is greater, except as reduced by any Federally enforceable limitations on its emissions which are established:
 - 1. by Nevada laws or regulations
 - 2. by any applicable requirements
 - 3. by conditions of the source's operating permit, imposed on the emission rate, the type or amount of materials combusted or processed, the operating rates, the hours of operation, or any other factor limiting production or emission, whichever is most stringent.

For Class II sources that are not subject to Federal requirements, emission limitations need not be Federally enforceable (NAC 445B.013).

- Alterations any addition to, or enlargement, replacement, modification, or change of the design, capacity, process, arrangement, operating hours, or control apparatus that will affect the kind or amount of air contaminants emitted (NAC 445B.014).
- Alternative Operating Scenarios two or more modes or types of operation specifically identified by a source in its application and approved by the Director of the Department of Conservation as a condition or as conditions of the source's operating permit (NAC 445B.016).
- Ambient Air that portion of the atmosphere which is external to building, structures, facilities, or installations to which the public has access (NAC 445B.018).
- Applicable Requirement as applied to a stationary source:
 - 1. any standard or other relevant requirement:
 - a. provided in NRS 445B.100 to 445B.640, inclusive, and NAC 445B.001 to 445B.395, inclusive, except for the standards for ambient air established in NAC 445B.391
 - b. provided in the applicable implementation plan approved or adopted by the EPA pursuant to 42 U.S.C. §§ 7401 7515, inclusive
 - c. for a hazardous air pollutant adopted pursuant to 42 U.S.C. § 7412, including any requirement regarding the prevention of accidental releases
 - d. for a program to control acid rain adopted pursuant to 42 U.S.C. §§ 7651 76510, inclusive
 - e. for enhanced monitoring or for compliance certification adopted pursuant to 42 U.S.C. § 7413(a)(3) or 7661c(b)
 - f. for solid waste incineration units adopted pursuant to 42 U.S.C. § 7429
 - g. for consumer and commercial products or tank vessels adopted pursuant to 42 U.S.C. § 7511b, and
 - h. for the protection of stratospheric ozone adopted pursuant to 42 U.S.C. §§ 7671 7671q, inclusive, unless the administrator determines that such provisions are not required in an operating permit
 - 2. a new source performance standard adopted pursuant to 42 U.S.C. § 7411
 - 3. any term or condition of any permit issued pursuant to the requirements of 42 U.S.C. §§ 7401 7515, inclusive, including provisions regarding the prevention of significant deterioration of air quality and new source review, and
 - 4. any national ambient air quality standard or requirement regarding increments or visibility adopted pursuant to 42 U.S.C. §§ 7470 7492, inclusive, as the standard applies to a temporary source for which the owner or operator has applied for and obtained an operating permit pursuant to NAC 445B.300 and 445B.331 (NAC 445B.019) [Added October 1998].
- Approved Inspector a person licensed by the Department of Motor Vehicles and Public Safety to inspect motor vehicles and devices for the control of pollution for an authorized station or authorized inspection station (Nevada Revised Statutes (NRS) 445B.705).

- Area Source any stationary source of hazardous air pollutants that is not a major source (NAC 445B.021).
- Authorized Inspection Station a station licensed by the Department of Motor Vehicles and Public Safety for
 inspecting motor vehicles and devices for the control of pollution for compliance with Nevada's legislation
 concerning the control of vehicle emissions from engines or any applicable Federal regulation or regulation of
 the Commission (NRS 445B.710).
- Authorized Maintenance Station a station licensed by the Department of Motor Vehicles and Public Safety for
 installing, repairing, and adjusting devices for the control of pollution to meet the Commission's requirements
 (NRS 445B.715).
- Authorized Station a station licensed by the Department of Motor Vehicles and Public Safety for inspecting
 motor vehicles and devices for the control of pollution for compliance with Nevada's legislation concerning the
 control of vehicle emissions from engines or any applicable Federal regulation or regulation of the Commission
 and for installing, repairing, and adjusting such devices to meet the Commission's requirements (NRS
 445B.720).
- Best Available Control Technology for a stationary source that is subject to the provisions of 40 CFR 52.21, it has the meaning ascribed to it in 40 C.F.R. § 52.21, as incorporated by reference in NAC 445B.221.
- *Certificate of Compliance* a certificate printed by an emissions analyzer and issued by an approved inspector in a test station (NAC 445B.409).
- *Certified Repair Technician* a person who has been certified by the Department of Motor Vehicles and Public Safety to perform repairs to devices for the control of exhaust emissions and complies with the requirements set forth in NAC 445B.5033 to 445.5048, inclusive (NAC 445B.4095).
- Class 1-A Application an application for a Class I operating permit that is required for any new source or significant modification to an existing source which is subject to the requirements of 42 USC 7661-7661f, inclusive (NAC 445B.034).
- *Class 1 Approved Inspector* an approved inspector who is licensed by the Department of Motor Vehicles and Public Safety only to test exhaust emissions (NAC 445B.4096).
- Class I-B Application an application for a Class I operating permit that is required for any new source or significant modification to an existing source which is subject to the requirements of 42 USC 7661-7661f, inclusive (NAC 445B.035).
- Class 1 Fleet Station a fleet station that is licensed by the Department of Motor Vehicles and Public Safety only to test exhaust emissions (NAC 445B.4097).
- Class I Source any source which is subject to the requirements of 42 USC 7661-7661f, inclusive (NAC 445B.036).
- Class 2 Approved Inspector an approved inspector who is licensed by the Department of Motor Vehicles and Public Safety to test exhaust emissions and to diagnose, repair, and service devices for the control of exhaust emissions (NAC 445B.4098).
- Class 2 Fleet Station a fleet station that is licensed by the Department of Motor Vehicles to test exhaust emissions and to diagnose, repair, and service devices for the control of exhaust emissions (NAC 445B.4099).

- Class II Source any source which is not subject to the requirements of 42 USC 7661-7661f, inclusive, but which is otherwise subject to the requirements of NAC 445.B001 to 445B.395, inclusive (NAC 445B.037).
- *Commission* the State Environmental Commission (NAC 445B.411).
- Construction erection or installation of an emission unit (NAC 445B.044) [Revised October 1998].
- Criteria Pollutant an air pollutant for which the Administrator has established a national ambient air quality standard (NAC 445B.049).
- Day a 24-h period that begins at midnight (NAC 445B.051).
- Director -
 - 1. the Director of the State Department of Conservation and natural resources or designee or a person designated by or pursuant to a county or city ordinance or regional agreement or regulation of enforce local air pollution control ordinances and regulations (NAC 445B.053)
 - 2. the Director of the Department of Motor Vehicles and Public Safety (NAC 445B.415).
- *Emission* the act of passing into the atmosphere an air contaminant or a gas stream which contains or may contain an air contaminant or the material passed into the atmosphere (NAC 445B.416).
- *Emission Unit* a discrete part of a stationary or portable source which emits or has the potential to emit any pollutant regulated under the *Act* (NAC 445B.055).
- Excess Emissions any emission which exceeds any applicable emission limitation prescribed by NAC 445B.001 to 445B.601, inclusive, the construction or modification of which was commenced before the date on which the standard was proposed or any apparatus which could be altered in such a way as to be of that type (NAC 445B.063).
- Exhaust Emissions air contaminants emitted into the atmosphere from any opening downstream from the exhaust ports of a motor vehicle engine (NAC 445B.421).
- Exhaust Gas Analyzer a device for sensing the amount of air contaminants in the exhaust emissions of a motor vehicle (NAC 445B.422).
- Existing Source -
 - 1. for sources subject to 42 USC 7412, any stationary source other than a new source
 - 2. for all other sources, a stationary source which was constructed, or for which the owner or operator submitted a complete application for a permit to construct, before the effective date of the program (NAC 445B.066).
- *Fixed Capital Cost* the capital needed to provide all the depreciable components (NAC 445B.247(1)(b)) [Added October 1998].
- Fuel burning Equipment -
 - 1. indirect heat transfer fuel burning equipment which is any device used for the combustion of fuel in which heat is transferred from the products of combustion directly for the production of useful heat or power
 - 2. direct heat transfer fuel burning equipment which is any device used for the combustion of fuel in which heat is transferred from the products of combustion directly for the production of useful heat or power (NAC 445B.073).

- *Fleet Station* a facility that is licensed by the Department to conduct inspections of the motor vehicles of qualified owners or lessees (NRS 445B.735).
- Fugitive Dust emissions of solid, airborne particulate matter which could not reasonably pass through a stack, chimney, vent, or a functionally equivalent opening (NAC 445B.075).
- Fugitive Emissions emissions of any pollutants including fugitive dust, which could not reasonably pass through a stack, chimney, vent, or a functionally equivalent opening (NAC 445B.077).
- *Garbage* putrescible animal or vegetable refuse (NAC 445B.080).
- *General Permit* an operating permit issued by the Director of the Department of Conservation to cover numerous similar sources (NAC 445B.082).
- *Heavy-Duty Motor Vehicle* the following:
 - 1. a truck that has a gross weight of 8500 lb or more
 - 2. a motor vehicle that is designed for the transportation of persons and has a capacity of more than 15 persons
 - 3. a motor home, mini motor home, or a camper mounted on a chassis (NAC 445B.426).
- Incinerator an engineered apparatus capable of withstanding heat and designed to efficiently reduce solid, semisolid, liquid, or gaseous waste at specified rates and from which the residues contain little or no combustive material (NAC 445B.086).
- *Light-Duty Motor Vehicle* the following:
 - 1. a truck that has a gross weight of less than 8500 lb
 - 2. a motor vehicle that is subject to the laws of Nevada requiring registration, is capable of transporting persons and has a capacity of 15 persons or less
 - 3. a van conversion
 - 4. any other vehicle that is powered by gasoline, except for a heavy-duty motor vehicle (NAC 445B.432).
- Major Source any stationary source or group of stationary sources that:
 - 1. except as otherwise provided in subsection 3, any stationary source that:
 - a. is located on one or more contiguous or adjacent properties
 - b. is under the common control of the same person or persons
 - c. belongs to a single major industrial grouping as described in the "Standard Industrial Classification Manual," as incorporated by reference in NAC 445B.221, and
 - d. meets one of the following conditions:
 - i. is located in a nonattainment area and is required to obtain an operating permit pursuant to 42 U.S.C. §§ 7501 to 7515, inclusive
 - ii. directly emits or has the potential to emit:
 - A. one hundred tons per year or more of any regulated air pollutant, excluding particulate matter more than 10 microns in diameter; or One hundred tons per year or more of any regulated air pollutant, excluding particulate matter more than 10 microns in diameter, or
 - B. ten tons per year or more of a hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants or a lesser quantity as established by the commission, or
 - C. is located in the particular matter (PM(10)) "serious" nonattainment area and directly emits or has the potential to emit 70 tons per year or more of PM(10).

(NOTE: The Director shall consider fugitive emissions in determining whether a stationary source is major for any source category listed in 40 C.F.R. § 52.21(b)(1)(iii), as adopted by reference pursuant to NAC 445B.221, or whether a stationary source of a hazardous air pollutant is a major source. To determine whether a stationary

source is a major source of hazardous air pollutants under 42 U.S.C. § 7412, emissions from any oil or gas exploration or production well, with its associated equipment, and emissions from any pipeline compressor or pump station must not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control.)

2. In determining whether a stationary source is a major source, the Director shall not consider the emissions from mobile sources subject to regulation under Title II of the federal Clean Air Act, 42 U.S.C. §§ 7521 to 7590, inclusive, or from nonroad engines. As used in this subsection, "nonroad engine" has the meaning ascribed to it in 40 C.F.R. § 89.2, as that section existed on December 31, 1997.

(NOTE: For the purposes of the program for the prevention of significant deterioration of air quality (PSD), the term "major source" is synonymous with the term "major stationary source" as the term is defined in 40 C.F.R. § 52.21(b)(1), as adopted by reference in NAC 445B.221) (NAC 445B.094) [Revised October 1998].

- *Maximum Achievable Control Technology* any measure, process, method, system, or technique applied to a source which provides the maximum degree of reduction in the emission of hazardous air pollutants as follows:
 - 1. for new sources, the maximum degree of reduction in emissions must be no less stringent than the control of emissions that is achieved in practice by the best controlled similar source, as determined by the Administrator
 - 2. for existing sources, the maximum degree of reduction in emissions must be no less stringent than the requirements set forth in 42 USC 7412(d)(3) (NAC 445B.096).
- Maximum Allowable Throughput -
 - 1. the maximum process weight allowed through a continuous or the long-run steady-rate operation, per hour
 - 2. for cyclical or batch unit operations or unit processes, the total process weight for a 1-h period (NAC 445B.097).
- Mean Sea Level the average level of the sea between high and low tide (NAC 445B.576(5)) [Added October 1998].
- *Motor Vehicle* every self-propelled vehicle in, upon, or by which any person or property is or may be transported or drawn upon a public highway except devices moved by human or animal power or used exclusively on stationary rails (NRS 445B.745).
- Multiple Chamber Incinerator any article, machine, equipment contrivance, structure, or part of a structure
 used to dispose of combustible refuse by burning, which consists of three or more refractory lined combustion
 furnaces in series, physically separated by refractory walls and interconnected by gas passage ports or ducts and
 employing adequate design parameters necessary for maximum combustion of the material to be burned (NAC
 445B.106).
- New Motor Vehicle a motor vehicle that has never been registered with the Department of Motor Vehicles and Public Safety and has never been registered with the appropriate agency or authority of any other state, the District of Columbia, or any territory or possession of the United States or foreign state, province, or country (NAC 445B.440).
- New Source -
 - 1. for sources subject to the requirements of 42 USC 7412, a stationary source for which the owner or operator commenced construction or reconstruction after the Administrator proposed regulations pursuant to 42 USC 7412 which established an emission standard applicable to the source
 - 2. for all other sources, a stationary source or modification for which an owner or operator has not submitted a complete application for a permit to construct before the effective date of the program (NAC 445B.108).
- *Nitrogen Oxides* all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in NAC 445B.001 to 445B.601, inclusive (NAC 445B.109).

- Nonattainment Area for any air pollutant, an area:
 - 1. which is shown by monitored data or is calculated by air quality modeling or any other method determined by the Administrator to be reliable, to exceed any national standard of ambient air quality for the pollutant
 - 2. which is designated as a nonattainment area by the Governor
 - 3. which is promulgated as a nonattainment area by the Administrator (NAC 445B.112).
- *Nuisance* anything which is injurious to health, offensive to the senses or an obstruction to the free use of property, and which interferes with the comfortable enjoyment of life and property (NAC 445B.114).
- Odor a characteristic of an air contaminant which makes it perceptible to the sense of smell (NAC 445B.116).
- *Opacity* the property of a substance tending to obscure vision and measured in terms of percent obscuration (NAC 445B.442).
- *Open Burning* any fire from which the products of combustion are emitted into the atmosphere without passing through a stack or chimney (NAC 445B.122).
- Operating Permit includes Class I and Class II operating permits (NAC 445B.123).
- *Particulate Matter* any material except uncombined water that exists in a finely divided form as a liquid or solid at reference conditions (NAC 445B.129).
- *Pathological Waste* human and animal remains consisting of carcasses, organs, and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds, and similar sources (NAC 445B.130).
- *Permit to Construct* a document issued and signed by the Director of the Department of Conservation certifying that:
 - 1. adequate empirical data for a single source has been received and constitutes approval of location or
 - 2. all portions of NAC 445B.300 to 445.B313, inclusive, and any other provisions of NAC 445B.001 to 445B.395, inclusive, have been complied with and constitute approval of location and for construction (NAC 445B.132).
- *Person* includes the Federal Government, the State of Nevada or any of its political subdivisions, and any other administrative agency, quasi-public corporation, or other legal entity (NAC 445B.443).
- PM_{10} any particulate matter in the atmosphere with an aerodynamic diameter less than or equal to a nominal 10 mm as measured by an approved reference method or equivalent method based on 40 CFR 50, Appendix J and designated in accordance with 40 CFR 53 (NAC 445B.135).
- *Portable Source* any building, structure, facility, or installation which:
 - 1. emits or may emit any air contaminant
 - 2. may be moved from one location to another
 - 3. is located or operated in a location for a period of less than 12 mo (NAC 445B.137).
- Potential to Emit the maximum capacity of a stationary source to emit a regulated air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a stationary source to emit a regulated air pollutant, including equipment for the control of air pollution and any restrictions on the hours of operation of the stationary source or on the type or amount of material combusted, stored, or processed, may be treated as part of its design for the purposes of determining its potential to emit if the limitation is enforceable by the Director (NAC 445B.138).

- *Reconstruction* any reconstruction in which the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable but entirely new stationary source (NAC 445B.150).
- Reconstruction the replacement of components of an existing facility to such an extent that:
 - 1. the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct an entirely new comparable facility, and
 - 2. it is technologically and economically feasible to meet the applicable standards set forth in NAC 445B.248 and 445B.250 and this section [445B.247] (NAC 445B.247(1)(a)) [Added October 1998].
- *Smoke* the following:
 - 1. small particles consisting predominantly, but not exclusively, of carbon, ash, or other combustible material, resulting from incomplete combustion (NAC 445B.174)
 - 2. a stream of visible emissions of exhaust from a vehicle (NAC 445B.449).
- Solid Waste refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles and noncombustible materials suck as glass and rock (NAC 445B.176).
- Source any property, real or personal, which directly emits or may emit any air contaminant (NAC 445B.177).
- Source Reduction -
 - 1. any practice which reduces:
 - a. the amount of a regulated air pollutant or pollutants, including fugitive emissions, emitted to the ambient air before the application of control equipment
 - b. the hazards to public health and the environment associated with the emission of the regulated air pollutant or pollutants
 - 2. includes modifications of equipment or technology, modifications of procedure or process, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or control of inventory
 - 3. does not include any practice which alters the physical, chemical, or biological characteristics or the volume of the regulated air pollutant through a process or activity which is not integral to and necessary for the production of a product or the provision of a service (NAC 445B.178).
- Special Mobile Equipment every motor vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved upon a paved roadway (NAC 445B.450).
- Stationary Source all buildings, structures, facilities and installations, including temporary sources, which:
 - 1. belong to the same major industrial groupings described in the "Standard Industrial Classification Manual, "as incorporated by reference in NAC 445B.221
 - 2. are located on one or more contiguous or adjacent properties
 - 3. are owned or operated by the same person or by persons under common control, and
 - 4. emit or may emit any regulated air pollutant that is regulated under 42 U.S.C. §§ 7401 to 7671q, inclusive, or NAC 445B.001 to 445B.395, inclusive.

Contracted operations that support the primary operations of the stationary source are part of the stationary source, except that temporary construction activities, including, without limitation, the construction of emission units, are not part of the stationary source (NAC 445B.187) [Revised October 1998].

- Structure, Building, Facility, or Installation all of the activities that emit air pollutants which:
 - 1. belong to the same major industrial grouping as described in the *Standard Industrial Classification Manual*, as incorporated in NAC 445B.221
 - 2. are located on one or more contiguous or adjacent properties

- 3. are owned or operated by the same person or by persons under common control (NAC 445B.192).
- *Sulfur Emission* for purposes of NAC 445B.370 to 445B.376, inclusive, the sulfur portion of the sulfur compounds emitted (NAC 445B.370) [Added October 1998].
- *Tampering* rendering inoperative or intentional misadjustment of any motor vehicle device or element of design intended to control exhaust emissions (NAC 445B.450).
- *Test Station* includes an authorized station, authorized inspection station, or a fleet station; does not include an authorized maintenance station (NAC 445B.452).
- Toxic Regulated Air Pollutant a substance determined by the Commission to cause or contribute to air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, unless a Federal standard for the quality of ambient air, standard for the quality of ambient air adopted by the commission, new source performance standard, or national emission standard for hazardous air pollutants applies (NAC 445B.339) [Revised October 1998].
- Truck a motor vehicle:
 - 1. that is used for the transportation of property
 - 2. that has a body which has been designed and built for the purpose of the transportation of property (NAC 445B.453).
- *Used Motor Vehicle* a motor vehicle that has been registered with the Department of Motor Vehicles and Public Safety or registered with the appropriate agency or authority of any other state, the District of Columbia, or any territory or possession of the United States or foreign state, province, or country (NAC 445B.454).
- *Volatile Organic Compounds (VOC)* "Volatile organic compounds" has the meaning ascribed to it in 40 C.F.R. § 51.100(s), as incorporated by reference in NAC 445B.221. see U.S. TEAM Guide (NAC 445B.202).
- Waste useless, unneeded or superfluous matter, or discarded or excess material (NAC 445B.205).
- Wet Garbage a combination of waste and garbage which contains more than 50 percent moisture (NAC 445B.207).
- *Year* any consecutive 365-day period (NAC 445B.209).

AIR EMISSIONS MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:
issing Checklist Items	AE.2.1.NV.
General	AE.5.1.NV. through AE.5.3.NV.
Permits/Notifications/Exemptions	AE.6.1.NV. and AE.6.2.NV.
Management/Administrative	AE.7.1.NV.
Emissions Limits	AE.9.1.NV. through AE.9.3.NV.
Steam Generators	AE.10.1.NV.
Fuel burning Equipment	AE.15.1.NV.
Miscellaneous Incinerators	AE.25.1.NV. through AE.25.4.NV.
Medical Waste Incinerators	AE.30.1.NV.
Fugitive Emissions	AE.65.1.NV.
Miscellaneous VOC Operations	AE.125.1.NV.
Open Burning	AE.130.1.NV.
Vehicle Emissions	AE.135.1.NV. through AE.135.4.NV.
Inspections	AE.135.5.NV. through AE.135.8.NV.
Other Emissions/Sources	-
Animal Matter Reduction	AE.155.1.NV.
Sulfur Emissions	AE.155.2.NV.

AIR EMISSIONS MANAGEMENT GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:
1-1	Ambient Air Quality Standards
1-2	PM ₁₀ Emissions Limitations
1-3	Sources Exempt from Operating Permit
	Requirements
1-4	Activities/Sources Exempt from the Open Burning Prohibition
1-5	Limitations for Sulfur Compounds Emissions from Fuel
	burning Equipment
1-6	Areas Exempt from Miscellaneous and Medical Waste
	Incinerator Requirements

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AE.2. MISSING CHECKLIST ITEMS		
AE.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

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AE.5. GENERAL		
AE.5.1.NV. The concealment of emissions of air pollution is prohibited (NAC 445B.225).	Verify that there are no devices in use that conceal emissions of air pollution without reducing the total release of air contaminants to the atmosphere.	
AE.5.2.NV. The discharge of hazardous air pollutants into the atmosphere is prohibited (NAC 445B.349).	Verify that there is no discharge into the atmosphere of any hazardous air pollutant or toxic regulated air pollutant that threatens the health and safety of the general public.	
AE.5.3.NV. Offensive and injurious odors are prohibited (NAC 445B.393).	Verify that there are no emissions of odors which are offensive to the senses, are injurious or detrimental to health and safety, or interfere with or prevent the comfortable enjoyment of life or property.	

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AE.6. PERMITS/ NOTIFICATIONS/ EXEMPTIONS	
AE.6.1.NV. Specific notification requirements must be met when regulated sources exceed emissions limitations (NAC 445B.232).	Verify that the Director of the Department of Conservation has approved the following activities if they have the potential to cause regulated sources to exceed emissions limitations: - scheduled maintenance - scheduled testing - scheduled repairs. Verify that the Director of the Department of Conservation has been given written notification of scheduled source repairs at least 24 h before they are scheduled to be performed, if the repairs have the potential to cause excess emissions or prohibited air contaminants. Verify that, within 24 h after the occurrence, the Director of the Department or Conservation is notified, either by telephone or in writing, of any malfunction resulting in excess emissions of prohibited air contaminants. (NOTE: Excess emissions can be reported by calling 702/687-5065.) Verify that, within 15 days after any malfunction, upset, startup, shutdown, or human error resulting in excess emissions, the following information is submitted to the Director of the Department of Conservation: - identity of stack or other point of emission where the excess emission occurred - estimated magnitude of the excess emission - operating data and methods used to determine estimated magnitude - time and duration of excess emissions - equipment causing the excess emissions - equipment causing the excess emissions - if the excess emissions are the result of a malfunction, the steps taken to remedy the malfunction, along with the steps planned to prevent its recurrence - steps taken to limit excess emissions - documentation of the maintenance and operation practices for air pollution control equipment

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AE.6.2.NV. Stationary sources must meet permit requirements (NAC 445B.227, 445B.287, and	Verify that each stationary source has an operating permit or permit to construct. Verify that operating permits and permits to construct are not transferred from one owner to another or from one piece of equipment to another.	
445B.320).	Verify that the stationary source does not disconnect, alter, modify, or remove any control equipment required by an operating permit.	
	Verify that pollution control equipment required as a condition of the permit is installed and operating.	
	(NOTE: See Appendix 1-3 for a list of stationary sources exempt from the requirement to have an operating permit or permit to construct.)	
	 (NOTE: Stationary sources operating in compliance with an operating permit may make changes which contravene an express term of the operating permit without a revision of the operating permit if the changes do not: constitute modifications [see definitions] violate Nevada air pollution controls (NAC 445B.001 through NAC 445B.395) exceed the allowable emissions set forth in the operating permit for any emissions unit.) 	
	Verify that conditions of an operating permit that are requirements for monitoring, methods of testing, recordkeeping, reporting, or compliance certification are not changed.	
	Verify that, for each change made, written notification is provided to the Director and the Administrator at least 7 days before making the change.	
	Verify that all of the following are included in the notification:	
	 a detailed description of the change the date on which the change will occur any change in emissions any condition of the operating permit which will no longer apply because of the change. 	
	Verify that the stationary source attaches a copy of the written notification to the permit in its records.	

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AE.7. MANAGEMENT/ ADMINISTRATIVE		
AE.7.1.NV. Specific sources must have Director-approved emissions reduction plans for episode stages (NAC 445B.230).	(NOTE: Episode stages include the alert, warning, and emergency levels.) Verify that any source with potential emissions of 100 tons (90.7 metric tons) or more per year of a regulated air pollutant from a stationary source prepares and submits to the Director a plan for reducing or eliminating the emissions in accordance with the episode stages of alert, warning and emergency as defined in the air quality plan for the State of Nevada. (NOTE: Any source required to have an operating permit that has potential emissions of less than 100 tons (90.7 metric tons) per year of a regulated air pollutant, may be directed to prepare and submit a plan for reducing or eliminating the emissions.)	

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AE.9. EMISSIONS LIMITS	
AE.9.1.NV. State and national ambient air quality standards must not be exceeded (NAC 445B.391).	Verify that there are no emissions that contribute to any violation of the ambient air quality standards specified in Appendix 1-1.
AE.9.2.NV. Sources must not exceed specific emissions limitations for particulate matter (NAC 445B.362 and NAC 445B.363).	Verify that sources do not emit PM_{10} in excess of the values set forth in Appendix 1-2, Part A. Verify that stationary sources not covered by Appendix 1-2, Part A do not discharge PM_{10} from any emission unit into the atmosphere in excess of the values set forth in Appendix 1-2, Part B.
AE.9.3.NV. Air emission sources must not exceed visible emissions limitations (NAC 445B.354).	 (NOTE: Visible emissions limitations do not apply to the following: activities/sources exempt from the open burning prohibition (see Appendix 1-4) smoke discharged in the course of training air pollution control inspectors to observe visible emissions, if the source has written approval from the Commission emissions from incinerators emissions of stationary diesel-powered engines during warm-up for not longer than 15 min to achieve operating temperatures emissions from a steam-generating unit fired by fossil fuel or wood for boiler lancing or soot blowing not exceeding 180 min in any 24 consecutive hours emissions failing to meet visible emissions standards only because of the presence of uncombined water (NAC 445B.355).) Verify that sources do not emit any air contaminant with an opacity equal to or greater than 20 percent for a period or periods aggregating more than 3 min in any 1 h. Verify that continuous monitoring equipment for opacity is operated according to the requirements of the source's operating permit.

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AE.10 STEAM GENERATORS		
AE.10.1.NV. Coal-fired, steam-generating equipment must not exceed visible emissions limitations (NAC 445B.357) [Revised October 1998].	Verify that emissions from any coal-fired, steam-generating equipment meeting the following criteria do not exceed an opacity of 30 percent for any 6-min period: - is used to produce electricity - has a manufacturer's guarantee or demonstrated capability of more than 7936 x 106 Btu/h (2000 x 106 kg-cal/h) of heat input - existed before 1972. (NOTE: Visible emissions limitations do not apply to the following: - activities/sources exempt from the open burning prohibition (see Appendix 1-4) - smoke discharged in the course of training air pollution control inspectors to observe visible emissions, if the source has written approval from the Commission - emissions from incinerators - emissions of stationary diesel-powered engines during warm-up for not longer than 15 min to achieve operating temperatures - emissions from a steam-generating unit fired by fossil fuel or wood for boiler lancing or soot blowing not exceeding 180 min in any 24 consecutive hours - emissions failing to meet visible emissions standards only because of the presence of uncombined water (NAC 445B.355).)	

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AE.15. FUEL BURNING EQUIPMENT	(NOTE: Within the category AE.15.NV., Fuel Burning Equipment, the term sulfur emissions refers to the sulfur portion of the sulfur compounds emitted from a source.)	
AE.15.1.NV. Fuel burning equipment must not emit sulfur compounds in excess of specific limitations (NAC 445B.373).	Verify that no fuel burning equipment emits SO_2 in excess of the limitations specified in Appendix 1-5.	

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AE.25. MISCELLANEOUS INCINERATORS	(NOTE: In addition to the requirements under U.S. TEAM Guide category AE.25, medical waste incinerators must meet the requirements of category AE.30. See Appendix 1-6 for a list of areas exempt from miscellaneous incinerator requirements.)	
AE.25.1.NV. Incinerators must meet specific type requirements (NAC 445B.382(1)(a)).	Verify that no incinerator, other than incinerators of the multiple chamber type, is utilized.	
AE.25.2.NV. Incinerators must not exceed specific emissions limitations (NAC 445B.382 (1)(b), (4), and (5)).	Verify that no incinerator discharges visible emissions with an opacity of 20 percent or greater for periods totaling 1 min in 1 h. Verify that PM_{10} emissions from any incinerator of less than 2000 lb/h rated burning capacity do not exceed 1.8 lb/ton of dry refuse charge. Verify that PM_{10} emissions from any incinerator with a burning capacity equal to or greater than 2000 lb/h do not exceed the values calculated by use of the following equation: $E = 0.6(40.7 \text{ x } 10^{-5} \text{ C})$. (NOTE: In this equation, E means the maximum allowable rate of emission of PM_{10} in pounds per hour; C means the rate of charge of dry refuse in pounds per hour.)	
AE.25.3.NV. Incinerators must meet signage requirements (NAC 445B.382(3)).	Verify that the rated burning capacity approved by the Director of the Department of Conservation, operating procedures, and maintenance procedures are posted conspicuously [not defined] near each incinerator.	
AE.25.4.NV. Wet garbage and materials with high moisture content must be burned in high-temperature type incinerators meeting specific requirements (NAC 445B.382).	Verify that incinerators burning wet garbage and materials with high moisture content are of a high-temperature type and meet the following requirements: - are made of either solid or hearth construction - have drying shelves for wet wastes - have an auxiliary heating unit to ensure temperatures of 1400 °F (760 °C) for at least 0.3 s.	

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	Verify that the hearth is cleaned frequently [not defined] and at regular [not defined] intervals to prevent buildup of residues and deposits.					

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AE.30. MEDICAL WASTE INCINERATORS	(NOTE: Medical waste incinerators are subject not only to the requirements of U.S. TEAM Guide category AE.30, but also to the requirements of category AE.25. See Appendix 1-6 for a list of areas exempt from medical waste incinerator requirements.)				
AE.30.1.NV. Pathological wastes must be burned in high-temperature type incinerators meeting specific requirements (NAC 445B.382 (2)).	Verify that incinerators burning pathological wastes are of a high-temperature type and meet the following requirements: - are made of either solid or hearth construction - have drying shelves for wet wastes - have an auxiliary heating unit to ensure temperatures of 1400 °F (760 °C) for at least 0.3 s. Verify that the hearth is cleaned frequently [not defined] and at regular [not defined] intervals to prevent buildup of residues and deposits.				

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AE.65. FUGITIVE EMISSIONS					
AE.65.1.NV. Controllable particulate matter (i.e., dust) must not become airborne (NAC 445B.365).	(NOTE: Agricultural activities occurring on plots of agricultural land that range between 5 and 20 acres (inclusive) in and on permitted surface disturbances are exempt from requirements for fugitive dust.) Verify that dust is not allowed to become airborne during material handling, transporting, or storing activities.				
	Verify that best practical methods are implemented to prevent fugitive dust emissions during construction, repair, demolition, or use of unpaved or untreated areas. (NOTE: Best practical methods include, but are not limited to, paving, chemical				
	stabilization, watering, phased construction, and revegetation.) Verify that there is no disturbance or covering of 5 acres or more of land or the land's topsoil without first receiving a permit for surface area disturbance. (NOTE: Surface area disturbance includes clearing, excavating or leveling the land, or depositing any foreign material to fill or cover the land.)				

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AE.125. MISCELLANEOUS VOC OPERATIONS				
AE.125.1.NV. Measures must be taken to minimize air pollution resulting from evaporation, leakage, or discharge of solvents and other VOCs (NAC 445B.395).	Verify that solvents and other VOCs are processed, stored, used, and transported in a manner that minimizes their evaporation, leakage, and discharge into the ambient air. (NOTE: Examples of VOC sources include, but are not limited to, paints, acids, alkalies, pesticides, fertilizers, and manure.)			

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AE.130. OPEN BURNING				
AE.130.1.NV. The open burning of any combustible refuse, waste, garbage, oil, or materials associated with salvage operations is prohibited (NAC 445B.381).	Verify that there is no open burning of refuse, waste, garbage, oil, or materials associated with salvage operations. (NOTE: See Appendix 1-4 for a list of activities/sources exempt from the open burning prohibition Verify that, at any time during permissible open burning, fires are attended to and controlled so as to eliminate fire hazards.			

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AE.135. VEHICLE EMISSIONS	(NOTE: This section was substantially revised in October 1998.)				
AE.135.1.NV. Motor vehicles must meet pollution control device requirements (NAC 445B.575).	Verify that the Federal does not sell, offer to sell, display, operate or leave standing any motor vehicle which is required by state or Federal law to be equipped with a device for the control of pollution unless the device is correctly installed and in operating condition.				
	Verify that required pollution control devices are not disconnected, altered, or modified.				
	(NOTE: This requirement does not apply to an alteration or modification of a motor vehicle to use fuel other than gasoline or diesel fuel where the alteration or modification is effected without violating existing federal and state standards for the control of exhaust emissions.)				
	(NOTE: For the purposes of this section, a "device for the control of pollution" includes a gasoline cap which meets the specifications of the manufacture of the motor vehicle and seals the neck or pipe of the fuel filler.)				
AE.135.2.NV. Motor vehicles must meet specific visible emission restrictions (NAC 445B.576, 445B.578, 445B.7665, 445B.774, 445B.592, and 445B.6115).	 (NOTE: Visible emissions limitations do not apply in the following instances: during scheduled maintenance or repair activities engaged in at repair shops when diesel-powered motor vehicles and special mobile equipment exceed visible emissions for no more than 15 min during stationary warm-up of cold engines to achieve operating temperatures when visible emissions occur for a period of 40 consecutive seconds or less during acceleration under load when visible emissions occur for a period of 4 consecutive minutes or less when loaded after a period of idle.) 				
	Verify that motor vehicles powered by gasoline do not emit smoke.				
	Verify that visible emissions of diesel powered motor vehicles or special mobile equipment manufactured before 1 January 1970 do not exceed 40 percent for more than 15 consecutive seconds or for periods aggregating more than 5 min in any 1 h.				
	Verify that visible emissions of diesel powered motor vehicles or special mobile equipment manufactured on or after 1 January 1970 do not exceed an opacity of 20 percent for more than 15 consecutive seconds or for periods aggregating more				

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Nevada Supplement **REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 than 5 min in any 1 h. Verify that visible emissions of light duty motor vehicles powered by diesel engines do not exceed an opacity of 30 percent at an elevation of less than 4000 ft above mean sea level for more than 5 consecutive seconds or for periods aggregating more than 5 min in any 1 h. Verify that visible emissions of light duty motor vehicles powered by diesel engines do not exceed an opacity of 40 percent at an elevation of 4000 ft or more above mean sea level for more than 5 consecutive seconds or for periods aggregating more than 5 min in any 1 h. (NOTE: The visible emission restrictions applicable to light duty motor vehicles powered by diesel engines do not apply to the following: - motorcycles or mopeds - motor vehicles subject to prorated registration and not based in Nevada - new motor vehicles until the third registration of the vehicle - motor vehicles permanently converted from gasoline to propane, compressed natural gas (CNG), methane, or butane as a fuel - motor vehicles with a model year before 1968 - heavy-duty motor vehicles powered by a diesel engine - motor vehicles certified by the Department as restored.) Verify that heavy duty motor vehicles do not exceed an opacity of 69 percent. AE.135.3.NV. Motor vehi-Verify that, unless the following conditions are met, diesel truck and bus engines cles must meet specific idling are not idled for more than 15 consecutive minutes: restrictions (NAC - the Commission issues a variance from requirements (variances are not effec-445B.576(4)). tive during air pollution emergencies) - vehicle is an emergency vehicle - vehicle is used for snow removal - vehicle is used to repair or maintain other motor vehicles - vehicle is stopped because of traffic congestion while in transit on highways, roads, or streets - vehicle is idling while repair or maintenance is being performed on it at a shop or repair and maintenance facility - emissions from the vehicle are contained and treated by Commissionapproved methods

AE.135.4.NV. Fleet stations | Verify that class I and class II fleet stations inspect and certify only those motor

- vehicle engine must idle to perform specific tasks for which the vehicle was

designed (e.g., well drilling, trenching, or hoisting).

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must inspect and certify only motor vehicles in their fleet (NAC 445B.478(1) and (3)).	vehicles which constitute its fleet. (NOTE: A license for a class 1 fleet station or class 2 fleet station may be issued to an owner or lessee of a fleet of 25 or more motor vehicles.)		
Inspections	 (NOTE: These inspection requirements do not apply to the following: motorcycles or mopeds motor vehicles subject to prorated registration and not based in Nevada new motor vehicles until the third registration of the vehicle motor vehicles permanently converted from gasoline to propane, compressed natural gas (CNG), methane, or butane as a fuel motor vehicles with a model year before 1968 heavy-duty motor vehicles powered by a diesel engine motor vehicles certified by the Department as restored (NAC 445B.592 and 445B.6115).) 		
AE.135.5.NV. State owned motor vehicles must meet inspection requirements (NAC 445B.461(2) and NAC 445B.595(1)).	Verify that a list of motor vehicles assigned distinguishing license plates is submitted annually to the Department. Verify that motor vehicles that meet all of the following criterion are inspected and certified annually: - owned by the state or any of its political subdivisions - have distinguishing license plates - based in areas where a program for the inspection of exhaust is in effect.		
AE.135.6.NV. Motor vehicles operated on Federal facilities must meet inspection requirements (NAC 445B.595(2)).	 (NOTE: These inspection requirements apply to the following: motor vehicles owned, leased, or operated by an employee of, or military personnel stationed at, a Federal facility motor vehicles owned, leased, or operated by any agency of the Federal government on a Federal facility.) (NOTE: These inspection requirements do not apply to the following: tactical military vehicles operated on a Federal facility motor vehicles owned, leased, or operated on a Federal facility by visiting federal employees or military personnel when the visit does not exceed 60 days within any 1 calendar year.) Verify that motor vehicles operated on Federal facilities located within an area requiring a program for the inspection of exhaust emissions are inspected and 		

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000				
-	certified annually. Verify that Federal facilities submit evidence annually to the Department demonstrating compliance with these inspection requirements.				
AE.135.7.NV. Motor vehicles located in an area where a program for the annual inspection of emissions from motor vehicles has not been established must register with the Department (NAC 445B.591).	Verify that motor vehicles located in an area where a program for the annual inspection of emissions from motor vehicles has not been established are currently registered with the Department.				
AE.135.8.NV. Concealment of motor vehicle emissions is prohibited (NAC 445B.601).	Verify that devices that conceal motor vehicle emissions without resulting in a reduction in the total release of air contaminants to the atmosphere are not installed or used.				

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Nevada Supplement					
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000				
AE.155 OTHER EMISSIONS/ SOURCES					
Animal Matter Reduction	(NOTE: Requirements for animal matter reduction do not apply to equipment used exclusively for the processing of food for human consumption.)				
AE.155.1.NV. Emissions from equipment used to reduce animal matter must	Verify that all gases, vapors, and gas-entrained effluents emitted from equipment used to reduce animal matter must meet undergo one of the following treatments:				
meet specific requirements (NAC 445B.394).	 incineration at temperatures of not less than 1400 °F (760 °C) for at least 0.3 s equally efficient process approved by the Director of the Department of Conservation. 				
Sulfur Emissions	(NOTE: For the purposes of this section, the term sulfur emissions refers to the sulfur portion of the sulfur compounds emitted from a source.)				
AE.155.2.NV. Sources other than fuel burning equipment	Verify that sources other than fuel burning equipment do not emit sulfur compounds in excess of 1000 ppmv when the allowable sulfur emission is less than 10 lb/h.				
must not exceed specific sul- fur emissions limitations (NAC 445B.374).	Verify that sources other than fuel burning equipment do not emit sulfur compounds in excess of the value resulting from the following equations, when the allowable sulfur emission is equal to or greater than 10 lb/h:				
	- English/Standard: $E = 0.292P^{0.904}$ - Metric: $E = 0.271P^{0.904}$.				
	(NOTE: E means the allowable sulfur emission in pounds per hour; P means the total feed sulfur, excluding hydrogen sulfide, in pounds per hour. When sulfur emissions are due to sulfur contributions from both the fuel and the material being processed, the limitation is the sum of the emissions allowed. Incinerators used solely for the control of odor by the combustion of noxious sulfur-containing compounds are exempt from sulfur emissions limitations.)				
	Verify that emissions of any gas containing hydrogen sulfide do not contribute the violation of ambient SO ₂ and ambient hydrogen sulfide standards.				

	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Nevada Supplement	
REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	

Ambient Air Quality Standards (Source: NAC 445B.391)

Pollutant	Nevada Standards ^(A)			National Standards ^(B)		
	Averaging					
	Time	Concentration	Method ^D	Primary ^{C, E}	Secondary ^{C, F}	Method ^D
Ozone	1 h	235 micro	Chemilumi	235 micro	Same as	Chemilumi
		grams/m ³ (0.12	nescent	grams/m ³ (0.12	Primary	nescent
		ppm)		ppm)		
Ozone - Lake Tahoe Basin,	1 h	195 micro grams/m ³ (0.10				
#90		ppm)				
CO Less than	8 h	10,000	Nondispersive	10 mg/m^3	Same as	Nondispersive
5000 ft Above		micrograms/ m ³	Infrared		Primary	Infrared
Mean Sea Level		(9.0 ppm)				
CO At or		6670 micro		9.0 ppm		
Greater than		$grams/m^3$ (6.0				
5000 ft Above Mean Sea Level		ppm)				
CO at Any	1 h	40,000		40 mg/m ³ (35		
Elevation		micrograms/ m ³ (35 ppm)		ppm)		
NO_2	Annual	100 micro	Chemilumi	100 micro	Same as	Chemilumi
	Arithmetic	$grams/m^3 (0.05)$	nescent	grams/m ³ (0.05	Primary	nescent
	Mean	ppm)		ppm)		
SO_2	Annual	80 micro	Ultraviolet	80 micro	Same as	Pararosaniline
	Arithmetic	$grams/m^3 (0.03)$	Fluorescence	$grams/m^3 (0.03)$	Primary	Method
	Mean	ppm)		ppm)		
	24 h	365 micro grams/m ³ (0.14		365 micro grams/m ³ (0.14		
		ppm)		ppm)		
	3 h	1300 micro		none	1300 micro	
		grams/m ³ (0.5			$grams/m^3 (0.5)$	
		ppm)			ppm)	
Particulate	Annual	50 micro	High Volume	50 micro	Same as	High Volume
Matter as PM ₁₀	Arithmetic	grams/m ³	PM ₁₀ Sampling	grams/m ³	Primary	PM ₁₀ Sampling
	Mean 24 h	150 micro		150 micro		
	2111	grams/m ³		grams/m ³		
Lead (Pb)	Quarterly	1.5 micro	High Volume	1.5 micro	Same as	High Volume

Pollutant	Nevada Standards ^(A)			Na	tional Standard	ls ^(B)
	Averaging Time	Concentration	$\mathbf{Method}^{\mathrm{D}}$	Primary ^{C, E}	Secondary ^{C, F}	$\mathbf{Method}^{\mathrm{D}}$
	Arithmetic Mean	grams/m ³	PM ₁₀ Sampling, Acid Extraction, and Atomic Absorption Spectrometry	grams/m ³	Primary	PM ₁₀ Sampling, Acid Extraction, and Atomic Absorption Spectrometry
Visibility	Observation	In Sufficient Amount to Reduce the Prevailing Visibility ^G to Less than 30mi when Humidity is Less than 70 Percent				
Hydrogen Sulfide	1 h	112 micro grams/m³ (0.08 ppm)	Cadmium Hydroxide Stractan Method			

NOTES

- A These standards must not be exceeded in areas where the general public has access.
- These standards, other than for ozone and those based on annual averages, must not be exceeded more than once per year. The ozone standard is attained when the expected number of days per calendar year with a maximum hourly average concentration above the standard is equal to or less than one.
- Concentration is based upon a reference temperature of 25 °C and a reference pressure of 760 mm of mercury. All references of air quality must be corrected to a reference temperature of 25 °C and a reference pressure of 760 mm of mercury (1013.2 millibars); ppm refers to ppm by volume, or micromoles of pollutant per mole of gas.
- Any reference method specified in accordance with 40 CFR 50 or any reference method or equivalent method designated in accordance with 40 CFR 53 may be substituted.
- National primary standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- National primary standards are the levels of air quality necessary to protect the public welfare from any known or anticipated effects of a pollutant.
- Prevailing visibility means the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.

PM₁₀ Emissions Limitations

(Source: NAC 445B.360, 445B.362, and 445B.363) [Revised October 1998]

(NOTE: The maximum allowable throughput to be used to calculate allowable emission rates must be the maximum process weight for an emission unit .)

Part A: Fuel burning Equipment

- For input of heat equal to or greater than 4 MBtu/h, but less than or equal to 10 MBtu/h, the allowable emission is 0.36.
- For input of heat greater than 10 MBtu/h, but less than 4000 MBtu/h, the allowable emissions are calculated by use of the following equation:

$$Y = 1.02X^{-0.231}$$
.

• For input of heat equal to or greater than 4000 MBtu/h, the allowable emissions are calculated by use of the following equation:

$$Y = 17.0X^{-0.568}$$

(NOTE: X means the operating rate in MBtu; Y means the allowable rate of emission in lb/MBtu.)

Part B: Sources Other Than Fuel burning Equipment

• When the maximum allowable throughput is less than 30 tons/h, the maximum allowable weight discharged is determined by use of the following equation:

$$E = 4.10P^{0.67}$$
.

• When the maximum allowable throughput equals or exceeds 30 tons/h, the maximum allowable weight discharged per hour is determined by use of the following equation:

$$E = 55P^{0.11} - 40.$$

(NOTE: E means the maximum rate of emission in lb/h; P means the maximum allowable throughput in tons/h.)

Sources Exempt from Operating Permit Requirements

(Source: NAC 445B.293)

Sources meeting the following criteria are exempt from operating permit requirements. All other sources must meet operating permit requirements.

- Sources which would be required to obtain an operating permit solely because they are subject to 40 CFR 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters.
- Sources which would be required to obtain an operating permit solely because they are subject to 40 CFR 61, Subpart M, Asbestos National Emission Standards for Hazardous Air Pollutants, Section 61.145.
- Sources which meet the following criteria:
 - 1. air conditioning equipment or fuel burning equipment (except internal combustion engines) with an individual rating of either of the following:
 - a. less than 4 MBtu/h
 - b. equal to or greater than 4 MBtu/h, but operating less than 100 h per calendar year
 - 2. motor vehicles and special mobile equipment
 - 3. incinerators with less than 25 lb/h rated burning capacity
 - 4. residential and commercial housekeeping vacuum systems
 - 5. agricultural land use
 - 6. storage containers for petroleum liquid or storage facilities for volatile organic liquid with a capacity of less than 40,000 gal which are not subject to 40 CFR 60, Subparts K, Ka, or Kb
 - 7. equipment or contrivances used exclusively for the processing of food for human consumption
 - 8. disturbing topsoil of less than 5 acres
 - 9. maximum allowable throughput of less than 50 lb/h, unless the source directly emits or has the potential to emit a hazardous air pollutant
 - 10. portable internal combustion engines that, individually, have a rating meeting one of the following criteria:
 - a. is less than 500 horsepower output
 - b. is equal to or greater than 500 horsepower output, but operating less than 100 h per calendar year
 - 11. stationary internal combustion engines that, individually have a rating meeting one of the following criteria:
 - a. is less than 250 horsepower output
 - b. is equal to or greater than 250 horsepower output, but operating less than 100 h per calendar year
 - 12. emergency generators.

(NOTE: In this appendix, emergency generator means an internal combustion engine that is used to generate electrical power to maintain essential operations during unplanned electrical power outages; internal combustion engine means any fuel burning, heat-generating engine, except engines in motor vehicles and other special mobile equipment (which includes every motor vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved upon a paved roadway).)

Activities/Sources Exempt from the Open Burning Prohibition

(Source: NAC 445B.381(2))

The following sources are exempt from open burning requirements.

- Activities/sources approved by the Director of the Department of Conservation.
- When approved by the Director of the Department of Conservation or another authorized officer, weed abatement, conservation, disease control, game or forest management, personnel training, or elimination of hazards.
- Agricultural open burning, except where prohibited by local ordinances or regulations.
- Open burning at single-family residences, unless prohibited by local ordinances or regulations, in all areas of the state, **except** in and within 1 mi of the boundaries of the following cities, towns, and areas:
 - 1. Babbitt
 - 2. Battle Mountain
 - 3. Caliente
 - 4. Carlin
 - 5. East Ely
 - 6. Elko
 - 7. Ely
 - 8. Fallon
 - 9. Fernley
 - 10. Gabbs
 - 11. Gardnerville
 - 12. Gardnerville Ranchos
 - 13. Genoa
 - 14. Hawthorne
 - 15. Johnson Lane
 - 16. Lovelock
 - 17. McGill
 - 18. Minden
 - 19. Tonopah
 - 20. Topaz Ranch Estates
 - 21. Virginia City
 - 22. Weed Heights
 - 23. Wells
 - 24. Winnemucca
 - 25. Yerington
 - 26. on the Nevada side of the Tahoe Basin, Carson City, and the portions of Douglas and Lyon Counties within 1 mi of the Carson City limits.
- Small wood fires for recreational, educational, ceremonial, heating, or cooking purposes.

Limitations for Sulfur Compounds Emissions from Fuel burning Equipment

(Source: NAC 445B.373) [Revised October 2000]

Where a source located on contiguous property has a total input of heat of less than 250 MBtus the sulfur compounds emissions limitation is calculated by use of the following equation.

$$Y = 0.7X$$

(NOTE: X means the operating input of heat in MBtu/h (kg-cal/h); Y means the allowable rate of emission of sulfur in lb/h (kg/h).)

Where a source located on a contiguous property has a total input of heat equal to or greater than 250 MBtu/h, the emissions limitation is calculated by use of the following equation.

Liquid Fuel	Y = 0.4X
Solid Fuel	Y = 0.6X
Combination	L(0.4X) -
	S(0.6X)
Fuel Y =	L + S

(NOTE: X means the input of the operation in million British thermal units per hour; Y means the allowable rate of emissions of sulfur in pounds per hour; L means the percentage of total input of heat derived from liquid fuel; S means of the percentage of total input of heat derived from solid fuel.)

Areas Exempt from Miscellaneous and Medical Waste Incinerator Requirements

(Source: NAC 445B.382(6))

Single chamber incinerators at single-family residences, unless prohibited by local ordinances or regulations, in all areas of the state, except in and within 1 mi of the boundaries of the following cities, towns, and areas, are exempt from miscellaneous and medical waste incinerator requirements:

- 1. Babbitt
- 2. Battle Mountain
- 3. Caliente
- 4. Carlin
- 5. East Ely
- 6. Elko
- 7. Ely
- 8. Fallon
- 9. Fernley
- 10. Gabbs
- 11. Gardnerville
- 12. Gardnerville Ranchos
- 13. Genoa
- 14. Hawthorne
- 15. Johnson Lane
- 16. Lovelock
- 17. McGill
- 18. Minden
- 19. Tonopah
- 20. Topaz Ranch Estates
- 21. Virginia City
- 22. Weed Heights
- 23. Wells
- 24. Winnemucca
- 25. Yerington
- 26. On the Nevada side of the Tahoe Basin, Carson City, and the portions of Douglas and Lyon Counties within 1 mi of the Carson City limits.

SECTION 2

CULTURAL RESOURCES MANAGEMENT

Nevada Supplement, November October 2000

This section covers the state requirements for Cultural Resources Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- Cairn stones or other material placed in a pile as a memorial or monument to the dead (Nevada Revised Statutes (NRS) 383.150).
- *Grave* an excavation for burial of a human body (NRS 383.150).
- *Historic* after the middle of the 18th century (NRS 381.195).
- Historic Site a site, landmark, or monument of historical significance pertaining to the white man's history of Nevada, or Indian [native American] campgrounds, shelters, petroglyphs, pictographs, and burials (NRS 381.195).
- *Indian Burial Site* the area including and immediately surrounding the cairn or grave of a native Indian [native American] (NRS 383.150).
- Indian Tribe a Nevada Indian tribe recognized by the Secretary of the Interior (NRS 383.150).
- *Prehistoric* before the middle of the 18th century (NRS 381.195).
- Prehistoric Site any archaeological or paleontological site, ruin, deposit, fossilized footprints, and other impressions, petroglyphs, and pictographs, habitation caves, rock shelters, natural caves, or burial ground (NRS 381.195).
- *Professional Archaeologist* a person who holds a graduate degree in archaeology, anthropology, or a closely related field as determined by the Director of the Division (NRS 383.150).

AIR EMISSIONS MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items CR.2.1.NV.

Historic Properties CR.5.1.NV. through CR.5.3.NV.
Archaeological/Indian Sites CR.15.1.NV. and CR.15.2.NV.
Collection Management and Curation CR.20.1.NV. through CR.20.3.NV.

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
CR.2. MISSING CHECKLIST ITEMS	
CR.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
CR.5. HISTORIC PROPERTIES	
CR.5.1.NV. Investigation, exploration, or excavation of an historic or prehistoric site on Federal or state lands must be permitted by the Director (NRS 381.197 and 381.199) [Revised October 1998].	Verify that persons who investigate, explore, or excavate an historic or prehistoric site on Federal or state lands hold a valid and current permit issued by the Director. (NOTE: If the land to be investigated, explored, or excavated is owned or held by the United States, the applicant is also required to secure a permit from the proper Federal authorities.)
CR.5.2.NV. Removal of an historic or prehistoric site on Federal or state lands must be permitted by the Director (NRS 381.197 [Revised October 1998].	Verify that persons who remove any object from an historic or prehistoric site on Federal or state lands hold a valid and current permit issued by the Director.
CR.5.3.NV. Historic and prehistoric sites must not be vandalized or defaced (NRS 381.225(1)) [Revised October 1998].	Verify that no one commits vandalism upon any historic or prehistoric sites, natural monuments, speleological sites, or objects of antiquity. Verify that no one writes, paints, or carves initials or words, or in any other way defaces, any historic or prehistoric sites, natural monuments, speleological sites, objects of antiquity, or historic buildings.

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
CR.15. ARCHAEOLOGICAL/ INDIAN SITES	
CR.15.1.NV. Indian paintings and burial sites must not be defaced (NRS 381.225(1) and 383.180) [Revised October 1998].	Verify that no one writes, paints, or carves initials or words, or in any other way defaces Indian paintings. Verify that no one willfully removes, mutilates, defaces, injures, or destroys the cairn or grave of a native Indian.
CR.15.2.NV. Persons that discover an Indian [Native American] burial site must comply with specific requirements (NRS 383.170).	Verify that anyone who disturbs the cairn or grave of a native Indian through inadvertence while engaged in a lawful activity such as construction, mining, logging, or farming, or any other person who discovers the cairn or grave of a native Indian that has not been previously reported to the office, immediately reports the discovery and the location of the Indian burial site to the office.

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
CR.20. COLLECTION MANAGEMENT AND CURATION	(NOTE: These collection management and curation requirements do not interfere with or prevent any person from collecting minerals, rocks, gems, arrowheads, or other Indian artifacts so long as they are not part of a prehistoric site, nor do they prevent the photographing of objects of interest.)
CR.20.1.NV. Permit holders that find or discover articles, implements, and other materials must give 50 percent of their find to the state (NRS 381.207) [Revised October 1998].	Verify that permit holders working upon the following sites give 50 percent of all articles, implements, and materials found or discovered to the state: - aboriginal mounds and earthworks - ancient burial grounds - prehistoric sites - deposits of fossil bones, - other archaeological and vertebrate paleontological features. Verify that permit holders who work within the state under the authority and direction of the Nevada historical society, the Nevada museum and historical society, or an institution or political subdivision of the state give 50 percent of all articles, implements, and materials found or discovered to the society, institution or political subdivision. (NOTE: If an institution or political subdivision of the state is the holder of the permit, it may retain all articles, implements, and materials found or discovered.)
CR.20.2.NV. Permit holders must meet specific reporting requirements (NRS 381.215).	Verify that after the close of each season's work, a permit holder furnishes to the Director a detailed account of the work done, material collected, and any other state-required data.
CR.20.3.NV. Persons that collect petrified wood must meet specific requirements (NRS 381.217).	Verify that no one disturbs or removes petrified wood from posted or designated sites.

SECTION 3

HAZARDOUS MATERIALS MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Hazardous Materials Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations:

Definitions and requirements for Hazardous Materials Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

Incorporation By Reference:

Nevada has adopted by reference the provisions of 49 CFR Parts 171, 172, 177, and 178 as of 1 October 1998 (NAC 706.377), and 49 CFR Parts 383, 387, and 390 to 397, inclusive, as they existed on 1 November 1998 (NAC 706.247).

Definitions

- Accidental Release (NAC 459.952) [Added October 2000]:
 - 1. An unintentional discharge from a facility of any amount of a tier A or tier B substance into the air, water or land: or
 - 2. A fire or an explosion at a facility involving a tier A or tier B substance.
- Active Mitigation equipment, devices or technologies that work with human, mechanical or other sources
 of energy, and function to contain or minimize the consequences of an accidental release (NAC 459.952)
 [Added October 2000].
- Administrative Controls written procedural mechanisms that are used to control a hazard (NAC 459.952) [Added October 2000].
- Assessment Report the document submitted to the division pursuant to NAC 459.95448 to 459.95468, inclusive (NAC 459.952) [Added October 2000].
- Assessment Team a person or persons designated by the regulated facility pursuant to NRS 459.384 and approved by the division pursuant to NRS 459.3844 to perform an assessment of risk through the analysis of hazards for the regulated facility (NAC 459.952) [Added October 2000].
- *Board* the Board for the regulation of liquefied petroleum gas (NAC 590.120).
- *C.A.P.P.* the chemical accident prevention program for the State of Nevada and encompasses the provisions of NRS 459.380 to 459.3874, inclusive, and NAC 459.952 to 459.95528, inclusive (NAC 459.952) [Added October 2000].

- Catastrophic Release a major uncontrolled emission, fire or explosion, involving one or more regulated substances, that presents imminent and substantial endangerment to public health and the environment (NAC 459.952) [Added October 2000].
- *Container* has the meaning ascribed to it in Publication No. 58, "Standard for the Storage and Handling of Liquefied Petroleum Gas," issued by the National Fire Protection Association (NAC 590.140).
- *Contaminant* any physical, chemical, biological, or radiological substance or matter which is added to water (NRS 445A.325) [Added October 1998].
- *Division* the division of environmental protection of the state department of conservation and natural resources (NAC 459.952) [Added October 2000].
- *Emergency Response Program* the toxic concentration, ambient overpressure, radiant heat level or lowest flammable gas concentration achieved at the outer geographical boundary of the off-site consequence analysis (NAC 459.952) [Added October 2000].
- Facility (NAC 459.952) [Added October 2000]:
 - 1. A stationary source as defined in NAC 459.95293; or
 - 2. A regulated facility as defined in NRS 459.381.
- Facility any:
 - 1. building, structure, installation, equipment, pipe, including the pipe into a sanitary or storm sewer or publicly owned treatment works, pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, container for storage, tank or underground tank for storage;
 - 2. site or area where a hazardous substance, pollutant or contaminant has been deposited, stored, disposed of, placed or otherwise located; or
 - 3. motor vehicle, rolling stock or aircraft or any vessel used as a means of transportation on water (NAC 445A.345) [Added October 1998].
- *Field Gas* gas that is extracted from a production well before the gas enters a natural gas processing plant (NAC 459.952) [Added October 2000].
- *Hazard Assessment* an evaluation of the potential on-site and off-site consequences of an accidental release and the accident history of a facility that an owner or operator develops pursuant to NAC 459.95362 to 459.95378, inclusive (NAC 459.952) [Added October 2000].
- *Hazardous Material* any substance or combination of substances, including solids, semisolids, liquids, or contained gases, which:
 - 1. is identified as hazardous by the regulating agency as a result of studies undertaken to identify hazardous materials or wastes; and
 - 2. because of its quantity or concentration or its physical, chemical, radioactive or infectious characteristics may:
 - a. cause or significantly contribute to an increase in mortality or serious irreversible or incapacitating illness; or
 - b. pose a substantial hazard or potential hazard to human health, public safety or the environment when it is given improper treatment, storage, transportation, disposal or other management, including toxins, corrosives, flammable materials, irritants, strong sensitizers and materials which generate pressure by decomposition, heat or otherwise (NRS 459.7024).

- Hazard Review the review that is conducted pursuant to NAC 459.95388 (NAC 459.952) [Added October 2000].
- Hazardous Waste any waste or combination of wastes, including solids, semisolids, liquids, or contained gases, which:
 - 1. because of its quantity or concentration or its physical, chemical, or infectious characteristics may:
 - a. cause or significantly contribute to an increase in mortality or serious irreversible or incapacitating illness, or
 - b. pose a substantial hazard or potential hazard to human health, public safety, or the environment when it is given improper treatment, storage, transportation, disposal, or other management
 - 2. is identified as hazardous by the Department [of Conservation and Natural Resources] as a result of studies undertaken for the purpose of identifying hazardous wastes.
 - The term includes, among other wastes, toxins, corrosives, flammable materials, irritants, strong sensitizers, and materials which generate pressure by decomposition, heat, or otherwise (NRS 459.430) [Added October 1998].
- *Highly Hazardous Material* substances listed in Appendix 3-1 are designated as highly hazardous, if present in the quantity designated after each substance or a greater quantity (NRS 459.3816).
- *Hot Work* work involving electric or gas welding, cutting, brazing, or similar flame-producing or spark-producing operations (NAC 459.952) [Added October 2000].
- *Injury* an effect on a human being that (NAC 459.952) [Added October 2000]:
 - 1. Results from:
 - a. Direct exposure to toxic concentrations, radiant heat or overpressures from an accidental release; or
 - b. The direct consequences of a vapor cloud explosion from an accidental release, such as flying glass, debris or other projectiles; and
 - 2. Requires medical treatment or hospitalization.
- Liquefied Petroleum Gas (LPG) any material that is composed predominantly of any of the following: hydrocarbons, or mixtures of propane, propylene, butanes, either normal butane or isobutane, and butylenes (NRS 590.475(2)).
- *Major Change* the introduction of (NAC 459.952) [Added October 2000]:
 - 1. A new process, new process equipment, or a new tier A or tier B substance; or
 - 2. An alteration of process chemistry that results in a change to safe operating limits or introduces a new hazard.
- *Medical Treatment* treatment, other than first aid, that is administered by a physician or other personnel pursuant to standing orders from a physician (NAC 459.952) [Added October 2000].
- *Mitigation and Mitigation System* activities, technologies or equipment specifically designed or deployed to capture or control a substance upon loss of containment in order to minimize exposure of the public or the environment (NAC 459.952) [Added October 2000].
- *N.A.I.C.S* the North American Industry Classification System (NAC 459.952) [Added October 2000].
- Natural Gas Processing Plant a processing site that (NAC 459.952) [Added October 2000]:
 - 1. Is engaged in:
 - a. The extraction of natural gas liquids from field gas;
 - b. The fractionation of mixed natural gas liquids to natural gas products; or
 - c. Both extraction and fractionation; and
 - 2. Is classified as N.A.I.C.S. code 211112, which is adopted by reference pursuant to NAC 459.95528.

- *Off-site* an area (NAC 459.952) [Added October 2000]:
 - 1. Beyond the property boundary of the facility; and
 - 2. Within the property boundary to which the public has routine and unrestricted access during or outside business hours.
- *Owner or Operator* the person who is responsible for the implementation of C.A.P.P (NAC 459.952) [Added October 2000].
- *Passive Mitigation* equipment, devices or technologies that work without human, mechanical or other sources of energy, and function to contain or minimize the consequences of an accidental release (NAC 459.952) [Added October 2000].

Pollutant -

- 1. dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water
- 2. not water, gas or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well is used either for facilitating production or for disposal purposes and if the department determines that such injection or disposal will not result in the degradation of ground or surface water resources.
- 3. not water, gas or other material injected into a well or used to stimulate a reservoir of geothermal resources if the department determines that the injection or stimulation will not result in the degradation of ground or surface water resources (NRS 445A.400) [Added October 1998].
- Prevention Program procedures and practices that are developed and implemented pursuant to NAC 459.95386 to 459.95398, inclusive, or NAC 459.95412 to 459.95435, inclusive, to (NAC 459.952) [Added October 2000]:
 - 1. Prevent the accidental release of a tier A or tier B substance;
 - 2. Minimize the likelihood of an accidental release; or
 - 3. Mitigate the impacts of an accidental release.
- *Process* an activity that involves a tier A or tier B substance, including, without limitation, the use, storage, manufacturing, handling or on-site movement of such a substance or a combination of such activities. The term includes a group of vessels that is interconnected or a group of separate vessels that is located in such a manner that a tier A or tier B substance could be involved in a potential release (NAC 459.952) [Added October 2000].
- Process Hazard Analysis the analysis performed pursuant to NAC 459.95414 (NAC 459.952) [Added October 2000].
- *Produced Water* water that is (NAC 459.952) [Added October 2000]:
 - 1. Extracted from the earth from an oil or natural gas production well; or
 - 2. Separated from oil or natural gas after extraction.
- *P.T.A.H.* the plan to abate hazards that is submitted pursuant to subsection 3 of NRS 459.3852 and NAC 459.95452 (NAC 459.952) [Added October 2000].
- *Public* one or more natural persons other than employees or contractors of a facility (NAC 459.952) [Added October 2000].
- *Public Receptor* an off-site (NAC 459.952) [Added October 2000]:
 - 1. Residence;

- 2. Institution such as a school or hospital;
- 3. Industrial, commercial or office building; or
- 4. Park or recreational area, that is inhabited or occupied by the public without restriction by the facility, in which the public could be exposed as a result of an accidental release to toxic concentrations, radiant heat or overpressure.
- Regulated Facility building, equipment, and contiguous area where highly hazardous substances are produced, used, stored, or handled (NRS 459.381).
- *Release* any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping, or disposing into the environment (NAC 459.9526).
- Stationary Source buildings, structures, equipment, installations or substances that participate in activities (NAC 459.952) [Added October 2000]:
 - a. Which belong to the same industrial group;
 - b. Which are located on one or more contiguous properties;
 - c. Which are under the control of the same person; and
 - d. From which an accidental release may occur. Properties are not contiguous for purposes of this subsection solely because of a railroad or gas pipeline right of way.
 - 2. The term includes, without limitation, transportation containers that are:
 - a. No longer under active shipping papers; and
 - b. Connected to equipment described in subsection 1 for temporary storage, loading or unloading.
 - 3. The term does not include transportation of, or storage incident to transportation of, a tier A or tier B substance or other extremely hazardous substance pursuant to the provisions of G.A.P.P., if such transportation is regulated pursuant to 49 C.F.R. Part 192, 193 or 195.
- Substance a chemical that is listed in the table in NAC 459.9533 (NAC 459.952) [Added October 2000].
- Threshold Quantity the quantity specified in the table in NAC 459.9533 for tier A or tier B substances (NAC 459.952) [Added October 2000].
- *Tier A* Substance a substance for which an accident prevention program is required pursuant to subparagraph (I) of paragraph (b) of subsection I of NRS 459.3813 (NAC 459.952) [Added October 2000].
- *Tier B Substance* a substance for which an accident prevention program is required pursuant to NRS 459.3833 (NAC 459.952) [Added October 2000].
- *Vessel* a reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose or other container (NAC 459.952) [Added October 2000].
- Worst-Case Release the release of the largest quantity of a tier A or tier B substance from a failure of a vessel or process line that results in the greatest distance to an endpoint defined in NAC 459.95364 (NAC 459.952)
 [Added October 2000].

HAZARDOUS MATERIALS MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items HM.2.1.NV. Releases of Hazardous Materials HM.20.1.NV.

Emergency Planning HM.25.1.NV. through HM.25.8.NV.

Right-to-Know HM.30.1.NV.

Compressed Gases Storage HM.45.1.NV. through HM.45.7.NV.

HAZARDOUS MATERIALS MANAGEMENT

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:
REFER TO APPENDIA NUVIDERS:	REFER TO APPENDIA TITLES:
3-1	Nevada Highly Hazardous Materials
3-2	Uniform Fire Code Hazardous Materials Inventory
3-3	Criteria for Determining Applicability of CAPP
3-4	List of CAPP Highly Hazardous Substances and Threshol
	Values

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
HM.2. MISSING CHECKLIST ITEMS	
HM.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
HM.20. RELEASES OF HAZARDOUS MATERIALS	
HM.20.1.NV. Facilities must meet hazardous material release requirements (NAC 445A.346 and 445A.347) [Revised October 1997; Revised October 1998].	 (NOTE: This notice requirement applies to the following releases: a release in a quantity equal to or greater than that required to be reported to the National Response Center pursuant to 40 CFR 302 (See U.S. TEAM Guide) a release consisting of any quantity of pollutants, hazardous waste, or contaminants, where the pollutant, hazardous waste, or contaminant is not listed in 40 CFR, Section 302.4.) (NOTE: This notice requirement does not apply to the following: releases resulting in exposure to an employee solely within an indoor place of employment for which the employee may assert a claim against his employer emissions from the exhaust of the engine of a motor vehicle, the rolling stock of a railroad, an aircraft, a vessel, or pipeline pumping station normal application of fertilizers or pesticides releases in compliance with the limits or conditions of a permit issued by the state or Federal Government.) Verify that, in the case of a release, the owner or operator of a facility [see definitions] notifies the: Division of Emergency Management of the Department of Motor Vehicles and Public Safety as soon as possible after he has knowledge of the release (the notice must be by telephone at 702-687-4240 during normal working hours Director of the Department of Conservation and Natural Resources as soon as possible after he has knowledge of such a release, but not later than the end of the first working day after the release (the notice must be by telephone at 800-992-0900, extension 4670 or 702-687-4670).

COMPLIANCE CATEGORY: HAZARDOUS MATERIALS MANAGEMENT Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
HM.25 EMERGENCY PLANNING	
HM.25.1.NV. Owners/ operators of facilities where hazardous materials are used must determine if the facility is subject to the Chemical Accident Prevention Program (CAPP), and if so, at what tier level (NAC 459.95321) [Revised October 1997; Revised October 2000].	Verify that the owner/operator of the facility determine for each process within the boundary of his facility whether the process is subject to the tier A program or tier B program, or both. (NOTE: See Appendix 3-3 for criteria for inclusion in the tier A and tier B programs, and for the different levels of the tier B program.)
HM.25.2.NV. Owners/ operators of facilities with processes subject to the CAPP must meet general management requirements (NAC 459.95332) [Revised October 2000].	Verify that each facility that has a process which is subject to the tier A program or tier B program: - registers annually with the Division (see HM.25.4.NV.) - develops a management system (see HM.25.8.NV.).
HM.25.3.NV. Owners/ operators of facilities with processes subject to Tier A of the CAPP must meet specific management requirements (NAC 459.95336) [Revised October 2000].	Verify that a facility with a process that is subject to the tier A program: - submits assessment plans, prioritization schedules and information about the assessment team - conducts a hazard assessment - implements a prevention program - implements an emergency response program - submits assessment reports - submits an annual compliance report.
HM.25.3.NV. Owners/ operators of facilities with processes subject to Tier B of the CAPP must meet specific management requirements (NAC 459.95338) [Revised	Verify that a facility with a process that is subject to the tier B program, but not also subject to the tier A program: - determine the program level for the process (see Appendix 3-3) - conduct a hazard assessment - implement a prevention program for each process subject to program level 2

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REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
October 2000].	or program level 3
	- implement an emergency response program
	- submit an assessment report.
HM.25.4.NV. Owners/ operators of facilities with	Verify that a facility with a process subject to the CAPP:
processes subject to the CAPP must meet annual registration	- completes annually a single registration form covering all processes, both tier A and tier B
requirements (NAC 459.95348 and 459.9535)	- submits the registration to the Division on or before June 21 of each year.
[Revised October 2000].	Verify that the registration shows the maximum quantity of all tier A and tier B substances on-site between June 1 of the previous year and May 30 of the current year.
	Verify that, upon starting a new process, the owner or operator submits an initial registration that consists of:
	- information about the facility (see below)
	- a summary of the off-site consequence analysis
	- a summary of the 5-yr accident history of the facility
	- a description of the emergency response plan for the facility
	- certification as set forth in NAC 459.95358.
	Verify that the information about the facility on the annual registration form (or an initial registration) includes:
	 the name, street, city, county, state, zip code, latitude and longitude of the facility, the method for obtaining the latitude and longitude, and a description of the location that the latitude and longitude represent the Dun & Bradstreet number for the facility
	- the name and Dun & Bradstreet number of any parent corporation
	 the name, telephone number and mailing address of the owner or operator the name and title of the person with overall responsibility for the implementation of CAPP
	- the name, title, telephone number during normal business hours and telephone number that is available 24 hours per day of an emergency contact
	- for each process:
	- the name and C.A.S. number of each substance
	- the maximum quantity of each substance on-site between June 1 of the previous year and May 30 of the current year
	- the N.A.I.S.C. code that is applicable to the process
	- the program tier to which the process is subject
	- the tier B program level, if applicable, of the process
	- the identifier that the United States Environmental Protection Agency has as-
l	signed to the facility

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	 the number of full-time employees at the facility whether the facility is subject to 29 CFR Part 1910.119 whether the facility is subject to 40 CFR Part 355 whether the facility has an operating permit pursuant to 40 CFR Part 70 and, if applicable, the permit number the date of the last safety inspection of the facility by a federal, state or local governmental agency and the identity of the inspecting entity.
HM.25.5.NV. Owners/ operators of facilities with processes subject to the CAPP must develop and implement a	(NOTE: A facility with a process that is subject to tier B program level 1 but not subject to the tier A program is not required to implement a prevention program for that process.)
prevention program (NAC 459.95382) [Revised October 2000].	Verify that a facility with a process that is subject to the tier A program or tier B program levels 2 or 3 implements a prevention program for that process.
HM.25.6.NV. Owners/ operators of facilities with processes subject to the CAPP must develop and implement an emergency response pro- gram (NAC 459.9544) [Re- vised October 2000].	Verify that a facility with a process that is subject to the tier A program or tier B program level 2 or 3 develops and implements an emergency response program. (NOTE: A facility in which the employees will not respond to an accidental release of a tier A or tier B substance is not required to comply with these provisions if: - for facilities subject to 29 CFR Part 1910, the facility has implemented an emergency action plan that contains the elements set forth in 29 CFR Part 1910.38(a) - appropriate mechanisms are in place to notify emergency responders when there is a need for a response - for facilities with a substance that is subject to 40 CFR Part 355 and has quantities in excess of the threshold planning quantity, the facility is included in the comprehensive emergency response plan developed pursuant to 42 USC 11003 - for facilities that do not have a substance that is subject to 40 CFR Part 355 in excess of the threshold planning quantity, the facility has coordinated response actions with the local fire department.) Verify that the owner or operator ensures that the facility is in compliance with these requirements at the time of submittal of the assessment report. (NOTE: As used in this section, "threshold planning quantity" has the meaning ascribed to it in 40 CFR Part 355.) Verify that the facility establishes and implements an emergency response program to protect employees, public health and the environment, which includes:

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ADQUILE. VIS.	 for facilities subject to 29 CFR Part 1910, an emergency action plan that contains the elements set forth in 29 CFR Part 1910.38(a) for facilities subject to 29 CFR Part 1910, a hazardous materials response program that contains the elements outlined in 29 CFR Part 1910.120(q) procedures for informing the public and local emergency response agencies about an accidental release documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures procedures and measures for emergency response after an accidental release of a tier A or tier B substance procedures for the use, inspection, testing and maintenance of emergency response equipment training for all employees in relevant procedures for emergency response procedures to review and update, as appropriate, the emergency response plan to reflect changes at the facility and ensure that employees are informed of changes. Verify that the facility coordinates the emergency response plan with the community emergency response plan. Verify that the facility reviews and coordinates the emergency response plan with local emergency responders. 	
HM.25.7.NV. Owners/ operators of facilities with processes subject to tier A requirements must submit annual compliance reports (NAC 459.9548 and 459.95482) [Revised October 2000].	Verify that the facility submits a report of compliance for any process that is subject to the tier A program. Verify that the annual report of compliance includes: - each Plan to Abate Hazards (PTAH) recommendation listed in the assessment report that is made for a process which is subject to the tier A program - the date on which implementation of the PTAH recommendations are due - the status of implementation of the PTAH recommendations - comments by the owner or operator on the status of implementation of each PTAH recommendation - any efforts that were undertaken by the owner or operator during the previous calendar year to assess and reduce risks related to tier A substances - any changes in maintenance schedules and activities and any unanticipated maintenance on electrical equipment or safety controls related to tier A substances that was conducted at the facility during the previous calendar year - any efforts undertaken by the facility to assess and remedy the release of	

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REGULATORY REVIEWER CHECKS: REQUIREMENTS: October 2000			
HM.25.8.NV. Owners/ operators of facilities with processes CAPP requirements must develop management systems (NAC 459.95516) [Revised October 2000]. - cr and Ven	any quantity of a tier A substance - any other information requested by the Division. Trify that a facility with a process that is subject to the tier A program or tier B orgam level 2 or 3 develops a management system to oversee the implementant of all requirements of CAPP and: The assigns a qualified person to have overall responsibility for the development, plementation and integration of the requirements of CAPP, or Treates a team with overall responsibility for the development, implementation of integration of the requirements of CAPP Trify that the facility documents: - the names of the persons who are members of the team - the relevant lines of authority for the team by means of an organization chart or similar document.		

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REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
HM.30. RIGHT-TO-KNOW		
HM.30.1.NV. Storage of hazardous materials requires an annual permit issued by the State Fire Marshal (NRS 477.323(1)) [Revised October 1997].	Verify that hazardous materials are not stored in excess of the amount set forth in the State Fire Marshal's Uniform Fire Code Hazardous Materials Inventory, unless a permit to store the material has been issued by the State Fire Marshal. Verify that permits are renewed annually. (NOTE: See Appendix 3-2 for a listing of the hazardous materials and amounts specified in the State Marshal's Uniform Fire Code Hazardous Materials Inventory.)	

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REQUIREMENTS:	October 2000	
HM.45. COMPRESSED GASES STORAGE		
HM.45.1.NV. Below grade installations using liquefied petroleum gas (LPG) must comply with special guidelines (NAC 590.465).	Verify that below grade installations of any appliance, apparatus, or equipment that use LPG include an LPG detector. Verify that the LPG detector meets all of the following requirements: - is approved and listed by American National Standards Institute or Underwriters' Laboratories, Incorporated - has a sensor to detect a leak of LPG and sounds an audible alarm upon detection of a leak - is installed in accordance with manufacturer's recommendations. Verify that below grade installation of LPG is tested and inspected by certified LPG service person to ensure compliance with most current editions of National Fuel and Gas Code. Verify that below grade installation is tested and inspected by certified LPG service person if modified or repaired within 5 yr from date of installation. Verify that below grade installations of LPG installed before 17 October 1994 were retrofitted to comply with provisions of this section on or before 1 July 1998.	
HM.45.2.NV. LPG contractors must be competent (NAC 590.340).	Verify that contractors have been issued a certificate of competency from the Board.	
HM.45.3.NV. [Deleted October 1998].	[Requirements regarding LPG tanks are found in the TEAM Guide, Section 10, Storage Tanks.]	
HM.45.4.NV. Accidents involving LPG must be reported to the Liquefied Petroleum Gas Board (Board) (NAC 590.520).	Verify that accidents in which LPG is a possible contributing factor are reported to the Board in writing as soon as news of the accident is received. Verify that report contains the following information:	

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
	locationnames of persons involvedtype of accident.	
	Verify that, if an accident involving LPG results in death, serious personal injury, injuries requiring hospitalization of persons, or property damage of 2000 dollars or more, a report to the Board is made by telephone and followed by written report.	
HM.45.5.NV . Transportation of LPG containers must be permitted (NAC 590.540).	Verify that containers having volumetric water capacity of 125 gal or more and containing a quantity of LP gas greater than 5 percent of its water capacity are not transported without a permit issued by the Board.	
HM.45.6.NV. Clear access to LPG containers must be maintained (NAC 590.550).	Verify that clear access to LPG containers is maintained for safety, service, or removal.	
HM.45.7.NV . LPG piping systems in residences must meet pressure requirements (NAC 590.490).	Verify that no piping systems for LPG which exceed water column pressure of 18 in. are installed in residences.	

Nevada Highly Hazardous Materials (Source: NRS 459.3816) [Revised October 1997]

The following substances are designated as highly hazardous, if present in the quantity designated after each substance or a greater quantity:

Chemical Name of Substance	Number Assigned by Chemical Quantity	Abstract Service (lb)
Chemical Ivanic of Substance	by Chemical Quantity	vice (ib)
Acetaldehyde	75-07-0	2500
Acrolein (2-Propenal)	107-02-8	150
Acrytyl Chloride	814-68-6	250
Allyl Chloride	107-05-1	1000
Allylamine	107-11-9	1500
Alkylaluminums	None	5000
Ammonia, Anhydrous	7664-41-7	5000
Ammonia solutions (44% ammonia by weight)	7664-41-7	10000
Ammonium Perchlorate	7790-98-9	7500
Ammonium Permanganate	7787-36-2	7500
Arsine (also called Arsenic Hydride)	7784-42-1	100
Bis(Chloromethyl) Ether	542-88-1	100
Boron Trichloride	10294-34-5	2500
Boron Trifluoride	7637-07-2	250
Bromine	7726-95-6	1500
Bromine Chloride	13863-41-7	1500
Bromine Pentafluoride	7789-30-2	2500
Bromine Trifluoride	7787-71-5	15000
3-Bromopropyne (also called Propargyl Bromide)	106-96-7	7500
Butyl Hydroperoxide (Tertiary)	75-91-2	5000
Butyl Perbenzoate (Tertiary)	614-45-9	7500
Carbonyl Chloride (see Phosgene)	75-44-5	100
Carbonyl Fluoride	353-50-4	2500
Cellulose Nitrate (concentration 12.6% Nitrogen)	9004-70-0	2500
Chlorine	7782-50-5	1500
Chlorine Dioxide	10049-04-4	1000
Chlorine pentafluoride	13637-63-3	1000
Chlorine Trifluoride	7790-91-2	1000
Chlorodiethylaluminum (also called Diethylalumi-	96-10-6	5000
num Chloride)		
1-Chloro-2,4-Dinitrobenzene	97-00-7	5000
Chloromethyl Methyl Ether	107-30-2	500
Chloropicrin	76-06-2	500
Chloropicrin and Methyl Bromide mixture	None	1500
Chloropicrin and Methyl Chloride mixture	None	1500
Cumene Hydroperoxide	80-15-9	V
Cyanogen	460-19-5	2500
Cyanogen Chloride	506-77-4	500
Cyanuric Fluoride	675-14-9	100

Chemical Name of Substance	Number Assigned by Chemical Quantity	Abstract Service (lb)
Diacetyl Peroxide (concentration 70%)	110-22-5	5000
Diazomethane	334-88-3	500
Dibenzoyl Peroxide	94-36-0	7500
Diborane	19287-45-7	100
Dibutyl Peroxide (Tertiary)	110-05-4	5000
Dichloro Acetylene	7572-29-4	250
Dichlorosilane	4109-96-0	2500
Diethylzinc	557-20-0	10000
Diisopropyl peroxydicarbonate	105-64-8	7500
Dilauroyl Peroxide	105-74-8	7500
Dimethyl Sulfide	75-18-3	100
Dimethyldichlorosilane	75-78-5	1000
Dimethylhydrazine, 1.1-	57-14-7	1000
Dimethylamine, Anhydrous	124-40-3	2500
Ethyl Methyl Ketone Peroxide (also Methyl Ethyl	1338-23-4	5000
Ketone peroxide; concentration 60%)		
Ethyl Nitrite	109-95-5	5000
Ethylamine	75-04-7	7500
Ethylene Fluorohydrin	371-62-0	100
Ethylene Oxide	75-21-8	5000
Ethyleneimine Ethyleneimine	151-56-4	1000
Fluorine	7782-41-4	1000
Formaldehyde (concentration 90%)	50-00-0	1000
Furan	110-00-9	500
Hexafluoroacetone	684-16-2	5000
Hydrochloric acid, Anhydrous	7647-01-0	5000
Hydrofluoric acid, Anhydrous	7664-39-3	1000
Hydrogen Bromide	10035-10-6	5000
Hydrogen Chloride	7647-01-0	5000
Hydrogen Cyanide, Anhydrous	74-90-8	1000
Hydrogen Fluoride	7664-39-3	1000
Hydrogen Peroxide (52% by weight or more)	7722-84-1	7500
Hydrogen Selenide	7783-07-5	150
Hydrogen Sulfide	7783-06-4	1500
Hydroxylamine	7803-49-8	2500
Iron, pentacarbonyl-	13463-40-6	250
Isopropyl Formate	625-55-8	500
Isopropylamine	75-31-0	5000
Ketene	463-51-4	100
Methacrylaldehyde	78-85-3	1000
Methacryloyl Chloride	920-46-7	150
Methacryloylexyethyl Isocyanate	30674-80-7	100
Methyl Acrylonitrile	126-98-7	250
Methylamine, Anhydrous	74-89-5	1000
Methyl Bromide	74-83-9	2500
Methyl Chloride	74-83-9 74-87-3	15000
Methyl Chloroformate	74-87-3 79-22-1	500
Methyl Disulfide	624-92-0	100
	1338-23-4	5000
Methyl Ethyl Ketone Peroxide (concentration 60%)	1330-23-4	3000

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Chemical Name of Substance	Number Assigned by Chemical Quantity	Abstract Service (lb)
Tetramethyl Lead	75-74-1	7500
Thionyl Chloride	7719-09-7	250
Trichloro(chloromethyl) Silane	1558-25-4	100
Trichloro(dichlorophenyl) Silane	21737-85-5	2500
Trichlorosilane	10025-78-2	5000
Trifluorochloroethylene	79-38-9	10000
Trimethyoxysilane	2487-90-3	1500

The Division, in consultation with the health Division of the department of human resources and the Division of industrial relations of the department of business and industry shall regularly examine the sources of information available to it with regard to potentially highly hazardous substances. The Division shall, by regulation, add to the list of highly hazardous substances any chemical that is identified as being used, manufactured, stored, or capable of being produced, at a facility, in sufficient quantities at a single site, that its release into the environment would produce a significant likelihood that persons exposed would suffer death or substantial bodily harm as a consequence of the exposure.

Uniform Fire Code Hazardous Materials Inventory

(Source: Nevada State Fire Marshal, Uniform Fire Code Hazardous Materials Inventory) [Revised October 1997]

- Cellulose Nitrate Materials more than 25 lb.
- Combustible Fibers more than 100 ft³.
- Combustible Material more than 2500 ft³ gross volume of empty packing cases, boxes, barrels, containers of rubber, cork, or similar products; storage of lumber in excess of 100,000 board feet; storage of auto tires of 1000 ft or more.
- Compressed Gases at normal temperatures and pressures, in excess of the following:

Type of Gas	Amount
Flammable (except cryogenic or liquefied petroleum gas)	200 ft^3
Oxidizing (includes oxygen)	500 ft^3
Corrosive (acids or caustics)	any amount
Toxic, Highly Toxic (pesticides, herbicides, etc.)	any amount
Radioactive	any amount
Pyrophoric	any amount
Unstable (reactive)	any amount
Inert (pressure cylinder, no material safety data sheet	6000 ft^3

• *Cryongens* - except where Federal requirements apply and except for fuel systems of vehicles, storage in excess of the following:

Type of Cryogen	Inside of Building	Outside of Building
Flammable	over 1 gal	over 60 gal
Oxidizer	over 50 gal	over 50 gal
Corrosive or Toxic	over 1 gal	over 1 gal
Nonflammable	over 60 gal	over 500 gal
Highly Toxic	over 1 gal	over l gal

- Dry Cleaning Plants store or use a hazardous cleaning solvent.
- Explosives or Blasting Agent Storage any amount; includes ammonium, potassium, or similar solid nitrates.
- Flammable or Combustible Liquids -
 - 1. flammable liquid: flash point below 100 F. Includes gasoline, white gas, coleman fuels, and solvents; alcohol and similar flammables. To store more than 5 gal inside of a building or 10 gal outside of a building, except that a permit is not required for the following:
 - a. in a vehicle fuel tank or the tank of a mobile heating or power plant
 - b. temporary storage, not to exceed 30 days, of paints, oils, varnishes or similar flammable mixtures when they are used for maintenance or similar purposes
 - c. waste oil not to exceed 25 gal inside a building and 60 gal outside a building
 - 2. combustible liquid: flash point from 100 to 200 F. Includes diesel fuels, mineral spirits, kerosene, solvents, and similar petroleum products. To store more than 25 gal in a building or more than 60 gal outside of a building, except for underground heating oil used to heat the buildings. Includes spraying or dipping processes. Does not include new motor oil storage in containers of 1 gal or less used for retail sales.

- Fumigant to store any amount of toxic or flammable fumigant.
- Liquefied Petroleum Gas to store for sale or commercial use in a tank exceeding 2000 gal water capacity or tanks of more than 4000 gal aggregate.
- Lumber Yards storage in excess of 100,000 board feet.
- Magnesium storage of more than 10 lb of casted, heat treated, or ground metal per working day.
- *Matches* to store more than 864,000 matches (60 matchman's gross at 14,400 matches per gross).

• Other Hazardous Materials -

Type of Material	Amount (more than)
Carcinogens	10 lb
Corrosive Liquids	55 gal
Irritant or Sensitizer Liquids	55 gal
Irritant or Sensitizer Solids	500 lb
Toxic and Highly Toxic Liquids and Solids	any amount
Oxidizing Liquids and Solids	any amount
Organic Peroxides	any amount
Poisons, Pesticides, Antifreeze, Etc.	any amount
Pyrophorics (ignites in air)	any amount
Radioactive Materials (solid or liquid)	any amount
Unstable or Reactive Materials	any amount
Water-Reactive Liquids or Solids	any amount

• Additional Hazardous Materials -

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Acetaldehyde	75-07-0	2500	N/A
Acerone cyanohydrin	75-86-5	N/A	500
Acerone thiosemicarbazide	1752-30-3	N/A	500
Acrolein	107-02-3	N/A	500
Acrolein (2-Propenal)	107-02-8	150	N/A
Acrylamide	79-06-1	N/A	500
Acrylonitrile	107-13-1	N/A	500
Acrylyl chloride	814-68-6	250	100
Adiponitrile	111-69-3	N/A	500
Aldicarb	116-06-3	N/A	100
Aldrin	309-00-2	N/A	500
Allyl alcohol	107-18-6	N/A	500
Allyl Chloride	107-05-1	1000	N/A
Allylamine	107-11-9	1500	500
Alkylaluminums		5000	N/A
Aluminum phosphide	20859-73-8	N/A	500
5- (Aminomethyl) - 3-isoxazolol	2763-96-4	N/A	500
4-Aminopyridine	504-24-5	N/A	500
Amiton	78-53-5	N/A	500
Amiton oxalate	3734-97-2	N/A	100
Ammonia	7664-41-7	5000	500
Ammonia, Anhydrous	7664-41-7	5000	500

<u>Chemical Name</u> Ammonia solutions (44% ammonia	<u>CAS Number</u> 7664-41-7	<u>Nevada SB641 HHS (lb)</u> 10,000	SARA EHS TPQ (lb) 500
by weight)	7004-41-7	10,000	300
Ammonium Perchlorate	7790-98-9	7500	N/A
Ammonium Permanganate	7787-36-2	7500	N/A
Aminopterin	54-62-6	N/A	500
Amphetamine	300-62-9	N/A	500
Aniline	62-53-3	N/A	500
Aniline, 2,4,6-trimethyl-	88-05-1	N/A	500
Antiomony pentafluoride	7783-70-2	N/A	500
Antimycin A	1397-94-0	N/A	500
Antu	86-88-4	N/A	500
Arsenic pentoxide	1303-28-2	N/A	100
Arsenic trioxide	1327-53-3	N/A	100
Arsenous oxide	1327-53-3	N/A	100
Arsenous trichloride	7784-34-1	N/A	500
Arsine (aka Arsenic Hydride)	7784-42-1	100	100
Azinophos-ethyl	2642-71-9	N/A	100
Azinophos-ethyl Azinphos-methyl	86-50-0	N/A N/A	100
Aziridine	151-56-4	N/A N/A	500
Aziridine Aziridine, 2-methyl	75-55-8	N/A N/A	500
Benzal chloride	98-87-3	N/A N/A	500
Benzenamine, 3-(trifluoro- methyl)-	98-16-8	N/A N/A	500
Benzene, l-(chloromethyl)- 4-nitro	100-14-1	N/A N/A	500
Benzenearsonic acid	98-05-5	N/A N/A	10
Benzenethiol	108-98-5	N/A N/A	500
Benzimidazole, 4,5- dichloro-2	3615-21-2	N/A N/A	500
(trifluoromethyl)	3013-21-2	N/A	300
Benzoic trichloride	98-07-7	N/A	100
Benzotrichloride	98-07-7	N/A	100
Benzyl chloride	100-44-7	N/A	500
Benzyl cyanide	140-29-4	N/A	500
beta-Propiolactone	57-57-8	N/A	500
Bicyclo[2.2.1]heptaine-2-	15271-41-7	N/A	500
carbonitrile, 5-chloro-6-(methyla)	132/1 41 /	14/11	300
2,2'-Bioxirane	1464-53-5	N/A	500
Bis (2-chloroethyl) ether	111-44-4	N/A	500
Bis (Chloromethyl) Ether	542-88-1	100	100
Bis(chloromethyl) ketone	534-07-6	N/A	10
Bitoscanate	4044-65-9	N/A	500
Boron Trichloride	10294-34-5	2500	500
Boron Trifluoride	7637-07-2	250	500
Boron Trifluoride compound with	353-42-4	N/A	500
methyl ether (1:1)	333 12 1	14/11	300
Bromadiolone	28772-56-7	N/A	100
Bromine	7726-95-6	1500	500
Bromine Chloride	13863-41-7	1500	N/A
Bromine Pentafluoride	7789-30-2	2500	N/A
Bromine Trifluoride	7787-71-5	15000	N/A
Bromomethane	74-83-9	N/A	500
3-Bromopropyne (aka Propargyl	106-96-7	7500	10
Bromide)	100 /0 /	.500	10
Diomide)			

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Butyl Hydroperoxide (Tertiary)	75-91-2	5000	N/A
Butyl Perbenzoate (Tertiary)	614-45-9	7500	N/A
Cadmium oxide	1306-19-0	N/A	100
Cadmium stearate	2223-93-0	N/A	500
Calcium arsenate	7778-44-1	N/A	500
Camphechlor	8001-35-2	N/A	500
Camphene, octachloro-	8001-35-2	N/A	500
Cantharidin	56-25-7	N/A	100
Carbachol chloride	51-83-2	N/A	500
Carbamic acid, methyl-, 0- (((2,4-	26419-73-8	N/A	100
dimethyl-1,3 dithiolan-2-y [sic]			
Carbofuran	1563-66-2	N/A	10
Carbon disulfide	75-15-0	N/A	500
Carbonyl Chloride (see Phosgene)	75-44-5	100	10
Carbonyl Fluoride	353-50-4	2500	N/A
Carbophenothion	786-19-6	N/A	500
Cellulose Nitrate (concentrate	9004-70-0	2500	N/A
126% Nitrogen)			
Chloroacetic acid	79-11-8	N/A	100
Chlordane	57-74-9	N/A	500
Chlorfenvinfos	470-90-6	N/A	500
Chlorine	7782-50-5	1500	100
Chlorine Dioxide	10049-04-0	1000	N/A
Chlorine pentafluoride	13637-63-3	1000	N/A
Chlorine Trifluoride	7790-91-2	1000	N/A
Chlormephos	24934-91-6	N/A	500
Chlormequat chloride	999-81-5	N/A	100
Chlorodiethylaluminum (aka Di-	96-10-6	5000	N/A
ethylaluminum			
Chloroethanol	107-07-3	N/A	500
Chloroethyl chloroformate	627-11-2	N/A	500
Chloroform	67-66-3	N/A	500
1-Chloro-2, 4 Dinitrobenzene	97-00-7	5000	N/A
Chloromethyl ether	542-88-1	N/A	100
Chloromethyl Methyl Ether	107-30-2	500	100
Chlorophacinone	3691-35-8	N/A	100
Chloropicrin	76-06-2	500	N/A
Chloropicrin and Methyl Bromide	None	1500	N/A
mixture			
Chloropicrin and Methyl Chloride	None	1500	N/A
mixture			
3-Chloropropionitrile	542-76-7	N/A	500
Chloroxuron	1982-47-4	N/A	500
Chlorthiophos	21923-23-9	N/A	500
Chromic chloride	10025-73-7	N/A	1
Cobalt, ((2,2,'-(1,2-ethanediylbis	62207-76-5	N/A	100
(nitrilomethylidyne))bis(6)			
Cobalt carbonyl	10210-68-1	N/A	10
Colchicine	64-86-8	N/A	10
Coumaphos	56-72-4	N/A	100
Coumatetralyl	5836-29-3	N/A	500

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Crimidine	535-89-7	N/A	100
Crotonaldehyde	4170-30-3	N/A	500
Crotonaldehyde, (E)-	123-73-9	N/A	500
Cumene Hydroperoxide	80-15-9	5000	N/A
Cupric acetoarsenite	12002-03-8	N/A	500
Cyanogen	460-19-5	2500	N/A
Cyanogen bromide	506-68-3	N/A	500
Cyanogen Chloride	506-77-4	500	N/A
Cyanogen iodide	506-78-5	N/A	500
Cyanophos	2636-26-2	N/A	500
Cyanuric Fluoride	675-14-9	100	100
Cycloheximide	66-81-9	N/A	100
Cyclohexylamine	108-91-8	N/A	500
Decaborane (14)	17702-41-9	N/A	500
Demeton	8065-48-3	N/A	500
Demeton-S-methyl	919-86-8	919-86-8	500
Diacetyl Peroxide (concentration	110-22-5	5000	N/A
70%)			
Dialifor	10311-84-9	N/A	100
Diazomethane	334-88-3	500	N/A
Dibenzoyl Peroxide	94-36-0	7500	N/A
Diborane	19287-45-7	100	100
Dibutyl Peroxide (Tertiary)	110-05-4	5000	N/A
Dichloro Acetylene	7572-29-4	250	N/A
Dichloroethyl ether	111-44-4	N/A	500
Dichloromethyl ether	542-88-1	N/A	100
Dichloromethylphenylsilane	149-74-6	N/A	500
Dichlorophenylarsine	696-28-6	N/A	500
Dichlorosilane	4109-96-0	2500	N/A
Dichlorvos	62-73-7	N/A	500
Dicrotophos	141-66-2	N/A	100
Diepoxybutane	1464-53-5	N/A	500
Diethyicarbamazine citrate	1642-54-2	N/A	100
Diethyl chlorophosphate	814-49-3	N/A	500
Diethylzinc	557-20-0	10000	N/A
Digitoxin	71-63-6	N/A	100
Diglycidyl ether	2238-07-5	N/A	500
Digoxin	20830-75-5	N/A	10
Diisopropylfluorophosphate	55-91-4	N/A	100
Diisopropyl peroxydicarbonate	105-64-8	7500	N/A
Dilauroyl Peroxide	105-74-8	7500	N/A
Dimefox	115-26-4	N/A	500
Dimethoate	60-51-5	N/A	500
Dimethyl phosphorochloridothioate	2524-03-0	N/A	500
Dimethyl Sulfide	75-18-3	100	N/A
Dimethyl sulfate	77-78-1	N/A	500
Dimethyldichlorosilane	75-78-5	1000	500
Dimethylhydrazine,1,1-	57-14-7	1000	500
Dimethylhydrazine	57-14-7	N/A	500 N/A
Dimethylamine, Anhydrous	124-40-3	2500	N/A
Dimethyl-p-phenylenediamine	99-98-9	N/A	10

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Dimetilan	644-64-4	N/A	500
Dinitrocresol	534-52-1	N/A	10
4,6-Dinitro-o-cresol	534-52-1	N/A	10
Dinoseb	88-85-7	N	A
Dinoterb	1420-07-1	N/A	500
Dioxathion	78-34-2	N/A	500
Diphacinone	82-66-6	N/A	10
Diphosphoramide, octamethyl-	152-16-9	N/A	100
Disulfoton	298-04-4	N/A	500
Dithiazanine iodide	514-73-8	N/A	500
Dithiobiuret	541-53-7	N/A	100
Emetine, dihydrochloride	316-42-7	N/A	1
Endosulfan	115-29-7	N/A	10
Endothion	2778-04-3	N/A	500
Endrin	72-20-8	N/A	500
Epichlorohydrin	106-89-8	N/A	500
EPN	2104-64-5	N/A	100
Ergocalciferol	50-14-6	N/A	500
Ergotamine tartrate	379-79-3	N/A	500
Ethanesulfonyl chloride, 2-chloro-	1622-32-8	N/A	500
Ethanimidothioic acid, N-	16752-77-5	N/A	500
[[methylamino)car [sic]			
Ethanol, 1,2-dichloro- acetate	10140-87-1	N/A	500
Ethion	563-12-2	N/A	500
Ethoprophos	13194-48-4	N/A	500
Ethylbis(2-chloroethyl)amine	538-07-8	N/A	500
Ethyl cyanide	107-12-0	N/A	500
Ethyl Methyl Ketone Peroxide (also	1338-23-4	5000	N/A
Methl Ethyl Ketone peroxide; con-			
centration 60%)			
Ethyl Nitrite	109-95-5	5000	N/A
Ethylamine	75-04-7	7500	N/A
Ethylene Fluorohydrin	371-62-0	100	10
Ethylene Oxide	75-21-8	5000	1000
Ethylenediamine	107-15-3	N/A	500
Ethyleneimine	151-56-4	1000	500
Ethylthiocyanate	542-90-5	N/A	500
Fenamiphos	22224-92-6	N/A	N/A
Fenitrothion	122-14-5	N/A	500
Fensulfothion	115-90-2	N/A	500
Fluenetil	4301-50-2	N/A	100
Fluorine	7782-41-4	1000	500
Fluoroacetamide	640-19-7	N/A	100
Fluoroacetic acid	144-49-0	N/A	10
Fluoroacetic acid, sodium salt	62-74-8	N/A	10
Fluoroacetyl chloride	359-06-8	N/A	10
Fluorouracil	51-21-8	N/A	500
Fonofos	944-22-9	N/A	500
Formaldehyde	50-00-0	N/A	500
Formaldehyde (concentration 90%)	50-00-0	1000	N/A
Formaldehyde cyanohydrin	107-16-4	N/A	500

Formetanate Hydrochloride 23422-53-9 N/A 500 Formothion 2540-82-1 N/A 100 Formparanate 17702-57-7 N/A 100 Fosthietan 21548-32-3 N/A 500 Fuberidazole 3878-19-1 N/A 100
Formparanate 17702-57-7 N/A 100 Fosthietan 21548-32-3 N/A 500 Fuberidazole 3878-19-1 N/A 100
Fosthietan 21548-32-3 N/A 500 Fuberidazole 3878-19-1 N/A 100
Fuberidazole 3878-19-1 N/A 100
Furan 110-00-9 500 500
Gallium trichloride 13450-90-3 N/A 500
Guthion 86-50-0 N/A 10
Hexachlorocyclohexane -(gamma 58-89-9 N/A 500
isomer)
Hexachlorocyclopentadiene 77-47-4 N/A 100
Hexafluoroacetone 684-16-2 5000 N/A
Hexamethylenediamine, N,N'- 4835-11-4 N/A 500
dibutyl
Hydrazine 302-01-2 N/A 500
Hydrazine, l,l-dimethyl- 57-14-7 N/A 500
Hydrochloric Acid, Anydrous 7647-01-0 5000 N/A
Hydrocyanic acid 74-90-8 N/A 100
Hydrofluoric acid 7664-39-3 N/A 100
Hydrofluoric Acid, Anhydrous 7664-39-3 1000 100
Hydrogen Bromide 10035-10-6 5000 N/A
Hydrogen Chloride 7647-01-0 5000 500
Hydrogen Chloride (gas only) 7647-01-0 5000 500
Hydrogen Cyanide 74-90-8 N/A 100
Hydrogen Cyanide, Anhydrous 74-90-8 1000 100
Hydrogen Fluoride 7664-39-3 1000 100
Hydrogen Peroxide (52% by weight 7722-84-1 7500 500
or more)
Hydrogen Selenide 7783-07-5 150 10
Hydrogen Sulfide 7783-06-4 1500 500
Hydroquinone 123-31-9 N/A 500
Hydroxylamine 7803-49-8 2500 N/A
Iron, pentacarbonyl 13463-40-6 250 100
Isobenzan 297-78-9 N/A 100
Isobutyronitrile 78-82-0 N/A 500
Isocyanic acid, 3,4-dichlorophenyl 102-36-3 N/A 500
ester
Isodrin 465-73-6 N/A 100
Isofluorphate 55-91-4 N/A 100
Isophorone diisocyanate 4098-71-9 N/A 100
Isopropyl chloroformate 108-23-6 N/A 500
Isopropyl Formate 625-55-8 500 N/A
Isopropylamine 75-31-0 5000 N/A
Isopropylmethylpyrazolyl di- 119-38-0 N/A 500
methylcarbamate
Ketene 463-51-4 100 N/A
Lactonitrile 78-97-7 N/A 500
Leptophos 21609-90-5 N/A 500
Lewisite 541-25-3 N/A 10
Lindane 58-89-9 N/A 500
Lithium hydride 7580-67-8 N/A 100

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Malononitrile	109-77-3	N/A	500
Manganese, tricarbonyl methylcy-	12108-13-3	N/A	100
clopentadienyl			
Mechlorethamine	51-75-2	N/A	10
Mephosfolan	950-10-7	N/A	500
Mercaptodimethur	2032-65-7	N/A	500
Mercuric acetate	1600-27-7	N/A	50D
Mercuric chloride	7487-94-7	N/A	500
Mercuric oxide	21908-53-2	N/A	500
Methacrolein diacetate	10476-95-6	N/A	500
Methacrylaldehyde	78-85-3	1000	N/A
Methacrylic anhydride	760-93-0	N/A	500
Methacrylonitrile	126-98-7	N/A	500
Methacryloyl Chloride	920-46-7	150	100
Methacryloyloxyethyl Isocyanate	30674-80-7	100	100
Methamidophos	10265-92-6	N/A	100
Methanamine, N-methyl-N-nitroso-	62-75-9	N/A	500
Methanesulfonyl fluoride	558-25-8	N/A	500
Methidathion	950-37-8	N/A	500
Methiocarb	2032-65-7	N/A	500
Methomyl	16752-77-5	N/A	500
Methoxyethylmercuric acetate	151-38-2	N/A	500
Methyl Acrylonitrile	126-98-7	250	500
Methylamine, Anhydrous	74-89-5	1000	N/A
Methyl Bromide	74-83-9	2500	500
Methyl Chloride	74-87-3	15000	N/A
Methyl 2-chloroacylate	80-63-7	N/A	500
Methyl Chloroformate	79-22-1	500	500
Methyl Disulfide	624-92-0	100	N/A
Methyl Ethyl Ketone Peroxid N/A	1336-23-4	5000	N/A
(concentration 60%)			
Methyl Fluoroacetate	453-18-9	100	N/A
Methyl Fluorosulfate	421-20-5	100	N/A
Methyl Hydrazine	60-34-4	100	500
Methyl Iodide	74-88-4	7500	N/A
Methyl Isocyanate	624-83-9	250	500
Methyl isothiocyanate	556-61-6	N/A	500
Methyl Mercaptan	74-93-1	5000	500
Methyl parathion	298-'00-0	N/A	100
Methyl phenkapton	3735-23-7	N/A	500
Methyl phosphonic dichloride	676-97-1	N/A	100
Methyl thiocyanate	556-64-9	N/A	500
Methyl Vinyl Ketone	78-94-4	100	10
Methylmercuric dicyanamide	502-39-6	N/A	500
Methyltrichlorosilane	75-79-6	500	500
Metoicarb	1129-41-5	N/A	100
Mevinphos	7786-34-7	N/A	500
Mexacarbate	315-18-4	N/A	500
Mitomycin C	50-07-7	N/A	500
Monocrotophos	6923-22-4	N/A	10
Muscimol	2763-96-4	N/A	500

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Mustard Gas	505-60-2	N/A	500
Nickel Carbonyl (Nickel Tetracar-	13463-39-3	150	1
bonyl) Nicotine	51 11 5	N/A	100
Nicotine Sulfate	54-11-5 65-20-5		100 100
	65-30-5	N/A	
Nitric acid	7697-37-2	N/A 500	500 500
Nitric Acid (94.5% by weight or	7697-37-2	300	300
greater) Nitric Oxide	10102 42 0	250	100
	10102-43-9 100-01-6	5000	N/A
Nitroaniline (para Nitroaniline)			500
Nitropyalahayana	98-95-3 1122-60-7	N/A N/A	500
Nitrocyclohexane	10102-44-0	250	100
Nitrogen Dioxide	51-75-2	N/A	100
Nitrogen mustard	10102-44-0	1N/A 250	N/A
Nitrogen Oxides (NO; N0 ₂ ; N ₂ 0 ₄ ;	10102-44-0	230	IN/A
N ₂ O ₃)	10544 72 6	250	NT/A
Nitrogen Tetroxide (aka Nitrogen Peroxide	10544-72-6	250	N/A
	7702 54 2	5000	N/A
Nitrogen Trifluoride	7783-54-2	5000	
Nitrogen Trioxide	10544-73-7	250	N/A
Nitromethane	75-52-5	2500	N/A 500
N-Nitrosodimethylamine	62-75-9	N/A	500
Nitrosodimethylamine	62-75-9	N/A	500
Norbormide	991-42-4	N/A	100
O-Creosol	95-48-7	N/A	500
O,O-Diethyl O-pyrazinyl phos-	297-97-2	N/A	500
phorothioate	0014 04 7	1000	NT/A
Oleum (65% to 80% by weight (aka	8014-94-7	1000	N/A
Fuming Sulfuric Acid)	**	NT/A	10
Organorhodium Complex (PMN-	ጥጥ	N/A	10
82-147)**	2001 6 12 0	100	NT/A
Osmium Tetroxide	20816-12-0	100	N/A
Ouabain	630-60-4	N/A	100
Oxamyl	23135-22-0	N/A	100
Oxetane,3,3-bis(chloromethyl)-	78-71-7	N/A	500
Oxirane	75-21-8	N/A	500
Oxydisulfoton	2497-07-6	N/A	500
Oxygen Difluoride (Fluorine Mon-	7783-41-7	100	N/A
oxide)	10000 17 5	100	100
Ozone	10028-15-6	100	100
Paraquat	1910-42-5	N/A	10
Paraquat methosulfate	2074-50-2	N/A	10
Parathion	56-38-2	N/A	100
Parathion-methyl	298-00-0	N/A	100
Paris green	12002-03-8	N/A	500
Pentaborane	19624-22-7	100	500
Pentadecylamine	2570-26-5	N/A	100
Peracetic Acid (aka Peroxyacetic	79-21-0	5000	500
Acid)			
Perchloric Acid (concentration	7601-90-3	5000	N/A
60%)			

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Perchloromethyl Mercaptan	594-42-3	150	500
Perchloryl Fluoride	7616-94-6	5000	N/A
Peroxyacetic Acid (Concentration	79-21-0	5000	500
60%; aka Peracetic Acid)			
Phenol	108-95-2	N/A	500
Phenol, 2,2'-thiobis[4-chloro-6-	4418-66-0	N/A	100
methyl-			
Phenol,3-(1-methylethyl)-	64-00-6	N/A	500
methylcarbamate			
Phenoxarsine, 10,10'-oxydi-	58-36-6	N/A	500
Phenyl dichloroarsine	696-28-6	N/A	500
Phenylhydrazine hydrochloride	59-88-1	N/A	500
Phenylmercuric acetate	62-38-4	N/A	500
Phenylmercury acetate	62-38-4	N/A	500
Phenylsilatrane	2097-19-0	N/A	100
Phenylthiourea	103-85-5	N/A	100
Phorate	298-02-2	N/A	10
Phosacetim	4104-14-7	N/A	100
Phosfolan	947-02-4	N/A	100
Phosgene (aka Carbonyl Chloride)	75-44-5	100	10
Phosmet	732-11-6	N/A	10
Phosphamidon	13171-21-6	N/A	100
Phosphine	7803-51-2	N/A	500
Phosphine (hydrogen Phosphide)	7803-51-2	100	500
Phosphonothioic acid, methyl-, O-	2665-30-7	N/A	500
(4-nitrophenyl)O-phnylester			
Phosphonothioic acid, methyl-, O-	2703-13-1	N/A	500
ethyl 0-(4-methylthio)phenyl Ester			
Phosphonothioic acid, methyl-S-(2-	50782-69-9	N/A	100
bis(l-methylethyl)amino Ethyl o-			
Ethyl Ester	2254 62 5	37/4	500
Phosphoric acid,dimethyl 4-	3254-63-5	N/A	500
(methylthio)phenyl ester	2507.00.0	NT/A	500
Phosphorothioic acid, o,o-dimethyl-	2587-90-8	N/A	500
5-(2-methylthio)ethyl ester	7722 14 0	NT/A	100
Phosphorus	7723-14-0	N/A	100
Phosphorus (yellow or white)	7723-14-0	N/A	100
Phosphorus Oxychloride (aka	10025~87-3	1000	500
Phosphoryl Chloride)	10026 12 0	NT/A	500
Phosphorus pentachloride	10026-13-8	N/A	500
Phosphorus pentoxide	1314-56-3	N/A	10
Phosphorus Trichloride	7719-12-2	1000	500
Phosphoryl Chlorid (aka Phosphorys Ovygoblorida)	10025-87-3	1000	500
rus Oxychloride)	57 17 6	NI/A	100
Physostigmine Physostigmine, salicylate (1:1)	57-47-6 57-64-7	N/A N/A	100 100
Picrotoxin Piperidine	124-87-8 110-89-4	N/A N/A	500 500
Piperidine Pirimifos-ethyl	23505-41-1	N/A N/A	500
Potassium arsenite	10124-50-2	N/A N/A	500
Potassium cyanide	151-50-8	N/A N/A	100
i otassium cyamuc	131-30-0	11/17	100

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Potassium silver cyanide	506-61-6	N/A	500
Promecarb	2631-37-0	N/A	500
Propargyl Bromide	106-96-7	7500	10
Propionitrile	107-12-0	N/A	500
Propionitrile, 3-chloro-	542-76-7	N/A	500
Propiophenone, 4'-amino	70-69-9	N/A	100
Propyl chloroformate	109-61-5	N/A	500
Propyl Nitrate	627-3-4	2500	N/A
Propylene oxide	75-56-9	N/A	500
Propyleneimine	75-55-8	N/A	500
Prothoate	2275-18-5	N/A	100
Pyrene	129-00-0	N/A	500
pyrrolidinyl)-, (S)	54-11-5	N/A	100
Pyridine, 2-methyl-5-vinyl-	140-76-1	N/A	500
Pyridine, 4-amino-	504-24-5	N/A	500
Pyridine,4-nitro-,l-oxide	1124-33-0	N/A	500
Pyriminil	53558-25-1	N/A	100
Salcomine	14167-18-1	N/A	500
Satin	107-44-8	100	10
Selenious acid	7783-00-8	N/A	500
Selenium Hexafluoride	7783-79-1	1000	N/A
Semicarbazide hydrochloride	563-41-7	N/A	500
Silane, (4-aminobutyl) dieth-	3037-72-7	N/A	500
oxlnnethyl-			
Sodium arsenate	7631-89-2	N/A	500
Sodium arsenite	7784-46-5	N/A	500
Sodium azide (Na(N3))	26628-22-8	N/A	500
Sodium cacodylate	124-65-2	N/A	100
Sodium cyanide (Na (CN))	143-33-9	N/A	100
Sodium fluoroacetate	62-74-8	N/A	10
Sodium selenate	13410-01-0	N/A	100
Sodium selenite	10102-18-8	N/A	100
Sodium tellurite	10102-20-2	N/A	500
Stannane, acetoxytriphenyl-	900-95-8	N/A	500
Stibine (Antimony Hydride)	7803-52-3	500	N/A
Strychnine	57-24-9	N/A	100
Strychnine, sulfate	60-41-3	N/A	100
Sulfotep	3689-24-5	N/A	500
Sulfoxide, 3-chloropropyl octyl	3569-57-1	N/A	500
Sulfuric Arthydride (aka Sulfur	7446-11-9	1000	100
Trioxide)			
Sulfur dioxide	7446-09-5	N/A	500
Sulfur Dioxide (liquid)	7446-09-5	1000	500
Sulfur Pentafluoride	5714-22-7	250	N/A
Sulfur Tetrafluoride	7783-60-0	250	100
Sulfur Trioxide (aka Sulfuric	7446-11-9	1000	100
Arthydrid)			
Sulfuric acid	7664-93-9	N/A	500
Tabun	77-81-6	N/A	10
Tellurium	13494-80-9	N/A	500
Tellurium Hexafluoride	7783-80-4	250	100

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Терр	107-49-3	N/A	100
Terbufos	13071-79-9	N/A	N/A
Tetraethyldithiopyrophosphate	3689-24-5	N/A	500
Tetraethyl lead	78-00-2	N/A	100
Tetraethyl pyrophosphate	107-49-3	N/A	100
Tetraethyltin	597-64-8	N/A	100
Tetrafluoroethylene	116-14-3	5000	N/A
Tetrafluorohydrazine	10036-47-2	5000	N/A
Tetramethyl Lead	75-74-1	7500	100
Tetranitromethane	509-14-8	N/A	500
Thallium(I) carbonate	6533-73-9	N/A	100
Thallium sulfate	10031-59-1	N/A	100
Thallium(I) sulfate	7446-18-6	N/A	100
Thallium chloride TlCl	7791-12-0	N/A	100
Thallous carbonate	6533-73-9	N/A	100
Thallous chloride	7791-12-0	N/A	100
Thallous malonate	2757-18-8	N/A	100
Thallous sulfate	7446-18-6	N/A	100
Thiocarbazide	2231-57-4	N/A	500
Thiofanox	39196-18-4	N/A	100
Thiomethanol	74-93-1	N/A	500
Thionazin	297-97-2	N/A	500
Thionyl Chloride	7719-09-7	250	N/A
Thiophenol	108-98-5	N/A	500
Thiosemicarbazide	79-19-6	N/A	100
Thiourea,l-naphthalenyl-	86-88-4	N/A	500
Thiourea,(2-chlorophenyl)-	5344-82-1	N/A	100
Thiourea,(2-methylphenyl)-	614-78-8	N/A	500
Titanium tetrachloride	7550-45-0	N/A	100
Toluene-2,4-diisocyanate	584-84-9	N/A	500
Toluene-2,6-diisocyanate	91-08-7	N/A	100
Toxaphene	8001-35-2	N/A	500
Trans - 1,4 - dichlorobutene	110-57-6	N/A	500
Triamiphos	1031-47-6	N/A	500
Triazofos	24017-47-8	N/A	500
Trichloro (chloromethyl) Silane	1558-25-4	100	100
Trichloro (dichlorophenyl) Silane	27137-85-5	2500	500
Trichloroacetyl chloride	76-02-8	N/A	500
Trichloroethylsilane	115-21-9	N/A	500
Trichloromethanesulfenyl chloride	594-42-3	N/A	500
Trichloronate	327-98-0	N/A	500
Trichlorophenylsi1ane	98-13-5	N/A	500
Trichlorosilane	10025-78-2	5000	N/A
Triethoxysilane	998-30-1	N/A	500
Trifluorochloroethylene	79-38-9	10000	N/A
Trimethylchlorosi1ane	75-77-4	N/A	500
Trimethylolpropane phosphite	824-11-3	N/A	100
Trimethyltin chloride	1066-45-1	N/A	500
Trimethyoxysi1ane	2487-90-3	1500	N/A
Triphenyltin chloride	639-58-7	N/A	500
Tris (2 - chloroethyl) amine	555-77-1	N/A	100

Chemical Name	CAS Number	Nevada SB641 HHS (lb)	SARA EHS TPQ (lb)
Valinomycin	2001-95-8	N/A	500
Vanadium pentoxide	1314-62-1	N/A	100
Vinyl acetate	108-05-4	N/A	500
Vinyl acetate monomer	108-05-4	N/A	500
Warfarin	81-81-2	N/A	500
Warfarin sodium	129-06-6	N/A	100
Xylylene dichloride	28347-13-9	N/A	100
Zinc, dichloro (4,4-dimethyl-	5820-08-9	N/A	100
5(((methy-			
lamino)carbnyl)oxy)imino)pentane-			
nitrile)-,(T-4)			
Zinc Phosphide	1314-84-7	N/A	500
Zinc Phosphide (concentrate <=	1314-84-7	N/A	500
10%)			
Zinc Phosphide (concentrate >	1314-84-7	N/A	500
10%)			

^{**}This chemical was identified from a Premanufacture Review Notice submitted to the USEPA. The submitter has claimed certain information on the submission to be confidential, including specific chemical identity.

Criteria for Determining Applicability of CAPP

(Source: NAC 459.95323, 459.95325, and 459.95327) [Added October 2000]

(NOTE: The numbering of the original regulation is retained to facilitate cross-referencing. The regulation has been abridged and annotated.)

A facility with processes that use hazardous materials may be subject to the requirements of the CAPP. If so, individual processes will be subject to either the tier A program or the tier B program. Within the tier B program, that are three program levels (1, 2 and 3).

459.95323. Tier A Program.

- 1. A process is subject to the tier A program if the process is not exempted pursuant to NRS 459.3814* and a substance is present within the contiguous boundary of the facility in a quantity:
 - (a) Equal to or greater than the amount listed in the table in Appendix 3-4 under the column labeled "Tier A Threshold Quantity"; or
 - (b) Less than the amount listed in the table in Appendix 3-4 under the column labeled "Tier A Threshold Quantity" if there are two or more releases of one or more tier A substances from the facility during a 12-month period and the quantity for each release is in excess of the amount listed in the table in Appendix 3-4 for the substance under the column labeled "Two Release Quantity."
- 2. If the table in Appendix 3-4 under the column labeled "Tier A Threshold Quantity" is blank, the tier A program does not apply to that substance.
- * Process exempted pursuant to NRS 459.3814 include:
 - 1. The transportation of any hazardous substances within or through the state which is regulated by the state or the US DOT.
 - 2. Any final use of anhydrous ammonia for an agricultural purpose, including storage of the substance on the premises of a farm.
 - 3. Activities which are regulated pursuant to *both* 30 USC 801 ("Mine Safety and Health") and 40 CFR Part 68 (RMP requirements; see AE.1.4 in the US TEAM Guide for details).

459.95325. Tier B Program.

- 1. A process is subject to the tier B program if:
 - (a) The process is not exempted pursuant to subsection 1 of NRS 459.3814 (see * above); and
 - (b) A substance is present in a quantity equal to or greater than the amount listed in the table in Appendix 3-4 under the column labeled "Tier B Threshold Quantity." If the table in Appendix 3-4 under the column labeled "Tier B Threshold Quantity" is blank, the tier B program does not apply to that substance.
 - 2. The following substances need not be considered when determining whether more than a threshold quantity is present at a facility:
 - (a) A tier B toxic substance, if the concentration of the substance in a mixture is less than 1 percent by weight of the mixture. Except for oleum, toluene 2, 4-diisocyanate, toluene 2, 6-diisocyanate and toluene diisocyanate (unspecified isomer), if the concentration of the toxic substance in the mixture is 1 percent or greater by weight of the mixture and the owner or operator demonstrates in writing that the partial pressure of the regulated substance in the mixture under handling or storage conditions in any portion of the process is less than 10 millimeters of mercury, the amount of the substance in the mixture in that portion of the process need not be considered when determining whether more than a threshold quantity is present at the stationary source. A toxic substance is designated "T" in the table in Appendix 3-4 under the column labeled "Tox (T), Flam (F) or Expl (E)."
 - (b) Except as otherwise provided in paragraphs (c) and (d), a tier B flammable substance, if the concentration of the substance in a mixture is less than 1 percent by weight of the mixture or the concentration of

the tier B flammable substance in the mixture is 1 percent or greater by weight of the mixture and the owner or operator demonstrates in writing that the mixture does not have a flammability hazard rating of 4 as described in N.F.P.A. 704, the Standard System for the Identification of the Hazards of Materials for Emergency Response of the N.F.P.A., which is adopted by reference pursuant to NAC 459.95528. If the concentration of the tier B flammable substance in the mixture is 1 percent or greater by weight of the mixture and the owner or operator does not demonstrate that the mixture does not have a flammability hazard rating of 4, the entire weight of the mixture must be treated as the tier B flammable substance to determine whether a threshold quantity is present at the facility. Boiling and flash point must be defined and determined pursuant to N.F.P.A. 30, the 1996 version of the Flammable and Combustible Liquids Code of the N.F.P.A., which is adopted by reference pursuant to NAC 459.95528. A flammable substance is designated "F" in the table in Appendix 3-4 under the column labeled "Tox (T), Flam (F) or Expl (E)."

- (c) Gasoline, if it is distributed or stored for use as fuel for an internal combustion engine.
- (d) A naturally occurring hydrocarbon mixture before such a mixture has entered into a natural gas processing plant or a petroleum refining process unit. A naturally occurring hydrocarbon mixture includes any combination of condensate, crude oil, field gas and produced water.
- (e) A tier B substance that is contained in an article.
- (f) A tier B substance when it is being used:
 - (1) As a structural component of the facility;
 - (2) With products for routine janitorial maintenance;
 - (3) By employees in foods, drugs, cosmetics or other personal items;
 - (4) In process water or noncontact cooling water drawn from the environment or municipal sources; or
 - (5) In air as compressed air or as part of combustion.
- (g) A tier B substance that is manufactured, processed or used in a laboratory at a facility under the supervision of a technically qualified individual as defined in 40 CFR Part § 720.3(ee). This exemption does not apply to:
 - (1) Specialty chemical production;
 - (2) Manufacture, processing or use of a tier B substance in pilot plant scale operations; or
 - (3) Activities conducted outside of the laboratory.
- (h) Ammonia, when it is held by farmers and used as an agricultural nutrient.
- (i) Propane, if the process is subject to tier B program level 1 or 2 pursuant to NAC 459.95327.

3. As used in this section:

- (a) "Article" means a manufactured item, as defined in 29 CFR Part § 1910.1200(c), that:
 - (1) Is formed to a specific shape or design during manufacture;
 - (2) Has end-use functions dependent in whole or in part upon the shape or design during end use; and
 - (3) Does not release or otherwise result in exposure to a tier A or tier B substance under normal conditions of processing and use.
 - (b) "Condensate" means hydrocarbon liquid separated from natural gas that condenses because of changes in temperature or pressure, or both, and remains liquid at standard conditions.
 - (c) "Crude oil" means a naturally occurring, unrefined petroleum liquid.
 - (d) "Petroleum refining process" means a process that:
 - (1) Is used in an establishment which is primarily engaged in petroleum refining as defined in N.A.I.C.S. code 32411, which is adopted by reference pursuant to NAC 459.95528; and
 - (2) Is used to:
 - (I) Produce:
 - (i) A transportation fuel such as gasoline, diesel fuel or jet fuel;
 - (ii) A heating fuel such as kerosene, fuel gas distillate or fuel oil; or
 - (iii) A lubricant;
 - (II) Separate petroleum; or
 - (III) Separate, crack, react or reform an intermediate petroleum stream.

459.95327. Determination of Program Level for Tier B Program.

- 1. If an owner or operator determines pursuant to NAC 459.95325 that a process is subject to the tier B program, he shall determine the program level for the process pursuant to subsections 2, 3 and 4.
- 2. A process is subject to program level 1 if:
 - (a) During the 5 years immediately preceding the submission of an assessment report, the process has not had an accidental release of a tier B substance pursuant to which exposure to any of the following resulted in the death of or injury to a person who was located on-site or off-site or in a restoration activity to an environmental receptor:
 - (1) The substance;
 - (2) A reaction product of the substance;
 - (3) Overpressure generated by an explosion involving the substance; or
 - (4) Radiant heat generated by a fire involving the substance.
 - (b) The distance to a toxic or flammable endpoint for a worst-case release assessment conducted pursuant to NAC 459.95366 is less than the distance to any public receptor;
 - (c) Emergency response procedures have been coordinated between the facility and local emergency planning and response organizations; and
 - (d) The process is not subject to the tier A program.
- 3. A process is subject to program level 2 if the process is subject to the tier B program and is not subject to program level 1 or 3.
- 4. A process is subject to program level 3 if the process is not subject to program level 1 and:
 - (a) The process is listed in N.A.I.C.S. code 32211, 32411, 32511, 325181, 325188, 325192, 325199, 325211, 325311 or 32532, which are adopted by reference pursuant to NAC 459.95528; or
 - (b) The process is subject to the process safety management standard set forth in 29 C.F.R. § 1910.119.
- 5. If a process that involves a tier B substance is no longer required to satisfy the requirements of a particular program level, the owner or operator shall ensure that the process satisfies the requirements of the new program level.

List of CAPP Highly Hazardous Substances and Threshold Values

(Source: NAC 459.9533) [Added October 2000]

- 1. Substances that are designated in the table in this section as having a tier A threshold quantity include, without limitation, the substances that are listed in NRS 459.3816.
- 2. Substances that are designated in the table in this section as having a tier B threshold quantity include, without limitation, the substances that are listed in 40 CFR Part 68.130.

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
Acetaldehyde			75-07-0	2,500	10,000	1,000	1	F	
Acetylene	Ethyne		74-86-2		10,000			F	
Acrolcin	2-Propenol		107-02-8	150	5,000	1	1 & 2	T	0.0011
Acrylonitrile	2- Propenenitrile		107-13-1		20,000			Т	0.076
Acrylyl chloride	2-Propenoyl chloride		814-68-6	250	5,000	100	2	Т	0.00090
Alkylaluminums				5,000		50*	3		
Allyl alcohol	2-Propen-l-ol		107-18-6		15,000			T	0.036
Allyl chloride			107-05-1	1,000		100	3		
Allylamine	2-Propen-l- amine		107-11-9	1,500	10,000	500	2	Т	0.0032
Ammonia	Anhydrous Ammonia	Anhy- drous	7664-41-7	5,000	10,000	100	1 & 2	Т	0 14
Ammonia	Ammonia solution	20 wt% or greater	7664-41-7		20,000			Т	0.14
Ammonia	Ammonia solution	44 wt% or greater	7664-41-7	10,000		100	3		
Ammonium per- chlorate			7790-98-9	7,500		75*	3		
Ammonium per- manganate			7787-36-2	7,500		75*	3		
Arsenous trichlo- ride			7784-34-1		15,000			Т	0.010
Arsine	Arsenic Hy- dride		7784-42-1	100	1,000	10	3	Т	0.0019
bis(Chloromethyl) Ether	Chloromethyl Ether		542-88-1	100	1,000	10	1 & 2	Т	0.00025
Boron trichloride			10294-34- 5	2,500	5,000	100	3	Т	0.010
Boron trifluoride			7637-07-2	250	5,000	25	3	Т	0.028
Boron trifluoride w/Methyl Ether		1:1 ratio	353-42-4		15,000			Т	0.023

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
Bromine			772-95-6	1,500	10,000	500	2	T	0.0065
Bromine chloride			13863-41- 7	1,500		10	3		
Bromine penta- fluoride			7789-30-2	2,500		100	3		
Bromine trifluoride			7787-71-5	15,000		100	3		
Bromotrifluore- thylene			598-73-2		10,000			F	
1,3-Butadiene			106-99-0		10,000			F	
Butane			106-97-8		10,000			F	
1-Butene			106-98-9		10,000			F	
2-Butene			107-01-7		10,000			F	
Butene			25167-67- 3		10,000			F	
2-Butene-cis			590-18-1		10,000			F	
2-Butene-trans	[2-Butene, (E)]		624-64-6		10,000			F	
Butyl hydroperox- ide (Tertiary)	(-/1		75-91-2	5,000		50*	3		
Butyl perbenzoate (Tertiary)			614-45-9	7,500		75*	3		
Carbon disulfide			75-15-0		20,000			T	0.16
Carbon oxysulfide	Carbon Oxide Sulfide		463-58-1		10,000			F	
Carbonyl fluoride			353-50-4	2,500		10	3		
Cellulose nitrate		12.6% nitrogen or							
CI I '		greater	9004-70-0	2,500	2.500	25*	3		0.0007
Chlorine			7782-50-5	1,500	2,500	10	1 & 2	Т	0.0087
Chlorine dioxide			10049-04- 4	1,000	1,000	100	3	Т	0.0028
Chlorine monox- ide			7791-21-1		10,000			F	
Chlorine trifluoride			13637-63- 3	1,000		10	3		
Chlorine penta- fluoride			7790-91-2	1,000		100	3		
Chlorodiethy- lauminum	Diethylalumi- num Chloride		96-10-6	5,000		50*	3		
1-Chloro-2,4- Dinitrobenzene			97-00-7	5,000		50*	3		
Chloroform			67-66-3		20,000			Т	0.49
Chloromethyl			107-30-2	500	5,000	10	1 & 2	T	0.0018

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
methyl ether									
Cloropierin			76-06-2	500		50	3		
Chlorop- ierin/Methylbromi de mix				1,500		500	3		
Chlorop- ierin/Methylchlori de mix				1,500		500	3		
1- Chloropropylene			590-21-6		10,000			F	
2- Chloropropylene			557-98-2		10,000			F	
Crotonaldehyde	2-Butenal		4170-30-3		20,000			T	0.029
Crotonaldehyde, (E)-	2-Butenal, (E)-		123-73-9		20,000			Т	0.029
Cumene Hydrop- eroxide			80-15-9	5,000		10			
Cyanogen	Ethanedini- trile		460-19-5	2,500	10,000	100	1	F	
Cyanogen chloride			506-77-4	500	10,000	10	1	T	0.030
Cyanuric fluoride			675-14-9	100		10	3		
Cyclohexylamine	Cyclohex- animine		108-91-8		15,000			T	0.16
Cyclopropane			75-19-4		10,000			F	
Diacetyl peroxide		70% or greater	110-22-5	5,000		50*	3		
Diazomethane			334-88-3	500		10	3		
Dibenzoyl perox- ide			94-36-0	7,500		75*	3		
Diborane			19287-45- 7	100	2,500	10	3	Т	0.0011
Dibutyl peroxide (tertiary)			110-05-4	5,000		50*	3		
Dichloro acetylene			7572-29-4	250		10	3		
Dichlorosilane			4109-96-0	2,500	10,000	100	3	F	
Diethylzine			557-20-0	10,000		100*	3		
Difluoroethane			75-37-6		10,000			F	
Diisopropyl per- oxydicarbonate			105-64-6	7,500		75*	3		
Dilauroyl peroxide			105-74-8	7,500		75*	3		
Dimethyl sulfide			75-18-3	100		10	3		
Dimethylamine (anhydrous)			124-40-3	2,500	10,000	1,000	1	F	
Dimethyldichloro- silane			75-78-5	1,000	5,000	500	2	Т	0.026

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
1,1-									
Dimethylhydra-			57-14-7	1,000	15,000	10	1 & 2	T	0.012
zine									
2,2-			463-82-1		10,000			F	
Dimethylpropane					ŕ				0.076
Epichlorohydrin			106-89-8		20,000			T	0.076
Ethane	1.5		74-84-0		10,000			F	
Ethyl acetylene	1-Butyne		107-00-6		10,000			F	
Ethyl chloride			75-00-3		10,000			F	
Ethyl ether	Ethana (1.1.1	-	60-29-7		10,000		1	F	1
Ethyl mercaptan	Ethanethiol		75-08-1	5,000	10,000	50*	2	F F	
Ethylamina	Ethanamine		109-95-5 75-04-7	5,000	10,000	100	3	F	
Ethylamine				7,500		100	1	F	
Ethylene flyere	Ethene		74-85-1		10,000			Г	
Ethylene fluoro- hydrin			371-62-0	100		10	2		
Ethylene oxide	Oxirane		75-21-8	5,000	10,000	10	1 & 2	F	0.090
Ethylenediamine	Oxirane		107-15-3	3,000	20,000	10	1 & 2	T	0.090
Ethyleneimine	Aziridine		151-56-4	1,000	10,000	1	1 & 2	T	0.49
Fluorine	Aziridilic		7782-41-4	1,000	1,000	10	1 & 2	T	0.0039
		90% or		,	1,000				
Formaldehyde		greater	50-00-0	1,000	15,000	100	1 & 2	T	0.012
Furan			110-00-9	500	5,000	100	1 & 2	T	0.0012
Hexafluoroace-			684-16-2	5,000		10	3		
tone				3,000		10			
Hydrazine			302-01-2		15,000			T	0.011
Hydrochloric acid		37% or greater	7647-01-0		15,000	1,000	3	T	0.030
Hydrofluoric acid		50% or greater	7664-39-3		1,000	100	1	Т	0.016
Hydrogen			1333-74-0		10,000			F	
Hydrogen bromide			10035-10- 6	5,000		10	3		
Hydrogen chloride		Anhy- drous	7647-01-0	5,000	5,000	100	3	Т	0.030
Hydrogen cyanide	Hydrocyanic acid	Anhy- drous	74-90-8	1,000	2,500	10	1 & 2	Т	0.011
Hydrogen fluoride		Anhy- drous	7664-39-3	1,000		100	1 & 2		
Hydrogen perox- ide	50 wt% or greater	2 2 2 2	7722-84-1	7,500		1,000	2		
Hydrogen selenide	<i>G</i>		7783-07-5	150	500	10	2	Т	0.00066
Hydrogen sulfide			7783-06-4	1,500	10,000	100	1 & 2	T	0.042
Hydroxylamine			7803-49-8	2,500	,	25*	3		
Iron, pentacar-			13463-40-	250	2,500	100	2	T	0.00044

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
bonyl			6						
Isobutane			78-28-5		10,000			F	
Isobutyronitrile			78-82-0		20,000			T	0.14
Isopentane			78-78-4		10,000			F	
Isoprene			78-79-5		10,000			F	
Isopropyl chloride			75-29-6		10,000			F	
Isopropyl chloro- formate			108-23-6		15,000			Т	0.10
Isopropyl formate			625-55-8	500		100	3		
Isopropylamine			75-31-0	5,000	10,000	1,000	3	F	
Ketene			463-51-4	100	,	10	3		
Methacrylalde- hyde			78-85-3	1,000		500	3		
Mcthaeryloyl chloride			920-46-7	150		100	2		
Methacryloy- loxyethyl isocy- anate			0674-80-7	100		10	3		
Methane			74-82-8		10,000			F	
Methyl acryloni-	Methacryloni-								
trile	trile		126-98-7	250	10,000	25	3	T	0.0027
Methyl bromide			74-83-9	2,500		500	3		
3-Methyl-1-butene			563-45-1	,	10,000			F	
2-Methyl-1-butene			563-46-2		10,000			F	
Methyl chloride			74-87-3	15,000	10,000	100	1	Т	0.82
Methyl chloro- formate			79-22-1	500	5,000	100	3	Т	0.0019
Methyl disulfide			624-92-0	100		10	3		
Methyl ether			115-10-6		10,000			F	
Methyl ethyl ke- tone peroxide		60% or greater	1338-23-4	5,000	.,	10			
Methyl fluoroace- tate		greater	453-18-9	100		10	3		
Methyl fluorosul- fate			421-20-5	100		10	3		
Methyl formate			107-31-3		10,000		 	F	
Methyl hydrazine			60-34-4	100	15,000	10	1 & 2	T	0.0094
Methyl iodide			74-88-4	7,500	15,000	100	1 & 2	1	0.0024
Methyl isocyanate			624-83-9	250	10,000	100	1 & 2	Т	0.0012
Methyl mercaptan			74-93-1	5,000	10,000	100	1 & 2	T	0.0012
Methyl thiocy-				5,000		100	1 & 2		
anate			556-64-9		20,000			T	0.085
Methyl vinyl ke- tone			78-94-4	100		10	2		
Methylamine	Methanamine	Anhy-	74-89-5	1,000	10,000	100	1	F	

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
		drous							
2-Methylpropene			115-11-7		10,000			F	
Methyltrichlorosi- lane			75-79-6	500	5,000	50	3	Т	0.018
Nickel carbonyl			13463-39- 3	150	1,000	10	1 & 2	Т	0.00067
Nitric acid		80% or greater	7697-37-2		15,000			Т	0.026
Nitric acid		94.5 wt% or							
		greater	7697-37-2	500		50	3		
Nitric oxide	Nitrogen ox- ide		10102-43- 9	250	10,000	10	1 & 2	T	0.031
Nitroaniline	para Nitroani- line		100-01-6	5,000		50*	3		
Nitrogen dioxide			10102-44- 0	250		10	1 & 2		
Nitrogen oxides		NO; NO(2);							
		N(2)O(4); N(2)O(3)	10102-44- 0	250		10	3		
Nitrogen tetroxide			10544-72- 6	250		10	1		
Nitrogen trifluoride			7783-54-2	5,000		1,000	3		
Nitrogen trioxide			10544-73- 7	250		10	3		
Nitromethane			75-52-5	2,500		25*	3		
Oleum	Fuming sulfuric acid	65 wt% or greater							
		of SO(3)	8014-95-7	1,000	10,000	500	3	T	0.010
Osmium tetroxide			20816-12- 0	100		10	3		
Oxygen difluoride	Fluorine monoxide		7783-41-7	100		10	3		
Ozone			10028-15- 6	100		10	3		
Pentaborane			19624-22- 7	100		10	3		
1,3-Pentadinene			504-60-9		10,000			F	
Pentane			109-66-0		10,000			F	
1-Pentene			109-67-1		10,000			F	
2-Pentene, (E)-			646-04-8		10,000			F	
2-Pentene, (Z)-			627-20-3		10,000			F	0.77
Peracetic acid	Peroxyacetic		79-21-0	5,000	10,000	500	2	T	0.0045

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
	acid								
Perchloric acid	60% or greater		7601-90-3	5,000		50*	3		
Perchloromethyl mercaptan			594-42-3	150	10,000	100	1 & 2	T	0.0076
Perchloryl fluoride			7616-94-6	5,000		100	3		
Phosgene	Carbonyl chloride		75-44-5	100	500	10	1 & 2	Т	0.00081
Phosphine	Hydrogen phosphide		7803-51-2	100	5,000	10	3	Т	0.0035
Phosphorus oxy- chloride	Phosphoryl chloride		10025-87- 3	1,000	5,000	500	3	Т	0.0030
Phosphorus tri- chloride			7719-12-2	1,000	15,000	500	3	Т	0.028
Piperidine			110-89-4		15,000			T	0.022
Propadiene	1,2 Propadi- ene		463-49-0		10,000			F	
Propane			74-98-6		10,000			F	
Propargyl bromide			106-96-7	7,500		10	2		
Propionitrile			107-12-0		10,000			T	0.0037
Propyl chlorofor- mate			109-61-5		15,000			Т	0.010
Propyl nitrate			627-13-4	2,500		25*	3		
Propylene	Propene		115-07-1		10,000			F	
Propylenc oxide			75-56-9		10,000			T	0.59
Propyleneimine			75-55-8		10,000			T	0.12
Propyne	1-Propyne		74-99-7		10,000			F	
Sarin			107-44-8	100		10	2		
Selenium hexafluoride			7783-79-1	1,000		1	1		
Silane			7803-62-5		10,000			F	
Stibine	Antimony hydride		7803-52-3	500		10	3		
Sulfur dioxide		Anhy- drous	7446-09-5	1,000	5,000	100	3	Т	0.0078
Sulfur penta- fluoride			5714-22-7	250		10	3		
Sulfur tetra- fluoride			7783-60-0	250	2,500	10	3	Т	0.0092
Sulfur trioxide	Sulfuric An- hydride		7446-11-9	1,000	10,000	100	2	Т	0.010
Tellurium hexafluoride			7783-80-4	250		10	3		
Tetrafluoroethyl- ene			116-14-3	5,000	10,000	1,000	3	F	

Chemical Name	Alternate Chemical Name	Mixture Descrip- tion	CAS#	Tier A Thresh- old Quan- tity (lbs)	Tier B Thresh- old Quan- tity (lbs)	Two Re- lease Quan- tity (lbs)	Two Re- lease Sourc e ¹	Tox(T), Flam(F) or Expl(E)	Toxic End- point (mg/L)
Tetrfluorohydra- zine			10036-47-	5,000		500	3		
Tetramethyl Lead			75-74-1	7,500	10,000	100	1	Т	0.0040
Tetramethylsilane			75-76-3	. ,	10,000			F	
Tetranitromethane			509-14-8		10,000			Т	0.0040
Thionyl chloride			7719-09-7	250		100	3		
Titanium tetra- chloride			7550-45-0	2,500	2,500	1,000	1 & 2	Т	0.020
Toluene 2,4- diisocyanate			584-84-9		10,000			Т	0.0070
Toluene 2,6- diisocyanate			91-08-7		10,000			Т	0.0070
Toluene diisocy- anate			26471-62- 5		10,000			Т	0.0070
Tri- chloro(chlorometh yl) silane			1558-25-4	100		10			
Tri- chloro(dichloroph enyl) silane			27137-85- 5	2,500		500	2		
Trichlorosilane			10025-78- 2	5,000	10,000	500	3	F	
Trifluorochloro- ethylene			79-38-9	10,000	10,000	500	3	F	
Trimethoxysilane			2487-90-3	1,500		500	3		
Trimethylamine			75-50-3		10,000			F	
Trimethylchlorosi- lane			75-77-4		10,000			Т	0.050
Vinyl acetate monomer			108-05-4		15,000			Т	0.26
Vinyl acetylene			689-97-4		10,000			F	
Vinyl chloride			75-01-4		10,000			F	
Vinyl ethyl ether			109-92-2		10,000			F	
Vinyl fluoride			75-02-5		10,000			F	
Vinyl methyl ether			107-25-5		10,000			F	
Vinylidene chlo- ride			75-35-4		10,000			F	
Vinylidene fluo- ride			75-38-7		10,000			F	

Table Notes:

For Two Release Source Column:

1 = RQ as listed in 40 CFR Part 302

2 = RQ as listed in 40 CFR Part 355

- 3 = Two Release Quantity as determined in "Technical Basis Document for CAPP Two Release Quantities and Toxic Endpoints."
- $\{*\}$ These substances must be involved in a fire or explosion to qualify as a release pursuant to paragraph (b) of subsection 1 of NAC 459.95323.

(Added to NAC by Environmental Comm'n by R121-98, eff. 5-27-99)

SECTION 4

HAZARDOUS WASTE MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Hazardous Waste Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations

Definitions and requirements for Hazardous Waste Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC.
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

State Adoptions of Federal Regulations

In addition to the requirements of NAC 444.850 to 444.8746, inclusive, a person who generates, transports, treats, stores, disposes or otherwise manages hazardous waste or used oil shall comply with all applicable requirements of, and may rely upon applicable exclusions or exemptions under 40 C.F.R. Part 2, Subpart A, Part 124, Subparts A and B, Parts 260 to 270, inclusive, Part 273 and Part 279, as those provisions existed on 1 July 1998, which, except as modified by NAC 444.86325, 444.8633 and 444.8634, are hereby adopted by reference. The state environmental commission may use federal statutes and regulations that are cited in 40 C.F.R. Part 2, Subpart A, Part 124, Subparts A and B, Parts 260 to 270, inclusive, Part 273 and Part 279, to interpret these sections and parts (NAC 444.8632) [Revised October 1999].

Except for the words and terms otherwise defined in NAC 444.8505 to 444.861 (see definitions), inclusive, the words and terms defined in 40 C.F.R. § 260.10, as that section existed on July 1, 1998, have the meanings ascribed to them in that section. (NAC 444.850) [Revised October 1999].

(NOTE: The following substitutions are to be made when referencing to the U.S. TEAM Guide:

- 1. Department in the place of "USEPA" except for any of the following:
 - a. USEPA identification numbers
 - b. USEPA hazardous waste numbers
 - c. USEPA test methods
 - d. USEPA forms
 - e. USEPA publications or manuals
 - f. USEPA guidance
 - g. USEPA Acknowledgment of Consent (NAC 444.8633(1)).
- 2. Director in the place of "Regional Administrator" and "Administrator" (NAC 444.8633(2)).

Definitions

- Administrator the regional administrator of the United States Environmental Protection Agency (NAC 444.8505) [Revised October 1999].
- Commission the State Environmental Commission (NAC 444.8508) [Revised October 1999].

- Conditionally Exempt Small Quantity Generator a generator which generates 100 kilograms of hazardous waste or less in a calendar month. A generator is a conditionally exempt small quantity generator only during the calendar months that it generates 100 kilograms of hazardous waste or less (NAC 444.8509) [Revised 1999].
- Department the State Department of Conservation and Natural Resources (NAC 444.851) [Added October 1999].
- *Director* the director of the department (NAC 444.8515)[Added October 1999].
- *Division* the Division of Environmental Protection of the State Department of Conservation and Natural Resources (NAC 444.8426 and 444.853)[Revised October 1999].
- Facility for Community Recycling a facility for recycling hazardous waste which has a yearly capacity that is not more than twice the amount of the type of hazardous waste proposed to be recycled that is generated within the region in this state in which the facility is or is proposed to be located, as determined by the generation rate contained in the biennial report required by the provisions of 40 CFR 262.41, as the section existed on 1 July 1998 (NAC 444.8427). [Revised October 1999].
- Facility for Community Storage a facility for the storage and consolidation of hazardous waste which has a yearly capacity that is not more than twice the amount of hazardous waste that is generated within the county in which the facility is or is proposed to be located, as determined by the generation rate contained in the biennial report required by the provisions of 40 CFR 262.41, as that section existed on 1 July 1998 (NAC 444.84275) [Revised October 1999].
- Facility for the Management of Hazardous Waste the contiguous land and any structures, other appurtenances, or improvements on the land and any mobile units for the treatment of hazardous waste which are used for the management of hazardous waste. Such a facility may contain more that one unit for the management of hazardous waste (NAC 444.8428).
- Facility for the Recycling of Hazardous Waste the contiguous land and any structures, other appurtenances, or improvements on the land which are used for the recycling of hazardous waste (NAC 444.84285).
- Hazardous Waste includes any:
 - 1. hazardous waste or constituent of hazardous waste which is subject to regulation under 40 CFR 261
 - 2. mixture of wastes from commercial chemical products identified in 40 CFR 261.33, which have been discarded or are intended to be discarded, if at least 10 percent of the mixture, by volume, is composed of one or more of its active ingredients
 - 3. waste containing polychlorinated biphenyl (for purposes of hazardous waste management (NAC 444.843) but not for the purposes of hazardous waste disposal) (NAC 444.8565)
 - 4. waste brought into the state which is designated as hazardous waste in the state of its origin (NAC 444.843).
- *Management of Hazardous Waste* includes, but is not limited to:
 - 1. open burning of hazardous waste
 - 2. open detonation of hazardous waste
 - 3. incineration of hazardous waste
 - a. burning for recovery of energy
 - b. destruction in boilers or industrial furnaces (NAC 444.8432).
- *Mobile Unit for the Recycling of Hazardous Waste* any transportable equipment which is used to perform recycling of a hazardous waste and is not permanently stationed at a single facility (NAC 444.8433).

- New or Expanding Facility for the Management of Hazardous Wastes a facility for the management of hazardous waste:
 - 1. for which a permit is required pursuant to 40 CFR 124, A and B, and 40 CFR 270, A to F, inclusive, but which was not issued the permit before 28 March 1990
 - 2. which has an effective permit required pursuant to 40 CFR 124, A and B, and 40 CFR 270, A to F, inclusive, and whose owner or operator proposes the expansion of an existing unit or the addition of a new unit which requires a Class 3 modification of the permit (NAC 444.84335).
- Recycling any process which uses hazardous waste to produce products or energy or to recover materials (NAC 444.8437).

HAZARDOUS WASTE MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items HW.2.1.NV.

Small Quantity Generators (SQG)

General HW.20.1.NV.

Generators

General HW.55.1.NV. and HW.55.2.NV. Containers HW.70.1.NV. and HW.70.2.NV.

All TSDFs

General HW.105.1.NV. and HW.105.2.NV.

Documentation Requirements HW.145.1.NV.

Additional Requirements for Permitted TSDFs

Incinerators HW.205.1.NV.
Miscellaneous Units HW.210.1.NV.

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
HW.2. MISSING CHECKLIST ITEMS	
HW.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
SMALL QUANTITY GENERATORS (SQG) HW.20. GENERAL	
HW.20.1. SQGs must keep records of container and tank inspections (NAC 444.8677).	The state has adopted the Federal requirements for SQGs (see HW.20. in the U.S. TEAM Guide) with the following additions. Verify that generators of more than 100 kg/mo of hazardous waste, who accumulate waste onsite, maintain a written record of inspections of containers and tanks. Verify that the container and tank inspection records are kept for at least 3 yr and contain the following information: - the date and time of an inspection - the name of the inspector - a notation of the inspector's observations - the date and nature of any repairs made or other remedial action taken.

Nevada Supplement	
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
GENERATORS HW.55. GENERAL	
HW.55.1.NV. Generators must use manifests, file manifest exception reports, and maintain records (NAC 444.8655(3)) [Revised October 1997].	The state has adopted the Federal requirements for generators shipping hazardous waste offsite (see HW.55.1 in the U.S. TEAM Guide) with the addition noted below. Verify that for shipments of waste out of the state, the generator sends a copy of the generator's return copy from the out-of-state TSDF to the Division within 30 days of receipt of the return copy.
HW.55.2.NV. Generators of hazardous waste must submit a biennial report to the Division by 1 March of every even numbered year (NAC 444.8675) [Revised October 1997].	The state has adopted the Federal requirements for biennial reporting (see HW.55.4 in the U.S. TEAM Guide) with the addition noted below. Verify that generators retain a copy of each biennial report for 3 yr. Verify that all generators submit the biennial report to the Director (not only those generators who ship hazardous waste offsite).

Nevada Supplement	
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
GENERATORS	
HW.70. CONTAINERS	
HW.70.1.NV. Containers used to store hazardous waste onsite must be labeled with the USEPA hazardous waste number (NAC 444.8671) [Cite Revised October 1997].	Verify that containers used to store hazardous waste onsite include on their label the USEPA hazardous waste number corresponding to the waste in the container.
HW.70.2.NV. Written records must be kept of container and tank inspections (NAC 444.8677).	Verify that generators of more than 100 kg/mo of hazardous waste, who accumulate waste onsite, maintain a written record of inspections of containers and tanks. Verify that the inspection records are kept for 3 yr and contain the following information: - the date and time of inspection - the name of the inspector - a notation of the inspector's observations - the date and nature of any repairs made or other remedial action taken.

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ALL TSDFs HW.105. GENERAL	Octobel 2000
HW.105.1.NV. New or expanding TSDFs must meet specific requirements (NAC 444.8456 and 444.8458).	Verify that a new or expanding stationary TSDF is not constructed within any of the following areas: - within 1 mi of any of the following: - a dwelling, school, church or community center - an area zoned solely for residential use - an area zoned solely for residential use - a public park - a wildlife management area - an area identified by the Division of Wildlife of the Department of Conservation and Natural Resources as a key habitat for wildlife or as a habitat for an endangered or threatened species - an area where surface water or wetlands occur - a natural or manmade geologic hazard which provides a potential for the conveyance of hazardous constituents - an existing well which supplies public drinking water - in an area identified by the Office of Historic Preservation of the Department of Museums, Library and Arts as an historic or archeological site - within a 100 yr flood plain - where the water table seasonally raises to within 150 ft of the surface of the ground. Verify that a certificate of designation is obtained from the Administrator before the construction or operation of a new or expanding TSDF. (NOTE: These restrictions do not apply to any of the following facilities: - a community recycling facility - a community storage facility - the generator's onsite storage facility - a facility that qualifies for interim status.)
HW.105.2.NV. Hazardous waste recycling facilities must obtain a written determination from the Administrator before constructing or operating	Verify that hazardous waste recycling facilities, including mobile hazardous waste recycling units, obtain a written determination from the Administrator for any that the facility will operate as a facility for the recycling of hazardous waste before construction or operation commences.

Nevada Supplement	
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
hazardous waste recycling facilities, including mobile units (NAC 444.8455) [Revised October 1999].	(NOTE: This requirement does not apply to any generator that is recycling its own hazardous waste at the same site at which the hazardous waste is generated.)

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ALL TSDFs	
HW.145. DOCUMENTATION REQUIREMENTS	
HW.145.1.NV. TSDFs that receive waste from offsite sources must meet manifest requirements (NAC 444.8666) [Cite Revised October 1997].	The state has adopted the Federal regulations for documentation for wastes received from offsite (see HW.145.9 in the U.S. TEAM Guide) with the below noted addition. Verify that a copy of the manifest accompanying waste from offsite (or shipping papers for railroad shipments) is sent to the Division within 30 days after receipt by the TSDF.

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ADDITIONAL REQUIREMENTS FOR PERMITTED TSDFs	
HW.205. INCINERATORS	
HW.205.1.NV. TSDFs must obtain a permit prior to transferring hazardous waste into a boiler or furnace directly from the transport vehicle (NAC 444.8688).	Verify that the TSDF has a permit to transfer hazardous waste into a boiler or industrial furnace directly from the transport vehicle prior to making such a transfer.

COMPLIANCE CATEGORY: HAZARDOUS WASTE MANAGEMENT **Nevada Supplement REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 ADDITIONAL REQUIREMENTS FOR PERMITTED TSDFs HW.210. MISCELLANEOUS UNITS Verify that hazardous waste is not openly burned unless it is waste explosives that HW.210.1.NV. Hazardous cannot be safely disposed of through other treatment methods. waste must not be burned in the open except for controlled open burning and detonation Verify that open burning of hazardous waste or detonation of waste explosives of waste explosives (NAC does not threaten human health or the environment. 444.8686). Verify that open burning of hazardous waste or detonation of waste explosives complies with the applicable requirements for miscellaneous units (see U.S. TEAM Guide, section HW.210). Verify that open burning of hazardous waste or detonation of waste explosives complies with the following: - for 100 lb or fewer of waste explosives or propellants, open burning or detonation occurs no closer than 204 m to the property of others - for 101 to 1000 lb of waste explosives or propellants, open burning or detonation occurs no closer than 380 m to the property of others - for 1001 to 10,000 lb of waste explosives or propellants, open burning or detonation occurs no closer than 530 m to the property of others - for 10,001 to 30,000 lb of waste explosives or propellants, open burning or detonation occurs no closer than 690 m to the property of others.

SECTION 5

NATURAL RESOURCES MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Natural Resources Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations

Definitions and requirements for Hazardous Waste Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

Definitions

- Cactus includes any member of the Cactaceae family (NRS 527.061) [Revised October 1999].
- *Christmas Tree* includes any evergreen tree or part thereof cut and removed from the place where grown without the foliage being removed (NRS 527.062) [Revised October 1999].
- Removal or Possession removal or possession of six or more Christmas trees, cacti or yucca for commercial
 purposes in ant 1 calendar days or the removal or possession of less than six plants each for 7 or more
 consecutive calendar days, except removal or possession of the plants for scientific or educational purposes with
 the permission of the owner of the plants (NRS 527.071) [Revised October 1999].
- Wildlife any wild mammal, wild bird, fish, reptile, amphibian, mollusk or crustacean found naturally in a wild state, whether indigenous to Nevada or not and whether raised in captivity or not (NRS 501.097) [Added October 1999].
- Yucca includes any member of the genus Yucca (NRS 527.063) [Revised October 1999].

NATURAL RESOURCES MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items Wildlife

NR.2.1.NV.

NR.20.1.NV through NR.20.4.NV

NATURAL RESOURCES MANAGEMENT GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:
5-1	Nevada Protected Wildlife
5-2	Species Prohibited from Importation, Transportation, and
	Possession
5-3	Christmas Trees, Cacti, and Yucca
5-4	Fully Protected Plant Species
	•

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT Nevada Supplement

	Nevada Supplement
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
NR.2. MISSING CHECKLIST ITEMS	
NR.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT Nevada Supplement

NATURAL RESOURCES MANAGEMENT Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
NR.20. WILDLIFE	
NR.20.1.NV. Wildlife treatment must meet specific requirements (NAC 503.93 and 503.110) [Revised October 1997; Revised October 1999].	Verify that protected wildlife (See Appendix 5-1) is not captured or killed without a license, permit or written authorization from the State of Nevada Division of Wildlife. Verify that no part of any protected wildlife is possessed. (NOTE: Such a permit, license or authorization is not required for: - possession of a desert tortoise which was held in captivity on or before 4 August 1989 or is acquired through an adoption program approved by the U.S. Fish and Wildlife Service - the possession of any species classified as protected in Nevada which was lawfully killed in another state; imported to Nevada; and is possessed under the authority of the other state's appropriate license, tag, permit or other authorization.) Verify that none of the wildlife listed in Appendix 5-2 is imported, transported, or possessed. (NOTE: This requirements applies to live wildlife or hybrids thereof, including viable embryos and gametes.) (NOTE: The Division may issue a permit or license for the importation, transportation, or possession of a species listed in Appendix 5-2 only to the following: - a zoo or aquarium which is an accredited institutional member of the American Association of Zoological Parks and Aquariums - a person who displays, exhibits or uses the species for entertainment or commercial photography, such as motion pictures, still photography or television - a college, university or governmental agency, for scientific or public health research - any other scientific institution, as determined by the Division, for research or medical necessity - any person engaged in commercial aquaculture, upon application and proof to the division that the activity will not be detrimental to aquatic life, other wildlife or recreational uses - a tax-exempt nonprofit organization that exhibits wildlife solely for educational or scientific purposes.)

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
NR.20.2.NV. The removal or possession of any Christmas tree, cactus, or yucca for commercial purposes on any state, county or privately owned lands requires notification of the state forester firewarden (NRS 527.070, 527.081, and 527.091) [Revised October 1997; Revised October 1999].	(See Appendix 5-3 for lists of Christmas trees, cactus, and yucca.) Verify that the state forester firewarden is notified of any removal or possession of Christmas trees, cactus, or yucca. Verify that any Christmas trees, cactus, or yucca transported for commercial purposes is accompanied by a shipping permit. Verify that all Christmas trees, cacti, or yucca removed or possessed for commercial purposes have an attached tag issued by the state forester firewarden, by the Bureau of Land Management or by the United States Forest Service.
NV.20.3.NV. The willful or negligent cutting, destroying, mutilating, removal, or possession of any Christmas tree, cactus, or yucca requires permission (NRS 527.101) [Revised October 1997; Revised October 1999].	(See Appendix 5-3 for lists of Christmas trees, cactus, and yucca.) Verify that written permission is obtained from the legal owner or authorized agent before the removal, transportation, or sale of any Christmas tree, cactus, yucca, or branches thereof, from any of the lands owned by or under the jurisdiction of the State of Nevada or its counties or on any reserved or unreserved lands owned by the United States, or from private lands. Verify that Christmas tress, cactus, and yucca or branches thereof, are not negligently cut, destroyed, or mutilated.
NV.20.4.NV. Fully protected plants must not be removed or destroyed without a permit (NRS 527.101) [Added October 1999].	Verify that fully protected plants (see Appendix 5-4) are not removed or destroyed at any time by any means except under special permit issued by the state forester firewarden.

Appendix 5-1

Nevada Protected Wildlife

(Source: NAC 503.030, 503.050, 503.065, 503.067, 503.075, 503.080) [Revised October 1999]

Nevada Protected Wildlife

Mammals

Aplodontia rufa Mountain Beaver

Ochotona princeps Pika

Tamiasciurus douglasiChickaree (Douglas) SquirrelGlaucomys sabrinusNorthern Flying SquirrelSciurus griseusWestern Gray Squirrel

Euderma maculatum Spotted Bat

Birds

All species of nongame birds protected by the provisions of Federal law

Order = Falconiformes All vultures, hawks, and falcons

 $egin{array}{lll} {
m Order} & & {
m All~owls} \\ {
m Family} & & {
m Pelicanidae} & {
m All~pelicans} \\ {
m Haliaeetus~leucocephalus} & {
m Bald~Eagle} \\ {
m Aquila~chrysaetos} & {
m Gold~Eagle} \\ \end{array}$

Haliaeetus leucocephalusSouthern Bald EagleFalco peregrinusPeregrine FalconFalco columbariusPigeon Hawk FalconFalco mexicanusPrairie Falcon

Falco sparverius Sparrow Hawk Falcon Accipiter cooperii Cooper's Hawk Ferruginous Hawk Buteo regalis Accipiter gentilia Goshawk Hawk Parabuteo unicinctus Harris Hawk Circus cyaneus Marsh Hawk Buteo jamaicensis Red-tailed Hawk Buteo lagopus Rough-legged Hawk Accipiter striatus Sharp-shinned Hawk Buteo swainsoni Swainson's Hawk Plegadis chihi White-faced Glossy Ibis

Megaceryle alcyon Kingfisher

Chordeiles minor Common Nighthawk
Chordeiles acutipennis Lesser Nighthawk

Pandion haliaetus Osprey Barn Owl Tyto alba Speotyto cunicularia **Burrowing Owl** Bubo virginianus Great Horned Owl Asio otus Long-eared Owl Asio flammeus Short-eared Owl Pelecanus occidentalis Brown Pelican Pelecanus erythrorhynchos White Pelican Geococcyx californianus Road Runner Cathartes aura Turkey Vulture

Nevada Protected Wildlife

Fishes

Gila alvordensis Alvord Tui Chub

Gila bicolor ssp. Big Smoky Valley Tui Chub

Gila elegans Bonytail Chub

Gila bicolor euchilaFish Creek Springs Tui ChubGila bicolor ssp.Fish Lake Valley Tui ChubGila robusta ssp.Hot Creek Valley Tui ChubGila bicolor isolataIndependence Valley Tui Chub

Gila bicolor isolataIndependence Valley Tui ChuGila bicolor newarkensisNewark Valley Tui ChubGila robusta jordaniPahranagat Roundtail ChubGila bicolor ssp.Railroad Valley Tui Chub

Gila bicolor eurysoma Sheldon Tui Chub Gila robusta seminuda Virgin River Chub

Gila seminuda Virgin River Chub (Muddy River Population)

Rhinichthys osculus nevadensisAsh Meadows Speckled DaceRhinichthys osculus lariversiBig Smoky Valley Speckled DaceRhinichthys osculus oligoporusClover Valley Speckled Dace

Eremichthys acros Desert Dace

Rhinichthys osculus lethoporus Independence Valley Speckled Dace

Moapa coriacea Moapa Dace

Rhinichthys osculus moapaeMoapa Speckled DaceRhinichthys osculus ssp.Monitor Valley Speckled DaceRhinichthys osculus ssp.Oasis Valley Speckled Dace

Relictus solitarus Relict Dace

Rhinichthys osculus veliferWhite River Speckled DaceLepidomeda mollispinis pratensisBig Spring SpinedaceLepidomeda mollispinis mollispinisVirgin Spinedace

Lepidomeda albivalis

Lepidomeda albivalis

White River Spinedace

Ptychocheilus lucius

Colorado Sqawfish

Plagopterus argentissimus Woundfin Chasmistes cujus Cui-ui Sucker

Catostomus clarki ssp. Meadow Valley Wash Desert Sucker

Xyrauchen texanusRazorback SuckerCatostomus ssp.Wall Canyon SuckerCatostomus warnerensisWarner Sucker

Catostomus clarki intermediusWhite River Desert SuckerCrenichthys baileyi grandisHiko White River SpringfishCrenichthys baileyi thermopilusMoorman White River SpringfishCrenichthys baileyi albivallisPreston White River Springfish

Crenichthys baileyi baileyi White River Springfish
Empetrichthys latos Pahrump Poolfish

Crenichthys nevadae

Railroad Valley Springfish

Ash Madows Amargosa Punfish

Cyprinodon nevadensis mionectes Ash Meadows Amargosa Pupfish

Cyprinodon diabolis Devil's Hole Pupfish
Cyprinodon nevadensis pectoralis Warm Springs Pupfish

Amphibians

Nevada Protected Wildlife

Relict leopard Frog Spotted Frog Amargosa Toad Rana onca Rana luteiventris Bufo nelsoni

Reptiles *Heloderma suspectum* Gila Monster Lizard Gopherus agassizi Desert Tortoise

Appendix 5-2

Species Prohibited from Importation, Transportation, and Possession

(Source: NAC 503.110) [Added October 1999]

Species Prohibited from Importation, Transportation, and Possession

Fishes

All species in the family *Petromyzontidae* Lampreys

All species in the family *Potamotrygonidae*All species in the genus *Carcharhinus*Freshwater stingray
Freshwater shark

Amia calva Bowfin All species in the family Lepisosteidae Gars

All species in the family Clupeidae, except Dorosoma Herring and shad, except threadfin shad

petenense

All species in the genus *Leuciscus*Astyanax mexicanus

European Whitefish

Mexican banded tetra

All species in the genera Serrasalmus, Serrasalmo, Piranhas

Pygocentrus, Teddyella, Rooseveltiella and Pygopristis

All species in the family Cetoposidae and

Trichomycteridae

Belonesox belizanus

Morone americanaWhite perchAplodinotus grunniensFreshwater drum

Ctenopharyngodon idella Grass carp, except certified triploids as authorized by a

special permit Pike top minnow

South American Parasitic Catfish

All species in the genera *Ophicephalus* and *Channa*All species in the genera *Clarias*, *Heteropneustes* and Walking catfish

Dinotopterus

Hoplias malabaricus Tiger fish
All species in the genera Apeltes, Eucalia, Gasterosteus Sticklebacks

and Pungitius

All species in the genera Tilapia and Sarotherodon
All species in the genera Lates and Luciolates
All species in the genus Hiodon
Hypophthalmichthys nobilis
Mylopharyngodon pisceus
Carassius Carassius

Tilapia
Nile perch
Goldeye
Bighead Carp
Black (snail) Carp

Catla catla, Cirrhina mrigala and Labeo rohita

Hypophthalmichthys molitrix

Silver Carp
Scardinius erythrophthalmus

Rudd

Reptiles

All species in the family *Alligatoridae*Alligators and caimans

All species in the family Crocodylidae
All species in the family Gavialidae
All species in the genus Thelotornis
Bird snake
Dispholidus typus
All species in the genus Rhabdophis
Keelbacks

All species in the genus *Rhabdophis*All species in the family *Atractaspidae*Burrowing Asps

Species Prohibited from Importation, Transportation, and Possession

All species in the family *Elapidae*, except species in the Coral snakes, cobras, kraits, mambas and Australian

subfamily *Hydrophiinae*

All species in the family *Viperidae*, except species Pit vipers and true vipers, except species indigenous to

elapids

indigenous to Nevada Nevada

All species in the family *Chelydridae* Snapping Turtles

Amphibians

All species in the genus *Xenopus* Clawed frogs

Bufo horribilis, Bufo marinus and Bufo paracnemis Giant or marine toads

Mammals

Cuon alpinus Wild Dogs or Dhole

Nyctereutes procyonoides Raccoon Dog

All species in the genera Atilax, Cynictis, Helogale, Mongooses and Meerkats

Mungos, Suricate, Ichneumia and Herpestes

Oryctolagus cuniculus Wild European Rabbit

All species in the genus *Mastomys* (=*Praomys*) Multimammate Rat or Mouse

All species in the order *Chiroptera*Myocastor coypus

Canis latrans

Bats

Nutria

Coyote

All species in the genera *Vulpes, Fennecus, Urocyon,* Foxes

Alopex, Lycalopex and Pseudalopex

Procyon lotor Raccoon
All species in the genera Spilogale, Mephitis and Skunk

Conepatus

All species in the family Suidae, except domestic breeds Wild pigs and hogs

of Sus scrofa

Cervus (=Axis) axis, C. porcinus, C. kuhli and C. Axis deer

calamianesis

All subspecies of *Cervus elaphus*, except those members Red deer, elk and wapiti

of ${\it C. elaphus nelsoni}$ which are alternative livestock, as

that term is defined in NRS 501.003

Cervus timorensisRusa deerCervus unicolorSambar deerCervus nipponSika deerCapreolus capreolus and C. pygarusRoe deer

Odocoilus virginianus White-tailed deer

All species in the genus Redunca

Reedbucks

All species in the genus *Oryx* Oryx and Gemsbok

Addax nasomaculatus Addax

All species in the genus *Damaliscus*Blesbok, Topi and Bontebok

All species in the genera *Alcelaphus* and *Sigmoceros* Hartebeests

All species in the genus *Connochaetes* Wildebeest and Gnus

Rubicapra rubicapra and R. pyrenaica Chamois
All species in the genus Hemitragus Tahr

All species in the genus Capra, except domestic goats, Ibex, Wild Goats, Tur and Markhor

Capra hircus

Species Prohibited from Importation, Transportation, and Possession

Crayfish

Ammotragus lervia Barbary (Aoudad) Sheep

All species in the genus Ovis, except domestic sheep, Mouflon sheep, Urial, Bighorn and Argali

Ovis aries

Birds

Sturnus roseus Pink Starling or Rosy Pastor

Quelea queleaRed-billed DiochPycnonotus jososusRed-whiskered Bul-bul

Crustaceans

Eriocheir sinensis Asiatic mitten crab

All species in the families *Parastacidae*, *ambaridae* and *Astacidae*, except *Procambarus clarkii*, *Orconectes causii* and indigenous species of the genus *Pacifastacus*

Mollusks

Achatina fulica African giant snail
Dreissena polymorpha Zebra mussel

Appendix 5-3

Christmas Trees, Cacti, and Yucca

(Source: Neveda Natural Heritage Program (modified 17 September 1999)) http://www.state.nv.us/nvnhp/cactyuc.htm [Added October 1999]

Christmas Trees, Cacti, and Yucca

Christmas trees

Abies bifolia (=A. lasiocarpa in part) Rocky Mountain (sub)alpine fir, corkbark fir

Abies concolor Rocky Mountain white fir

Abies lowiana (=A. concolor var. lowiana) Sierra white fir, California white fir Abies magnifica California red fir, Shasta red fir

Calocedrus decurrensincense cedarCupressus arizonicaArizona cypressJuniperus californicaCalifornia juniperJuniperus occidentalis var. australisSierra western juniperJuniperus occidentalis var. occidentalisOregon western juniper

Juniperus osteosperma Utah juniper

Juniperus scopulorumRocky Mountain juniperPicea engelmannii var. engelmanniiEngelmann sprucePinus albicauliswhitebark pinePinus contorta var. murrayanaSierra lodgepole pine

Pinus flexilislimber pinePinus jeffreyiJeffrey pinePinus lambertianasugar pine

Pinus longaeva (=P. aristata in part)ancient bristlecone pinePinus monophyllasingleleaf pinyon pinePinus monticolawestern white pinePinus ponderosa var. ponderosaponderosa pine

Pinus ponderosa var. scopulorum Rocky Mountain ponderosa pine

Pinus washoensis Washoe pine

Pseudotsuga menziesii var. glauca Rocky Mountain douglas fir

Pseudotsuga menziesii var. menziesii coast douglas fir Tsuga mertensiana mountain hemlock

Cacti

Coryphantha - see Escobaria

Echinocactus polycephalus var. polycephalus cottontop cactus

Echinocactus polycephalus var. xeranthemoides Grand Canyon cottontop cactus Echinocereus engelmannii saint cactus, hedgehog cactus, torch cactus

Echinocereus triglochidiatus (Mojave) mound cactus Escobaria vivipara var. arizonica arizona foxtail cactus Escobaria vivipara var. deserti desert pincushion

Escobaria vivipara var. rosea foxtail cactus, beehive cactus, Clokey pincushion

Ferocactus cylindraceus var. lecontei (=F. (Mojave) barrel cactus, miners compass

acanthodes var. lecontei)

Mammillaria tetrancistra(little) fishhook cactusNeolloydia johnsonii (=Sclerocactus johnsonii)beehive cactus, keg cactus

Opuntia acanthocarpa var. coloradensis buckhorn cholla

Christmas Trees, Cacti, and Yucca

Opuntia basilaris var. basilaris

Opuntia bigelovii *Opuntia charlestonensis* (=*O. martiniana*) plateau prickly pear Opuntia chlorotica

Opuntia echinocarpa

Opuntia erinacea var. erinacea (including var.

ursina)

Opuntia erinacea var. utahensis

Opuntia fragilis

Opuntia parishii (=0. stanlyi var. parishii)

Opuntia phaeacantha

Opuntia polyacantha var. polyacantha

Opuntia polyacantha var. rufispina

Opuntia pulchella

Opuntia ramosissima

Opuntia whipplei var. multigeniculata Pediocactus simpsonii var. robustior

Pediocactus simpsonii var. simpsonii

Sclerocactus blainei Sclerocactus nyensis

Sclerocactus polyancistrus

Sclerocactus pubispinus Sclerocactus schlesseri

beavertail cactus teddy bear cholla

pancake (prickly) pear silver cholla, golden cholla

Mojave prickly pear, old man cactus, grizzly bear

cactus

Utah prickly pear

little prickly pear, brittle prickly pear

club cholla, mat cholla, devil cholla, Parish cholla

New Mexico prickly pear, disk prickly pear

plains prickly pear

southwestern plains prickly pear

sand cholla

diamond cholla, pencil cactus

Blue Diamond cholla hedgehog thistle

Simpson hedgehog cactus

Blaine pincushion

Tonopah fishhook cactus

Mojave fishhook cactus, pineapple cactus,

pincushion, hermit cactus Great Basin fishhook cactus

Schlesser pincushion

Yucca

Yucca baccata var. baccata banana yucca Yucca baccata var. vespertina blue yucca Yucca brevifolia var. brevifolia joshua tree Yucca brevifolia var. jaegeriana dwarf joshua tree Yucca elata var. utahensis soaptree yucca

Yucca harrimaniae var. harrimaniae

Yucca schidigera

Harriman yucca Mojave yucca, spanish bayonet

Appendix 5-4

Fully Protected Plant Species

(Source: Neveda Natural Heritage Program list (modified 16 August 1999)) http://www.state.nv.us/nvnhp/stplants.htm [Added October 1999]

Arctomecon californica Astragalus beatleyae

Astragalus geyeri var. triquetrus Astragalus lentiginosus var. sesquimetralis Astragalus mohavensis var. hemigyrus

Astragalus phoenix Astragalus yoder-williamsii Castilleja salsuginosa Centaurium namophilum Cryptantha insolita

Enceliopsis nudicaulis var. corrugata

Eriogonum argophyllum

Eriogonum ovalifolium var. williamsiae

Eriogonum viscidulum Frasera gypsicola

Grindelia fraxino-pratensis Ivesia kingii var. eremica Mentzelia leucophylla Nitrophila mohavensis

Opuntia whipplei var. multigeniculata

Phacelia inconspicua
Polyctenium williamsiae
Primula capillaris
Rorippa subumbellata
Spiranthes diluvialis

Las Vegas bearpoppy
Beatley milkvetch
threecorner milkvetch
Sodaville milkvetch
halfring milkvetch
Ash Meadows milkvetch
Osgood Mountains milkvetch

Monte Neva paintbrush spring-loving centaury unusual catseye Ash Meadows sunray

Sulphur Springs buckwheat Steamboat buckwheat sticky buckwheat Sunnyside green gentian Ash Meadows gumplant Ash Meadows ivesia Ash Meadows blazingstar Amargosa niterwort Blue Diamond cholla obscure scorpion plant Williams combleaf

Tahoe yellowcress Ute lady's tresses

Ruby Mountain primrose

SECTION 6

OTHER ENVIRONMENTAL ISSUES

Nevada Supplement, October 2000

This section covers the state requirements for Other Environmental Issues and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations

Definitions and requirements for Other Environmental Issues are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

OTHER ENVIRONMENTAL ISSUES GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

The NEPA Process

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items O1.2.1.NV.

Environmental Noise

Missing Checklist Items O2.2.1.NV.

State-Specific Requirements O2.5.1.NV. and O2.5.2.NV.

IRP

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items O3.2.1.NV.

Pollution Prevention

Refer to the U.S. TEAM Guide and the DOD Component Supplements for DOD and service-specific requirements.

Missing Checklist Items O4.2.1.NV.

Program Management

Refer to the U.S. TEAM Guide and the DOD Component Supplements for DOD and service-specific requirements.

OTHER ENVIRONMENTAL ISSUES GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS: REFER TO APPENDIX TITLES:

6-1 Nevada Motor Vehicle Noise Limits

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
NEPA O1.2. Missing Checklist Items		
O1.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
ENVIRONMENTAL NOISE		
O2.2. Missing Checklist Items		
O2.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

	1 to tudu Supplement	
REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
ENVIRONMENTAL NOISE		
O2.5. State-Specific Requirements		
O2.5.1.NV. Motor vehicles subject to registration in Nevada must not exceed noise limits (NAC 484.150)	Verify that motor vehicles or combinations of motor vehicles subject to registration in the State of Nevada do not exceed the noise limits specified in Appendix 6-1.	
O2.5.2.NV. Personnel conducting noise level testing must be trained and qualified (NAC 484.160(1))	Verify that personnel conducting noise level testing for vehicles operated on high-ways have been trained and are qualified to do the work they perform.	

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
IRP O3.2. Missing Checklist Items		
O3.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
POLLTION PREVENTION		
O4.2. Missing Checklist Items		
O4.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

Appendix 6-1

Nevada Motor Vehicle Noise Limits (NAC 484.150)

Motor Vehicle Description	Speed Limit of 35 mph or less	Speed Limit of more than 35 mph
Any motor vehicle with a manufacturer's gross vehicle weight rating of 6000 lb or more and any combination of vehicles towed by such a motor vehicle before 1 January 1973 on or after 1 January 1973	88 dBA 86 dBA	90 dBA 90 dBA
Any motorcycle	82 dBA	86 dBA
Any other motor vehicle and any combination of vehicles towed by a motor vehicle	76 dBA	82 dBA

(NOTE: Noise limits are based on a distance of 50 ft from the center of the lane of vehicle travel within the speed limits set forth in the table.)

(NOTE: Trucks, truck tractors, and buses not equipped with an identification plate or marking bearing the manufacturer's name and gross vehicle weight rating are considered to have a manufacturer's gross vehicle weight rating of 6000 lb or more if the unladen weight is more than 5000 lb.)

SECTION 7

PESTICIDE MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Pesticide Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations

Definitions and requirements for Pesticide Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS

Definitions

- Administrator the Administrator of the Division of Agriculture, Nevada Department of Business and Industry (NAC 586.005).
- Agent any person who solicits business in behalf of a custom pest control licensee (Nevada Revised Statutes (NRS) 555.261).
- *Aircraft* any contrivance not now or hereafter invented, used, or designed for navigation of, or flight in, the air (NRS 555.2615).
- *Browsing* the consumption of leaf and twig growth of shrubs, woody vines and trees by an animal (Nevada Administrative Code (NAC) 555.600).
- Certificate a certificate issued by the Administrator to a commercial applicator or private applicator authorizing such person to make application of or to supervise the application of a restricted use pesticide (NRS 555.2617).
- *Certified Applicator* any person who is certified by the Administrator as qualified to use or to supervise the application of any restricted use pesticide (NRS 555.2618).
- *Commercial Applicator* a certified applicator who applies or supervises the application of any restricted use pesticide and does not qualify as a private applicator under these definitions (NRS 555.2619).
- Commercial Applicator Categories -
 - 1. Agricultural pest control:
 - a. animal: the control of insects, including ectoparasites, on or around animals, including but not limited to beef cattle, dairy cattle, swine, sheep, horses, goats, and poultry, and to places on or in which animals are confined
 - b. plant: the control of any pest on or around any agricultural crop, including but not limited to the production of forage, grain, pasture, seed, row crops, and fruit crops, as well as rangeland, idle

- cropland, and noncropland associated with the production of agricultural crops, or any other agricultural crop consumed or used by man or animal.
- 2. Aquatic pest control: the control of any pest in standing or running water, excluding mosquito control and public health pest control.
- 3. Forest pest control: the control of any pest in forests, forest nurseries, and forest seed producing areas.
- 4. Fumigation pest control: the control of any pest by fumigation with poisonous and lethal gases in a habitat, including but not limited to structures and soil.
- 5. Industrial, institutional, structural, and health related pest control:
 - a. industrial pest control: the control of any pest, including those that are health related, but excluding wood-destroying pests, in, on, or around an industrial complex, including but not limited to grain elevators, offices, casinos, motels, stores, operational sites of food handling establishments, warehouses, or stored products, and excluding ornamental and turf pest control and aquatic pest control
 - b. institutional pest control: the control of any pest, including those that are health related but excluding wood-destroying pests, in, on, or around and industrial complex, including but not limited to homes, hospitals, schools, and similar institutes especially where children, the physically unfit, and germicidal work would be involved, and shall also include an inanimate objects used in the maintenance of institutional operations, including but not limited to garbage cans, wood piles, and sidewalks, and excluding ornamental and turf pest control and aquatic pest control
 - c. structural pest control: the control of any wood-destroying pest in, on, or around any structure, including but not limited to homes, storage sheds, and warehouses.
- 6. Mosquito control: the control of mosquitoes in any habitat, including but not limited to reservoirs, lakes, rivers, and cropland.
- 7. Ornamental and turf pest control: the control of any pest in the maintenance and production of ornamentals and turf, including but not limited to ornamental trees, shrubs, flowers, home fruit trees, and home vegetable gardens.
- 8. Predatory pest control: the control of any predator in any habitat, including but not limited to rangeland, forests, and cropland.
- 9. Public health pest control: the control of any pest having medical and public health importance by state, Federal, or other governmental employees.
- 10. Regulatory pest control: the control of any regulated pest by state, Federal, or their governmental employees.
- 11. Right-of-way pest control: the control of any pest in the maintenance of rights of way, including but not limited to public roads, electric powerlines, pipelines, and railway rights of way.
- 12. Seed treatment: the treating of seeds to control insects, fungi, bacteria, and other microorganisms (NAC 555.620).
- *Competent* properly qualified to perform functions associated with pesticide application, the degree of capability required being directly related to the nature of the activity and the associated responsibility (NAC 555.600).
- *Container* any package, can, bottle, bag, barrel, drum, tank, or other containing device, excluding spray applicator tanks, used to enclose a pesticide or waste related to pesticide (NAC 555.600).
- Control to prevent, destroy, repel, or mitigate any undesirable organism (NAC 555.600).
- *Defoliant* any substance or mixture of substances intended to cause the leaves or foliage to drop from a plant with or without causing abscission (NRS 555.2625).
- *Desiccant* any substance or mixture of substances intended to accelerate the drying of plant tissues artificially (NRS 555.263).

- Division Division of Agriculture, Department of Business and Industry, State of Nevada (NAC 486.005).
- *Ectoparasite* any organism that occurs externally on, or whose life cycle involves development within, an organism of another species (host) and derives its nutriment from it (NAC 555.600).
- *Environment* includes the water, air, land, and all plants and man and other animals living therein and the interrelationship which exists among these (NRS 555.2634).
- *Food Handling Establishment* a place other than a private residence in which exposed food is held, processed, prepared, or served (NAC 555.600).
- Forage any herbaceous plant or plant part normally grazed on by, or fed to animals (NAC 555.600).
- Fumigation the application of a substance having a vapor pressure greater than 5 mm Hg at 25 °C, that is intended to control any living organism (NAC 555.600).
- *Fungi* all non-chlorophyll-bearing thallophytes (that is, all non-chlorophyll-bearing plant of a lower order than mosses and liverworts) as, for example, rusts, smuts, mildews, molds, yeasts, and bacteria, except those living on or in man or other animals (NRS 555.264).
- Grain any of the grasses that produce cereals which are used for food (NAC 555.600).
- Grazing the partial defoliation of forage growth by animal consumption (NAC 555.600).
- *Ground Equipment* any machine or device (other than aircraft) for use on land or water, designed for, or adaptable to, use in applying pesticides as sprays, dusts, aerosols, fogs, or in other forms (NRS 555.2645).
- *Habitat* that specific locality where an organism exists (NAC 555.600).
- *Immediate Supervision* the act or process whereby the application of a pesticide is made by a competent person acting under the instruction and control of a certified applicator who is responsible for the actions of that person and who is physically present at the pest control site (NAC 555.600).
- *Insect* any of the numerous small invertebrate animals generally having a body more or less obviously segmented, for the most part belonging to the class insecta, comprising six-legged, usually winged forms, as for example beetles, bugs, wasps, and flies, and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as for example spiders, mites, ticks, centipedes, and wood lice (NRS 555.265).
- *Microorganism* any animal or plant that is so small as to be invisible or obscure except through a microscope (NAC 555.600).
- *Mollusk* any of the phylum of soft-bodied animals usually partially or wholly enclosed within a calcium carbonate shell and having a muscular "foot" for locomotion (NAC 555.600).
- *Nematode* invertebrate animals of the phylum nemathelminths and class nematoda, that is, unsegmented round worms with elongated, fusiform, or sac-like bodies covered with cuticle, and inhabiting soil, water, plants, or plant parts, also called nemas or eelworms (NRS 555.2655).
- Nonvascular Plant a plant without flowers, roots, stems, or leaves (NAC 555.600).

- Operational Site that location belonging to a person where an integral function of the business is performed, and includes person's land structures, and other environs and equipment (NAC 555.600).
- Operator a person who applies a pesticide without the immediate supervision of a principal (NAC 555.255).
- Pasture any fenced area of domesticated forage on which animals are grazed (NAC 555.600).
- *Person* includes a government, a governmental agency, and a political subdivision of a government (NRS 555.266).
- *Pest* includes but not limited to, any insect, fungus, rodent, nematode, snail, slug, weed, and any form of plant or animal life or virus (except viruses on or in living man or other animals) which is normally considered to be a pest or which the Administrator may declare to be a pest (NRS 555.2665).
- *Pest Control* the business of engaging in, advertising or soliciting for:
 - 1. the use for hire of pesticides or mechanical devices for the extermination, control of prevention of infestations of pests
 - 2. the inspection for hire of households or other structures and the submission of reports of inspection, estimates or bids, written or oral, for the inspection, extermination, control or prevention of wood destroying pests (NRS 555.2667).

Pesticides -

- 1. any substance or mixture of substances, including any living organisms or any product derived therefrom or any fungicide, herbicide, insecticide, nematocide, or rodenticide, intended to prevent, destroy, control, repel, attract, or mitigate any insect, rodent, nematode, snail, slug, fungus, weed, and any other form of plant or animal life or virus (except virus on or in living man or other animals) which is normally considered to be a pest or which the Administrator may declare to be a pest
- 2. any substance or mixture of substances intended to be used as a plant regulator, defoliant, or desiccant, and any other substance intended for such use as may be determined by the Administrator by regulation after calling a public hearing for that purpose (NRS 555.267).
- *Plant Disease* any exhibition of some malfunction or abnormality in a plant's development or growth caused by a microorganism as, for example, fungi, bacteria, viruses, mycoplasmas, and nematodes (NAC 555.600).
- Plant Regulator any substance or mixture of substances intended through physiological action to accelerate or
 retard the rate of growth or maturation, or otherwise to alter the behavior of plants, but does not include
 substances insofar as they are intended to be used as plant nutrients, trace elements, nutrition chemicals, plant
 inoculants or soil amendments (NRS 555.2675).
- *Predator* any animal of the class Mammalia of the subphylum Vertebrata that kills and consumes other animals (NAC 555.600).
- *Primary Principal* a principal who has been designated by a licensee as the person responsible for the daily supervision of the operation of each business location of the licensee within this state (NAC 555.2555).
- *Principal* an owner, officer, partner, member, or technician who has qualified by examination in one or more pest control categories, who is designated to act on behalf of a licensed business organization, and who supervises the daily activities of the operators at a business location of the organization to ensure that pesticides are being used in a safe and proper manner (NAC 555.256).

- Private Applicator a certified applicator who uses or supervises the use of any restricted use pesticides for the
 purpose of producing any agricultural commodity on property owned or rented by him or his employer or on the
 property of his neighbors if applied without compensation or other trading of personal services between
 producers of agricultural commodities (NRS 555.2681).
- Private Applicators Categories -
 - 1. Agricultural pest control:
 - a. animal:
 - i. dairy animal pest control
 - ii. meat animal pest control
 - iii. poultry pest control
 - b. plant:
 - i. forage, grain, pasture, and range pest control
 - ii. row crop pest control
 - iii. seed crop pest control
 - c. speciality crops:
 - i. apiary pest control
 - ii. aquaculture pest control
 - iii. greenhouse pest control
 - iv. nursery pest control
 - v. turf pest control.
 - 2. Forest pest control.
 - 3. Predator pest control (NAC 555.640).
- *Range* any land with native vegetation (climax or natural potential) that is predominately grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing (NAC 555.600).
- Restricted Use Pesticides any pesticide, including highly toxic pesticide which:
 - 1. the Administrator has found and determined, subsequent to a hearing, to be:
 - a. injurious to persons, pollinating insects, bees, animals, crops, or land, other than pests or vegetation it is intended to prevent, destroy, control, or mitigate
 - b. detrimental to vegetation (except weeds), wildlife, or to the public health and safety
 - 2. has been classified for restricted use by or under the supervision of a certified applicator in accordance with the Federal Environmental Control Act (7 U.S.C. 136 et seq.) (NRS 555.2683).
- Row Crop any fiber crop, melon crop, vegetable crop, or similar crop grown in continual lines (NAC 555.600).
- *Seed Crop* any plant that is grown for the purpose of utilizing the propagative portion of the plant (NAC 555.600).
- Snails or Slugs includes any harmful mollusks (NRS 555.2685).
- Supervision supervision of the application of a restricted use pesticide by a certified applicator is defined by regulation of the Administrator (NRS 555.2687).
- *Vertebrate* any animal of the subphylum Vertebrata of the phylum Chordata, which has an enlarged brain enclosed in a cranium, or brain case, a segmented vertebral column which supports the body, head, trunk, and usually a tail present (NAC 555.600).
- Weed any plant or part thereof which grows where not wanted (NRS 555.269).

•	Wildlife - all living things that are neither human, domesticated, nor pests, including but not limited to mammals,
	birds, and aquatic life (NAC 555.600).

• Wood-Destroying Pests - any organism which infests or infects and destroys cellulose (NAC 555.600).

PESTICIDE MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items PM.2.1.NV.

Pesticide Applicators PM.5.1.NV. through PM.5.4.NV.

Pesticide Application

General PM.10.1.NV. through PM.10.4.NV.

Agriculture PM.20.1.NV.

Other PM.35.1.NV. and PM.35.2.NV.
Documentation PM.40.1.NV. through PM.40.4.NV.
Storage/Mixing/Handling PM.45.1.NV. and PM.45.2.NV.

PESTICIDE MANAGEMENT GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS: REFER TO APPENDIX TITLES:

7-1 Rodent Control Districts

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY PEOLIDEMENTS:	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
PM.2. MISSING CHECKLIST ITEMS	
PM.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement

Nevaua Supplement	
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
PM.5. PESTICIDE APPLICATORS	
PM.5.1.NV. Commercial applicators must be certified by the Administrator and have an Administrator-issued license before engaging in pest control (NRS 555.2619, 555.2618 and 555.280) [Cite Revised October 1997].	Verify that a commercial applicator is certified and licensed by the Administrator in all appropriate categories.
PM.5.2.NV. Private applicators must be certified by the Administrator and have an Administrator-issued license before engaging in pest control (NRS 555.2681 and 555.2618 and 555.280) [Cite Revised October 1997].	Verify that the private applicator is certified and licensed by the Administrator.
PM.5.3.NV. Certified applicators must follow guidelines for restricted use pesticides (NAC 555.700.(4-5)) [Cite Revised October 1997].	Verify that the person applying restricted use pesticides (see U.S. TEAM Guide for list) is licensed by the Administrator or is working under the direct supervision of a certified applicator. Verify that the certified applicator has contact with any applicator under his direct supervision at least once every hour at night and at least once every 2 h during daylight hours.
PM.5.4.NV. All persons	Verify that the certified applicator assumes responsibility for fumigation procedures. Verify that the person engaged in wood-destroying pest control first receives an
engaged in control of wood- destroying pests must first have a wood-destroying pest	Administrator issued license for wood-destroying pest control.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
control license issued by the Administrator (NRS 555. 285). [Revised October 1997]	

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
PESTICIDE APPLICATION		
PM.10. GENERAL		
PM.10.1.NV. Application of restricted use pesticides requires specific precautions (NAC 555.440).	Verify that the certified applicator is using a device, substance, or method know to be harmful to beings, animals, crops, or property exercised reasonable precautions to protect the humans, animals, crops, and property.	
(NAC 333.440).	Verify that empty containers from restricted use pesticides are properly disposed of and not left unattended where they may present danger to any human, animal, crop, or property.	
	Verify that any certified applicator engaged in the application of pesticide, using a method or device known to be dangerous to humans, provides employees with the information, cautions, and safety equipment recommended by the manufacturer, state industrial insurance system, or the Division.	
PM.10.2.NV. Persons engaged in the application of pesticides which contain	Verify that persons using explosive or hazardous pesticides take all reasonable precautions to prevent creating fire during the application and to provide adequate warning of such hazard after the application.	
flammable or explosive materials must follow general guidelines (NAC 555.500).	Verify that persons using pesticides containing parathion, methyl parathion, or ethyl para-nitrophenyl phenylphosphonothioate at a rate greater than 1 lb per acre post a notice by the point(s) of normal entry, for 2 wk after the application to provide adequate warning to persons who enter the property. The notice must be readable from 25 ft and must be substantially as follows:	
	WARNING: DO NOT ENTER THIS PROPERTY TREATED WITH [SUBSTANCE] ON [DATE] ALL PERSONS WARNED TO STAY OUT FOR 2 WEEKS.	
PM.10.3.NV. Persons engaged in the application of pesticides must follow general	Verify that persons engaged in the application of pesticides meet the following general standards of practice:	
standards of practice (NAC 555.400).	 apply pesticides only in categories in which they are licensed use only methods and equipment which are capable of performing the 	

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement **REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 555.400). functions necessary to ensure the proper application of materials - operate only where climatic, pest, and crop conditions are proper for controlling the pest for which application is made - follow label directions - keep pest control equipment in good condition, when in use - use only devices which are accurately calibrated to the smallest unit when measuring concentrated materials - maintain a uniform mixture when using a mixture of materials - confine the materials applied to the premises being treated - thoroughly clean all equipment after use, and store all undiluted pesticide material in a locked facility. PM.10.4.NV. Persons Verify that the person applying pesticides known to be harmful to animals: applying pesticides known to be harmful to animals, other - gives notice to the owner of any animals known to be on the property to be than bees, must follow general treated, or on property where materials appear likely to drift, within a reasonable amount of time before application for the owner to protect the guidelines (NAC 555.460). - exercises reasonable precautions to prevent access of animals to areas where harmful residues remain - avoids contaminating water containing fish.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT **Nevada Supplement REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 **PESTICIDE** APPLICATION PM.20. **AGRICULTURE** PM.20.1.NV. Licensees Verify that the licensee applying to agricultural lands any pesticide known to be agricultural harmful to bees gives notice of intent, by telephone or in person, to any apiarist engaging pesticide application known to having bees on the land to be treated, or on adjacent land, not more than 72 h and be harmful to bees must folnot less than 24 h before application. low general guidelines (NAC (NOTE: Notice of an intent to apply the organophosphorous insecticide Parathion 555.470). in microencapsulated formulations or carbamate insecticides (Sevin, carbaryl, Furadan, carbofuran) must be given at least 48 h before the application to each apiarist having apiaries within 2 mi of the field to be treated if the apiarist has provided the licensee with the location of his apiaries.) (NOTE: If an application is postponed after proper notice has been given, the licensee must repeat the notice at least 12 h before the rescheduled application.) Verify that the notice includes: - name of person for whom application is being made - location and acreage of land to be treated - name of pesticide to be applied. (NOTE: If the apiarist has not given the licensee current information regarding the location of his apiary, no notice is required.)

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
PESTICIDE APPLICATION		
PM.35. OTHER		
PM.35.1.NV. Persons performing fumigation must follow general guidelines (NAC 555.510).	Verify that the person performing fumigation is a licensee or under the direct supervision of a person licensed to perform pest control using lethal fumigants. Verify that the applicator: - posts warning signs on or in the immediate vicinity of the entrances to the area(s) being fumigated, stating in letters not less than 2 in. high DANGER-FUMIGATION - vacate the area of all occupants before fumigation and lock all entrances - seal the area to be fumigated before commencing application - take appropriate safety precautions - preserve a log for 2 yr of all fumigation applications performed.	
	(NOTE: At times, it may be necessary to vacate adjacent occupants as well the occupants of the residence actually fumigated.)	
PM.35.2.NV. Rodenticides containing sodium fluoroacetate (Compound 1080) use must meet general guidelines (NAC 555.520).	Verify that rodenticides containing sodium fluoroacetate are dispensed, possessed, or used by a licensed pest control person with authorization from the Administrator. Verify that the applicator, not less than 24 h before dispensing sodium fluoroacetate, notifies the Administrator with the following: - purpose for which the poisoned bait is to be dispensed - specific address of the premises to be treated - type of material to be used as bait. Verify that bait stations are adequately locked and marked with the following: - name, address, and telephone number of the licensee - skull and crossbones - the word POISON	

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
	 name of the poison. Verify that all rodenticides are removed from the premises upon termination of the particular service.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT

PESTICIDE MANAGEMENT Nevada Supplement	
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
PESTICIDE APPLICATION	
PM.40. DOCUMENTATION	
PM.40.1.NV. Certified applicators applying or supervising the use of restricted use pesticides must meet recordkeeping and reporting requirements (NAC 555.700.(1-3)) [Cite Revised October 1997]	Verify that certified applicators applying or supervising the use of restricted use pesticides keep and maintain records of each property treated for 2 yr, showing: - date of treatment - name of certified applicator - address of property treated - brand or generic name and USEPA registration number of the pesticide applied - item treated - number of units treated - purpose for which the pesticide was applied - amount of undiluted material used or the strength of the diluted material used. Verify that, in addition to the above records, temperature at start and finish of treatment and wind velocity and direction at start and finish of treatment are maintained for the following types of commercial treatment: - agricultural pest control-plant - forest - ornamental and turf - right-of-way - mosquito pest control. Verify that, in addition to the above records, temperature at start and finish of treatment and wind velocity and direction at start and finish of treatment are maintained for the following types of private treatment: - agricultural pest control-plant - turf - forest pest.
	Verify that any emergency dump of a restricted use pesticide by an aircraft, any accident of a restricted use pesticide loaded aircraft, or ground equipment involving the spillage of restricted use pesticides, or the accidental spillage of restricted use pesticide at any site of operations is reported immediately to the

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Administrator. Verify that any case of apparent poisoning (from a restricted use pesticide) requiring medical attention is reported to the Administrator within 48 h. PM.40.2.NV. Persons Verify that the following records are maintained for 2 yr for licensed aerial or agriculture pesticide application: involved in pesticide application must follow general - date of treatment recordkeeping requirements - name of person for whom treatment was conducted (NAC 555.410(1)). - county where treatment was conducted - name of pilot or applicator - crop or items treated - number of units treated - material and dosage applied - purpose for which the crop or item was treated - starting and finishing time of treatment - temperature at the start and finish of treatment - wind velocity and wind direction at start and finish of treatment. Verify that the following records are maintained for 2 yr licensed for urbanstructure pesticide application: - date of treatment - address where treatment was conducted - name of the applicator - item treated - number of units treated - total amount of material and concentration applied - purpose for which the item was treated - if in the categories of ornamental and turf, fumigation, or shade trees, and fruit trees the following: - temperature at the start and finish of treatment - wind velocity and direction at start and finish of treatment. PM.40.3.NV. Persons Verify that the person involved in pesticide application meet the following

- report immediately any emergency dump of a pesticide by an aircraft, any accident of a pesticide loaded aircraft or ground equipment involving the

spillage of a pesticide, or the accidental spillage at any sight of operations of

reporting requirements:

involved in pesticide application must follow general reporting requirements (NAC

555. 410.2 through 555.410.4)

	COMPLIANCE CATEGORY:
	PESTICIDE MANAGEMENT Nevada Supplement
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
	unmixed pesticides detrimental to people, wildlife, domestic animals, or crops to the Administrator
	 report to the Administrator within 48 h any case of apparent pesticide poisoning requiring medical treatment
	- file with Administrator a monthly report of pest control operations.
PM.40.4.NV. Applicators in the wood-destroying pest category must file specific	Verify that the person applying pesticides for wood-destroying pests meets the fol- lowing reporting requirements for each inspection, or application, of pesticide:
reports and records (NAC 555.430).	- submits to the person requesting the inspection or application, within 5 days, a report of the inspection or application
	- submits a copy of the report to the Division or Subdivision
	Verify that, for each inspection or application of pesticide, the person applying pesticides for wood-destroying pests affixes a tag approved by the Division in a visible area by the crawl space if one is present or under a sink, if no crawl space is available.
	Verify that the tag contains the following information:
	 license number and name of firm who performed application statement of whether inspection or application was performed (if application, list name, amount, and concentration of the pesticide applied) date.
	Verify that the report given to the customer and sent to the Division or Subdivision contains the following:
	 name, license number, and address of the firm performing the inspection or application date of inspection or application
	 number assigned to the escrow or mortgage by the Federal Housing Administration or Veterans' Administration, if applicable and obtainable street address and city of the property
	 name of the person who requested the inspection or application name of the person to whom the original of the report is being sent name and address of the owner of the property name and address of the buyer or other interested person, if applicable and
	obtainable - identification of any area where application of a pesticide was made - name, USEPA registration number, and total diluted amount and concentration of any pesticide applied

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement **REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 - evidence of active or inactive wood-destroying pests - statement of whether there are conditions present conducive to infestation, such as: - contact of wood to earth - faulty grade - insufficient ventilation - excessive moisture - cellulose debris - sketch or diagram of foundation indicating the location of any condition likely to lead to infestation - a diagram or description or both of the inspected structure or part of it showing: - location of inaccessible areas or areas not inspected - any portion of the structure normally visible which cannot be inspected without mechanically altering the structure - any acres where normal conditions have been altered so inspection is not possible.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 PM.45. STORAGE/MIXING/ HANDLING PM.45.1.NV. All undiluted Verify that undiluted pesticides are stored in a locked facility. pesticide materials must be stored in a locked facility (NAC 555.400.10). PM.45.2.NV. Verify that service containers used to store or transport pesticides have a label Service containers used to store or with the appropriate [undefined] information securely attached to the container. transport pesticides must be Verify that for the field of urban and structural pest control the label contains: appropriately labeled (NAC 555.445). - name, address, and telephone number of business - name of pesticide and USEPA or Division registration number - name and percentage of active ingredient - precautionary (signal) word and symbol from the registered label. Verify that labels on service containers to used to store or transport diluted pesticide contain: - name, address, and telephone number of business - name of pesticide preceded by the word diluted - registration number (USEPA or Division) preceded by the words derived - name and percentage of active ingredient - precautionary (signal) word and symbol from the registered label. Verify that service containers, used for storage or transportation, for all other categories of undiluted pesticides have a clearly legible original label

Verify that a complete label is carried in the vehicle for each pesticide in the

conspicuously placed.

vehicle.

Appendix 7-1

Rodent Control Districts

(Source: NAC 555.800 and 555.810)

• The following genera and species of lagomorphs and rodents are subject to control within the Diamond Valley rodent control district:

Black-tailed jack rabbit (Lepus californicus)

Deer mice (Peromyscus species)

Meadow voles (Microtus species)

Northern pocket gopher (Thomomys talpoides)

Richardson's ground squirrel (Spermophilus richardsoni)

Southern pocket gopher (*Thomomys umbrinus*)

Townsend's ground squirrel (S. townsendii)

Yellow-bellied marmot (Marmota alaviventris).

• The following genera and species of lagomorphs and rodents are subject to control within the Orovada rodent control district:

Black-tailed jack rabbit (Lepus californicus)

Deer mice (*Peromyscus* species)

Meadow voles (Microtus species)

Richardson's ground squirrel (Spermophilus richardsoni)

Southern pocket gopher (*Thomomys umbrinus*)

Townsend's ground squirrel (S. townsendii)

Yellow-bellied marmot (Marmota alaviventris).

SECTION 8

PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for POL Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations:

Definitions and requirements for POL Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

Definitions

- Facility any:
 - 1. building, structure, installation, equipment, pipe, including the pipe into a sanitary or storm sewer or publicly owned treatment works, pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, container for storage, tank or underground tank for storage;
 - 2. site or area where a hazardous substance, pollutant or contaminant has been deposited, stored, disposed of, placed or otherwise located; or
 - 3. motor vehicle, rolling stock or aircraft or any vessel used as a means of transportation on water (NAC 445A.345(1)) [Added October 1998].
- *Release* any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping or disposing into the environment (NAC 445A.345(2)) [Added October 1998].
- *Used Oil* any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of the use is contaminated by physical or chemical impurities (Nevada Administrative Code (NAC) 444.861).

PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist ItemsPO.2.1.NV.Discharges/SpillsPO.15.1.NV.Oil StoragePO.20.1.NV.

Used Oil PO.60.1.NV. and PO.60.2.NV.

revidu Supplement	
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
PO.2. MISSING CHECKLIST ITEMS	
PO.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

REGULATORY REVIEWER CHECKS:	
REGULATORY REQUIREMENTS:	October 2000
REQUIREMENTS.	October 2000
PO.15. DISCHARGES/SPILLS	
PO.15.1.NV. Facilities (see definitions) must meet petroleum product release requirements (NAC 445A.346 and 445A.347) [Revised October 1997; Revised October 1998].	 (NOTE: This notice requirement applies to releases consisting of a petroleum product: which is released to the soil or other surfaces of land in a quantity greater than 25 gal, or discovered on or in the ground water or in at least 3 yd³ of soil during excavation of soil, subsurface exploration, monitoring of ground water or any other subsurface activity.) (NOTE: This notice requirement does not apply to the following: releases resulting in exposure to an employee solely within an indoor place of employment for which the employee may assert a claim against his employer emissions from the exhaust of the engine of a motor vehicle, the rolling stock of a railroad, an aircraft, a vessel, or pipeline pumping station normal application of fertilizers or pesticides releases in compliance with the limits or conditions of a permit issued by the state or Federal Government.) Verify that, in the case of a release, the owner or operator of a facility [see definitions] notifies the: Division of Emergency Management of the Department of Motor Vehicles and Public Safety as soon as possible after he has knowledge of the release (the notice must be by telephone at 702-687-4240 during normal working hours or at 702-687-5300 after normal working hours Director of the Department of Conservation and Natural Resources as soon as possible after he has knowledge of such a release, but not later than the end of the first working day after the release (the notice must be by telephone at 800-992-0900, extension 4670 or 702-687-4670).

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
PO.20. OIL STORAGE	
PO.20.1.NV. Facilities (see definitions) storing oil must meet specific requirements (NAC 618.5307) [Revised October 1997].	Verify that facilities for the storage of lubricating oil or fuel oil, including heating oil, are separated from any operation building or storage pad. Verify that facilities for the storage of lubricating oil or fuel oil, including heating oil, are designed in such a way that, in the event of a ruptured tank, the oil will drain away from the operation building or storage pad or into a containment area. Verify that all fueling operations are performed away from any operation building or storage pad.

REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
PO.60. USED OIL	
PO.60.1.NV. Used oil must not be mixed with hazardous substances (NAC 444.8681).	Verify that used oil is not mixed with hazardous substances, except for the following exceptions: - mixtures of used oil and a hazardous waste, which is hazardous solely because it exhibits the characteristic of ignitability specified in 40 CFR 261.21, and is not listed in subpart D of 40 CFR 261 - mixtures of used oil and waste gasoline, which do not exhibit the characteristics of hazardous wastes in subpart C of 40 CFR 261 - mixtures of used oil and diesel fuel to be used for mining activities relating to extraction, if written consent is given by the Department. Verify that used oil is not mixed with substances other than the following: - other fuels if such mixture will be used for the recovery of energy pursuant to 40 CFR 279 - sorbent materials when used only to manage isolated leaks and spills and when the mixtures do not contain free liquid. (NOTE: Conditionally exempt small quantity generators who generate less than 5 gal of a hazardous waste per calendar month with its used oil, if the mixture does not exhibit the characteristics specified in 40 CFR 261.21, may mix such wastes with used oil. They must maintain the following records for a minimum of 3 yr: - description and quantity of the hazardous waste mixed with the used oil - the amount of used oil to which the waste was added - the date the mixing took place - records of all purchases of solvents that upon disposal would exhibit the
PO.60.2.NV. Mixtures of hazardous wastes and used oil must meet disposal requirements (NAC 444.8682 and 444.8683).	Characteristic of ignitability specified in 40 CFR 261.21.) Verify that the following mixtures of hazardous wastes and oil are disposed of in the specified manner: - mixtures of used oil and hazardous waste that are exempt pursuant to PO.60.1.NV. which are being recycled or burned for the recovery of energy, are managed in accordance with the requirements of 40 CFR 279, or if they are to be disposed of, they are managed according to the requirements of 40 CFR 262 - mixtures of used oil and hazardous waste that are not exempted pursuant to

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
	PO.60.l.NV. of this regulation are managed as a hazardous waste according to the requirements of the state. - mixtures of used oil and diesel fuel, and mixtures of used oil and other fuels that are being reused or burned for the recovery of energy must be managed according to the requirements of 40 CFR 279. - mixtures of used oil and sorbent materials must be managed according to the requirements for solid wastes of the state. (NOTE: Mixtures of used oil and wastes not determined to be hazardous are subject to regulation as used oil pursuant to 40 CFR 279).	

SECTION 9

SOLID WASTE MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Solid Waste Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations:

Definitions and requirements for Solid Waste Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC.
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

Federal Regulations Adopted by Reference:

The following provisions are hereby adopted by reference:

- The municipal solid waste provisions of 40 C.F.R. Parts 60.755 through 758;
- Appendix I to 40 C.F.R Part 258, as that appendix existed on November 8, 1993;
- Appendix II to 40 C.F.R. Part 258, as that appendix existed on November 8, 1993;
- The provisions of 40 C.F.R. Part 257.2, as that part existed on November 8, 1993, for the limited purposes of defining "municipal solid waste landfill unit" in NAC 444.591;
- The United States Geological Survey, Open File Report 82-1033, "Probabilistic Estimates of Maximum Acceleration and Velocity in Rock in the Contiguous United States," for the limited purpose of defining "seismic impact zone" in NAC 444.6793;
- "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Environmental Protection Agency, Publication No. SW-846, for the limited purposes of defining "liquid waste" in NAC 444.692; and
- The Toxic Substances Control Act Good Laboratory Practice Standards, 40 C.F.R. Part 792, as those standards exist on March 1, 1994, for the limited purpose of conducting scientific studies pursuant to sub-subparagraph (II) of subparagraph (2) of paragraph (b) of subsection 1 of NAC 444.7492.
- Volume 40 C.F.R. Parts 190 to 259, inclusive.

Definitions

- Active Life the period of operation of a disposal site beginning with the initial receipt of solid waste and ending at the completion of closure activities (NAC) 444.5701.
- Administrator the Administrator of the Division of Environmental Protection of the State Department of Conservation and Natural Resources (NAC 444.5702).
- Airport any public airport (NAC 444.6783(2)(a)).
- Aquifer a geological formation, group of formations, or portion of a formation capable of yielding usable quantities of groundwater to wells and springs (NAC 444.5704).

- *Cell* a portion of a municipal solid waste landfill unit which consists of compacted wastes completely enclosed in cover material (NAC 444.57048).
- *Class I Site* a disposal site which:
 - 1. is comprised of at least one municipal solid waste landfill unit including all contiguous land and structures, other appurtenances and improvements on the land used for the disposal of solid waste
 - 2. is not a Class II or Class II site (NAC 444.5705).
- Class II Site a disposal site:
 - 1. which is comprised of at least one municipal solid waste landfill unit
 - 2. which accepts less than 20 tons of solid waste per day on an annual average
 - 3. for which there is no evidence of contamination of ground water originating from the site
 - 4. which serves a community that has no other practicable alternatives for waste management
 - 5. which is located in an area which annually receives no more than 25 in. of precipitation.

The term includes all contiguous land and structures, other appurtenances, and improvement on the land for the disposal of solid waste (NAC 444.571).

- Class III Site a disposal site which accepts only industrial solid waste (NAC 444.5715).
- Composting a controlled process of biological degradation of solid waste to an inoffensive humus-like product (NAC 444.572).
- Contaminant any physical, chemical, biological, or radiological substance or matter which is added to water (NRS) 445.143.
- *Cross-Media* the transfer of a constituent from a medium such as water, land, or air, to another medium (NAC 444.5735).
- Displacement the relative movement of any two sides of a fault measured in any direction (NAC 444.6791(2)(a)).
- *Disposal Site* any place at which solid waste is dumped, abandoned or accepted or disposed of by incineration, land filling, composting or any other method. The term includes a municipal solid waste landfill (NRS 444.460).
- *Division* the Division of Environmental Protection of the State Department of Conservation and Natural Resources (NAC 444.576).
- Existing Municipal Solid Waste Landfill Unit a municipal solid waste landfill unit which was receiving waste on 8 November 1993 (NAC 444.577).
- Fault a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side (NAC 444.6791(2)(b)).
- *Garbage* putrescible animal and vegetable wastes resulting from the handling, storage, sale, preparation, cooking, and serving of food (NAC 444.578).
- Gas Condensate the liquid generated as a result of any processes to recover gas at a municipal solid waste landfill unit (NAC 444.5785).
- Groundwater all subsurface water comprising the zone of saturation, including perched water (NAC 444.579).

- *Hazard to Birds* an increase in the likelihood of a collision between a bird and an aircraft that may cause damage to the aircraft or injury to its occupants (NAC 444.6783(2)(b)).
- Hazardous Waste has the meaning ascribed to it in NRS 459.430 (NAC 444.580).
- *Household Waste* any solid waste, including garbage, trash, and sanitary wastes, derived from households, including single and multiple family residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and recreation areas used during the daytime (NAC 444.581).
- *Incinerator* an engineered apparatus capable of withstanding heat and designed to efficiently reduce solid, semisolid, liquid, or gaseous waste at specified rates, and from which the residues contain little or no combustible material (NAC 444.584).
- *Industrial Solid Waste* solid waste derived from industrial or manufacturing processes, including, but not limited to, the solid wastes generated by the:
 - 1. generation of electric power
 - 2. manufacture of fertilizer and agricultural chemicals
 - 3. manufacture of food and its related products and byproducts
 - 4. manufacture of inorganic chemicals
 - 5. manufacture of leather and products made from leather
 - 6. manufacture of nonferrous metals, including the foundries which manufacture those metals
 - 7. manufacture of organic chemicals
 - 8. manufacture of plastics, resins, and other miscellaneous products made from plastic
 - 9. pulp and paper industry
 - 10. manufacture of rubber and other miscellaneous products made from rubber
 - 11. manufacture of products made from stone, glass, clay, and concrete
 - 12. manufacture of textiles
 - 13. manufacture of transportation equipment
 - 14. treatment of water
 - 15. manufacture of iron and steel
 - 16. construction, refurbishing, or demolition of buildings or other structures.

The term does not include waste generated by the mining, oil, and gas industries (NAC 444.585). changed

- Lateral Expansion a horizontal expansion of the waste boundaries of a disposal site after 9 October 1993 (NAC 444.587).
- *Leachate* a liquid which has passed through or emerged from a municipal solid waste landfill unit and contains soluble, suspended, or miscible materials removed from the waste within the unit (NAC 444.5875).
- *Lift* a compacted layer of solid waste, typically consisting of several cells, which is approximately 10 to 15 ft thick, placed within a defined area of a municipal solid waste landfill unit, and separated from other lifts on the top and bottom by a layer of cover material (NAC 444.588).
- Lithified Earth Material all rock, including all naturally occurring and naturally formed aggregates of masses
 of minerals or small particles of older rock which formed by the crystallization of magma or by the induration of
 loose sediments. The term does not include manmade materials, such as fill, concrete and asphalt, or
 unconsolidated earth materials, soils, or regolith lying at or near the surface of the earth (NAC 444.6793(2)(a)).

- *Materials Recovery Facility* a solid waste management facility that provides for the extraction from solid waste of recyclable materials, materials suitable for used as a fuel or soil amendment, or any combination of those materials. The term does not include (NAC 444.7474) [Added October 2000]:
 - 1. A facility that receives only recyclable materials that have been separated at the source of waste generation if further processing of the materials generates less than 10 percent waste residue by weight on an annual average;
 - 2. A salvage yard for the recovery of used motor vehicle parts;
 - 3. A facility that receives, processes or stores only concrete, masonry waste, asphalt pavement, brick, uncontaminated soil or stone for the recovery of recyclable materials; and
 - 4. A facility that recovers less than 10 percent by weight of the recyclable material from the solid waste received on an annual average.
- Maximum Horizontal Acceleration the maximum expected horizontal acceleration depicted on a seismic hazard map with a 90 percent or greater probability that the acceleration will not be exceeded in 250 yr, or the maximum expected horizontal acceleration based on a seismic risk assessment for the specific site (NAC 444.6793(2)(b)).
- *Medical Waste* has the meaning ascribed to it in 49 CFR 173, Appendix G *Definition of Regulated Medical Waste*, as that appendix existed on 9 November 1993 (NAC 444.589).
- Municipal Solid Waste Landfill (MSWLF) Unit a discrete area of land or an excavation that receives household waste. A MSWLF unit may receive other types of solid waste, including sludge and industrial solid waste. A MSWLF unit may be publicly or privately owned. The term does not include an injection well, a surface impoundment, a land application unit, or a waste pile, as those terms are defined in 40 CFR 257.2 (NAC 444.591).
- New Municipal Solid Waste Landfill Unit a municipal solid waste landfill unit which had not received waste before 8 November, 1993 (NAC 444.593).
- *Nuisance* anything which is injurious to health, offensive to the senses, or an obstruction to the free use of property, and thus interferes with the comfortable enjoyment of life or property (NAC 444.594).
- One Hundred-Year Floodplain (100-Year Floodplain) the lowland and the relatively flat lands adjoining the waters that are inundated by a 100-year flood (NAC 444.6785(3)).
- Open Burning the combustion of solid waste without:
 - 1. the control of air to maintain an adequate temperature for efficient combustion
 - 2. the containment of the reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion
 - 3. the control of the emission of the products resulting from the combustion (NAC 444.596).
- *Open Dump* an uncontrolled disposal site where solid waste is disposed of in a manner which does not comply with NRS.444.630 and the following regulations, or any permit issued pursuant thereto (NAC 444.598).
- Operator the person responsible for the overall operation of a disposal site or any part of that site (NAC 444.5985).
- Owner the person who owns a disposal site or any part of that site (NAC 444.599).
- *Pathological Wastes* human and animal remains, consisting of carcasses, organs, and solid organic waste from hospitals, laboratories, abattoirs, animal pounds, and similar sources (NAC 444.600).

- Percolation the downward movement of water through soil or waste (NAC 444.602).
- *Person* any state or Federal agency, any state, including the State of Nevada, a political subdivision of any state, including the State of Nevada, and an interstate agency or organization (NAC 444.604).

• Pollutant -

- 1. dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water
- 2. does not mean water, gas or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well is used either for facilitating production or for disposal purposes and if the Department determines that such injection or disposal will not result in the degradation of ground or surface water resources
- 3. does not mean water, gas, or other material injected into a well or used to stimulate a reservoir of geothermal resources if the Department determines that the injection or stimulation will not result in the degradation of ground or surface water resources (NRS 445.178).
- *Postclosure* the period immediately after a disposal site is closed (NAC 444.6065).
- *Putrescible* capable of being decomposed by microorganisms with sufficient rapidity as to cause nuisances from odors or gases (NAC 444.608).
- Qualified Groundwater Scientist a person who has received a baccalaureate or postgraduate degree in the
 natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related
 fields as may be demonstrated by professional certifications or the completion of accredited programs offered by
 a college or university which enable him to make sound professional judgments regarding the monitoring of
 groundwater, the fate and transportation of contaminants, and required corrective actions (NAC 444.609).
- Refuse any of the following:
 - 1. garbage
 - 2. sludge from a:
 - a. plant that treats wastewater
 - b. plant that treats the water supply
 - c. facility for controlling air pollution
 - 3. other discarded material, including solid, semisolid, liquid, or contained gaseous material, resulting from industrial or commercial operations or community activities.

The term does not include:

- any discarded material, including solid, semisolid, liquid, or contained gaseous material, resulting from mining or agricultural activities which is excluded from a plan for a system for the management of solid waste pursuant to NRS 444.620
- 2. solid or dissolved materials in domestic sewage
- 3. industrial discharges that are point sources subject to NRS 445.221
- 4. source material, special nuclear material, or byproduct material, as those terms are defined by the *Atomic Energy Act* of 1954, as that act existed on 8 November 1993 (NAC 444.610).
- *Rubbish* nonputrescible solid waste, consisting of both combustible and noncombustible wastes such as paper, cardboard, abandoned automobiles, tin cans, wood, glass, bedding, crockery, and similar materials (NAC 444.612).
- Salvage Yard any place where salvaged material is regularly dismantled, accumulated, stored, or offered for sale, unless such operations are wholly contained in an approved building (NAC 444.614).

- *Salvaging* the controlled removal of material from the solid waste stream for reuse, sale, or recycling (NAC 444.616).
- Scavenging the uncontrolled removal of material from the solid waste stream for any purpose in a manner which interferes with the safe efficient operation of the system (NAC 444.620).
- Seismic Impact Zone an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material will exceed 10 percent of the earth's gravitational pull in 250 yr, as determined by referencing the United States Geological Survey, Open File Report 82-1033, Probabilistic Estimates of Maximum Acceleration and Velocity in Rock and the Contiguous United States (NAC 444.6793(2)(c)).
- Solid Waste all putrescible and nonputrescible refuse in solid or semisolid form, including, but not limited to, garbage, rubbish, junk vehicles, ashes or incinerator residue, street refuse, dead animals, demolition waste, construction waste, solid or semisolid commercial and industrial waste. The term does not include hazardous waste managed pursuant to NRS 459.400 to 459.600, inclusive (NRS 444.490).
- Solid Waste Management Authority -
 - 1. the district board of health in any area in which a health district has been created pursuant to NRS 439.370 and in any area over which the board has authority pursuant to an interlocal agreement, if the board has adopted all regulations that are necessary to carry out the provisions of NRS 444.440 to 444.620, inclusive
 - 2. in all other areas of the state, the Division of Environmental Protection of the Nevada Department of Conservation and Natural Resources (NRS 444.495).
- Surface Impoundment a facility of part of a facility that is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen material or lined with manmade material, which is designed to hold an accumulation of liquid wastes or wastes containing free liquids. The term includes holding storage, settling, and aeration pits, ponds, and lagoons. The term does not include an injection well (NAC 444.6265).
- *Transfer Station* a solid waste processing site where solid waste is transferred from one vehicle to another vehicle or storage bin for temporary storage until transferred to a disposal site. Some processing may be included therein (NAC 444.628).
- *Unstable Area* a location that is susceptible to natural or manmade features that are capable of impairing the integrity of some or all of the structural components of a municipal solid waste landfill unit that will prevent the release of the solid waste, or any byproduct thereof, from that landfill. The term includes poor foundation conditions, areas susceptible to mass movements, and karst terranes (NAC 444.6795(3)(e)).
- *Uppermost Aquifer* the aquifer located within the boundaries of a disposal site that is nearest the natural ground surface. The term includes lower aquifers which are hydraulically interconnected with the boundary of the disposal site (NAC 444.629).
- *Vector* a living insect or other arthropod or animal (not human) capable of carrying infectious disease from one person or animal to another (NAC 444.630).
- Waters of the State all waters situated wholly or partly within or bordering upon this state, including, but not limited to:
 - 1. all streams, lakes, ponds, impounding reservoirs, marshes, water courses, waterways, wells, springs, irrigation systems, and drainage systems
 - 2. all bodies or accumulations of water, surface and underground, natural and artificial (NRS 445.191).

- Wet Garbage any combination of refuse and garbage which contains greater than 50 percent moisture (NAC 444.632).
- Wetlands those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils, including swamps, marshes, bogs, and other similar areas (NAC 444.679(2)).

SOLID WASTE MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items SO.2.1.NV.

SO.5.1.NV. and SO.5.2.NV. General

Permits/Notifications/Exemptions SO.6.1.NV. Operations SO.8.1.NV.

Specific Wastes SO.9.1.NV. and SO.9.2.NV.

Storage/Collection of Solid Waste SO.10.1.NV. through SO.10.7.NV. Transfer Facilities SO.15.1.NV. through SO.15.3.NV. Transportation SO.20.1.NV. through SO.20.3.NV.

Municipal Solid Waste Landfills

Permits SO.50.1.NV.

Location Restrictions SO.55.1.NV. through SO.55.8.NV. Design Criteria SO.60.1.NV. through SO.60.6.NV. Operating Criteria SO.65.1.NV. through SO.65.25.NV.

Emissions SO.67.1.NV.

Groundwater Monitoring Criteria SO.70.1.NV. through SO.70.22.NV. SO.75.1.NV. through SO.75.6.NV. Closure Criteria SO.80.1.NV. and SO.80.2.NV. Postclosure Care Requirements SO.85.1.NV. through SO.85.3.NV. Documentation SO.95.1.NV. through SO.95.5.NV.

Resource Recovery Facilities

Medical Waste

Containers/Labeling/Storage Areas SO.110.1.NV. Transportation SO.115.1.NV. Construction/Demolition Landfills SO.140.1.NV.

Incinerators SO.145.1.NV. through SO.145.3.NV. **Industrial Waste Units** SO.150.1.NV. through SO.150.12.NV. Waste Tire Facilities SO.160.1.NV. through SO.160.3.NV. Yard Waste/Composting SO.165.1.NV. and SO.165.2.NV.

Other Treatment Processing Units

Prohibitions SO.175.1.NV. through SO.175.6.NV.

SOLID WASTE MANAGEMENT GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS: REFER TO APPENDIX TITLES:

> 9-1 Class II MSWLF Maintenance and Operation Requirements

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT Nevada Supplement

Nevada Supplement		
REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
SO.2. MISSING CHECKLIST ITEMS		
SO.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT Nevada Supplement

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
SO.5 GENERAL	
SO.5.1.NV. All solid waste must be stored, collected, utilized, treated, processed, and disposed of in a specific manner (NAC 444.644(1)).	Verify that all solid waste is stored, collected, utilized, treated, processed, and disposed of by means that does not create a health hazard, public nuisance, or impairment of the environment. Verify that solid waste is handled in a manner that does not contribute to breeding of insects and rodents or to support any disease vector.
SO.5.2.NV. All solid waste systems must be operated in a manner that does not cause or contribute to pollution (NAC 444.644(2)).	Verify that all solid waste systems are operated in a manner that does not cause or contribute to the pollution of the atmosphere or the surface or groundwaters of the state.

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REGULATORY	REVIEWER CHECKS:
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SO.6 PERMITS/ NOTIFICATIONS/ EXEMPTIONS	
SO.6.1.NV. Disposal sites must be permitted (NAC 444.6405).	Verify that the owner or operator of a disposal site obtains a permit to operate the site from the appropriate solid waste management authority.
444.0403).	(NOTE: The following sites are exempt from being permitted: - composting bins which are operated at a personal residence for personal use - municipal composting operations for yard wastes.)
	Verify that permits are obtained before the construction or operation of a site, and that permit applications are submitted at least 180 days before the anticipated start of construction.
	(NOTE: A disposal site for which a notice of intent to close the site by 8 November 1993, or continue operations after 8 November 1993, was not submitted to the solid waste management authority is an open dump.)
	Verify that Class I sites which continued operations after 8 November 1993, have a permit issued by the solid waste management authority by 9 October 1996.
	Verify that Class II sites which continued operations after 8 November 1993, have a permit issued by the solid waste management authority by 9 October 1999.
	Verify that interim approval is effective until the site is closed or a permit is issued for the site.

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SO.8	
OPERATIONS	
SO.8.1.NV. Open burning at	Verify that opening burning of solid waste at a disposal site, transfer station, or
a disposal site, transfer station, or other solid waste handling	other facility which handles solid waste is prohibited.
facility is prohibited (NAC	(NOTE: Animal carcasses may be disposed of by burning under specific circum-
444.640(1) and (2)).	stances except where burning is not allowed at MSWLF units and Class III
	sites.)

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
SO.9 SPECIFIC WASTES	
SO.9.1.NV. Sewage sludges, septic tank pumpings, and medical wastes may be deposited at a disposal site only if provisions for such disposal are provided for (NAC 444.646(1)).	Verify that sewage sludges, septic tank pumpings, and medical wastes are deposited at disposal sites only if provisions for such disposal are included in the operational plan and approved by the solid waste management authority.
SO.9.2.NV. The burial area for sewage sludges, septic tank pumpings, and medical wastes must meet specific criteria (NAC 444.646(2)).	Verify that a completed sewage sludge, septic tank pumping, and medical waste burial area is covered with a layer of suitable cover material compacted to a minimum uniform depth of 36 in.

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SO.10. STORAGE/COLLECTION OF SOLID WASTE	
SO.10.1.NV. The owner/occupant of any premises, business establishment, or industry is responsible for the safe and sanitary storage of solid waste accumulated at the premises (NAC 444.662(1)).	Verify that the owner or occupant of any premises, business establish, or industry provides for the safe and sanitary storage of all solid waste accumulated at the premises until it is removed.
SO.10.2.NV. All garbage and similar putrescible waste must be stored in a specific manner (NAC 444.662(2), ((3), and (4)).	Verify that all garbage and similar putrescible waste is stored in: - durable, nonabsorbent, watertight, and easily cleanable containers that are resistant to corrosion and rodents, and that the covers of the containers prevent the entry of flies - other types of containers acceptable to the solid waste management authority.
	Verify that, if garbage and similar putrescible wastes are stored with nonputrescible wastes, containers for the storage of the mixture meet the requirements for garbage storage, and that such wastes are not stored for more than 1 wk before collection.
	(NOTE: The size and allowable weight of the storage container is determined by the collection agency and approved by the solid waste management authority.)
	Verify that if garbage and similar putrescible wastes are stored with nonputrescible wastes, containers for the storage of the mixture meet the requirements for garbage storage, and that such wastes are not stored for more than 1 wk before collection.
SO.10.3.NV. Bulky wastes must be stored in a manner that does not create a nuisance (NAC 444.662(6)).	Verify that bulky wastes or other nonputrescible wastes unsuitable for storage containers are stored in a manner that does not cause a nuisance.

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SO.10.4.NV. The owner/occupant of any premises, business establishment, or industry is responsible for the removal of all solid waste accumulated at the premises (NAC 444.664(1)).	Verify that the owner/occupant of any premises, business establishment, or industry is responsible for the satisfactory and legal arrangements for the removal of all solid waste accumulated at the premises.
SO.10.5.NV. The collector or transporter of solid waste is responsible for prevention of litter in and creation of other nuisances (NAC 444.664(2)).	Verify that the collector or transporter of solid waste is responsible for the prevention of littering and the creation of other nuisances at the loading point and during transport, and for proper unloading at an authorized site or facility for solid waste disposal.
SO.10.6.NV. Vehicles and containers used for the collection and transportation of solid waste must meet specific standards (NAC 444.664(3)).	Verify that vehicles and containers used for the collection and transportation of garbage and similar putrescible waste or refuse are tightly covered, leak proof, durable, and of easily cleanable construction. Verify that the vehicles and containers used for the collection and transportation of solid wastes are cleaned frequently to prevent nuisances and insect breeding, and are maintained in good repair.
SO.10.7.NV. Vehicles and containers used for the collection and transportation of any solid waste must be loaded and moved to prevent leaks and/or spills (NAC 444.664(4)).	Verify that, vehicles and containers used for the collection and transportation of solid wastes are loaded and moved in a manner so that the contents do not fall, leak, or spill, and are covered as necessary to prevent the blowing of material from the vehicle or container. Verify that when spillage does occur, the waste is picked up immediately by the collector or transporter and returned to the vehicle or container, and the area is otherwise properly cleaned.

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SO.15. TRANSFER FACILITIES	
SO.15.1.NV. Transfer stations may not be established until the site, facilities, and method of operation are approved (NAC 444.666(1)).	Verify that the site location, facilities, and proposed method of operation of any transfer stations are approved by the solid waste management authority before they are established.
SO.15.2.NV. Transfer stations must be aesthetically compatible with its environs (NAC 444.666(2)).	Verify that transfer stations are designed and constructed to be aesthetically compatible with their environs.
SO.15.3.NV. Approach and exit roads to transfer stations must meet specific standards (NAC 444.666(3)).	Verify that roads approaching and exiting transfer stations are of all-weather construction and maintained in good condition.

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REGULATORY	REVIEWER CHECKS:
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SO.20. TRANSPORTATION	
SO.20.1.NV. The collector or transporter of solid waste is responsible for prevention of litter in and creation of other nuisances (NAC 444.664(2)).	Verify that the collector or transporter of solid waste is responsible for the prevention of littering and the creation of other nuisances at the loading point and during transport, and for proper unloading at an authorized site or facility for solid waste disposal.
SO.20.2.NV. Vehicles and containers used for the collection and transportation of solid waste must meet specific standards (NAC 444.664(3)).	Verify that vehicles and containers used for the collection and transportation of garbage and similar putrescible waste or refuse are tightly covered, leakproof, durable, and of easily cleanable construction. Verify that the vehicles and containers used for the collection and transportation of solid wastes are cleaned frequently to prevent nuisances and insect breeding, and are maintained in good repair.
SO.20.3.NV. Vehicles and containers used for the collection and transportation of any solid waste must be loaded and moved to prevent leaks and/or spills (NAC 444.664(4)).	Verify that vehicles and containers used for the collection and transportation of solid wastes are loaded and moved in a manner so that the contents do not fall, leak, or spill, and are covered as necessary to prevent the blowing of material from the vehicle or container. Verify that when spillage does occur, the waste is picked up immediately by the collector or transporter and returned to the vehicle or container, and the area is otherwise properly cleaned.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions of Class I and Class II sites.)
SO.50. PERMITS	
SO.50.1.NV. Class I and Class II Municipal Solid Waste Facilities (MSWLFs) must be permitted (NAC 444.677 and 444.705).	Verify that Class I and Class II MSWLFs are permitted by the solid waste management authority. Verify that the permit applications include the following: - the name, location, and mailing address of the: - composting bins which are operated at a personal residence for personal use - owner of the site - operator of the site - authorized agent of the owner - proof of ownership of the land on which the site is located - report of the design of the site - plan for monitoring water - plan for closure of the site - plan for postclosure of the site - copy of the financial assurance - any additional information which the solid waste management authority requires.

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MUNICIPAL SOLID WASTE LANDFILL	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions of Class I and Class II sites.)
SO.55. LOCATION RESTRICTIONS	
SO.55.1.NV. Class I and Class II MSWLFs must comply with certain general loca-	Verify that Class I and Class II MSWLFs are easily accessible in all kinds of weather to all vehicles using the site.
tion restrictions (NAC 444.678 and 444.7045(2)(e)).	Verify that the location of Class I and Class II MSWLFs prevents pollutants and contaminants from the MSWLFs from degrading the waters of the state.
	Verify that uncontrolled migration of gas is prevented at Class I and Class II MSWLF sites.
	Verify that Class I and Class II MSWLF sites have an adequate quantity of earth cover that is workable and compactable and does not contain organic material of a quantity and distribution conducive to harboring and breeding disease vectors.
	Verify that the Class I or Class II MSWLF conforms with land use planning of the area.
	Verify that the Class I or Class II MSWLF site is not within 0.25 mi of the nearest inhabited dwelling or place of public gathering or within 1000 ft of a public highway, unless special provisions for the beautification of the site and the control of litter and vectors are included in the design and approved by the solid waste management authority.
	Verify that the Class I or Class II MSWLF site is approved by the solid waste management authority.
	Verify that the Class I or Class II MSWLF site is not within 1000 ft of any surface water or 100 ft or the uppermost aquifer if the site was approved after 2 September 1992, unless approved by the solid waste management authority.
SO.55.2.NV. Class I and Class II MSWLFs must comply with specific airport safety location restrictions (NAC	Verify that proof that new or existing Class I or Class II MSWLF units or a lateral expansions located within 10,000 ft of the end of any airport runway used by turbojet aircraft are designed and operated so that they are not a hazard to aircraft is maintained and placed in the operating record.

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444.6783 and 444.7045(2)(e)). [Revised October 1997]	aircraft is maintained and placed in the operating record.
	Verify that proof that new or existing Class I or Class II MSWLF units or a lateral expansions located within 5000 ft of the end of any airport runway used only by piston-type aircraft are designed and operated so that they are not a hazard to aircraft is maintained and placed in the operating record.
	Verify that the solid waste management authority is notified that the proof is placed in the operating record
	Verify that the affected airport and the Federal Aviation Administration are notified of new Class I and Class II MSWLFs or lateral expansions located within a 5 mi radius of the end of airport runways used by turbojets or piston-type aircraft.
SO.55.3.NV. Class I and Class II MSWLFs must comply with specific flood plains location restrictions (NAC 444.6785 and	Verify that new or existing Class I and Class II MSWLFs or lateral expansions located in a 100-yr flood plain maintain proof that the unit or lateral expansion does not: - restrict the flow of the flood plain
444.7045(2)(e)).	 reduce the temporary capacity of the flood plain to shore water result in the washout of solid waste that poses a hazard to public health and safety and the environment.
	Verify that the above-mentioned proof is placed in the operating records of the Class I or Class II MSWLF, and the solid waste management authority is notified that the proof is in the operating records.
SO.55.4.NV. Class I and Class II MSWLFs must comply with certain wetlands location restrictions (NAC	Verify that new Class I and Class II MSWLFs or lateral expansions are not located in wetlands unless it is satisfactorily demonstrated to the solid waste management authority and administrator that:
444.679(1) and 444.7045(2)(e)).	 the presumption, if applicable pursuant to section 404 of the Federal <i>Clean Water Act</i> of 1977 (33 U.S.C. 1344), as that section existed on 8 November 1993, that a practicable alternative to the proposed unit or later expansion is available and does not involve wetland is clearly rebutted the construction and operation of the MSWLF Class I or Class II unit or lateral expansion does not: cause or contribute to violations of any applicable state water quality standard violate any applicable toxic effluent standard or prohibition set forth
	in section 307 of the <i>Federal Clean Water Act</i> of 1977 (33 U.S.C. 1317), as it existed on 8 November 1993

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	 jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of a critical habitat, protected by the Federal Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), as it existed on 8 November 1993 violate any requirement set forth in the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.), as it existed on 8 November 1993 the site does not cause or contribute to any significant degradation of the wetlands, and that the integrity of the MSWLF unit or lateral expansion is demonstrated as well as its ability to protect the ecological resources by showing: the potential erosion, stability, and migration of the soils, muds, and deposits of the wetlands that support the site the potential erosion, stability, and migration of dredged and fill materials which support the site the volume and chemical composition of the waste managed at the site the potential impact on fish, wildlife, and other aquatic resources and their habitats the potential effects of a catastrophic release of waste into the wetlands and the resulting impacts on the environment any additional factors required by the solid waste management authority which show that the ecological resources in the wetlands are protected to the extent required by section 404 of the Clean Water Act (33 U.S.C. 1344), as it existed on 8 November 1993, or any applicable state laws, actions have been taken which attempt to achieve no net loss of wetlands to the maximum extent practicable, then minimizing the unavoidable impacts to the maximum extent practicable, then minimizing the unavoidable impacts to the maximum extent practicable, then minimizing the unavoidable impacts to the maximum extent practicable, and then offsetting the remaining unavoidable impacts on the wetlands through all appropriate and practicable mitigation actions such as restoration of existing degraded wetlands or the
SO.55.5.NV. Class I and Class II MSWLFs must comply with specific fault area location restrictions (NAC 444.6791 and 444.7045(2)(e)).	Verify that new Class I and Class II MSWLFs or lateral expansions are not located within 200 ft of a fault that has had a displacement in Holocene time, unless it is demonstrated to the solid waste management authority that an alternative setback distance of less than 200 ft will prevent damage to the structural integrity of the unit and will protect the public health and safety and the environment.

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SO.55.6.NV. Class I and Class II MSWLFs must comply with certain seismic impact zone location restrictions (NAC 444.6793 and 444.7045(2)(e)).	Verify that new Class I and Class II MSWLFs or lateral expansions are not located in seismic impact zones, unless proof is submitted to the solid waste management authority that all structures for containment, including liners, systems for the collection of leachate and systems for the control of surface water, are designed to resist the maximum horizontal acceleration in lithified earth material for the site, and that such proof is placed in the operating records for the site and the solid waste management authority is notified that the proof is in the records.
SO.55.7.NV. Class I and Class II MSWLFs must comply with specific unstable area location restrictions (NAC 444.6795 and 444.7045(2)(e)).	Verify that new or existing Class I and Class II MSWLFs or lateral expansions located in unstable areas maintain proof that engineering measures have been incorporated into the structural design of the unit or lateral expansion which ensure that the integrity of the unit of lateral expansion will not be disrupted, and that such proof is placed in the operating records for the site and the solid waste management authority is notified that the proof is in the records. (NOTE: The following items must be considered in determining if an area is unstable: - conditions of the solid on or near the site which may result in a significant differential settling - geologic or geomorphic features on or near the site - manmade features or events which are on the surface or subsurface.)
SO.55.8.NV. Class II MSWLFs must follow specific location requirements (NAC 444.706).	Verify that Class II MSWLFs are not located within 0.5 mi of the nearest inhabited dwelling or place of public gathering or within 1000 ft of a public highway, unless special provisions for the beautification of the site and the control of litter and vectors are included in the design and approved by the solid waste management authority. Verify that the location of Class II MSWLFs meet with the approval of the solid waste management authority.

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT **Nevada Supplement REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 MUNICIPAL SOLID (NOTE: The requirements for MSWLFs apply to both Class I and Class II sites WASTE LANDFILLS in Nevada. See definitions of Class I and Class II sites.) SO.60. **Design Criteria** Verify that Class I and Class II MSWLF design reports are signed by a SO.60.1.NV. Class I and Class II MSWLFs must have a professional engineer. design report containing Verify that Class I and Class II MSWLF design reports include a general specific information (NAC location map showing land use and zoning within 1 mi of the disposal site. 444.680 and 444.708(2)). Verify that Class I and Class II MSWLF design reports include plans and specifications of the facility of sufficient detail to show compliance with the applicable design standards and provide a clear understanding of the development of the site, and that the plan: - is at a scale of not more than 200 ft to the inch, including contour intervals of not more than 5 ft - shows the topography of the site before the development - shows the proposed limits of excavation and fill areas, including: - the final elevations and grades of each MSWLF unit on the site - the system for final cover - the location and placement of each system of liners - each system for the collection and removal of leachate showing all critical grades and elevations of the inverts and drainage envelopes for the collection pipes, manholes, cleanouts, valves, and sumps, and showing the thickness of the drainage blankets - shows any proposed soil borrow areas - shows the sequence of development for the facility including an outline of fill areas, the sequence of filling operations, and the locations of access - shows access roads, including dimensions, slopes, profiles, and the types of pavement to be used - shows a typical cross section of the landfill - shows grades, berms, dikes, swales, and other devices for proper drainage and control of surface water, run-on, and runoff for the site - shows the devices for monitoring and controlling the gases at the site - shows the fencing, equipment shelter, employee facilities, and all other features for the development of the site.

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that the population and area to be served by the Class I and Class II MSWLF is defined in the design reports. Verify that Class I and Class II MSWLF design reports define the anticipated types, quantities, and sources of solid wastes to be disposed of at the site. Verify that Class I and Class II MSWLF design reports define the source, type, and quantity of cover material. Verify that Class I and Class II MSWLF design reports include proof of compliance with the requirements relating to the control of surface water. Verify that Class II MSWLF designs are intended to protect the waters of the state from degradation by pollutants or contaminants. SO.60.2.NV. New Class I Verify that new Class I MSWLF units of lateral expansions are constructed: MSWLF units of lateral - in accordance with a design approved by the solid waste management expansions must meet specific authority that protects the waters of the state from degradation by design criteria (NAC pollutants or contaminants 444.681). - with a composite liner and a system for leachate collection which is designed and constructed to maintain less than a 30 cm depth of leachate over the liner; the composite liner has the following components: - an upper component consisting of a flexible membrane liner of at least 30 mil - a lower component consisting of a layer of compacted soil that is at least 2 ft with a hydraulic conductivity of no more than 10 cm/s - components of a flexible membrane liner consisting of high density polyethylene are at least 60 mil, and the flexible membrane liner is installed in direct and uniform contact with the compacted soil. SO.60.3.NV. Class I and Verify that signs are posted at Class I and Class II MSWLFs that clearly indicate Class II MSWLFs must post the following: specific signs (NAC 444.690 - the owner and operator of the site and 444.718). - the hours of operation - materials accepted or excluded - fees charged.

Class II MSWLFs must II MSWLFs to prevent erosion, surface deterioration, and fugitive dust.

Verify that suitable grasses are planted in completed areas of Class I and Class

SO.60.4.NV.

Class I and

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control erosion and dust (NAC 444.696 and 444.724).	II MSWLFs to prevent erosion, surface deterioration, and fugitive dust.
	Verify that adequate water is available at Class I MSWLFs at all times for dust control and for compaction of cover material.
SO.60.5.NV. Access roads to Class I and Class II MSWLFs must meet specific criteria (NAC 444.698 and 444.7045(2)(d) and 444.726).	Verify that access roads to Class I and Class II MSWLF units are controlled as to time of use and to those authorized to use the site in order to prevent unauthorized vehicular traffic and illegal dumping.
	Verify that access to Class I and Class II MSWLFs is controlled by the use of artificial or natural barriers, or both, as appropriate, which protect the public health and safety and the environment.
	Verify that an attendant is on duty at Class I and Class II MSWLFs to control access during hours or operation.
	Verify that permanent roads are provided from the public road system to Class I and Class II MSWLF sites, if necessary.
	Verify that temporary roads are provided as necessary to the working face of Class I and Class II MSWLFs.
	Verify that all access roads to Class I and Class II MSWLFs are passable during inclement weather.
SO.60.6.NV. Suitable shelter and sanitary facilities must be provided at Class I MSWLFs for operating and waste transport personnel (NAC 444.700).	Verify that suitable shelter and sanitary facilities are provided at Class I MSWLFs for operating personnel and solid waste transport personnel.

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MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions for clarification of Class I and Class II sites.)
SO.65. OPERATING CRITERIA	
SO.65.1.NV. MSWLFs must develop and carry out a	Verify that MSWLFs develop and carry out a program for quality assurance and quality control for the construction of all liner systems required.
program for quality assurance and control for the con- struction of the required liner systems (NAC 444.645).	Verify that MSWLFs submit a summary of the quality assurance and control program to the solid waste management authority before waste is placed in the MSWLF.
SO.65.2.NV. MSWLFs must provide for the control of explosive gas (NAC 444.667(1) and (2) and (6)).	Verify that MSWLFs provide for the control of explosive gas at the landfill by ensuring that: - the concentration of methane gas generated at the unit does not exceed 25 percent of the lower explosive limit for methane in structures, excluding components for any system to control or recover the gas - the concentration of methane gas does not exceed the lower explosive limit for methane at the boundary of the unit. (NOTE: Lower explosive limit means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25 °C and at atmospheric
SO.65.3.NV. MSWLFs must carry out a routine program for monitoring methane gas (NAC	Verify that a routine program for monitoring methane gas is carried out in MSWLFs, that the level of methane is monitored at least quarterly each year, and that the type and frequency of monitoring is determined based on the:
444.667(3)).	 conditions of the soil hydrogeologic conditions surrounding the unit hydraulic conditions surrounding the unit location of the structures and boundaries of the unit.
SO.65.4.NV. If the level of	Verify that if the level of methane gas in the MSWLF exceeds 25 percent of the

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methane gas in MSWLFs exceeds the safe limits, specific actions must be taken (NAC 444.667(4) and (5)).	lower explosive limit for methane in structures (excluding components for any system to control or recover the gas), the following actions are taken: - all necessary actions to ensure protection of public health and safety are taken, and the solid waste management authority is notified - within 7 days of the detection, the levels of methane gas detected and a description of the actions taken to protect public health and safety are placed within the unit's operating records - within 60 days after detection, a remediation plan is carried out for the releases of methane gas, a copy of the plan is placed in the operating records, the solid waste management authority is notified that the plan has been carried out, and the plan describes the nature and extent of the problem and the proposed remedy.
	(NOTE: The solid waste management authority may establish alternative schedules for the above regulation.)
SO.65.5.NV. Open burning is prohibited at MSWLFs (NAC 444.6675(2)).	Verify that all open burning, except for the infrequent burning of agricultural wastes, silvicultural wastes, debris from land clearing, diseased trees, or debris from emergency clean-up operations, is prohibited at MSWLFs.
SO.65.6.NV. Populations of disease vectors must be prevented or controlled at MSWLFs (NAC 444.6678).	Verify that populations of disease vectors are prevented or controlled at MSWLFs using techniques appropriate for the protection of public health and safety and the environment.
	Verify that, other than daily cover, appropriate techniques are instituted whenever required by the solid waste management authority minimizing the transmission of disease.
SO.65.7.NV. Class I and Class II MSWLFs must have operating plans containing	Verify that the Class I or Class II MSWLF site plan includes a description of the equipment and persons necessary to operate the site.
specific information (NAC 444.684 and 444.712(1)).	Verify that the Class I or Class II MSWLF site plan provides for the following: - adequate fire control methods to extinguish and prevent the spread of accidental fires - the prevention of scattering papers and other lightweight debris by portable litter fences or other suitable devices - the disposal of any special wastes specifically permitted by the solid waste management authority.

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444.686(3) and 444.714).

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Verify that the solid wastes at Class I and Class II MSWLFs are spread and compacted in thin layers. Verify that in each cell of Class I and Class II MSWLFs the waste is spread into layers not exceeding 2 ft before compaction. Verify that equipment for compaction at Class I and Class II MSWLFs is appropriately sized and makes a minimum of two passes over each layer of waste.	
Verify that solid waste is not placed within 200 ft of the boundary line of a Class I or Class II MSWLF unless a shorter distance is approved by the solid waste management authority.	
Verify that all solid waste in Class I and Class II MSWLFs is covered at the end of each operating day or at more frequent intervals as necessary to control disease vectors, fires, odors, blowing litter, and scavenging with at least 6 in. of compacted earthen material. (NOTE: The solid waste management authority may approve alternative materials to be used for compaction and alternative thickness of that material if the Class I or Class II MSWLF shows that the alternative materials and thickness are capable of controlling disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to public health, safety, and the environment. (NOTE: The management authority may grant a temporary waiver from the above requirements upon a showing that extreme seasonal climatic conditions make the requirements impractical.) Verify that, unless otherwise approved by the solid waste management authority, at least 12 in. of compacted earthen material is placed as an intermediate cover on a Class I or Class II MSWLF fill surface if that surface is not to receive waste for more than 90 days (not applicable to final fill surfaces). Verify that the integrity of daily and intermediate cover at Class I and Class II MSWLFs is maintained until further filling or the addition of final cover is	

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	side slopes of fills is promptly repaired.
	Verify that the daily and temporary covers of Class I and Class II MSWLFs are graded to drain runoff of surface water, and that the top slope has a grade of no less than 3 percent.
SO.65.14.NV. Class I and Class II MSWLFs must have	Verify that Class I and Class II MSWLFs provide a system that controls run-on and runoff.
systems to control run-on and runoff (NAC 444.6885 and 444.7045(2)(d)).	Verify that Class I and Class II MSWLFs design, construct, and maintain the following:
	 a system that controls run-on to prevent flow onto the active portion of the landfill during the peak discharge from a 25-yr storm a system that controls runoff from the active portion of the landfill that collects and controls at least the volume of water resulting from a 24-hr, 25-yr storm.
	(NOTE: In this section, active portion means that part of a MSWLF unit which has received or is receiving wastes and which has not been closed.)
SO.65.15.NV. Discharging pollutants or contaminants into surface waters is prohibited at Class I and Class II MSWLFs (NAC 444.6887 and 444.7045(2)(d)).	Verify that Class I and Class II MSWLFs do not cause a discharge of pollutants or contaminants into the waters of the state or waters of the United States, including wetlands, which violates any requirements of the Federal <i>Clean Water Act</i> of 1977, including, but not limited to, the National Pollutant Discharge Elimination System (33 U.S.C. 1342), as that section existed on 8 November 1993, or NRS 445.131 to 445.354, inclusive, and the regulations adopted pursuant thereto.
SO.65.16.NV. Highly putrescible waste must be placed in a separate area at Class I and Class II MSWLFs,	Verify that any dead animals, carrion, slaughterhouse wastes, and other highly putrescible wastes accepted at Class I and Class II MSWLFs are placed in a separate trench or area and covered immediately.
and covered immediately (NAC 444.694 and 444.722).	Verify that vector control is instituted at the Class I or Class II MSWLF, whenever necessary in the judgment of the solid waste management authority, to minimize disease transmission.
SO.65.17.NV. Scavenging and salvaging are not permit-	Verify that scavenging is not permitted at Class I or Class II MSWLF sites.

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ted at Class I or Class II MSWLF sites (NAC 444.702(1) and (2) and 444.728(1)).	Verify that salvaging is prohibited at the working face of Class I and Class II MSWLF sites.
SO.65.18.NV. Class I and Class II MSWLF must be inspected for scattered paper and other lightweight debris (NAC 444.702(3) and 444.728(2)).	Verify that Class I MSWLF areas are inspected daily and that all scattered paper and other lightweight debris is returned to the fill area and covered. Verify that Class II MSWLFs are inspected semiweekly and that all scattered papers and other lightweight debris is returned to the fill area and covered.
SO.65.19.NV. Reports must be submitted by Class I and Class II MSWLFs to the division (NAC 444.702(6) and 444.728(5)(b)). [Revised October 1997]	Verify that quarterly reports of the solid waste received at the Class I MSWLF are submitted to the division. Verify that semiannually reports of the solid waste received at the Class II MSWLF are submitted to the division.
SO.65.20.NV. Class II MSWLFs which fail to comply with minimum operating requirements are deemed to be open dumps (NAC 444.704(1)).	Verify that any Class II MSWLF site which fails to comply with the minimum operating requirements is deemed an open dump for the purpose of the disposal of solid waste and is prohibited.
SO.65.21.NV. New or existing Class II MSWLFs must place in the site's operating records information demonstrating how the site meets the Class II criteria (NAC 444.704(2)).	Verify that information demonstrating how the Class II MSWLF unit or lateral expansion meets the criteria for a Class II site (see definition) is placed in the site's operating records.
SO.65.22.NV. Class II MSWLFs must provide suitable shelter, drinking water,	Verify that suitable shelter, drinking water, and sanitary facilities are provided for employees at Class II MSWLFs.

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and sanitary facilities to employees (NAC 444.7045(1)).	
SO.65.23.NV. [Deleted October 1997].	
SO.65.24.NV. Sewage solids or liquids and other special wastes may not be disposed of at Class II sites (NAC 444.720).	Verify that sewage solids or liquids and other special wastes are not disposed of in Class II sites except when special permission is given by the solid waste management authority.
SO.65.25.NV. Class II MSWLF operators must comply with certain maintenance and operation criteria (NAC 444.728(5)(a)).	Verify that operators of Class II MSWLF sites comply with the requirements relating to the maintenance and operation of the site set forth in 40 CFR 258.20 to 258.29, inclusive (See Appendix 9-1).

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MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions for clarification of Class I and Class II sites.)
SO.67. Emissions	
SO.67.1.NV. MSWLFs emitting NMOC of 55.125 tons per year or greater must meet specific requirements (NAC 445B.383) [Added October 1998, Revised October 1999].	(NOTE: A MSWLF is exempt from this requirement if it meets any of the following: - is not and was not the site of construction, reconstruction or modification that commenced before 30 May 1991 - did not accept waste on or after 8 November 1987, and has a design capacity that does not allow for a deposit of waste in the future - has a design capacity less than 2.756 million tons if the design capacity is calculated in tones, less than 3.27 million ft³ if the design capacity is calculated in cubic feet, or less than 2.756 million tons and 3.27 million ft³ if the design capacity is calculated in both tons and cubic feet - has an emission of nonmethane organic compounds (NMOC) less than 55.125 tons per year.) (NOTE: Reviser's Note from 445B.383: A municipal solid waste landfill is not required to install a system designed to collect and control the emission of nonmethane organic compounds earlier than 30 mo after the effective date (5 March 1998.) Verify that, if an active collection system is used to capture the gas, it meets the following requirements: - is designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment - collects gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of either: - 5 yr or more if active - 2 yr or more if closed or at final grade - collects gas at a sufficient extraction rate [undefined] - is designed to minimize off-site migration of subsurface gas. Verify that, if a passive collection system is used to capture the gas, it meets the following requirements: - is designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the

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	gas control or treatment system equipment - collects gas from each area, cell, or group of cells in the landfill in whe the initial solid waste has been placed for a period of either: - 5 yr or more if active - 2 yr or more if closed or at final grade - is designed to minimize off-site migration of subsurface gas - is installed with liners on the bottom and all sides in all areas in which is to be collected.
	Verify that the emission control system routes all the collected gas to one of following: - a flare designed and operated pursuant to 40 CFR 60.18 - an enclosed combustor designed and operated to reduce the concentrat of nonmethane organic compounds at the outlet to no more than 20 ppn hexane by volume, dry basis at 3 percent oxygen - a system of emission control designed and operated to NMOC by weight percent.

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MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions for clarification of Class I and Class II sites.)
SO.70. Groundwater Monitoring Criteria	
SO.70.1.NV. Class I MSWLF sites must have plans for monitoring groundwater which include specific information (NAC 444.683).	Verify that the plan for monitoring water for a Class I MSWLF provides a complete description of the system capable of monitoring the performance of the design of the site, including monitoring of the ground water to detect the release of pollutants or contaminants from the MSWLF into the waters of the state.
(MC 444.005).	Verify that the Class I MSWLF water monitoring plan:
	 identifies the location and construction of monitoring points specifies monitoring parameters and the frequency of monitoring those parameters specifies procedures for quality assurance for all field and laboratory work provides for the semiannual submittal of monitoring data to the solid waste management authority establishes procedures which are to be used if monitoring provides evidence of leachate migration.
	(NOTE: The solid waste management authority may suspend monitoring requirements if it is demonstrated that there is no potential for migration of pollutants or contaminants from the Class I MSWLF site to waters of the state during the active life of the site, including the closure and postclosure periods; the demonstration must be certified by a qualified groundwater scientist and approved by the solid waste management authority.)
SO.70.2.NV. New or existing Class II MSWLFs or lateral expansions that contaminate the groundwater must follow specific procedures (NAC 444.704(3)).	Verify that new or existing Class II MSWLFs of lateral expansions which contaminate the groundwater notify the solid waste management authority of the contamination, and comply with the requirements of a Class I site (including, quality assurance/ quality control for liner systems, prevention of disposal of hazardous waste and polychlorinated biphenyl wastes, explosive gas monitoring, prohibition of open burning, vector control requirements, and groundwater monitoring).

SO.70.3.NV.

Groundwater | Verify that if the solid waste management authority has required the owner or

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monitoring systems must be installed in certain Class II MSWLFs (NAC 444.711) [Revised October 1997].	operator of a Class II site to install a groundwater monitoring system it is one of the following: - a system for monitoring ground water which complies with the provisions
	of NAC 444.7483; or - a system for monitoring moisture in the unsaturated zone, if the solid waste management authority determines that the system is necessary to protect the waters of the state from degradation by pollutants or contaminants.
SO.70.4.NV. MSWLFs must install groundwater monitoring systems meeting specific qualifications (NAC 444.7483(1)).	Verify that MSWLF units install systems for monitoring groundwater consisting of a sufficient number of wells, installed at appropriate locations and depths, yielding samples of groundwater from the uppermost aquifer which: - represents the quality of background groundwater which is not effected by
	leakage from the unit - represents the quality of groundwater at the boundary of the waste management unit.
	(NOTE: The monitoring system must be installed to ensure detection of contaminants in the groundwater in the uppermost aquifer. When physical obstacles preclude installation of wells to monitor groundwater at the boundary of the waste management unit, a downgradient monitoring system may be installed at the closest practicable distance hydraulically downgradient from the boundary which ensures detection of contamination of groundwater in the uppermost aquifer. A determination of background quality may include the sampling of wells that are not hydraulically upgradient of the waste management area if:
	 hydrogeologic conditions do not allow the owner or operator to determine which wells are hydraulically upgradient sampling at other wells provides an indication of the quality of the background groundwater which is as representatives or more representative than that provided by the upgradient wells.)
SO.70.5.NV. Groundwater monitoring wells of MSWLFs must be cased in specific	Verify that groundwater monitoring wells in MSWLFs are cased in a manner which maintains the integrity of the bore hole of the monitoring well.
manner (NAC 444.7483(3)).	Verify that the groundwater monitoring well casing is screened or perforated and packed with gravel or sand, if necessary, to enable the collection of samples of groundwater.
	Verify that the annular space above the sampling depth is sealed to prevent

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	contamination of samples and the groundwater.
SO.70.6.NV. The solid waste management authority must be notified when any documentation regarding groundwater monitoring is placed in any MSWLF site records (NAC 444.7483(4)).	Verify that the solid waste management authority is notified when documentation concerning the design, installation, development, and decommission of any monitoring wells, piezometers, and other measurement, sampling, and analytical devices is placed in the MSWLF site records. Verify that the monitoring wells, piezometers, and other measurement, sampling, and analytical devices are operated and maintained so that they perform to design specifications throughout the life of the monitoring program.
SO.70.7.NV. The number, spacing, and depths of the groundwater monitoring systems at MSWLFs must meet specific requirements (NAC 444.7483(5)).	Verify that the number, spacing, and depths of the groundwater monitoring systems at MSWLF units are: - determined based upon technical information for each specific site - certified by a qualified groundwater scientist and approved by the solid waste management authority, and within 14 days of the certification and approval, the certification is placed in the site records.
	Verify that the site specific technical information used includes a thorough characterization of both of the following:
	 thickness of the aquifer and the rate and direction of the flow of groundwater, including seasonal and temporal fluctuations saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, without limitation, the thickness, stratigraphy, lithology, hydraulic conductivities, porosities, and effective porosities of these materials.
SO.70.8.NV. MSWLFs must have a program for groundwater sampling and analysis (NAC 444.7484).	Verify that the MSWLFs program for groundwater sampling and analysis is placed in the site records and that the solid waste management authority is notified of its placement therein. Verify that the groundwater monitoring system includes the following:
	 consistent sampling and analytical procedures which ensures that monitoring results provide an accurate representation of the quality of the background and downgradient groundwater at the monitoring wells. procedures and techniques for:

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COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 in the unit.) Verify that the MSWLF monitors for the constituents identified in the MSWLF permit. SO.70.10.NV. All constitu-Verify that all constituents listed in the U.S. TEAM Guide Appendix 9-4 or any ents must be monitored at least alternative parameters are monitored at least semiannually during the active life of the MSWLF unit, including closure and postclosure. semiannually during the active life of a MSWLF unit (NAC Verify that at least four independent samples from each background and 444.7488). downgradient well are collected and analyzed for the constituents during the first semiannual sampling, and that at least one sample from each background and downgradient well are collected and analyzed during subsequent semiannual sampling. (NOTE: The solid waste management authority may specify an appropriate alternative schedule for monitoring constituents listed in the U.S. TEAM Guide Appendix 9-4 or any alternative parameters. The alternative schedule may require monitoring not less than annually, and will be based on the: - lithology of the aquifer and the unsaturated zone

- rate of flow of groundwater

- resource value of the aquifer.)

the downgradient monitoring well screen

SO.70.11.NV. Specific actions must be taken in the event of the determination of a statistically significant increase of constituents (NAC 444.7489).

Verify that, if there is a statistically significant increase over background for one or more of the constituents listed in Appendix 9-4 of the U.S. TEAM Guide or for any alternative parameters at any monitoring well at the boundary, the following actions are taken:

- minimum distance between the upgradient edge of the MSWLF unit and

- hydraulic conductivity of the aquifer and the unsaturated zone

- within 14 days after making the determination, a notice is placed in the site records indicating which constituents have shown statistically significant increases, and the solid waste management authority is notified of the placement
- a program for assessment monitoring is established within 90 days after making the determination.

(NOTE: The owner or operator may demonstrate that a source other than a MSWLF unit caused the contamination or that the statistically significant increase resulted from an error in sampling, analysis, or statistical evaluation, or from a natural variation in the quality of groundwater. A report documenting this

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U.S. TEAM Guide or any alternative parameters, and for those

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	(NOTE: In lieu of complying with the above provisions, the owner or operator may demonstrate that a source other than a MSWLF unit caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, or statistical evaluation, or from a natural variation in the quality of the groundwater. A report documenting this demonstration must be certified by a qualified groundwater scientist, approved by the solid waste management authority, and placed in the unit's operating records.)	
SO.70.16.NV. An assessment of corrective measures must be initiated if the constituents are detected at a statistically significant level exceeding the standards for the protection of groundwater (NAC 444.7493).	Verify that, within 90 days after finding that any of the constituents listed in Appendix 9-5 of the U.S. TEAM Guide are at a statistically significant level exceeding the standards for the protection of groundwater established by the administrator, an assessment of corrective measures is initiated at the MSWLF unit.	
	Verify that such an assessment is completed within a reasonable period specified by the solid waste management authority and submitted for review and approval by the solid waste management authority.	
	Verify that the monitoring is continued until the solid waste management authority approves the assessment of corrective measures.	
	Verify that the assessment of corrective measures includes an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy, including, but not limited to:	
	 the performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and the control of exposure to any residual contamination the time required to begin and complete the remedy the costs of carrying out the remedy any state or local statutory or regulatory requirements or other environmental or public health and safety requirements which may 	
	substantially affect implementation of the remedy.	
	Verify that a public notice is issued by the solid waste management authority, and that public comment is accepted for 30 days before the selection of a remedy.	
	Verify that, if requested, a hearing is held during the period of public comment, to discuss the assessment of corrective measures.	
SO.70.17.NV. A schedule for	Verify that a schedule for initiating and completing remedial activities is	

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submitted to the solid waste management authority. Verify that the schedule requires the initiation of remedial activities within a reasonable period and is approved by the solid waste management authority.
Verify that the remediation of a release of a constituent listed in Appendix 9-5 of the U.S. TEAM Guide is deemed unnecessary by the solid waste management authority and the administrator (jointly), if the following are demonstrated: - the groundwater is additionally contaminated by substances that have originated from a source other than a MSWLF unit ant those substances are present in such concentrations that the clean up of the release from the MSWLF would provide no significant reduction in risk to persons or environmental conditions that are or may be affected by the release - the constituents are present in groundwater which: - is not currently or reasonably expected to be a source of drinking water - is not hydraulically connected with waters to which the constituents are migrating or are likely to migrate in concentrations which exceed the standards for the protection of groundwater established by the Administrator - remediation of the releases is technically impracticable - remediation would result in unacceptable cross-media impacts. (NOTE: The above-mentioned provisions do not affect the authority of the administrator or solid waste management authority to require the owner or operator to undertake measures to control the source of the constituent or any other measures which may be necessary to: - eliminate or minimize further releases to the groundwater - prevent exposure of the groundwater to constituents - remediate the groundwater to constituents - remediate the groundwater to concentrations which are technically practicable and significantly reduce threats to public health and safety and the environment.)
Verify that a program for monitoring the corrective action for the groundwater is established, carried out, and includes the following: - at a minimum meets the monitoring requirements of SO.70.13.NV through SO.70.16.NV indicates the offsetiveness of the remedy.

indicates the effectiveness of the remedydemonstrates compliance with the standard for the protection of

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SO.70.20.NV. Any interim measures necessary for the protection of public health and safety and the environment must be taken (NAC 444.7497(3)).	Verify that any interim measures necessary to ensure the protection of public health and safety and the environment are taken. Verify that interim measures, to the greatest extent practicable, are consistent	
	with the objectives, and contribute to the performance, of the remedy. Verify that the owner or operator considers the following in determining whether interim measures are necessary:	
	 the time required to develop and carry out a final remedy the actual or potential exposure of nearby populations or environmental conditions to hazardous constituents the actual or potential contamination of supplies for drinking water or sensitive ecosystems the further degradation of the groundwater which may occur if remedial action is not initiated expeditiously weather conditions which may cause hazardous constituents to migrate or be released the risk of fire or explosion, or the potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system any other situations which may pose threats to the public health and safety and the environment. 	
SO.70.21.NV. If the solid waste management authority determines that the remedy is ineffective or impractical a new method must be used (NAC 444.7498).	Verify that, if the solid waste management authority determines, based on information developed after the initiation of the remedy or any other information, that the remedy is ineffective, any other method of remediation is used at the MSWLF to practicably comply with the requirements. Verify that, if the solid waste management authority and the administrator determine that remediation cannot be practically achieved with any currently available methods, the following actions are taken: - certification is obtained from a qualified groundwater scientist and the approval of the solid waste management authority and the administrator that remediation cannot be practically achieved with any currently available methods is obtained - alternative measures are carried out to control exposure of persons or the environment to residual contamination, as necessary to protect public health and safety and the environment	

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REQUIREMENTS:	- alternate measures are carried out for the control of the sources of contamination, or for the removal or decontamination of equipment, units, devices, or structures which are: - technically practicable - consistent with the overall objective of the remedy - approval is obtained from the solid waste management authority and the administrator for the alternative measures before they are carried out. Verify that all solid wastes managed pursuant to a remedy or an interim measure are managed in a manner which: - is protective of public health and safety and the environment - complies with applicable requirements set forth in the <i>Resource Conservation and Recovery Act</i> of 1976 (42 U.S.C. 6901 et seq.), as that	
SO.70.22.NV. Specific actions must be taken after the remedy is completed (NAC 444.7499(2)).	act existed on 8 November 1993. Verify that within 14 days after the completion of the remedy, the solid waste management authority is notified that a certification that the remedy is complete is placed in the operating records of the site, and that the certification is signed by the owner or operator and a qualified groundwater scientist and approved by the solid waste management authority.	

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MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions of Class I and Class II sites.)
SO.75. Closure Criteria	
SO.75.1.NV. Class I and Class II MSWLFs must have a final cover which meets specific design and construction requirements (NAC 444.6891 and 444.7045(2)(f) and 444.7175).	Verify that Class I and Class II MSWLFs install a system for final cover that is designed to minimize infiltration and erosion, and that the system is designed and constructed to: - have a permeability that is less than or equal to the permeability of any
	system for a bottom liner or natural subsoils present, or have a permeability no greater than 1 x 10 ⁻⁵ cm/s, whichever is less - minimize infiltration through the closed MSWLF unit by the use of an infiltration layer containing at least 18 in. of earthen material - minimize erosion of the final cover by the use of an erosion layer which contains at least 6 in. of earthen material which is capable of sustaining native plants.
	Verify that the solid waste management authority approves, if necessary, alternative designs for the final cover of Class I or Class II MSWLFs, including:
	 an infiltration layer which achieves an equivalent reduction in infiltration as the infiltration layer specified above an erosion layer which provides equivalent protection from wind and water erosion as the erosion layer specified above.
	Verify that the final cover of Class I and Class II MSWLFs is graded to drain surface water from the cover, and that the top slope has a grade of not less than 3 percent.
	Verify that the design of the final cover of Class I and Class II MSWLFs is sufficient to control erosion and maintain the stability of the slope.
SO.75.2.NV. Class I and Class II MSWLFs must provide notice of intent to close to the solid waste management authority (NAC 444.6892(1) and 444.7045(2)(f)).	Verify that the solid waste management authority is notified of intent to close at least 15 days prior to the beginning of closure of a Class I or Class II MSWLF.

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SO.75.3.NV. Closure activities must begin a specific number of days after Class I and Class II MSWLFs receive the final receipt of wastes (NAC 444.6892(2) and 444.7045(2)(f)).	Verify that Class I and Class II MSWLFs begin closure activities no later than 30 days after the date on which the unit receives the final receipt of wastes, or if the unit has remaining capacity and there is a reasonable likelihood that the unit will receive additional wastes, no later than one year after the most recent receipt of wastes. (NOTE: Extensions beyond the 1 yr deadline may be granted by the solid waste management authority if the Class I or Class II MSWLF has the capacity to receive additional wastes and the owner or operator has taken and will continue to take actions necessary to prevent threats to public health and safety and the environment from the open unit.)	
SO.75.4.NV. Closure activities at Class I and Class II MSWLFs must be completed in accordance with the closure plan (NAC 444.6892(3) and 444.7045(2)(f) and 444.7175).	Verify that Class I and Class II MSWLF closure activities are completed in accordance with the plan for closure within 180 days after the beginning of closure. (NOTE: Extensions of the period for closure may be granted by the solid waste management authority if it is demonstrated that closure will, of necessity, take longer than 180 days, and that the owner or operator has taken and will continue to take all actions to prevent threats to public health and safety and the environment from the open unit.)	
SO.75.5.NV. The solid waste management authority must be notified of the completion of closure of Class I and Class II MSWLFs (NAC 444.6893(6) and 444.7045(2)(f)).	Verify that the solid waste management authority is notified of the completion of closure of a Class I or Class II MSWLF. Verify that a certification, signed by an independent registered professional engineer and approved by the solid waste management authority verifying that closure has been completed in accordance with the plan for closure, is placed in the operating record of the Class I or Class II MSWLF site.	
SO.75.6.NV. Closure plans for Class I and Class II MSWLFs must include specific information (NAC 444.6895 and 444.7045(2)(a))).	Verify that the closure plan for Class I and Class II MSWLFs includes the following information: - a description of the actions necessary to close MSWLF units within the site at any time during their active life - a description of the final cover - an estimate of the largest area of the MSWLF unit which would require final cover at any time during the active life of the unit if the site is closed - an estimate of the total maximum inventory of wastes to be placed on the	

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	disposal site during the entire estimated life of the site - the equipment and structures for the removal of wastes, decommissioning and decontamination - the placement and installation of devices to monitor or control water, vadose zone, and landfill gases - a schedule for completing all construction and related activities needed to close the disposal site.	

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MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions for clarification of Class I and Class II sites.)
SO.80. POSTCLOSURE CARE REQUIREMENTS	
SO.80.1.NV. Class I and Class II MSWLFs must conduct postclosure programs (NAC 444.6894 and 444.7045(2)(b)).	Verify that after the closure of each Class I or Class II MSWLF, a program for postclosure is conducted for 30 yr, and consists of the following: - the integrity and effectiveness of any final cover is maintained, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and runoff from eroding or otherwise damaging the final cover - the leachate collection system is maintained and operated in accordance with regulations - the groundwater is monitored in accordance with regulations, and the system for groundwater maintenance is maintained, if necessary - the system for monitoring gas is maintained and operated. (NOTE: The solid waste management authority may allow the owner or operator of the Class I or Class II MSWLF to stop managing leachate if it is demonstrated that leachate no longer poses a threat to public health and safety and the environment. The length of the postclosure program for Class I and Class II MSWLFs may be increased or decreased by the solid waste management authority.) Verify that after the postclosure program is completed in Class I and Class II MSWLFs, the solid waste management authority is notified that a certification, signed by an independent registered professional engineer and approved by the solid waste management authority verifying that the program is completed in accordance with the postclosure plan, is placed in the operating record of the site.
SO.80.2.NV. Postclosure plans for Class I and Class II MSWLFs must contain specific information (NAC 444.6896 and 444.7045(2)(b)).	Verify that a plan for postclosure specifying how and at what frequency Class I and Class II MSWLFs unit are maintained and monitored during the period of postclosure includes: - a program for monitoring water - a program for the inspection and maintenance of the final cover, structures

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444.7045(2)(b)).	for drainage and protection from floods, and systems for monitoring and controlling landfill gases - the name, address, and telephone number of the person or office to contact about the unit during the period of postclosure - a description of the planned uses of the property during the period of postclosure - any other information which the solid waste management authority requires. Verify that any use of the property during or after the period of postclosure does not disturb the integrity of the final cover, liners, or any other components of the system for containment or the function of the monitoring system unless necessary.

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MUNICIPAL SOLID WASTE LANDFILLS	(NOTE: The requirements for MSWLFs apply to both Class I and Class II sites in Nevada. See definitions for clarification of Class I and Class II sites.)
SO.85. Documentation	
SO.85.1.NV. Class I MSWLFs must maintain copies of the closure and postclosure plans in the site operating records (NAC 444.6897).	Verify that the a copy of the closure and postclosure plans are kept in the site operating records for Class I MSWLFs.
SO.85.2.NV. Class I and Class II MSWLFs must establish provisions for the adequate measure and recording of all solid waste delivered to the site (NAC 444.702(4) and 444.728(3)). [Cite Revised October 1997]	Verify that Class I and Class II MSWLF sites establish provisions concerning the weighing or otherwise adequately measuring and recording all solid waste delivered to the site.
SO.85.3.NV. Class I and Class II MSWLFs must keep specific operating records (NAC 444.7025 and 444.7045(2)(d)).	Verify that the following information, as it becomes available, is recorded and retained at Class I and Class II MSWLF sites in the operating records or at a location approved by the solid waste management authority: - any demonstration of location restrictions - records of inspection, training procedures, and procedures for notification - results from the monitoring of gas and any remediation plans - any documentation relating to the design of the MSWLF unit for the placement of leachate or gas condensate in the unit - any demonstration, certification, finding, monitoring, testing, or analytical data from the program for monitoring groundwater - plans for closure and postclosure and any monitoring, testing, or analytical data. Verify that the solid waste management authority is notified when documentation is placed in or added to Class I or Class II MSWLF operating

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	records.
	Verify that all information contained in the Class I or Class II MSWLF operating records is furnished upon request to the solid waste management authority, or is made available at all reasonable times for inspection by the solid waste management authority.
	Verify that the solid waste management authority establishes alternative schedules for recordkeeping and notifications Class I and Class II MSWLFs it necessary.

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SO.95. RESOURCE RECOVERY FACILITIES	 (NOTE: The regulation of the state environmental commission filed with the secretary of state on 9 February 2000 (LCB File No. R173-99), the source of NAC 444.7474 to 444.74779, contains the following provisions not included in NAC: "Sec. 17. The owner or operator of a materials recovery facility that is operating on February 9, 2000, shall: 1. Submit an application to operate the facility in accordance with NAC 444.74747 and comply with the provisions of NAC 444.74751 to 444.74779 not later than 7 August 2000. 2. Comply with the provisions of NAC 444.74759 not later than 9 February 2002.")
SO.95.1.NV. Materials recovery facilities must be approved by the solid waste management authority (NAC 444.74743 and 444.74747) [Added October 2000].	Verify that no materials recovery facility is operated unless the location, design and operating plans of the facility have been approved by the solid waste management authority. Verify that an application to operate the materials recovery facility is submitted to the solid waste management authority before construction of the facility begins.
	Verify that the application to operate the materials recovery facility includes:
	 the name, location and mailing address of: the materials recovery facility the owner of the materials recovery facility the operator of the materials recovery facility he authorized agent of the owner proof of ownership of the land on which the materials recovery facility will be located a report of the design of the materials recovery facility a plan for operating the materials recovery facility a plan for the closure of the materials recovery facility that identifies the procedures required to close the facility and describes the manner in which the facility will comply with the provisions for closure set forth in NAC 444.74771, including a detailed written estimate, in current dollars, of the cost to hire a person to close the materials recovery facility in accordance with the plan proof of financial assurance a list of the recyclable materials that will be recovered at the materials recovery facility

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	 a description of the final use, or the available markets, for the materials identified for recovery any other information that the solid waste management authority requires to evaluate the proposed operation of the facility.
	Verify that a materials recovery facility that has been approved by the solid waste management authority does not modify:
SO.95.2.NV. Solid waste at materials recovery facilities must be managed according to specific standards (NAC 444.74763) [Added October 2000].	 - the storage or processing capacity of the facility - the types of waste that a facility may accept - the design or method of operation of the facility, unless the facility obtains the prior approval of the solid waste management authority for those modifications.
	(NOTE: An application to modify a materials recovery facility must be submitted on a form prescribed by the solid waste management authority.)
	Verify that solid waste that is accepted by a materials recovery facility is: - transferred to a disposal site that has been issued a permit by the solid waste management authority, or - recovered for reuse or recycling.
	Verify that, unless the owner or operator is unable to do so because of an emergency, putrescible solid waste or solid waste that is mixed with putrescible solid waste is removed from a materials recovery facility no more than 72 hr after acceptance by the facility.
	Verify that nonputrescible solid waste is not stored at the materials recovery facility for more than 1 wk.
	Verify that not more than 3000 yd ³ of solid waste is stored at the facility at one time, unless otherwise approved by the solid waste management authority.
	Verify that recovered materials are not stored at the facility for more than 1 yr.
	Verify that at least 75 percent of the materials recovered at the facility are sold and removed from the facility in a 12-mo period.
	Verify that any recovered materials stored for more than 1 yr are considered waste and properly disposed of at a disposal site that has been issued a permit by the solid waste management authority or a facility approved by the solid waste management authority.
	Verify that solid waste or recovered materials are not stored in piles which are

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 more than 15 ft in height or have an area at the base which is more than 5000 ft². Verify that a distance of at least 12 ft is maintained between adjacent piles of material and at least 10 ft between any pile of materials and the boundary of the facility. Verify that the acceptance, handling and transportation of asbestos is conducted in the manner prescribed by NAC 444.965 to 444.976, inclusive (see the Toxic Substances Management chapter for details). Verify that the owner or operator of a materials recovery facility: - inspects the area of the facility daily and collects, and properly disposes of, all scattered paper and lightweight debris - complies with any local ordinances concerning the storage, collection or transportation of solid waste. SO.95.3.NV. Materials Verify that a materials recovery facility complies with the plans for the design recovery facilities must meet and operation of the facility approved by the solid waste management authority. general operating requirements Verify that a materials recovery facility does not: (NAC 444.74779) [Added October 20001. - contribute to the pollution of the air or waters of the state - cause an impairment of the environment - cause a health or safety hazard to employees of the facility or the general - cause a public nuisance. SO.95.4.NV. Verify that the operator of a materials recovery facility maintains accurate Materials operating records at the facility. recovery facilities must meet recordkeeping and reporting Verify that the records are furnished upon request to the solid waste requirements (NAC 444.74767 management authority or made available for inspection by the solid waste and 444A.135) [Added October 2000]. management authority during the regular business hours of the facility. Verify that the records include: - a daily record of: - the quantity of solid waste received at the facility - the quantity of solid waste transported to disposal sites and the name and location of each such disposal site - the quantity of recovered materials removed from the facility and the name and location of each facility that receives the recovered materials

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	- the receipt or rejection of prohibited wastes - any emergencies or unusual events.
	Verify that the owner or operator of a materials recovery facility submits to the municipality by 15 February of each year, on a form approved by the Division, a report for the preceding calendar year, that includes the number of tons of material recycled for each type of recycled material.
SO.95.5.NV. Materials recovery facilities must meet specific closure requirements (NAC 444.74771) [Added October 2000].	Verify that the a materials recovery facility notifies the solid waste management authority in writing at least 90 days before the date the facility is expected to close. Verify that the facility does not accept any solid waste after the expected closing
	date. Verify that the owner or operator, within 30 days after receiving the final shipment of solid waste, removes all remaining solid waste, litter, recovered materials and inoperable equipment in accordance with the plan for closure of the facility (except for all putrescible waste, which must be removed within 72 hr after receipt).

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MEDICAL WASTE	
SO.110. CONTAINERS/ LABELING/	
STORAGE AREAS	
SO.110.1.NV. Medical waste storage must follow specific procedures (NAC 444.662(5)).	Verify that medical wastes are stored in watertight, tightly covered, and clearly labeled containers that are resistant to corrosion and are in a safe location, inaccessible to the public. Verify that medical wastes are stored in cleanable containers with liners approved by the solid waste management authority. Verify that medical waste is not deposited in containers with other solid wastes.

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MEDICAL WASTE	
SO.115. Transportation	
SO.115.1.NV. Medical wastes must be transported separately from other solid wastes (NAC 444.662(5)).	Verify that medical wastes are transported separately from other solid wastes to an approved disposal site and handled in accordance with a method approved by the solid waste management authority.

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SO.140. CONSTRUCTION/ DEMOLITION LANDFILLS	
SO.140.1.NV. Landfills containing combustible construction/demolition waste must be cross-sectioned into cells by compacted cover material (NAC 444.652).	Verify that landfills incorporating large quantities of construction and demolition wastes of a combustible nature are cross-sectioned into cells by compacted cover material to prevent the spread of accidental fires.

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SO.145. INCINERATORS	
SO.145.1.NV. Incinerator plants must be approved (NAC 444.672(1) and (2)).	Verify that the site location, facilities, and the proposed method of operation of incinerator plants are approved by the solid waste management authority before the incinerator plant is established. Verify that all incineration equipment and air pollution control appurtenances comply with applicable state requirements and any local regulations governing the construction and operation of incinerators.
SO.145.2.NV. Incinerators used for the burning of pathological waste, garbage, or material of high moisture rate must meet specific standards (NAC 444.672(3)).	Verify that incinerators used to burn pathological waste, garbage, or material of high moisture content are high temperature incinerators with either grate or solid hearth construction, drying shelves for wet wastes, and an auxiliary heating unit which ensures temperatures of 1400 °F for not less than 0.3 s.
SO.145.3.NV. Incinerator sites must be maintained and operated in conformance with certain standards (NAC 444.672(4)).	Verify that incinerator sites are maintained and operated in conformance with the following standards: - adequate storage is provided for incoming solid wastes and for incinerator residue, assuring a nuisance-free operation - incinerator residue is disposed of at an approved land disposal site or in accordance with provisions of the operational plan as approved by the solid waste management authority - provisions exist for emergency disposal of all solid wastes handled by the plant in the event of plant breakdown - salvaging, if permitted, is controlled so it does not interfere with optimum operation or create unsightly conditions or vector harborage - all quench water, washdown water, dust spray, or surface water carrying organic matter is discharged into a sanitary sewer or otherwise disposed of as provided in the operation plan as approved by the solid waste management authority.

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SO.150. INDUSTRIAL WASTE UNITS	(NOTE: Nevada industrial waste units are classified as Class III sites, see definition.)
SO.150.1.NV. Class III sites must be permitted (NAC 444.733).	Verify that Class III sites and lateral expansions are permitted by the solid waste management authority.
SO.150.2.NV. Class III sites must meet specific location requirements (NAC 444.735).	(NOTE: The solid waste management authority may adopt less restrictive standards for location, design, construction, operation, and maintenance off a Class III site which receives waste material which is inert or unlikely to create an environmental hazard or threaten the health of the general public.) Verify that the location of Class III site meets the following requirements: - is easily accessible in all kinds of weather to all vehicles expected to use it - safeguards against water pollution originating from the decomposed solid waste at the site - safeguards against uncontrolled movement or collection of gas originating from the site - has an adequate quantity of cover material that is workable, compactable, and does not contain organic material of a quantity and distribution conducive to the harboring and breeding of disease vectors - conforms to the land use planning of the area - is not within 0.25 mi of the nearest inhabited domestic dwelling or place of public gathering or within 100 ft of a public highway, unless special provisions for the beautification of the site and the control of litter vectors are included in the design and approved by the solid waste management authority - is not within 1000 ft of any surface water or within 100 ft of the uppermost aquifer if the site is approved after 2 September 1992, unless approved by the solid waste management authority - is approved by the solid waste management authority.
SO.150.3.NV. Class III sites must have plans to characterize solid waste (NAC 444.737).	(NOTE: The solid waste management authority may adopt less restrictive standards for location, design, construction, operation, and maintenance off a Class III site which receives waste material which is inert or unlikely to create an environmental hazard or threaten the health of the general public.)

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that Plans to characterize solid waste for Class III sites are sufficient to: - determine that the waste is not a hazardous waste - identify physical and chemical characteristics of the waste which may create an environmental hazard or threaten the health of the general public - provide for the periodic characterization of the waste stream as needed. SO.150.4.NV. Class III (NOTE: The solid waste management authority may adopt less restrictive design reports must contain standards for location, design, construction, operation, and maintenance off a specific information (NAC Class III site which receives waste material which is inert or unlikely to create 444.739). an environmental hazard or threaten the health of the general public.) Verify that design reports for Class III sites: - are signed by a professional engineer registered in the state - include a general location map showing land use and zoning within 1 mi of the disposal site - include a topographic map of the area which: - is at a scale of no more than 200 ft to the inch, including contour intervals of no more than 5 ft - indicates the proposed fill areas - indicates any proposed borrow areas - indicates access roads - indicates a typical cross section of a lift - indicates grades for proper drainage of each lift - indicates the placement of special devices for drainage and controlling gas, if required - indicates fencing, equipment for shelter, facilities for employees, and all other relevant data which indicates clearly that the landfill is developed, operated, and completed in an orderly manner - define anticipated types, quantities, and sources of solid wastes disposed of at the site - demonstrate that the design is sufficient to protect the waters of the state from degradation by pollutants or contaminants, considering, without limitation: - the hydrogeologic characteristics of the site and surrounding area - the climatic factors of the area - the volume and physical and chemical characteristics of predicted leachate generation - provide proof of compliance with provisions relating to the runoff and control of surface water - define the source, type, and quantity of cover material for the site.

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SO.150.5.NV. Dust and erosion must be controlled at Class III landfills (NAC 444.745).	(NOTE: The solid waste management authority may adopt less restrictive standards for a Class III site which receives waste material which is inert or unlikely to create an environmental hazard or threaten the health of the general public. The solid waste management authority may waive the requirements for a Class III site if the owner or operator of the site demonstrates that: - all waste which is placed in the landfill is incidental to his industrial operation - the landfill is located on property controlled by the operator of the industrial operation - the landfill will not receive any hazardous materials and is unlikely to product pollutants or contaminants that may degrade waters of the state.)
	Verify that suitable grasses are planted, if required, in completed areas of Class III landfills to prevent erosion, surface deterioration, and fugitive dust.
	Verify that an adequate amount of water is available at all times at Class III landfills for the control of dust and the compaction of cover material.
SO.150.6.NV. Scavenging is prohibited at Class III sites (NAC 444.747(1)).	Verify that scavenging is prevented at Class III landfills.
SO.150.7.NV. Class III sites must be inspected daily (NAC 444.747(2)).	Verify that the area of a Class III landfill is inspected daily, and that all scattered paper and other lightweight debris is returned to the fill area and covered.
SO.150.8.NV. Water monitoring plans for Class III sites must include specific items (NAC 444.741).	Verify that the water monitoring plans for Class III landfills provide for a system capable of monitoring the performance of the design of the site, including the monitoring of the unsaturated zone or ground water depending on local conditions.
	Verify that the water monitoring plans for Class III landfills:
	 identify the location and construction of monitoring points used to detect the migration of pollutants of contaminants from the site to the waters of the state specify monitoring parameters and the frequency of monitoring those parameters specify procedures which ensure quality for all field and laboratory work

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	 provide for the semiannual submittal of monitoring data to the solid waste monitoring authority define procedures which are to be followed if monitoring provides evidence of potential design failure. 	
	Verify that the solid waste management authority suspends monitoring requirements if the owner or operator of the Class II site demonstrates that there is no reasonable potential for migration of pollutants or contaminants from the site to waters of the state.	
SO.150.9.NV. Class III sites must comply with the same closure requirements as Class I and II sites (NAC 444.743).	Verify that Class III landfills meet the closure requirements for Class I and II landfills as listed in SO.75.1.NV through SO.75.5.NV.	
SO.150.10.NV. Class III sites must comply with the same postclosure requirements as Class I and II sites (NAC 444.743).	Verify that Class III landfills meet the postclosure requirements for Class I and II landfills as listed in SO.80.1.NV.	
SO.150.11.NV. Class III sites must maintain records of wastes received at the site (NAC 444.747(3)(a)).	Verify that Class III landfills establish provisions concerning the weighing or otherwise adequately measuring and recording all solid waste received at the site.	
SO.150.12.NV. Class III landfills must submit annual reports to the division (NAC 444.747(3)(b)).	Verify that Class III sites submit annual reports of the solid waste received at the site to the division.	

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SO.160. WASTE TIRES FACILITIES	
SO.160.1.NV. Disposal of waste tires must meet disposal restrictions (NAC 444.648(1) and (2)).	Verify that waste tires are not dumped into ravines, canyons, gullies, or trenches. Verify that waste tires are not disposed of by open burning.
SO.160.2.NV. Bulk quantities of waste tires must be handled in a specific manner (NAC 444.648(3) and (4)).	Verify that bulk quantities of waste tires which are disposed of by landfilling and which are not incorporated with other wastes in a general landfill are baled, chipped, split, stacked by hand ricking, or otherwise handled in a manner provided for in the operational plan and approved by the solid waste management authority.
	Verify that bulk quantities of tires, if incorporated in a general landfill with other wastes are placed on the ground surface on the bottom or at the top of the fill and covered with a suitable cover material before other wastes are placed over them.
	Verify that waste tires are not placed in the top 4 ft of the final lift.
Maste tires must be transported in a specific manner (NAC 444A.470) [Revised October 1997].	Verify that waste tires are taken off the installation by a registered hauler of waste tires. Verify the generator of waste tires maintains receipts for the disposition of waste tires for at least 3 years.

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SO.165. YARD WASTE/ COMPOSTING	
SO.165.1.NV. Compost plants must be approved by the solid waste management authority (NAC 444.670(1)).	Verify that the site location, facilities, and proposed method of operation of a compost plant are approved by the solid waste management authority before the compost plant is established.
SO.165.2.NV. Compost plant sites must be maintained and operated in conformance with certain standards (NAC 444.670(2)).	Verify that compost plant sites are maintained and operated in conformance with the following standards: - a buffer zone is maintained of at least 500 ft from the adjoining property and 1000 ft from any public roads - incoming solid waste is confined to as small an area as practicable - at the conclusion of each day of operation, all windblown material resulting form the operation is collected and returned to the area - materials resulting from composting and offered for sale must: - contain no pathogenic organisms - not reheat upon standing - be innocuous - contain no sharp particles which could cause injury to persons handling the compost - byproducts removed during the processing are handled and disposed of in a sanitary and nuisance-free manner.

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SO.175. OTHER TREATMENT/ PROCESSING UNITS	
SO.175.1.NV. Solid waste processing systems may not cause health hazards, public nuisances, or otherwise impair the environment (NAC 444.668).	Verify that no system used to process solid waste causes health hazards, public nuisances, or otherwise causes or contributes to the impairment of the environment.
SO.175.2.NV. Salvage yards must be approved (NAC 444.674(1)).	Verify that the site location, facilities, and proposed method of operation of a salvage yard are approved by the solid waste management authority before the salvage yard is established.
SO.175.3.NV. Salvage stored in a salvage yard must be stored in an orderly manner (NAC 444.674(2)).	Verify that salvage stored in a salvage yard is stored in an orderly manner which prevents the harboring of rodents, any public nuisances, and accidents.
SO.175.4.NV. Nonsalvageable material must be stored and disposed of according to these regulations (NAC 444.674(3)).	Verify that nonsalvageable items are not stored in the salvage yard for more than 1 wk.
SO.175.5.NV. Garbage and putrescible material stored in salvage yards must be stored in the proper containers (NAC 444.674(4)).	Verify that no garbage or similar putrescible material is present at the salvage yard, except when stored in approved containers.
SO.175.6.NV. Any other waste processing systems not	Verify that the complete plans, specifications, and design data of any other waste processing systems (those not specifically provided for in these

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specifically mentioned in this section must be approved (NAC 444.676).	regulations) are approved by the solid waste management authority before the processing system is placed into operation.

Appendix 9-1

Class II MSWLF Maintenance and Operation Requirements

(Source: 40 CFR 258.20 to 258.29)

§ 258.20 Procedures for excluding the receipt of hazardous waste.

- 1. Owners or operators of all MSWLF units must implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in part 261 of this chapter and polychlorinated biphenyls (PCB) wastes as defined in part 761 of this chapter. This program must include, at a minimum:
 - a. random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;
 - b. records of any inspections;
 - c. training of facility personnel to recognize regulated hazardous waste and PCB wastes; and
 - d. notification of State Director of authorized States under Subtitle C of RCRA or the EPA Regional Administrator if in an unauthorized State if a regulated hazardous waste or PCB waste is discovered at the facility.
- 2. For purposes of this section, regulated hazardous waste means a solid waste that is a hazardous waste, as defined in 40 CFR 261.3, that is not excluded from regulation as a hazardous waste under 40 CFR 261.4(b) or was not generated by a conditionally exempt small quantity generator as defined in § 261.5 of this chapter.

§ 258.21 Cover material requirements.

- 1. Except as provided in paragraph (2) of this section, the owners or operators of all MSWLF units must cover disposed solid waste with six inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.
- 2. Alternative materials of an alternative thickness (other than at least six inches of earthen material) may be approved by the Director of an approved State if the owner or operator demonstrates that the alternative material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.
- 3. The Director of an approved State may grant a temporary waiver from the requirement of paragraph (1) and (2) of this section if the owner or operator demonstrates that there are extreme seasonal climatic conditions that make meeting such requirements impractical.
- 4. The Director of an Approved State may establish alternative frequencies for cover requirements in paragraphs (1) and (2) of this section, after public review and comment, for any owners or operators of MSWLFs that dispose of 20 tons of municipal solid waste per day or less, based on an annual average. Any alternative requirements established under this paragraph must:
 - a. consider the unique characteristics of small communities;
 - b. take into account climatic and hydrogeologic conditions; and
 - c. be protective of human health and the environment.

§ 258.22 Disease vector control.

- 1. Owners or operators of all MSWLF units must prevent or control on-site populations of disease vectors using techniques appropriate for the protection of human health and the environment.
- 2. For purposes of this section, disease vectors means any rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting disease to humans.

§ 258.23 Explosive gases control.

- 1. Owners or operators of all MSWLF units must ensure that:
 - a. the concentration of methane gas generated by the facility does not exceed 25 percent of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components); and
 - b. the concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary.
- 2. Owners or operators of all MSWLF units must implement a routine methane monitoring program to ensure that the standards of paragraph (a) of this section are met.
 - a. the type and frequency of monitoring must be determined based on the following factors:
 - i. soil conditions;
 - ii. the hydrogeologic conditions surrounding the facility;
 - iii. the hydraulic conditions surrounding the facility; and
 - iv. the location of facility structures and property boundaries
 - b. the minimum frequency of monitoring shall be quarterly.
- 3. If methane gas levels exceeding the limits specified in paragraph (a) of this section are detected, the owner or operator must:
 - a. immediately take all necessary steps to ensure protection of human health and notify the State Director;
 - b. within seven days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and
 - c. within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the State Director that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy
 - d. the Director of an approved State may establish alternative schedules for demonstrating compliance with paragraphs (c)(2) and (3) of this section.
- 4. For purposes of this section, lower explosive limit means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25°C and atmospheric pressure.
- 5. The Director of an Approved State may establish alternative frequencies for the monitoring requirement of paragraph (b)(2) of this section, after public review and comment, for any owners or operators of MSWLFs that dispose of 20 tons of municipal solid waste per day or less, based on an annual average. Any alternative monitoring frequencies established under this paragraph must:
 - a. consider the unique characteristics of small communities;
 - b. take into account climatic and hydrogeologic conditions; and
 - c. be protective of human health and the environment.

§ 258.24 Air criteria.

Owners or operators of all MSWLFs must ensure that the units not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the Administrator pursuant to section 110 of the Clean Air Act, as amended.

Open burning of solid waste, except for the infrequent burning of agricultural wastes, silvicultural wastes, landclearing debris, diseased trees, or debris from emergency cleanup operations, is prohibited at all MSWLF units.

§ 258.25 Access requirements.

Owners or operators of all MSWLF units must control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment.

§ 258.26 Run-on/run-off control systems.

- 1. Owners or operators of all MSWLF units must design, construct, and maintain:
 - a. a run-on control system to prevent flow onto the active portion of the landfill during the peak discharge from a 25-year storm;
 - b. a run-off control system from the active portion of the landfill to collect and control at least the water volume resulting from a 24-hour, 25-year storm.
- 2. Run-off from the active portion of the landfill unit must be handled in accordance with § 258.27(a) of this part.

§ 258.27 Surface water requirements.

MSWLF units shall not:

- 1. Cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to section 402.
- 2. Cause the discharge of a nonpoint source of pollution to waters of the United States, including wetlands, that violates any requirement of an area-wide or State-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended.

§ 258.28 Liquids restrictions.

- 1. Bulk or noncontainerized liquid waste may not be placed in MSWLF units unless:
 - a. the waste is household waste other than septic waste; or
 - b. the waste is leachate or gas condensate derived from the MSWLF unit and the MSWLF unit, whether it is a new or existing MSWLF, or lateral expansion, is designed with a composite liner and leachate collection system as described in § 258.40(a)(2) of this part. The owner or operator must place the demonstration in the operating record and notify the State Director that it has been placed in the operating record.
- 2. Containers holding liquid waste may not be placed in a MSWLF unit unless:
 - a. the container is a small container similar in size to that normally found in household waste;
 - b. the container is designed to hold liquids for use other than storage; or
 - c. the waste is household waste.
- 3. For purposes of this section:
 - a. liquid waste means any waste material that is determined to contain "free liquids" as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).
 - gas condensate means the liquid generated as a result of gas recovery process(es) at the MSWLF unit.

§ 258.29 Recordkeeping requirements.

- 1. The owner or operator of a MSWLF unit must record and retain near the facility in an operating record or in an alternative location approved by the Director of an approved State the following information as it becomes available:
 - a. any location restriction demonstration required under subpart B of this part;
 - b. inspection records, training procedures, and notification procedures required in § 258.20 of this part;
 - c. gas monitoring results from monitoring and any remediation plans required by § 258.23 of this part;
 - d. any MSWLF unit design documentation for placement of leachate or gas condensate in a MSWLF unit as required under § 258.28(a)(2) of this part;
 - e. any demonstration, certification, finding, monitoring, testing, or analytical data required by subpart E of this part;
 - f. closure and post-closure care plans and any monitoring, testing, or analytical data as required by §§ 258.60 and 258.61 of this part; and
 - g. any cost estimates and financial assurance documentation required by subpart G of this part.
 - h. any information demonstrating compliance with small community exemption as required by § 258.1(f)(2).
- 2. The owner/operator must notify the State Director when the documents from paragraph (a) of this section have been placed or added to the operating record, and all information contained in the operating record must be furnished upon request to the State Director or be made available at all reasonable times for inspection by the State Director.
- 3. The Director of an approved State can set alternative schedules for recordkeeping and notification requirements as specified in paragraphs (a) and (b) of this section, except for the notification requirements in § 258.10(b) and § 258.55(g)(1)(iii).

SECTION 10

STORAGE TANK MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations:

Definitions and requirements for Air Emissions Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes which is hereafter abbreviated as NRS.

Federal Regulations Adopted by Reference:

- Except as set forth in this protocol, the State of Nevada Environmental Commission adopted the Federal Codes
 for Storage Tanks by reference the provisions of 40 C.F.R. §§ 280.10 to 280.116, inclusive, as they existed on
 July 1, 1995 (NAC 459.993). See U.S. TEAM Guide for further requirements.
- In NAC 445B.221.2, the State of Nevada adopts by reference the following subparts of 40 CFR 60, as they
 existed on 1 July 1993:
 - 1. Subpart K, Standards of Performance for Storage Vessels for Petroleum Liquids for which construction, reconstruction, or modification commenced after 11 June 1973 and prior to 19 May 1978
 - 2. Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for which construction, reconstruction, or modification commenced after 18 May 1978 and prior to 23 July 1984
 - 3. Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which construction, reconstruction, or modification commenced after 23 July 1984
 - 4. Subpart XX, Standards of Performance for Bulk Gasoline Terminals.
- In NAC 445B.221.4, the State of Nevada adopts by reference the following subparts of 40 CFR 61, as they existed on 1 July 1993:
 - 1. Subpart BB, National Emission Standard for Benzene Emissions from Benzene Transfer Operations
 - 2. Subpart FF, National Emission Standard for Benzene Waste Operations.

Definitions

- Assessment a test for the presence of a regulated substance (NAC 459.9922).
- Corrective Action a permanent remedy that is taken if a regulated substance is released to prevent the substance from migrating and causing danger to the present or future health of the public or to the environment (NAC 459.9924).
- Department the State Department of Conservation and Natural Resources (NAC 459.9925).

- *Dissolved Product Action Level* the presence of a regulated substance or a constituent of such a substance in ground water or surface water in excess of the maximum level of contaminants allowed by the Federal Government (NAC 459.9926).
- Division the Division of Environmental Protection of the Department (NAC 459.9927).
- Storage Tank see U.S. TEAM Guide's definition of underground storage tank (NAC 459.9929).

STORAGE TANK MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items ST.2.1.NV.
Aboveground Storage Tanks ST.5.1.NV.

Emissions/Discharges From POL Storage Vessels: For requirements in this category, see category ST.20.

Emissions/Discharges from VOL Storage Vessels.

Emissions/Discharges From VOL Storage Vessels ST.20.1.NV. and ST.20.2.NV. UST State-Specific ST.30.1.NV. and ST.30.2.NV.

Release Detection for USTs

General ST.60.1.NV.

UST Releases ST.80.1.NV. through ST.80.3 NV. Changes in Service or Closure of USTs ST.95.1.NV. through ST.95.4.NV.

Other Storage Tanks/Locations ST.155.1.NV.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ST.2. MISSING CHECKLIST ITEMS	
ST.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
ST.5. ABOVEGROUND STORAGE TANKS		
ST.5.1.NV. Aboveground storage tanks must be visually inspected (NAC 590.740)).	Verify that aboveground storage tanks have been visually inspected at least twice a year. Verify that records are kept to document visual inspections.	

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REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
ST.20. EMISSIONS FROM VOL STORAGE VESSELS	
ST.20.1.NV. New VOL storage vessels of 40,000 gal (150 kL) or greater capacity must	(NOTE: New VOL storage vessels are those constructed or reconstructed on or after 7 November 1975.)
meet specific requirements to prevent air pollution (NAC 445B.395).	Verify that new vessels with a capacity equal to or greater than 40,000 gal (150 kL), containing gasoline, petroleum distillate, or volatile organic compounds (VOCs) with a vapor pressure of 1.5 psia (1055 kg/m²) or greater under actual storage conditions, meet one of the following requirements:
	 is a pressure tank maintaining working pressure capable of preventing loss of vapor or gas to the outside is equipped with a floating roof or other equivalent control device.
	Verify that, if a floating roof is used as a control device, it consists of a pontoon type or double-deck roof resting on the surface of the liquid contents and is equipped with either a seal to close the space between the roof and tank wall or a vapor balloon/vapor dome meeting petroleum industry standards.
	(NOTE: Control devices are not a permissible option for limiting air pollution from VOL storage vessels when gasoline or petroleum distillate has a vapor pressure of 11 psia (7734 kg/m²) or greater under actual conditions.)
ST.20.2.NV. Storage tanks must be equipped with submerged fill pipes (NAC 445B.395(3) and (4)).	(NOTE: Submerged fill pipe requirements for new VOL storage vessels constructed or extensively [not defined] remodeled on or after 7 November 1975 do not apply to new vessels with a capacity equal to or greater than 40,000 gal (150 kL), containing gasoline, petroleum distillate, or VOCs with a vapor pressure of 1.5 psia (1055 kg/ m²) or greater under actual storage conditions.)
	Verify that VOL storage vessels constructed or extensively [not defined] remodeled on or after 7 November 1975 are equipped with a submerged fill pipe or Director-approved equivalent.
	Verify that facilities dockloading products containing VOLs with a vapor pressure of 1.5 psia (1055 kg/m²) or greater utilize submerged filling by a submerged fill pipe or the equivalent.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ST.30. UST STATE-SPECIFIC	
ST.30.1.NV. [Moved to ST.60.NV.]	
ST.30.2.NV. USTs must meet registration requirements (NAC 590.730(1)).	Verify that USTs are registered with the Division or the USEPA.

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
RELEASE DETECTION FOR USTs		
ST.60. GENERAL		
ST.60.1.NV. UST tightness tests must be performed by certified contractors (NAC 459.994 and 590.740(1) through (4)).	Verify that tightness tests are performed by a contractor certified by the Division. Verify that tightness tests are performed according to the schedule set forth in Appendix 10-2 of the U.S. TEAM Guide. (NOTE: In lieu of a test for tightness, an approved in-tank monitoring system is acceptable.) Verify that the owner or operator of the tank retains a certificate from the certified contractor showing that the test has been performed.	

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ST.80. UST RELEASES	
ST.80.1.NV. The UST owner or operator must follow required actions following a release (NAC 459.9974, 459.996, and 590.760).	Verify that the owner or operator reports any release promptly. Verify that the operator provides a written report including the following information to the Division as soon as possible after the release: - how, when, and where the release occurred - any damage known to have been caused by the release. Verify that the operator takes reasonable steps to protect the site of the release from further damage. Verify that, if soil is contaminated, the owner or operator: - for a petroleum substance only, removes the soil through a corrective action and dispose of it in a Class I sanitary landfill or a disposal or treatment facility approved by the Division - for a petroleum substance and other contaminants (40 CFR 261.3(a)(2)(iv)(D)), evaluates the soil to determine if the soil is a hazardous waste. Verify that following requirements are met: - record is maintained showing all costs incurred pursuant to cleanup of discharge - Division is allowed to inspect any property or records relating to discharge or damage caused by discharge - notification to Division has been made is cost of emergency action exceeds 10,000 dollars - services of an environmental consultant are obtained if cost of cleaning up discharge exceeds state thresholds - either approval from the Division or not less than three competitive bids are secured for a task included in a corrective action that costs more than 3000 dollars if the corrective action is not an emergency and the cost of the corrective is greater than the state deductible.
ST.80.2.NV. The UST owner or operator must take corrective action when	Verify that, in the case of a release resulting in excessive petroleum floating on the surface of water of an aquifer, the owner or operator takes corrective action.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Nevada Supplement

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REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
corrective action when excessive petroleum is floating on the surface of water of an aquifer as a result of a release (NAC 459.9976).	(NOTE: Excessive petroleum is a quantity above the free product action level, or the presence of 1/2 in. or more of a petroleum substance that is free-floating on the surface of the water of an aquifer using a measurement of accuracy of 0.01 ft.) (NOTE: Owners and operators may receive exemption from this regulation from the Division if a written request and supporting information are filed with the Division.)	
ST.80.3.NV. UST owners or operators must perform certain procedures in assuring corrective action has been successful (NAC 459.9978 and 459.9979).	Verify that the owner or operator follows the following procedures to assure corrective action has been successful: - performs corrective action until the results of an assessment indicate that the affected groundwater is consistently below the dissolved product action level - monitors the ground water monthly for at least 1 yr.	

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT **Nevada Supplement** REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 ST.95. **CHANGES IN SERVICE** OR CLOSURE OF USTs ST.95.1.NV. UST owners or Verify that the owner or operator provides an assessment to the Division before operators must follow guideclosure or removal of a tank, conducted: lines for tank closure or - using analytical test method 8015 that is modified for petroleum removal (NAC 459.9972). hydrocarbons and other constituents as required by the Division - on two soil samples that are obtained from native soil less than 2 ft below the bottom of the excavation, from opposite sides or ends of the excavation. Verify that the analysis is conducted by a Division approved laboratory. Verify that the owner or operator of a storage tank that is removed from the ground: - disposes of or reuses the tank in a way so as to prevent further releases of regulated substances into the environment - keeps record of the disposal or reuse of the tank. Verify that, before USTs are closed, USTs undergo tightness testing. ST.95.2.NV. USTs subject to closure must be tightness (NOTE: Tightness testing is not required before closure if the following conditions tested (NAC 590.740(8)). are met: - there is no history of the storage tank being installed, operated, or closed - the owner of the storage tank is not located.) ST.95.3.NV. USTs that are Verify that USTs which are not empty but which are temporarily closed have not empty but are temporarily undergone tightness testing. closed must undergo tightness testing (NAC 459.994 [Cite Revised October 1997]. ST.95.4.NV. Abandoned (NOTE: The term abandoned storage tank means a storage tank that: USTs must undergo tightness - is not maintained testing (NAC 459.994 [Cite - has an owner or operator who has not provided the Division with a written Revised October 1997]. statement of intentions to close the storage tank

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Nevada Supplement

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REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
Revised October 1997].	- is not in service and does not comply with 40 CFR 280.70 or 280.71.)
	Verify that abandoned USTs under tightness testing.
	Verify that, if the tightness testing of abandoned USTs would cause a threat to human health or the environment, UST owners or operators contact the Division and follow its directives.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Nevada Supplement

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ST.155. OTHER STORAGE TANKS/LOCATIONS	
ST.155.1.NV. Portable storage tanks must be visually inspected (NAC 590.740(2 [Cite Revised October 1997].	Verify that portable tanks have been visually inspected before and after tank relocation. Verify that records are kept to document visual inspections.

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Toxic Substances Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations:

Definitions and requirements for Toxic Substances Management are taken from the Nevada Annotated Code, which is hereafter abbreviated as NAC.

Federal Regulations Adopted by Reference:

All sections, subparts and parts of Title 40 of the Code of Federal Regulations, as modified by NAC 444.9453, are hereby adopted by reference as they existed on 1 July 1995.

Definitions:

- Asbestos-Containing Waste Material -
 - 1. any waste substance containing more than 1 percent asbestos that is generated as a result of a project for the abatement of asbestos
 - 2. clothing, equipment, or other material contaminated with asbestos as a result of such project (NAC) 444.973(5)).
- Director the Administrator of the Division of Environmental Protection (NAC 444.9405).
- *Division* the Division of Environmental Protection of the State Department of Conservation and Natural Resources (NAC 444.9415).
- *Draft Permit* a document evidencing the proposed decision of the Director to issue, deny, modify, revoke, terminate, or reissue a permit (NAC 444.942).
- Facility for the Management of Hazardous Waste the contiguous land and any structures, other appurtenances, or improvements on the land which are used for treating, storing, or disposing of hazardous waste (NAC 444.8546).
- *Generator* any person whose act or process produces asbestos or asbestos-containing material (NAC 444.973 (5)).
- *Generator of PCBs* any person who removes from service any item containing PCBs, if such removal would require storage or disposal, or both (NAC 444.943).
- Landfill a facility or part of a facility at which asbestos is disposed of by placing it into or on land (NAC 444.976).

- *Operator* a person who operates a Class I disposal site which has been approved by the solid waste management authority (NAC 444.968).
- Solid Waste Management Authority the officers and agents of the Division of Environmental Protection, any district board of health created pursuant to NRS 439.370, or any other entity given specific authority by the Division to control asbestos (NAC 444.969).
- *Transporter* a person engaged in the transportation of asbestos by air, rail, highway, or water. The term does not include any person engaged in such transportation on an approved Class I disposal site (NAC 444.970).
- Waste Containing PCBs any PCB or item containing PCBs subject to regulation under 40 CFR 761 (NAC 444.945).

TOXIC SUBSTANCES MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

PCB Management

Missing Checklist Items T1.2.1.NV.

PCBs General T1.10.1.NV. through T1.10.5.NV.

Asbestos Management

Asbestos regulations in Nevada follow the USEPA and Occupational Safety and Health Administration regulations as set forth in the Federal *Clean Air Act* and appropriate Occupational Safety and Health Administration rules.

See U.S. TEAM Guide and the DOD Supplement Components for Federal, DOD, and service-specific requirements. For asbestos abatement projects in Clark County contact Clark County Health District (702/383-1276); in Washaw County contact Washaw County Health District (702/328-2491); and in the rest of the state contact USEPA Region 9 (415/744-1690).

Missing Checklist Items T2.2.1.NV.

Asbestos Disposal T2.15.1.NV. and T2.15.2.NV.

Radon Management

Refer to the U.S. TEAM Guide and the DOD Supplement Components for DOD and service specific requirements.

Missing Checklist Items T3.2.1.NV.

Lead-Based Paint Management

Refer to the U.S. TEAM Guide and the DOD Supplement Components for DOD and service specific requirements.

Missing Checklist Items T4.2.1.NV.

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REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
PCB MANAGEMENT		
T1.2. Missing Checklist Items		
T1.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.	

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
PCB MANAGEMENT	October 2000
T1.10. PCBs GENERAL	
T1.10.1.NV. Persons involved in generating, storing, transporting, managing waste, and/or disposing of PCBs must have an identification number issued by the USEPA (NAC 444.946 ,444.9465 444.948 and 444.9555) [Cite Revised October 1997].	Verify that the person involved in the generation of, storage of, transportation of, waste management of, and/or disposal of PCBs has a USEPA-issued identification number.
T1.10.2.NV. PCB generators must meet general requirements (NAC 444.946).	Verify that the generator of PCBs meets the following requirements: - mark all PCB containing products and containers with a sign stating: CAUTION CONTAINS PCBs, as set forth in 40 CFR 761.45 - prepares and distributes a manifest before transporting waste containing PCBs - submits an annual report to the Director by 1 July of each year - retains a copy of the results of each test or analysis of waste containing PCBs.
T1.10.3.NV. Facilities to be constructed for the treatment, storage, or disposal of waste containing PCBs must have a Division and USEPA issued permit (NAC 444.9485 and 44.9535).	Verify that the facility constructed to store, treat, or for the disposal of waste containing PCBs has a Division and USEPA issued permit. (NOTE: A generator of PCBs who stores his own waste for less than 9 mo or in quantities of less than 1000 kg is not required to obtain a permit under this section.) Verify that the permit holder notifies the Director before performing any physical alterations or additions to the permitted facility.
T1.10.4.NV. Permit holders	Verify that the permit holder notifies the Director of any noncompliance which

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REGULATORY	REVIEWER CHECKS:	
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must notify the Director of any noncompliance which may endanger public health or environment (NAC 444.954).	may endanger public health or environment. Verify that within 24 h after the permit holder becomes aware of the noncompliance, the permit holder orally communicates the following information to the Director:	
	 information concerning the release of any waste containing PCBs information regarding a discharge of a waste containing PCBs or a fire or explosion from a facility which could threaten the environment or human health outside the facility. 	
	Verify that, within 5 days after the permit holder becomes aware of the noncompliance, the permit holder submits a written report to the Director, including the following:	
	 the information required in the verbal report (above) description of the noncompliance and its cause period of noncompliance, including date and exact times anticipated time the noncompliance is expected to continue steps planned or taken to reduce, eliminate, and prevent a reoccurrence. 	
T1.10.5.NV. PCB waste must be assigned a waste identification number (444.9455) [Revised October 1997].	 Verify PCB contaminated waste is assigned one of the following code numbers by the Division of Environmental Protection: B001 for oil contaminated with 500 ppm or greater of polychlorinated biphenyl from transformers, capacitors or other electrical equipment B002 for petroleum oil contaminated with 50 ppm or greater of polychlorinated biphenyls, but less than 500 ppm polychlorinated biphenyls B003 for petroleum oil contaminated with 500 ppm or greater of polychlorinated biphenyls B004 for s oil contaminated by polychlorinated biphenyl. 	

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
ASBESTOS MANAGEMENT T2.2. Missing Checklist Items	
T2.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

	Nevada Supplement
REGULATORY	REVIEWER CHECKS:
REQUIREMENTS:	October 2000
ASBESTOS MANAGEMENT	
T2.15. Asbestos Disposal	
T2.15.1.NV. Persons involved in the handling and transportation of asbestos	Verify that the following precautions are taken when transporting asbestos that is friable, or capable of giving off friable asbestos dust:
must follow general guidelines (NAC 444.971 through 444.974).	 wetted with water and surfactant mixture stored in a sealed plastic bag at least 6 mil thick, sealed combination of bags at least 6 mil thick, or a container made of cardboard or metal which is lined with plastic bear a warning label (on the container) which conforms with the requirements of the USEPA.
	Verify that vehicles used to transport asbestos are fully enclosed or be covered so as to prevent damage to the containers or the release of asbestos fibers.
	Verify that the transporter obtains written approval from the solid waste management authority before transporting asbestos.
	Verify that the transporter submits the following records of each load of asbestos transported to a Class I disposal site to the solid waste authority within 30 days:
	 a number identifying the record name and location where asbestos is located name, mailing address, and telephone number of the generator name, mailing address, and telephone number of the transporter name, mailing address, and telephone number of the disposal site description of the asbestos, number of containers, and the volume or weight of each container certification of the containers and labels of the generator.
	Verify that the record for each load of asbestos transported to a Class I disposal site is signed by the generator, transporter, and operator.
	Verify that the transporter maintains the record for each load of asbestos transported to a Class I disposal site for 3 yr.
	(NOTE: For disposal of asbestos at a solid waste management authority approved

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	site other than a Class I site, transporters must give 24 h notice before delivery.)	
T2.15.2.NV. Operators of asbestos disposal sites must follow general guidelines for asbestos disposal (NAC 444.976).	Verify that operators who accept asbestos perform the following duties: - designate a separate area of the disposal are for asbestos - maintain records of the location and quantity of asbestos which he accepts - place each container in a landfill in a manner that limits breakage - cover asbestos within 24 h after placement with at least 6 in. of material that is not asbestos and then compact it - soak any asbestos which is in a container that does not comply with these regulations before unloading it - rinse any vehicle which contained any asbestos which was in a container that does not comply with these regulations - immediately cover any asbestos which is in a container that does not comply with these regulations - cover asbestos with at least 30 in. of compacted nonasbestos containing materials after the area designated for asbestos disposal is no longer in use - grade and stabilize the materials which cover asbestos - control access to any area where asbestos is disposed of - place a sign at each point of access to the site which reads, ASBESTOS WASTER DISPOSAL SITE, BREATHING ASBESTOS DUST MAY CAUSE LUNG DISEASE AND CANCER or DANGER CONTAINS ASBESTOS FIBERS, AVOID CREATING DUST, CANCER AND LUNG DISEASE HAZARD.	

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RADON MANAGEMENT	
T3.2. Missing Checklist Items	
T3.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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LEAD-BASED PAINT T4.2. MISSING CHECKLIST ITEMS	
T4.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

SECTION 12

WASTEWATER MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Wastewater Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations

Definitions and requirements for Hazardous Materials Management are taken from the Nevada Annotated Code, which is hereafter abbreviated as NAC.

Federal Regulations Adopted by Reference

The commission adopts by reference Title 40 of the Code of Federal Regulations (CFR), Parts 401.10 to 469.26, inclusive.

Definitions

- Administrator the Administrator of the USEPA (Nevada Administrative Code (NAC) 445A.074).
- Aerobic Wastewater Treatment Unit a chamber that receives sewage and, through oxidation, decomposes the
 sewage by the introduction of air into the wastewater to reduce both the level of total suspended solids and the
 level of biological oxygen demand to 30 milligrams or less per liter (NAC 444.7506) [Added October 2000].
- Buffer Zone the distance measured between the boundary of any site irrigated with treated effluent and one of the following:
 - 1. the boundary line of the property on which the site is located
 - 2. the notice posted warning the public of the presence of treated effluent
 - 3. any point where the property is open to public access, whichever measurement is the lowest (NAC 445A.076).
- Camping Vehicle a travel trailer whose overall length does not exceed 32 ft and whose body width does not exceed 8 ft, a pickup camper, or similar vehicular dwelling used for travel, vacation, or recreational purposes, occupied in any one place for 30 days or less (NAC 461A.500(1)).
- Camping Vehicle Space a plainly marked plot of ground for the placing of a camping vehicle (NAC 461A.500(2)).
- *Cesspool* a covered excavation in the ground which receives the discharge of domestic sewage or other organic wastes from a drainage system which is designed to retain the organic matter and solids while permitting the liquids to seep through the bottom and sides (NAC 444.754) [Added October 2000].
- Department the State Department of Conservation and Natural Resources (NAC 445A.080).
- Division means the Health Division of the Department of Human Resources (NAC 445A.004).

- Facility (as used in NAC 445A.346 and .347) any:
 - 1. building, structure, installation, equipment, pipe, including the pipe into a sanitary or storm sewer or publicly owned treatment works, pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, container for storage, tank, or underground tank for storage
 - 2. site or area where a hazardous substance, pollutant, or contaminant has been deposited, stored, disposed of, placed, or otherwise located
 - 3. motor vehicle, rolling stock, or aircraft or any vessel used as a means of transportation on water (NAC 445A.345(1)(a) through (c)).
- Five-Day Inhibited Biochemical Oxygen Demand the amount of dissolved oxygen in mg/L required during stabilization of the carbonaceous decomposable organic matter by aerobic bacterial action at 20 °C for 5 days (NAC 445A.275(2)(b)).
- Health Authority means officers and agents of the Health Division or officers and agents of the local boards of health (NAC 461A.500(3)).
- *Individual Sewage Disposal System* a single system of sewage treatment tanks and effluent disposal facilities serving (NAC 444.764) [Revised October 2000]:
 - 1. A single-family dwelling; or
 - 2. In the case of a commercial system, one or more buildings that are not used as single-family dwellings.
- Industrial User any industry identified in the Standard Industrial Classification Manual under the category Division D-Manufacturing (NAC 445A.088).
- *Industrial Wastes* wastes resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources (NAC 445A.089).
- Lake Tahoe Watershed all of that area draining in the Lake Tahoe Basin and Lake Tahoe (NAC 445A.006).
- *Minor Discharge* any discharge which:
 - 1. has a total volume of less than 50,000 gpd of each day of the year
 - 2. does not affect the waters of any other state
 - 3. is not identified by the director, the regional administrator, or the administrator as a discharge which is not a minor discharge.

If there is more than one discharge from a facility and the sum of the volumes of all discharges from the facility exceeds 50,000 gal on any day of the year, then no discharge from the facility is a minor discharge (NAC 445A.092).

- *Person* includes governmental agencies (NAC 461A.500(4)).
- *Pretreatment Program* the general pretreatment Federal regulations for existing and new sources of pollution (NAC 445A.103).
- Regional Administrator the Regional Administrator of the USEPA (NAC 445A.106).
- *Release* any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping, or depositing into the environment (NAC 445A.345(2)).
- Sanitary Station a facility used for removing and disposing of wastes from camping vehicle retention tanks (NAC 461A.500(5)).

- Secondary Treatment the biological oxidization of the sewage to a point where the sewage has a 5-day inhibited biochemical oxygen demand concentration of 30 mg/L or less (NAC 445A.275(2)(a)).
- Septic Tank Pumping Contractor any person engaged in the operation of removing and disposing of the solid and liquid contents of septic tanks, holding tanks, or other sewage treatment or disposal facilities (NAC 444.770).
- Sewage a combination of the liquid or water-carried wastes from pipes from (NAC 444.772) [Revised October 2000]:
 - 1. Residences, including human excreta and liquid waste from kitchens and water closets;
 - 2. Business buildings;
 - 3. Institutions; and
 - 4. Industrial establishments.
- Toxic Material any pollutant or combination of pollutants which will cause an organism or its offspring to die or to suffer any disease, behavioral abnormality, cancer, genetic mutation, physiological malfunction, including a malfunction in reproduction, or physical deformation, if that pollutant or combination of pollutants is discharged and exposed to or assimilated by the organism, whether directly from the environment or indirectly through food chains (NAC 445A.110).
- Zone of Passage a continuous water route of the volume, cross-sectional area, and quality necessary to allow passage of aquatic life without any significant effect produced on the aquatic life (NAC 445A.116).

WASTEWATER MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items WA.2.1.NV. Discharges to the Environment WA.5.1.NV.

Permits

State Permits WA.15.1.NV. through WA.15.4.NV. Treatment Works WA.20.1.NV. through WA.20.4.NV.

The state has adopted by reference the Federal regulations for Pretreatment Standards and Discharge Limitations/Prohibitions from 40 CFR 401.10 through 469.26.

Discharges to a POTW/FOTW

Pretreatment Standards WA.30.1.NV.

The state has adopted by reference the Federal regulations for Pretreatment Standards and Discharge

WA.90.1.NV.

Limitations/Prohibitions from 40 CFR 401.10 through 469.26.

Limitations for Mixing Zones Other Discharges and Dischargers [Moved to WA.5.1.NV.; October 2000] **Individual Sewage Systems** WA.100.1.NV. through WA.100.5.NV. Other Sanitation Facilities for Recreational WA.100.6.NV. through WA.100.9.NV.

Vehicles

Aerobic Wastewater Treatment Units WA.100.10.NV. through WA.100.12.NV.

Land Application of Sludge

General WA.105.1.NV. through WA.105.3.NV. Watershed Protection Programs WA.150.1.NV. through WA.150.4.NV.

WASTEWATER MANAGEMENT GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:
12-1	Bacteriological Quality and Buffer Limitations for Spray Irrigation
	of Treated Effluent
12-2	Location Requirements for Individual Sewage Disposal Systems
12-3	Minimum Grades of Certification for Operators of Sewage
	Treatment Plants
12-4	Septic Tank Capacity Requirements

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WA.2. MISSING CHECKLIST ITEMS	
WA.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT **Nevada Supplement** REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 WA.5. DISCHARGES TO THE **ENVIRONMENT** WA.5.1.NV. Verify that the Division of Emergency Management of the Department of Motor Notification requirements for pollutant Vehicles and Public Safety is notified by telephone as soon as possible after a releases must be met (NAC pollutant release is discovered. 445A.346(1) through (6) and .347(1) and (2)) [Moved here Verify that the Director is notified by telephone as soon as possible after discovery of a pollutant release, but no later than the end of the first working day after the from WQ.95.1.NV.; October release. 2000]. Verify that notification procedures are performed after the following releases: - a release in a quantity equal to or greater than that which is required to be reported to the National Response Center - a release consisting of any quantity of pollutants, hazardous waste, or contaminants not listed in 40 CFR 302.4 - a release consisting of a petroleum product to the soil or other surfaces of land in a quantity greater than 25 gal - a release consisting of a petroleum product that is discovered on or in the groundwater or in at least 3 yd³ of soil during excavation of soil, subsurface exploration, monitoring of groundwater, or any other subsurface activity. (NOTE: The release notification requirements do not apply to the following: - any release resulting in exposure to an employee solely within an indoor place of employment for which the employee may assert a claim against his employer - emissions from the exhaust of the engine of a motor vehicle, the rolling stock of a railroad, an aircraft, a vessel, or pipeline pumping station - a release of source, by-product, or special nuclear material resulting from the operation of a production or utilization facility which is subject to the regulatory authority of the Nuclear Regulatory Commission - any activity or substance which is subject to regulation pursuant to NRS 459.010 through 459.290 - the normal application of fertilizers and pesticides - any release that complies with the limits or conditions of a permit issued by the state or the Federal government.)

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT **Nevada Supplement** REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 WA.15. STATE PERMITS WA.15.1.NV. Discharges to (NOTE: The following are not required to have a discharge permit: waters of the state must meet - persons utilizing individual sewage disposal systems which do not discharge permitting requirements (NAC pollutants into the waters of the state, other than toxic materials, providing 445A.228) [Citation Revised the system is approved and is installed, operated, and maintained in October 1999]. accordance with the rules and regulations and other requirements of the district health departments or the state board of health - persons discharging pollutants, other than toxic materials, into a publicly owned or privately owned sewerage system, if the owner of the sewerage system has a valid permit from the Department - discharges of pollutants of pollutants from agricultural and silvicultural activities including irrigation return flow and runoff from orchards, cultivated crops, pastures, rangelands, and forest lands.) Verify that the following agricultural and silvicultural have a valid discharge permit: - discharges from facilities which confine animals if the facilities contain, or at any time during the previous 12 mo contained, for a total of 30 days or more, any of the following types of animals at or in excess of the number listed for each type of animal: - slaughter and feeder cattle, 1000 - mature dairy cattle (whether milkers or dry cows), 700 - swine weighing over 55 lb, 2500 - horses, 500 - sheep, 10,000 - turkeys, 55,000 - laying hens and broilers (if the animal confinement facility has continuous overflow watering), 100,000 - laying hens and broilers (if the animal confinement facility has liquid manure handling systems), 30,000 - ducks, 5000 - discharges from facilities which confine animals if the facility(ies) contain, or at any time during the previous 12 mo contained, for a total of 30 days or more, a combination of animals so that the sum of the following numbers is 1000 or greater: - number of slaughter and feeder cattle multiplied by 1.0, plus - number of mature dairy cattle multiplied by 1.4, plus - number of swine weighing over 55 lb multiplied by 0.4, plus - number of sheep multiplied by 0.1, plus

- number of horses multiplied by 2.0

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 discharges from production facilities for aquatic animals discharges from irrigation return flow, such as tailwater, tile drainage, surfaced groundwater flow, or bypass water, operated by public or private organizations or natural persons if the source of water is effluent from a treatment works discharges from any agricultural or silvicultural activity which have been identified by the Administrator or the Director as a significant contributor of pollution. 	
Verify that permitted discharges, which are not minor discharges, for which the Regional Administrator requests monitoring, or which contain toxic pollutants for which an effluent standard has been established by the Administrator, monitor for at least the following:	
- flow, in gallons per day	
- all of the following pollutants:	
 pollutants which are subject to reduction or elimination under the terms and conditions of the permit 	
- pollutants which the Director finds could have a significant impact on	
the quality of the waters of the state - pollutants specified by the Administrator as subject to monitoring -any pollutants which the Regional Administrator requests be monitored.	
Verify that each effluent flow or pollutant required to be monitored is monitored at intervals sufficiently frequent to yield data which reasonably characterize the nature of the discharge of the monitored effluent flow or pollutants.	
(NOTE: Variable effluent flows and pollutant levels may be monitored at more frequent intervals than relatively constant effluent flows and pollutant levels.)	
Verify that records are maintained of all information resulting from any monitoring activities required in the discharge permit.	
Verify that records of monitoring activities and results include the following information for all samples:	
 date, exact place, and time of sampling dates that analyses were performed who performed the analyses analytical techniques or methods used results of the analyses. 	

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WA.15.4.NV. Permittees with discharge permits must meet permitting requirements (NAC 445A.283(1) through (3)).	Verify that the following records are maintained for at least 3 yr: - records of monitoring activities and results, including all original strip chart recording for continuous monitoring instrumentation - all calibration and maintenance records. Verify that dischargers have a valid permit prior to constructing, installing, expanding, or significantly modifying any factory, mill, plant, or other industrial or commercial facility which will result in a discharge, not authorized by an existing permit, to waters of the state. Verify that dischargers have a valid permit prior to adding extensions to existing municipal or privately owned sewer systems or providing new sewer service to existing or newly constructed buildings which could cause the raw sewage influent to the treatment plant to exceed discharge permit limits.
	Verify that dischargers have a valid permit prior to constructing, installing, or significantly modifying any facilities designed or used for treatment or discharge of pollutants.

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WA.20. TREATMENT WORKS	
WA.20.1.NV. Discharges waters of the state must meet pretreatment requirements and discharge limitations (NAC 445A.254(1), (2) and .257(1) and (2)).	Verify that any person who discharges a pollutant into any waters of the state meets the requirements in the Federal regulations which have been adopted by reference and are specified in the Guidance sheet. (NOTE: The Division of Environmental Protection will administer the pretreatment program for POTWs without a pretreatment program which have discharges from industrial users which also do not have a pretreatment program. The Division of Environmental Protection will administer the pretreatment program for POTWs which do not have a state approved pretreatment program.)
WA.20.2.NV. POTWs must meet notification and facility maintenance requirements (NAC 445A.255(1) (2), .258(1), and .259).	 Verify that POTWs with discharge permits notify the Director of the following: - any new introduction of pollutants into the treatment works from a new source - any new introduction of pollutants into the treatment works from a source which would be subject to section 301 of the <i>Clean Water Act</i> if the source were discharging pollutants - any substantial change in the volume or character of pollutants being introduced into the treatment works at the time of permit issuance.
	Verify that the notification contains the information on the following: - quality and quantity of effluent to be introduced into the treatment works - any anticipated effect of the change upon the quality or quantity of effluent to be discharged from the POTW.
	Verify that POTWs notify the Director of any facility expansions, production increases, or process modifications which result in any new or increased discharges of pollutants.
	Verify that facilities or systems of control, installed to meet the terms and conditions of the discharge permit, are maintained in good working order and operate as efficiently as possible at all times.
WA.20.3.NV. POTWs capable of administering a pre-	Verify that POTWs capable of administering a pretreatment program require any industrial users of the POTW to meet the requirements in 33 U.S. Code §§

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treatment program must meet industrial user requirements (NAC 445A.256(1)).	1284(b), 1317 and 1318 and require industrial users to notify the POTW of it's progress in meeting those requirements by submitting progress reports to the POTW at least every 9 mo.
WA.20.4.NV. Sewage treatment plants must meet operator certification requirements (NAC 445A.286(1), (2), .287(1), .290, and .291(1) and (2)).	(NOTE: This section does not apply to a package sewage treatment plant with a capacity of less than or equal to 5000 gpd or any other sewage treatment plant with a capacity of less than or equal to 10,000 gpd.) Verify that each supervisor, assistant supervisor, foreman, or shift operator responsible for the operation and maintenance of a sewage treatment plant is certified as an operator of a sewage treatment plant at the minimum grade for the treatment plant (see Appendix 12-1). (NOTE: A supervisor, assistant supervisor, foreman, or shift operator in responsible charge of a sewage treatment plant must be certified at the appropriate grade if the plant is manned for more than 40 h/wk. A person in responsible charge of the daily operation and maintenance of a sewage treatment plant must be certified at the appropriate grade if the plant is manned for 40 h/wk or less.)

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DISCHARGES TO A POTW/FOTW	
WA.30. Pretreatment Standards	
WA.30.1.NV. Discharges to a POTW must meet pretreatment requirements and discharge limitations (NAC 445A.254(1) and (2)).	Verify that any person who discharges a pollutant into a POTW meets the requirements in the Federal regulations which have been adopted by reference and are specified in the Guidance sheet.

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WA.90. LIMITATIONS FOR MIXING ZONES	
WA.90.1.NV. Stream mixing zones must meet zone of passage requirements (NAC 445A.299).	Verify that a zone of passage is maintained in stream mixing zones in which water quality standards may be exceeded. Verify that a stream mixing zone is oriented in the stream in a manner which permits the greatest effectiveness of the zone of passage.

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WA.95. OTHER DISCHARGES AND DISCHARGERS		
WA.95.1.NV. [Moved to WQ.5.1.NV.; October 2000].		

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT **Nevada Supplement REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 WA.100. INDIVIDUAL SEWAGE SYSTEMS WA.100.1.NV. Verify that every dwelling or habitation, including occupied trailers, has an **Dwellings** and habitations must have approved method of sewage disposal. approved sewage disposal systems (NAC 444.784(1) and Verify that all liquid waste and wastewater is discharged into a septic tank or other approved primary treatment unit. (5), 444.788, 444.804(1), 444.818(12), and 444.8301(1) and (2)) [Revised October (NOTE: Graywater may be discharged separately.) 20001. Verify that water from a roof or footing, water from garage and surface drainage, and processed water is prevented from entering an individual sewage disposal system. Verify that a primary treatment unit is of sufficient size to provide adequate treatment during a period of maximum inflow. Verify that approval from the administrative authority is obtained prior to constructing, altering, or extending an individual sewage disposal system. (NOTE: Permits issued are considered as a temporary permit to operate an individual sewage disposal system. The operating permit is valid until the disposal system fails or a community sewerage system is installed to service the area.) Verify that plans for a septic tank which has not been previously approved by the health authority are submitted to the health authority for approval. Verify that sewer lines, septic tanks and soil absorption systems are inspected by the health authority prior to covering. Verify that, until the sewage disposal system has passed inspection by the health authority, there is no occupancy of the building and no permanent electrical power connection to the property. (NOTE: Inspections may be performed by city, district or county building inspectors provided these inspectors have been certified by the health division. Building inspectors are not certified in those areas served by a local health department.)

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WA.100.2.NV. Individual	Verify that there are no cesspools.
sewage systems must meet specific limitations and site requirements (NAC	Verify that there is no discharge of surface, rain and other clear water into an individual sewage disposal system.
444.818(1), (2), (4) through (6), (8), (9), (10), (11) and (13)) [Revised October 2000].	Verify that no individual sewage disposal system is located in an area subject to vehicular traffic or an area to be paved.
	Verify that sewage or any waste is not discharged into any well, deep pit or mine shaft, or onto the ground surface.
	Verify that approved plans and specifications are not revised except with written approval of the administrative authority.
	Verify that individual sewage disposal systems are operated and maintained so as not to create a public hazard or nuisance, or cause water pollution.
	Verify that no abandoned septic tank is pumped, removed and disposed of, without the approval of the administrative authority.
	Verify that an abandoned septic tank is filled with dirt or sand after being pumped, and the excavation site created by the removal of a septic tank backfilled with suitable material that is compatible to the intended future use of the site.
	Verify that, to facilitate cleaning and maintenance operations, the installer of an individual sewage disposal system provides the owner with a diagram of the system that includes the location of the house, the septic tank, the cleanouts and the absorption system, and the diagram is kept on the premises regardless of changes in occupancy.
	Verify that any necessary bends in the individual sewage disposal system before the system enters the septic tank are accomplished by the use of pipe fittings that are 45 degrees or less.
WA.100.3.NV. Individual disposal systems must meet specific location requirements	Verify that an individual sewage disposal system is located on the same lot as the building or structure that the system serves.
(NAC 244.792(1)).	Verify that individual sewage disposal systems meet the location requirements specified in Appendix 12-2.
WA.100.4.NV. Individual sewage disposal systems must	Verify that each septic tank has two compartments.
meet specific design and	Verify that the capacity of the inlet compartment is not less than 2/3 of the total

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operating requirements (NAC 444.804(2) and (3), 444.8302(1) and (2), and 444.8306 through 444.8312)	capacity of the tank. Verify that the inlet compartment is at least 3 ft in width and 5 ft in length, with the depth of the liquid in the inlet compartment not less than 30 in. or more than 72 in.
[Cite Revised October 1997; Revised October 2000].	Verify that the secondary compartment has a minimum capacity of 300 gal and a maximum capacity equal to 1/3 of the total capacity of the septic tank.
	(NOTE: If the septic tank has a total capacity of more than 1500 gal, the secondary compartment must be 5 ft or more in length.)
	Verify that adequate access is provided into each compartment to facilitate inspection and cleaning of the tank, with each compartment having at least one manhole to provide access into the compartment.
	(NOTE: If the inlet compartment is longer than 12 ft, an additional manhole must be provided over the baffle or partition wall.)
	Verify that the plans for an individual sewage disposal system designed for commercial use (see "commercial system" in the definitions) which has a capacity of less than 5000 gpd is submitted for review to the health authority for the county in which the proposed system will be located.
	(NOTE: If the capacity of the system is 5000 gpd or more, the plans for the system must be submitted for review to the Division of Environmental Protection of the State Department of Conservation and Natural Resources.)
	Verify that an individual sewage disposal system that is or will be used as a commercial system is designed by an engineer.
	Verify that septic tank systems meet the capacity requirements listed in the appropriate table of Appendix 12-4.
WA.100.5.NV. Septic tank pumping contractors must meet permitting and operating requirements (NAC 444.820(1) and (3) through	Verify that persons engaged in the operation of removing and disposing of the solid and liquid contents of septic tanks, holding tanks, grease interceptors, portable toilets or other sewage treatment or disposal facilities have a valid annual permit from the Health Authority.
(7)) [Revised October 2000].	Verify that the name, address, and phone number of the septic tank pumping contractor, and his permit number, is legibly lettered on tank which is not physically attached to a vehicle, and on both sides of each vehicle used for septic tank pumping purposes.
	Verify that each tank and portable receptacle that is used to transport liquid or solid waste has the words "SEWAGE SLUDGE" or "RAW SEWAGE"

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 permanently and legibly labeled on both sides and the rear of the tank or portable receptacle. Verify that, unless otherwise authorized by the health authority, the lettering is at least 4 in. in height and of a color that contrasts with the color of the tank or portable receptacle. Verify that every vehicle used for septic tank pumping purposes is equipped with a watertight tank or body and is maintained in a clean and sanitary condition. Verify that water used to clean a portable receptacle is disposed of in an approved individual sewage disposal system or a sewage treatment facility. Verify that liquid wastes are not transported in an open body vehicle, unless contained within suitable portable receptacles. Verify that all pumps and hose lines are maintained to prevent leakage. Verify that all portable receptacles used for transporting liquid or solid wastes are watertight, equipped with tight-fitting lids, and are cleaned daily. Verify that approval is obtained from the Health Authority prior to disposal for every site at which a septic tank pumping contractor plans to discharge a specific volume of collected waste material. Verify that waste material collected by the septic tank pumping contractor is not discharged into ditches, watercourses, lakes, ponds, or any point where it can pollute any watercourse, water supply source, or bathing area and that it is not deposited within 600 ft of any highway or residence. Verify that vehicles or portable receptacles used to remove or dispose of solid or liquid waste are not used for any other purpose. **Other Sanitation Facilities** for Recreational Vehicles WA.100.6.NV. Sanitation Verify that sanitation facilities for recreational vehicles have a valid permit. facilities for recreational vehicles must meet approval Verify that sanitation facilities for camping vehicles have approval prior to commencing construction. and permitting requirements (NAC 461A.530 and .540(2)).

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 WA.100.7.NV. Sanitation Verify that persons providing camping vehicle spaces notify the Health Authority facilities for recreational at least 30 days, prior to their intended use, of the following information: vehicles must meet - names and addresses of owners or operators notification requirements - location of facilities (NAC 461A.540(3)). - size of camp and facilities - number of spaces available - water availability - sewage system and sanitation facilities - garbage facilities - availability of open pit fires or enclosed fire facilities. WA.100.8.NV. Verify that persons providing camping spaces for vehicles provide an adequate Sanitation facilities for recreational supply of drinking water from an approved source. vehicles must meet drinking Verify that the water is of a safe, sanitary quality and that it meets the requirements water and toilet facility specified in WA.15.2.NV, WA.15.3.NV, and WA.20.1.NV through WA.20.3.NV. requirements (NAC 461A.560(1) through (4) and Verify that approval from the Health Authority is obtained prior to the .570(1), (2), and (7)). development of an independent water supply to serve the camping vehicles. Verify that water is available within 100 ft of every camping space for vehicles and that overflow from faucets empty into a drain connected to a disposal system or sump approved by the Health Authority. Verify that persons providing camping spaces for vehicles conspicuously post unapproved sources in the immediate vicinity as unfit for drinking if there is a likelihood of these sources being used for human consumption. Verify that persons providing camping spaces for vehicles provide toilet facilities, separate for the sexes, in conveniently located buildings and that flush-type toilets and hand-washing facilities are provided, unless a supply of water under adequate pressure is not available or other conditions preclude the use of those facilities. (NOTE: Camping spaces for vehicles are exempt from the toilet requirements if they have individual sewer connections and are used exclusively by camping vehicles with toilet facilities.) WA.100.9.NV. Sanitation Verify that all liquid wastes from service buildings and camping vehicles,

vehicles must meet sewage disposal system approved by the Health Authority.

including sink wastes, are discharged into a public sewer or private sewage

facilities

for

recreational

WASTEWATER MANAGEMENT Nevada Supplement		
REGULATORY	REVIEWER CHECKS:	
REQUIREMENTS:	October 2000	
disposal requirements (NAC 461A.590(1), (3), and (4)).	disposal system approved by the Health Authority.	
	Verify that these wastes are disposed of in a manner which meets the requirements in WQ.100.1.NV. through WQ.100.5.NV.	
	Verify that, if sewer riser pipe is provided for camping vehicles having toilet facilities, the sewer riser pipe is at least 4 in. in diameter and is provided with a standard threaded fitting to assure a watertight connection and that connections are closed when not linked to a camping vehicle.	
	Verify that an approved sanitary station is provided and toilet wastes from retention tanks of camping vehicles are discharged through the sanitary station.	
Aerobic Wastewater Treatment Units		
WA.100.10.NV. Aerobic wastewater treatment units must meet general operating and design requirements (NAC 444.8314(1) through	Verify that the owner of an individual sewage disposal system that includes an aerobic wastewater treatment unit includes in the design plans submitted to the administrative authority a maintenance agreement with a service provider that covers the anticipated life span of the individual sewage disposal system.	
(5) and (7)) [Added October 2000].	Verify that the maintenance agreement for the individual sewage disposal system includes a yearly inspection of the system, and its components, which verifies that the system is:	
	 functioning correctly producing effluent which has levels of total suspended solids and biological oxygen demand that are each 30 mg/L or less. 	
	Verify that an aerobic wastewater treatment unit that produces effluent with a level of total suspended solids or biological oxygen demand that is more than 30 mg/L is repaired or replaced before the unit is used.	
	Verify that, if the administrative authority requires the use of an aerobic wastewater treatment unit, the owner does not construct or install an individual sewage disposal system that does not include an aerobic wastewater treatment unit.	
	Verify that, if the administrative authority requires the use of an aerobic wastewater treatment unit, the owner:	
	 applies to the administrative authority for an annual permit to operate the aerobic wastewater treatment unit, and includes with the completed application for a permit or the renewal of a permit a copy of a current maintenance agreement for the individual sewage 	

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 disposal system and the aerobic wastewater treatment unit. (NOTE: If a person elects to use an aerobic wastewater treatment unit that is not otherwise required by the administrative authority, that person is exempt from the requirements for an annual permit.) WA.100.11.NV. Aerobic (NOTE: The regulation of the state board of health filed with the secretary of state, the source of this regulation, contains the following provision not included in wastewater treatment units NAC: "Sec. 116. The amendatory provisions of section 60 of this regulation must meet general operating and design requirements [NAC 444.8316] apply only to aerobic wastewater treatment units that are constructed or repaired on or after the effective date of this regulation [25 March (NAC 444.8316(1) through (3) and (6) through (8)) 1999].") [Added October 2000]. Verify that an aerobic wastewater treatment unit is approved by one of the following: - the National Sanitation Foundation International pursuant to its Standard 40 - any other equivalent nationally recognized testing laboratory approved by the health authority, or - the health authority. Verify that the owner of an aerobic wastewater treatment unit includes with the application for review of the system by the administrative authority: - evidence that the unit has been approved, or - the procedures used to test the unit. Verify that the use of an aerobic wastewater treatment unit is consistent with the approved design application and intended use for such a system. Verify that, except in those cases where an aerobic wastewater treatment unit is required by the administrative authority, an aerobic wastewater treatment unit is not used where electrical service is unreliable, dependable maintenance is not available, or intermittent use of the aerobic wastewater treatment unit will adversely effect the functioning of the individual sewage disposal system. Verify that the design plans for an aerobic wastewater treatment unit include a schematic detailing a 24-hr operating alarm system for the aerobic wastewater treatment unit. Verify that a manual for the operation and maintenance of an aerobic wastewater treatment unit is submitted to the administrative authority with the design plans.

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT Nevada Supplement

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
WA.100.12.NV. Aerobic wastewater treatment units must meet inspection requirements (NAC 444.8318(1) and (3)) [Added October 2000].	Verify that the construction of an aerobic wastewater treatment unit is inspected and verified by an engineer. Verify that the inspection is conducted when: - the absorption trenches have been excavated or, if an elevated mound system is to be used, when the basal area of the mound has been scarified - the distribution piping has been placed in the aggregate - the system has been covered with soil - all the pumps, switches, alarms, aeration units and other components associated with the individual sewage disposal system have been installed. Verify that the engineer verifies that the operational liquid levels are set as specified by the design plans. Verify that the engineer, within 30 days after the date on which the construction of the system is completed, submits a letter to the administrative authority stating that the system was constructed in accordance with the approved plans.	

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT **Nevada Supplement REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 LAND APPLICATION OF SLUDGE WA.105. GENERAL WA.105.1.NV. Verify that approval from the Division of a plan for the management of effluent Use of and a discharge permit have been obtained prior to use of treated effluent for treated effluent for irrigation general irrigation. must meet (NAC requirements Verify that effluent used in irrigation by flooding or sprinklers has received at least 445A.275(1) through (6)). secondary treatment. Verify that, where treated effluent is used for irrigation, a notice is posted at the site of irrigation warning the general public to avoid contact with the treated effluent. Verify that treated effluent is not used to irrigate crops for human consumption. (NOTE: Treated effluent may be used for surface irrigation of fruit bearing trees and nut bearing trees.) Verify that irrigation by sprinklers is done in a manner which inhibits the treated effluent from drifting or carrying outside the buffer zone. Verify that treated effluent used in irrigation is not allowed to run off the site being irrigated. WA.105.2.NV. Verify that treated effluent used for spray irrigation meets the requirements for Use of treated effluent for spray irribacteriological quality and buffer zone limitations specified in Appendix 12-3. gation must meet bacterio-(NOTE: A buffer zone and control of public access is not required where treated logical quality and buffer zone requirements (NAC effluent is used for irrigation of land used for a cemetery, golf course, greenbelt, 445A.276(1) and .277(1) and impoundment where full body contact can reasonably be expected, park, playground, or commercial or residential lawn, if the treated effluent: (2)).- has a total coliform concentration of 2.2 or less per 100 mL of the treated effluent as a 30-day geometric mean - has a total coliform concentration of 23 or less per 100 mL of the treated

effluent as a maximum daily number.)

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
WA.105.3.NV. Use of treated effluent for drip or surface irrigation must meet bacteriological requirements (NAC 445A.278).	and surface irrigation of landscape with treated effluent in areas where public

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT

WASTEWATER MANAGEMENT Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
WA.150. WATERSHED PROTECTION PROGRAMS		
WA.150.1.NV. Construction approval and permit requirements must be met within the Lake Tahoe Watershed (NAC 445A.010(1), .022(2), and .023).	Verify that a construction permit is obtained from the Division prior to construction of the following within the Lake Tahoe Watershed: - any building - water, sewerage, or drainage system - any shoreline or other alteration or construction below the high water elevation of Lake Tahoe. Verify that plans and specifications for public or community water supply and sewage disposal systems serving communities are approved by the Division of Environmental Protection of the Department of Human Resources prior to any construction or installation.	
	Verify that no structure or construction is occupied or considered completed until the installation of the water supply and the sewage disposal system has been approved by the Division.	
WA.150.2.NV. Discharge requirements must be met within the Lake Tahoe Watershed (NAC 445A.024(1) through (3)).	Verify that discharges of sewage, sewage effluent, trash, debris, or wastes of any kind, liquid or solid, into the waters of Lake Tahoe, including wastes from boast, watercraft, and boat toilets, does not occur. Verify that the occupants or owners of any structure utilizing individual sewage disposal systems provide for abandonment of the leaching field or leaching pit of the system and for the sealing of the septic tanks in order to provide a watertight system for containment of all sewage and sewage effluents. Verify that the contents of the watertight system are disposed of in an approved manner outside the Lake Tahoe Basin. (NOTE: The only exception to these requirements is a structure within the boundaries of a district where sewage collection systems are under construction and hookup will be completed within 6 mo after completion of the system. A variance may be granted from these requirements for structures in those areas where planning for sewer facilities has commenced.)	

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT Nevada Supplement

Nevada Supplement		
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000	
WA.150.3.NV. Marine toilets must meet specific requirements within the Lake Tahoe Watershed (445A.025(1) through (4)).	Verify that boats with marine toilets are equipped with the following: - a comminutor - a holding tank of adequate capacity - a means of disinfecting waste - a capped discharge opening, for suction removal from the tank, located above or in the boat deck or at another elevation which will preclude discharge except by an onshore device discharging to an approved sewage system. Verify that the disinfecting device and comminutor operate automatically as a unit with each use of the toilet. (NOTE: Alternate chemical treatment, incineration systems, and properly serviced portable units may be approved.) Verify that marine toilets without approved treatment are sealed to prevent being used. (NOTE: Temporary marine toilets may be approved when wastes can be collected and disposed of in an approved manner.) Verify that any pier, dock, or marina renting or providing service to boats provide approved garbage, trash, and waste collection, including sewage disposal from boats.	
WA.150.4.NV. Public water systems using surface water or groundwater under the direct influence of surface water must meet sanitary survey requirements (NAC 445A.539(1) and (2)) [Moved from WQ.20.10.NV., October 1998].	Verify that sanitary surveys of the watershed of a system are performed at least once every 5 yr. Verify that the report of the survey contains the following information: - physical and hydrogeological descriptions of the watershed - summary of the data complied in water quality monitoring - description of activities and sources of contamination - description of any significant changes that have occurred since the last survey which could affect the quality of the water - description of the system's ability to meet the requirements specified in WQ.20.2.NV through WQ.20.4.NV, WQ.20.6.NV through WQ.20.9.NV, and WQ.20.11.NV - recommendations for corrective actions are submitted to the Health Division not less than 60 days after the completion of the survey.	

Bacteriological Quality and Buffer Limitations for Spray Irrigation of Treated Effluent

(Source: NAC 445A.276(1) and (2))

Fecal Coliform (c.f.u. or mpn/	/100 mL) ¹			
Reuse Permitted	A	A(1)	В	С
30-day geometric mean	No limit	200	23	2.2
maximum daily number	No limit	400	240	23
Minimum Buffer Zone (ft)	800	400	100	0

Category A - irrigation with treated effluent of land used for the following:

- 1. pasture, or
- 2. other agricultural purposes, except growing crops for human consumption, where public access to the site being irrigated is prohibited.

Category B - irrigation with treated effluent of land used for the following:

- 1. a golf course, cemetery, or greenbelt where public access to the site being irrigated is controlled and human contact with the treated effluent does not occur
- 2. an impoundment where all activities are prohibited and human contact with the effluent does not occur, or
- 3. any combination of a use listed in category A and a use listed in 1 or 2 above.

Category C - irrigation with treated effluent of land used for the following:

- a cemetery, highway median, greenbelt, park, playground, or residential or commercial lawn where public
 access to the site being irrigated is controlled and human contact with the treated effluent cannot reasonably
 be expected
- 2. impoundments where full body contact with the treated effluent cannot reasonably be expected
- 3. any other purpose not included in category A or B, or
- 4. any combination of an activity listed in category A or B and an activity listed in 1, 2, or 3 above.

¹ c.f.u. - colony forming unit. mpn - most probably number.

Location Requirements for Individual Sewage Disposal Systems

(Source: NAC 444.792(2)) [Revised October 2000]

The minimum horizontal separations that must be maintained between the perimeter of the components of an individual sewage disposal system and the following features are:

Minimum Horizontal Distance (ft), In Clear, Required From:			
	Building Sewer Drain	Septic Tank	Disposal Field (shallow)
Building or structure		8	8
Property lines	10	10	10
Water supply wells (sealed	50	100	100
to 50 ft)			
Water supply wells (not	50	100	150
sealed to 50 ft)			
Public water supply wells	50	150	150*
Streams or water courses	50	100	100
Drainage channels	25	25	25
Large trees or shrubs		10	10
Disposal fields		5	
Community water main line	10	10	25
Individual water service line	10	10	25
Dry wells		6	20

^{*} The required distance between a well and the components of an individual sewage disposal system may be increased by the administrative authority depending on the depth to the water table, soil profile and site characteristics.

$\begin{tabular}{ll} \textbf{Minimum Grades of Certification for Operators of Sewage Treatment Plants} \\ & (Source: NAC~445A.290) \end{tabular}$

	Grades of Certification				
	Grade I Plant	Grade II Plant	Grade III Plant	Grade IV Plant	Grade V Plant
Operator Responsibility					
Supervisor	I	II	III	IV	V
Assistant Supervisor	I	I	II	II	IV
Foreman	I	I	II	III	III
Operator	I	I	I	II	II

Septic Tank Capacity Requirements

(Source: NAC 444.8306 through 444.8312) [Added October 2000]

NOTE: This appendix contains 4 tables. Each table applies to a specific type of septic tank:

Table 1: Septic tanks serving single-family dwellings

Table 2: Septic tanks serving multiple-dwelling structures

Table 3: Septic tanks serving hotels or motels

Table 4: Septic tanks serving certain commercial structures.

Table 1: Capacity of Septic Tanks Serving Single-Family Dwellings.

The minimum capacity for a septic tank that serves a single-family dwelling is based on the number of bedrooms in the dwelling, and is determined as follows:

Number of Bedrooms	Minimum Liquid Capacity of Tank (in Gallons)
3 or less	1,000
4	1,200
5 or 6	1,500

If the single-family dwelling has more than 6 bedrooms, 150 gal for each additional bedroom must be added to 1500 gal.

Table 2: Capacity of Septic Tanks Serving Multiple-Dwelling Structures.

The minimum capacity of a septic tank that is used to serve a multiple-dwelling structure must be calculated based on the number of units in the structure, in accordance with the following table:

Number of Units Within the	Minimum Septic Tank
Multiple-Dwelling Structure	Capacity (in Gallons)
2	1,200
3	1,500
4	2,000
5	2,250
6	2,500
7	2,750
8	3,000
9	3,250
10	3,500

If there are more than 10 units in a multiple-dwelling structure, 250 gal for each such additional unit must be added to the minimum capacity.

For the purposes of determining the minimum capacity of a septic tank, each unit in a multiple-dwelling structure is deemed to contain only one bedroom. If any unit in the multiple-dwelling structure contains more than one bedroom, 150 gal for each such additional bedroom must be added to the minimum capacity.

Table 3: Capacity of Septic Tanks Serving Hotels or Motels.

The minimum capacity of a septic tank that is used to serve a hotel or motel must be calculated based on the estimated flow of sewage from the hotel or motel, which is deemed to be 60 gpd for each bed within the hotel or motel that is a double bed or larger in size.

If the total estimated flow of	The minimum capacity of the
sewage is:	septic tank (in gal) is:
1500 gpd or less	One and one-half times the estimated flow
Over 1500 gpd	Three-quarters of the estimated flow, plus 1125

For the purposes of this section, two twin beds are deemed to be equivalent in size to one double bed.

Table 4: Capacity of Septic Tanks Serving Certain Commercial Structures.

The minimum capacity of a septic tank that is used to serve a commercial structure which is not otherwise covered by Table 2 or 3 must be calculated according to both of the following:

- (a) Calculated based on the estimated flow of sewage from the commercial structure, in accordance with Table 4-A; and
- (b) Calculated based on the number of fixture units in the commercial structure that will be served by the septic tank, in accordance with Table 4-B.

The calculation that produces the greater septic tank capacity must be used to design the individual sewage disposal system for the commercial structure.

Table 4-A:

Examine the following table and determine the occupancy or occupancies that most closely correlate to the intended occupancy of the commercial structure:

Table 4-A: Estimating Sewage Flow Based on Occupancy	
	Estimated Flow Of Sewage
Type of Occupancy	(Gallons Per Day)
Airports	15 per employee and 5 per customer
Automobile washes	5 per passenger vehicle
Bowling alleys	75 per lane
Camps:	
Campground with central comfort	
station	35 per person
With flush toilets, no showers	25 per person
Day camps (no meals served)	15 per person
Summer and seasonal	50 per person
Churches:	
Sanctuary only	5 per seat

Table 4-A: Estimating Sewage Flow Based on Occupancy		
Type of Occupancy	Estimated Flow Of Sewage (Gallons Per Day)	
With kitchen facilities	7 per seat	
Dance halls	5 per person	
Factories:		
With showers	35 per employee	
Without showers	25 per employee	
With cafeteria facilities	Add 5 per employee	
Hospitals:	250 per bed	
With kitchen facilities	Add 25 per bed	
With laundry facilities	Add 40 per bed	
Institutions (Residential):		
General	75 per person	
Nursing homes	125 per person	
Rest homes	125 per person	
Laundries:	- F F	
Self-service (open a minimum of 10		
hours per day	50 per wash cycle	
Commercial	Per manufacturer's specifications	
Mobile home parks	250 per space	
Offices	20 per employee	
Picnic parks (with toilets only)	20 per parking space	
Recreational vehicles:	20 per parking space	
With water hookups	100 per space	
Without water hookups	75 per space	
Restaurants and cafeterias:	20 per employee	
With toilets	Add 7 per customer	
With cocktail lounge	Add 2 per meal served	
With garbage disposal	Add 1 per meal served	
With kitchen waste	Add 6 per meal served	
With kitchen waste, disposable	Add o per mear served	
services	Add 2 per meal served	
Schools:	Add 2 per mear served	
Teaching staff and other employees	20 per person	
Kindergarten or elementary school	15 per pupil	
Junior high school, middle school	15 per pupir	
or high school	20 per pupil	
With gym and showers	Add 5 per pupil	
With cafeteria	Add 3 per pupil Add 3 per pupil	
Boarding school (including all waste	100 per person	
Service stations:	100 bet heteon	
With toilets	1,000 for first bay	
Each additional bay	Add 500	
•	Aud 500	
Staff	20 par amplayaa	
	20 per employee	
With public restroom	1 per 10 square feet of floor space	
Swimming pools (public)	10 per person	
Theaters and auditoriums:		

Table 4-A: Estimating Sewage Flow Based on Occupancy	
Type of Occupancy Estimated Flow Of Sewage (Gallons Per Day)	
Indoor	5 per seat
Drive-in	10 per space

If the estimated flow of sewage for the intended occupancy is 1500 gpd or less, the minimum required capacity of the septic tank is equal to the estimated flow times 1.5.

If the estimated flow of sewage for the intended occupancy is more than 1500 gpd, the minimum required capacity of the septic tank is equal to the estimated flow times 0.75, plus 1125 gal.

Table 4-B:

Examine the following table and, for each type of fixture to be served by the septic tank, determine the number of such fixtures to be used and multiply that number by its corresponding number of fixture units.

Table 4-B(1): Determining Number of Fixture Units	
Type of Fixture	Fixture Units
Bathtub	2
Bidet	2
Dental unit or cuspidor	1
Drinking fountain	1
Floor drain	2
Interceptor:	
For items such as grease, oil or solids	3
For items such as sand or waste from automobile washes	6
Laundry tub	2
Machine for washing clothes	2
Receptor:	
Indirect waste receptor for items	
such as refrigerators, coffee urns	
or water stations	1
Indirect waste receptor for items	
such as commercial sinks,	
dishwashers or air washers	3
Shower, single stall	2
Sink:	
Bar, private (1 1/2 in or 38.1 mm	
minimum waste)	1
Bar, commercial (2 in or 50.8 mm	
minimum waste)	2
Commercial, industrial or school,	
including dishwashers, wash-up	
sinks, and wash-up fountains	
(2 in or 50.8 mm minimum waste)	3
Flushing rim, clinic	6

Table 4-B(1): Determining Number of Fixture Units	
Type of Fixture	Fixture Units
Residential, with or without	
dishwasher (2 in or 50.8 mm	
minimum waste)	2
Service	3
Mobile home park, trap (one for each	
trailer)	6
Urinal, pedestal, trap arm only	6
Urinal, stall, separate trap	2
Urinals, wall mounted (2 in or 50.8	
mm minimum waste), washout, separate	
trap	2
Urinal, wall mounted, washdown or	
siphon jet, integral trap, trap	
arm only	2
Urinal, wall mounted, blowout,	
integral trap arm only	6
Wash basin (lavatory) single	1
Wash basin, in sets	2
Water closet, public installation,	
trap arm only	6

Add together the number of fixture units. The sum represents the maximum number of fixture units that will be served by the septic tank. Based on that number, determine the minimum required capacity of the septic tank pursuant to the following table:

Table 4-B(2): Estimating Capacity Based on Fixture Units		
Maximum Number of	Septic Tank Capacity	
Fixture Units Served	(gal)	
20	1,000	
25	1,200	
33	1,500	
45	2,000	
55	2,250	
60	2,500	
70	2,750	
80	3,000	
90	3,250	
100	3,500	

If there are more than 100 fixture units, 25 gal must be added to the minimum required capacity of the septic tank for each additional fixture unit.

SECTION 13

WATER QUALITY MANAGEMENT

Nevada Supplement, October 2000

This section covers the state requirements for Water Quality Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Citations:

Definitions and requirements for Water Quality Management are taken from the following sources:

- Nevada Annotated Code, which is hereafter abbreviated as NAC
- Nevada Revised Statutes, which is hereafter abbreviated as NRS.

Adoptions by Reference:

- The "National Primary Drinking Water Regulations," as set forth in 40 CFR §§ 141.21 to 141.30, inclusive, 141.1, 141.4, 141.5, 141.11 to 141.16, inclusive, 141.40 to 141.42, 141.61, 141.62, 141.63, 141.80 to 141.91, inclusive, 141.100, 141.101, 141.110 and 141.111 are hereby adopted by reference (NAC 445A.453 and 445A.454);
- The American Water Works Association Standards, as those standards existed on February 20, 1997;
- Standards 14, 42, 44, 53, 54, 55, 58, 60 and 61 of the American National Standards Institute and the National Sanitation Foundation International, as those standards existed on February 20, 1997;
- Standard D3212 of the American Society for Testing and Materials, as that standard existed on February 20, 1997;
- The provisions of 21 CFR § 177.2420, as those provisions existed on February 20, 1997;
- The Manual of Cross-Connection Control, ninth edition, as developed by the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California;
- Recommended Practice for Backflow Prevention and Cross-Connection Control, 1990 edition, as published by the American Water Works Association:
- Recommended Standards for Water Works, 1992 edition, as developed and approved by the Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers;
- Standard Methods for the Examination of Water and Wastewater, 19th edition, as published by the American Water Works Association;
- Standard Specifications for Public Works Construction, 1996 edition, as sponsored and distributed by the Regional Transportation Commission of Washoe County, Washoe County, the City of Sparks, the City of Reno, Carson City and the City of Yerington;
- Uniform Design and Construction Standards for Water Distribution Systems, 1995 edition, as developed and adopted by Boulder City, Henderson, North Las Vegas, the Big Bend Water District and the Las Vegas Valley Water District;
- The Uniform Plumbing Code, 1994 edition, as adopted by the International Association of Plumbing and Mechanical Officials (NAC 445A.6663) [Added October 1998].

Definitions:

- Abandon to discontinue the use of a well or borehole or to leave the well or borehole in such a state of disrepair that to use it would be impracticable, may result in contamination of ground water or may otherwise pose a hazard to the health or safety of the general public (NAC 534.015).
- Absorption Field a component of a system for the disposal of sewage from an individual source, which consists
 of an absorption trench that uses the soil for the disposal and treatment of effluent from a septic tank (NAC
 445A.6551).
- Access Port an opening in the top of a well casing in the form of a tapped hole and plug or a capped pipe welded on the casing to permit entry of a device to measure the water level of the well (NAC 534.430).
- Air and Vacuum Valve a dual-function valve that allows the entrance of air into a pipe or well which is being
 emptied, to prevent a vacuum, and allows air to escape from a pipe or well which is being filled or is under
 pressure (NAC 445A.6552).
- Air Gap a physical separation between a point of free-flowing discharge from a pipe that supplies liquid to an open or nonpressurized vessel and the overflow rim of that vessel which is:
 - 1. at least twice the effective diameter of that pipe or, if the pipe is affected by side walls, at least three times the effective diameter of that pipe; and
 - 2. in no case less than 1 in. (NAC 445A.6553).
- Annular Space the area between two cylindrical objects, one of which surrounds the other, including the space between the respective walls of the drill hole and casing of a well (NAC 445A.6555).
- Aquifer a geologic formation, group of geologic formations or part of a geologic formation that is capable of yielding ground water to a well or spring (NAC 445A.6557).
- *Backflow* a hydraulic condition in which a relative difference in pressures causes a nonpotable liquid, gas or other substance to flow into a potable water system (NAC 445A.65605).
- *Backwashing* the reversal of flow through a filter to wash clogging material out of the filtering medium and reduce conditions that cause head loss (NAC 445A.6562).
- Bentonite Grout a product that is specifically designed to seal and plug wells and boreholes and:
 - 1. consists of not more than 87.9 percent water and not less than 12.1 percent bentonite by weight of water
 - 2. has the ability to gel
 - 3. does not separate into water and solid materials after it gels
 - 4. has hydraulic conductivity or permeability values of 10[-7] cm/s or less
 - 5. has a fluid weight of not less than 9 lb/gal (NAC 534.042).
- *Blast Hole* a borehole that is drilled and, as soon as practicable, is loaded with explosives for mining purposes (NAC 534.043).
- *Borehole* a penetration in the ground that is deeper than the longest dimension of its opening at the surface and is made to obtain geologic, hydrologic, geophysical or geotechnical information, to obtain information relating to engineering or for any other purpose other than for use as a well (NAC 534.047).
- Casing -
 - 1. the conduit required to prevent waste and contamination of ground water and to hold the formation open during the construction or use of a well; or

- 2. the enclosure surrounding an impeller, into which the suction and discharge ports are machined (NAC 445A.6567).
- *Cement Grout* a mixture of portland cement, sand and water which contains at least seven bags of cement per cubic yard and not more than 7 gal of clean water for each bag of cement (NAC 445A.65675).
- *Chlorine Residual* the amount of chlorine remaining in water after the reaction of the chlorine with organic and inorganic substances in the water which, depending upon the pH of the water, is in the form of hypochlorous acid or hypochlorite ions (NAC 445A.6572).
- Clear Well a structure, vault or chamber used for the storage of finished water (NAC 445A.65755).
- *Coliform Bacteria* a group of bacteria that inhabits the intestines of humans and animals, and is occasionally found in other habitats, including:
 - 1. all aerobic and facultative anaerobic, Gram-negative bacilli that do not form spores and which cause the production of gas through the fermentation of lactose; and
 - 2. all bacteria that produce a dark purplish-green colony with a metallic sheen when the membrane-filter technique is used for the identification of coliform (NAC 445A.65765).
- Concrete Grout a mixture of portland cement, sand, 1/4 in. minus aggregate and water which contains at least five bags of cement per cubic yard of concrete and not more than 7 gal of clean water for each bag of cement (NAC 45A.6578).
- Conductor Casing the temporary or permanent casing used in the upper portion of the well bore to prevent collapse of the formation during the construction of the well or to conduct the gravel pack to the perforated or screened areas in the casing (NAC 534.080).
- *Contamination* an impairment of water quality by chemical substances or biological organisms which the health authority determines to be sufficient to create a risk or threat to the public health (NAC 445A.65795).
- *Conventional Filtration* a series of treatment processes, including coagulation, flocculation, sedimentation, and filtration, resulting in the substantial removal of particulates (NAC 445A.499).
- *Diatomaceous Earth Filtration* a process used to remove particulates where a precoat cake of graded diatomaceous earth filter media is deposited on a support membrane or septum. Water is filtered by passing through the cake on the septum. Additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake (NAC 445A.500).
- *Direct Filtration* a series of processes, including coagulation, flocculation, and filtration, resulting in the substantial removal of particulates (NAC 445A.501).
- Disinfectant Contact Time the time in minutes that it takes water to move from the point of the application of disinfectant to a point before or at the location where the concentration of residual disinfectant is measured (NAC 445A.502).
- Disinfection -
 - 1. the introduction of chlorine or another chemical oxidant, or of another agent approved by the health authority, in such a concentration and for such a period of contact as is sufficient to kill or inactivate pathogenic or indicator microbiological organisms; or
 - 2. the performance of another process approved by the health authority in such a manner as to kill or inactivate pathogenic or indicator microbiological organisms (NAC 445A.6583).

- Distribution Storage the storage structures connected to a distribution system (NAC 445A.6584).
- *Distribution System* all the facilities of a public water system used to deliver finished water to service connections from the source of the water or from any related treatment facilities (NAC 445A.65845).
- *Division* the Division of Environmental Protection of the State Department of Conservation and Natural Resources (NAC 445A.055(2)).
- *Drill Rig* any power-driven percussion, rotary, boring, coring, digging, jetting or augering machine used in the construction of a well or borehole (NAC 534.112).
- *Drive Point Water Well* a water well constructed by driving a drive point attached to the end of a section of pipe into the ground (NAC 445A.65865).
- *Dug Water Well* a water well for which the excavation is done by using picks, shovels or spades, a backhoe, a clamshell bucket or sand bucket, or similar equipment (NAC 45A.6587).
- *Emergency* a situation in which an unusual calamity, including a flood, fire, storm, earthquake, drought, civil disturbance, accidental spill of a hazardous material or similar occurrence, disrupts the provision of water by a public water system or endangers the quality of water provided by a public water system (NAC 445A.6588).
- Exploratory Well a well constructed pursuant to paragraph (a) of subsection 2 of NRS 534.050 to determine the availability of water or whether an aquifer is capable of transmitting water to a well (NRS 534.120).
- *Filtration* a process for removing particulate matter from water by passing the water through porous media (NAC 445A.65915).
- *Finished Water* water that has been treated or otherwise developed in a manner that complies with NAC 445A.450 to 445A.540, inclusive, and 445A.65505 to 445A.6731, inclusive (NAC 445A. 65925).
- Flapper Valve a formed or machined covering for the opening at the end of a pipeline that:
 - 1. is suspended from the top of the pipe; and
 - 2. opens and closes by rotating about a hinge in a manner that allows the valve to close under the influence of gravity (NAC 445A.6595).
- *Flocculation* a process to enhance agglomeration or the collection of smaller floc particles into larger particles that are more settleable or filterable using gentle stirring by hydraulic or mechanical means (NAC 445A.505).
- Flouridation the process for the treatment of water pursuant to which a chemical is added to the water to increase the concentration of fluoride ions to an optimal level for reducing the incidence of dental caries (NAC 445A.65975).
- *Gravity Sanitary Sewer* a sanitary sewer designed and constructed in such a manner as to allow wastewater to flow exclusively under the influence of gravity (NAC 445A.66005).
- *Gravity Storm Sewer* a storm sewer designed and constructed in such a manner as to allow drainage to flow exclusively under the influence of gravity (NAC 445A.6601).
- Ground Water the subsurface water in the zone of saturation (NAC 445A.66025).
- *Grouting* the operation by which grout is placed between the casing and sides of a well bore to secure the casing in place and to exclude water and other fluids from the well bore (NAC 445A.66035).

- *Health Authority* the officers and agents of the health division or the officers and agents of the local boards of health (NAC 445A.450(3)).
- Health Division the Health Division of the Department of Human Resources (NAC 445A.596).
- Jetted Water Well a water well in which the excavation of the drill hole is done primarily by using a high-velocity jet of fluid or gas (NAC 445A.6608).
- Lineshaft Turbine Pump a type of vertical turbine in which:
 - 1. a motor is mounted above the ground and a pumping device is mounted below the surface of the water;
 - 2. a column extends from the pumping device to a discharge device mounted above the ground just below the motor; and
 - 3. a shaft extends on a straight line from the center of the motor to the pumping device (NAC 445A.6609).
- *Maximum Day Demand* the maximum daily demand for water over a yearly period, as determined by historical data (NAC 445A.6611).
- Mesh an opening or space in a screen, the size of which is described by the number of openings or spaces per linear inch of the screen (NAC 445A.66125).
- *Monitoring Well* any well that is constructed to evaluate, observe or determine the quality, quantity, temperature, pressure or other characteristic of ground water or an aquifer. The term includes an observation well, piezometer, drive point well or vapor extraction well (NAC 534.148).
- *Neat Cement* a mixture of water and portland cement in a ratio of not less than 5 nor more than 6 gallons of water for each bag of cement (NAC 445A.6615).
- Observation Well a borehole in which a temporary casing has been set and which is used to observe, test and
 measure the elevation of the water table, the pressure variations within an aquifer and the movement of
 contaminants inside or outside a zone of saturation (NAC 534.165).
- *Peak Hour Demand* the volume of water which must be supplied by a public water system to meet the demand of its customers for water during the hour that the maximum amount of water is used for a yearly period, as determined by historical data (NAC 445A.66185).
- Plug the procedure in which a well or borehole is sealed after it is abandoned (N AC 534.183).
- Pollution an alteration of the chemical, physical, biological or radiological integrity of water that:
 - 1. impairs the quality of the water to such an extent that the impairment adversely and unreasonably affects those aesthetic qualities which would have made the water desirable for domestic use; and
 - 2. does not impair the quality of the water to such an extent that the health authority determines that the impairment creates a risk or threat to the public health (NAC 445A.6623).
- Primary Drinking Water Standard a standard which specifies a maximum contaminant level for any constituent found in a public water supply which, if exceeded, may adversely affect the health of persons (NAC 445A.450(7)).
- *Properly Certified Laboratory* a laboratory certified in accordance with the provisions of NAC 445A.450 to 445A.492, inclusive, to perform appropriate analyses (NAC 445A.66275).

- Public Water System any system, regardless of ownership, which provides the public with piped water for human consumption, if the system has 15 or more service connections used by residents throughout the year or regularly serves 25 or more persons for 60 or more days a year. A public water system includes:
 - 1. any facility for the collection, pumping, treatment, storage or distribution of water which is under the control of the operator of the system and used primarily in connection with the system; and
 - 2. any facility for the collection or pretreatment storage of water which is not under the control of the operator of the system but used primarily in connection with the system (NAC 445A.66285).
- Raw Water water that is not suited for human consumption without treatment (NAC 445A.66295).
- *Reconditioning* the deepening, reaming, casing, recasing, perforating, reperforating, installing of liner pipe, packers and seals or any other significant change in the design or construction of a water well (NAC 534.188).
- Sanitary Seal the watertight seal established in the annular space between the casing and drill hole of a water well to prevent the inflow and movement of surface water or shallow ground water, or to prevent the outflow or movement of water under artesian pressure (NAC 445A.6634).
- Sanitary Sewer an underground system of sewer lines for the collection and conveyance of any type of wastewater from a home or community (NAC 445A.66345).
- Sanitary Survey an on-site evaluation of a public water system to determine whether the water sources, facilities, equipment, processes, administration, operation and maintenance of the system are adequate for the production and distribution of safe and reliable drinking water (NAC 445A.6635).
- Seal the watertight seal established in a borehole or the annular space between the well casings or a well casing and the well bore to prevent the inflow or vertical movement of surface water or shallow ground water, or to prevent the outflow or vertical movement of water under artisan pressures. The term includes a sanitary seal (NAC 534.190).
- *Seal Water* water that is applied to a stuffing box to lubricate and flush the packing or mechanical seal (NAC 445A.66355).
- Secondary Drinking Water Standard a standard which specifies a maximum contaminant level for any constituent found in a public water supply which, if exceeded, may adversely affect the health of persons. These standards apply to constituents which adversely affect the taste, odor, appearance, and other aesthetic qualities of water (NAC 445A.450(8)).
- Seismic Shot Hole a borehole in which an explosion is detonated to assist studies of the geology of the earth (NAC 534.192)
- Slow Sand Filtration a process where raw water is passed through a bed of sand at a velocity of less than 0.1 gal/min/ft² that results in the substantial removal of particulates by physical and biological mechanisms (NAC 445A.512).
- Sodium Bentonite a colloidal clay that:
 - 1. consists primarily of the mineral montmorillonite
 - 2. has the ability to swell, and
 - 3. may be mixed with water to form bentonite grout (NAC 534.194).
- *Spring* a naturally occurring point of discharge where ground water becomes surface water, regardless of whether the water is developed for use (NAC 445A.6642).

- Storage Structure a reservoir, tank or other structure used by a public water system for the storage of finished water (NAC 445A.66435).
- State Engineer the state engineer or any duly authorized assistant (NAC 455A.600).
- *Storm Sewer* an underground system of sewer lines for the collection and conveyance of surface drainage and other materials deposited into and borne by surface water to a point of disposal (NAC 445A.66445).
- Submersible Pump a turbine pump designed to operate with the entire pump assembly and motor submersed in liquid (NAC 445A.6646)
- Supplier of Water a person or other entity, including a governmental entity, which owns or operates a public water system (NAC 445A.6648)
- Surface Water all water open to the atmosphere and subject to surface runoff (NAC 445A.66485).
- *Total Capacity* the capacity of a public water system to supply the water demanded by its customers within its area of service during all conditions except emergencies (NAC 445A.6652).
- Treatment Facility a facility for the treatment of water of a public water system (NAC 445A.66525).
- *Virus* a virus that originates in feces and which may infect humans through waterborne transmissions (NAC 445A.515).
- Wastewater water which, as a result of domestic, commercial or industrial use, contains physical, chemical or biological impurities (NAC 445A.6656).
- Wastewater Force Main a pressurized pipe that connects the discharge from a wastewater lift station to a gravity sanitary sewer (NAC 445A.66565).
- Wastewater Lift Station a pumping station that raises wastewater from a gravity sanitary sewer to a higher elevation (NAC 445A.6657).
- Water Hauling the bulk hauling, by any means of transportation, of water for introduction into a public water system (NAC 445A.67275).
- Water Project the initial construction, or any renovation, modification or expansion, of:
 - 1. each portion of a public water system that begins operation after February 20, 1997; or
 - 2. each portion of a public water system that began operation on or before February 20, 1997, if the portion of the public water system is involved in:
 - a. the collection, pumping, treatment, storage or distribution of water; or
 - b. the boosting, sustaining or reducing or water pressure, except any construction, renovation, modification or expansion approved by a health authority or other appropriate governmental entity before February 20, 1997 (NAC 445A.66585).
- Water Well an encased excavation made by any drilling method for the development of ground water from its source (NAC 445A.66595).
- *Well* a penetration in the ground made for the purpose of measuring, testing or sampling the underground strata or producing ground water. The term includes a water well, monitoring well or exploratory well (NAC 534.220).

- Well Bore a cylindrical hole made in the construction or drilling of a well (NAC 534.235).
- Well Driller any person who drills a well or wells, for compensation or otherwise (NRS 534.017).
- Well Drilling drilling or boring new wells, placing casing in wells, cleaning and repairing existing wells, cementing wells and doing all other things normally associated with the construction or rehabilitation of wells (NRS 534.0175).
- Well Yield the maximum amount of water, as expressed in gallons per minute or cubic feet per second, that can be pumped from a well on a sustained basis without lowering the level of the water below the intake of the pump (NAC 445A.66605).

WATER QUALITY MANAGEMENT GUIDANCE FOR NEVADA CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

Missing Checklist Items WO.2.1.NV. WQ.5.1.NV. Permits/Notifications/Exemptions **Operators** WQ.6.1.NV.

Public Water Systems

General WQ.10.1.NV. through WQ.10.23.NV. WQ.15.1.NV. through WQ.15.8.NV. Monitoring/Sampling Disinfection and Filtration WQ.20.1.NV. through WQ.20.10.NV.

(NOTE: The state has adopted by reference the Federal regulations for Turbidity Analytical Methods

(40 CFR 141.74, as stated in the CFR on 29 June 1989) (NAC 445A.528).)

Lead and Copper WQ.25.1.NV.

Notification and Reporting Requirements WQ.30.1.NV. through WQ.30.8.NV.

Community Water Systems

Notification and Reporting Requirements WQ.45.1.NV. Nontransient Noncommunity Water Systems WQ.79.1.NV. Notification and Reporting Requirements WQ.79.1.NV.

Drinking Water Well WQ.90.1.NV. through WQ.90.12.NV. (NOTE: See Miscellaneous Wells (WQ.100.NV.) for requirements applicable to all wells.)

Miscellaneous Wells WQ.100.1.NV.

WQ.100.1.NV. through WQ.100.11.NV. General WQ.100.12.NV. and WQ.100.13.NV. Well Plugging Specific Well Types WQ.100.14.NV. through WQ.100.17.NV. Boreholes WQ.100.18.NV. through WQ.100.19.NV. WQ.110.1.NV. through WQ.110.6.NV. Injection Control Wells (NOTE: See Miscellaneous Wells (WQ.100.NV.) for requirements applicable to all wells.) Water Quality Standards WQ.115.1.NV. through WQ.115.6.NV.

WQ.115.7.NV. through WQ.115.11.NV. Springs

WATER QUALITY MANAGEMENT GUIDANCE FOR NEVADA APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:
13-1	Secondary Maximum Contaminant Levels - Table 1
13-2	Secondary Maximum Contaminant Levels -Table 2
13-3	Water Quality Criteria for Designated Beneficial Uses

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
WQ.2. MISSING CHECKLIST ITEMS	
WQ.2.1.NV. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
WQ.5. PERMITS/ NOTIFICATIONS/ EXEMPTIONS	
WQ.5.1.NV. Water systems must meet permitting and approval requirements (NAC 445A.602, 445A.6669, and 445A.66715(1)(a)) [Revised October 1998].	Verify that public water systems obtain the health authority's review and written approval of proposed water projects. (NOTE: The health authority's approval is not required for maintenance of any facilities of a public water system, except for relining or recoating of storage tanks.) Verify that, rather than seek written approval, the public water system notifies the health authority immediately, by telephone, when an emergency exists that threatens the quality of water. Verify that public water systems obtain the health authority's approval before carrying out any proposed changes in materials, equipment, quantities, configurations or processes, and before any additions or deletions of infrastructure, which would affect the quality or quantity of water.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT **Nevada Supplement** REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 **WQ.6. OPERATORS** Verify that operators of public water systems are certified. **WQ.6.1.NV.** Water systems must meet operator Verify that systems, which serve 100 or more persons at places which are certification requirements intended for occupancy throughout the year and are designated as being supplied (NAC 445A.532, 445A.626, by surface water or ground water under the direct influence of surface water, 445A.627, and 445A.628(1) have a person in responsible charge of the facility or on call at all times. and (3)). Verify that persons in responsible charge are certified at the same classification as, or a higher classification than, the classification of the public water system. Verify that the supplier of water notifies the Health Division within 72 h or 2 working days, whichever is earlier, of any time that the system does not meet these certification requirements. (NOTE: For systems serving more than 8000 persons, the Health Division may require additional persons in responsible charge at the same time, including a person in responsible charge for the distribution of water. If the Health Division required additional persons in responsible charge, these persons may be certified at a classification lower than the classification of the public water system.) (NOTE: A person holding a certificate as an operator-in-training may be the person in responsible charge of the public water system. In an emergency situation, the Health Division may approve any other qualified person as the person in responsible charge of a system for not more than 6 mo.)

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REVIEWER CHECKS: REGULATORY **REQUIREMENTS:** October 2000 **PUBLIC WATER SYSTEMS** WO.10. (NOTE: This section was substantially revised in October 1998.) **GENERAL** (NOTE: These requirements apply to every public water system in Nevada except those that the health division has determined safe and not subject to pollution or contamination as a result of the location, protection, construction, operation, or maintenance of that public water system (water projects performed after 20 February 1997 are not eligible for this exception) (NAC 445A.6662).) WQ.10.1.NV. Public water Verify that work on a water project is performed in substantial compliance with the plans and specifications approved for the water project by the health system projects must be performed in compliance with authority. approved plans and specifications (NAC 445A.66715) [Added October 1998]. WQ.10.2.NV. Public water Verify that public water systems develop an organized plan of predetermined activities for the public water system to restore its services in the contingency systems must develop a plan for restoration of services in that an emergency, including any failure of power, mechanical or electrical failure, or natural disaster, reduces the capability of the public water system to emergencies (NAC 445A.66665) [Added October supply the water demanded by its customers within its area of service, including 19981. actions necessary for responding to any breaks in a water main of the public water system. Verify that public water systems that began operation on or before 20 February 1997 submit a copy of the plan to the health authority or the county clerk of the county in which the public water system is located not later than 1 January 1999. Verify that public water systems that begin operation after 20 February 1997 submit a copy of the plan to the health authority or the county clerk of the county in which the public water system is located not later than 18 mo after the public water system begins operation.

ter Verify that public water systems prepare a manual of operation and maintenance an regarding all of the facilities of the public water system and submit the manual to

WO.10.3.NV.

systems

Public water

have

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT

Nevada Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
operations and maintenance manual (NAC 445A.6667) [Added October 1998].	the health authority for review and approval. Verify that the manual describes normal procedures for the operation and maintenance of each facility of the public water system and procedures for use in emergencies. Verify that the manual is maintained at each facility of the public water system at all times for use by the operators and other personnel of the facility
WQ.10.4.NV. Existing public water systems must meet capacity, pressure, and velocity requirements (NAC 445A.6672) [Added October 1998].	Verify that existing public water systems ensure that a sufficient capacity of water is always maintained to satisfy the requirements of all system users under the conditions of maximum day demand and peak hour demand. Verify that the residual pressure in the distribution system is: - at least 20 psi during conditions of fire flow and fire demand experienced during maximum day demand - at least 30 psi during peak hour demand - at least 40 psi during maximum day demand. Verify that, unless otherwise justified by an engineer and approved by the health authority, normal water velocities are maintained at approximately 8 ft/s during all conditions of flow other than fire flow. Verify that, if the public water system relies exclusively on water wells as its source of water, the total capacity of the system is sufficient to meet either: - the maximum day demand, fire flow and fire demand when all the facilities of the system are functioning - the average day demand, fire flow and fire demand when the most productive well of the system is not functioning, whichever is greater. Verify that water projects are completed in such a manner as to meet the actual maximum day demand, peak hour demand, fire flow and fire demand for developments of property in the area of service of the public water system.
WQ.10.5.NV. Existing public water systems must meet storage requirements (NAC 445A.6674(1)(a) and (3), 445A.6675(1), and 445A.66755) [Added October	Verify that existing public water systems maintain a storage capacity that, as determined by an engineer, is sufficient to ensure that the total capacity of the public water system will meet current and anticipated demands for water while maintaining required pressures. Verify that the total storage capacity and capacity of booster pumps for each zone of pressure in an existing public water system's distribution system are

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
1998].	sufficient to meet the maximum day demand within that zone. (NOTE: Water stored in a higher zone of pressure may be provided to serve a lower zone of pressure if an appropriate pressure regulator is installed between the zones and the requirements for the higher zone of pressure are not compromised.) Verify that existing public water systems maintain an operating storage in such an amount as an engineer determines to be sufficient for the system to meet requirements for maximum day demand. Verify that existing public water systems maintain an emergency reserve in such an amount as an engineer determines appropriate on the basis of the best available local information. (NOTE: Existing public water systems are not required to comply with these storage requirements if the system has a sufficient alternative pumping capacity to meet requirements for maximum day demand, peak hour demand, and fire flow.)
WQ.10.6.NV. New public water systems must meet capacity requirements for the development and treatment of water (NAC 445A.66735) [Added October 1998].	Verify that new public water system's capacity for the development and treatment of water, whether surface water or ground water, or both, is sufficient to provide, when the demand for water in the area of service of the system is: - not more than 100 residential equivalents, at least 2 gal/min per residential equivalent for metered systems and 2.5 gal/min per residential equivalent for unmetered systems - more than 100 but not more than 250 residential equivalents, at least 1.5 gal/min per residential equivalent for metered systems and 2 gal/min per residential equivalent for unmetered systems. - more than 250 but not more than 500 residential equivalents, at least 1.2 gal/min per residential equivalent for metered systems and 1.7 gal/min per residential equivalent for unmetered systems. - more than 500 residential equivalents, at least 1 gal/min per residential equivalent for metered systems and 1.5 gal/min per residential equivalent for, unmetered system.
WQ.10.7.NV. New public water systems must meet storage requirements (NAC 445A.6674(1)(b), 445A.66745(2)), and 445A.6675(2)) [Added	Verify that new public water systems maintain a storage capacity that is sufficient to provide the amount of water required for sufficient operating storage, emergency reserve, and fire demand. Verify that new public water systems maintain an operating storage equal to 700 gal for each residential equivalent in the area of service of a metered system and

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October 1998].	1225 gal for each residential equivalent in the area of service of an unmetered system.
	Verify that new public water systems maintain an emergency reserve equal to 75 percent of the amount of operating storage of the system.
WQ.10.8.NV. Pumping facilities must meet general	Verify that public water systems do not use pumps installed in subsurface vaults.
requirements (NAC 445A.66965, 445A.6697,	Verify that, if it is necessary to install any pumps in suction lift, appropriate [not defined] priming systems are provided.
445A.66975, and 445A.67015) [Added October 1998].	Verify that pumping facilities are located in such a manner that the hydraulic requirements of the public water system are met and the pumping stations are protected from flood, fire and other hazards.
	Verify that pumping stations are readily accessible at all times.
	Verify that pumping stations are protected from vandalism and entry by animals and unauthorized persons.
	Verify that the elevation of the pumping station is at least 3 ft above the level of the 100 yr flood plain or the pumping station is protected from a flood of that elevation.
	Verify that, if a pumping station has an automatic control, the station has an alarm system that alerts the supervisor of the station or another person responsible for the operation of the station regarding any malfunction that could compromise the capability of the public water system to operate as intended.
WQ.10.9.NV. Pumping facilities must meet intake	Verify that pumping stations that pump surface water use a type of intake that is appropriate for the type of pumping station.
requirements (NAC 445A.6698) [Added October 1998].	Verify that the intake is protected in such a manner as to prevent any deterioration in the sanitary quality of the pumped water.
	Verify that, except where surface water is obtained by direct suction from an adjacent supply, water is conducted from its source through a watertight conduit either by:
	 gravity into a suction well located in or adjacent to the pump house submersible pumps or booster pumps.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that intakes for obtaining water from a lake or reservoir other than Lake Mead are submerged at least 15 ft below the surface, located at least 4 ft off the bottom and extend into the water at least 1000 ft from the shore. Verify that intakes for obtaining water from a lake or reservoir other than Lake Mead can withdraw water from more than one level if the quality of the water varies with depth. Verify that intakes for obtaining water from a lake or reservoir other than Lake Mead have a diversionary device that both: - prevents the intake of fish and debris - is designed and located in such a manner as to prevent damage from marine vehicles and anchors. Verify that intakes for obtaining water from a lake or reservoir other than Lake Mead are located away from any creek, drainage, marina, on-shore sewerage infrastructure, or other source of pollution or contamination. WO.10.10.NV. Pumping Verify that pumping stations for raw water or finished water are housed in a building that is weather-resistant and of durable construction. stations must meet housing requirements (NAC 445A.66985) [Added October Verify that the pumping station housing meets all of the following standards: 1998]. - the building has outward-opening doors with tamper-proof hinges - the floors are elevated at least 6 in. above the finished grade, slope at least 1/8 in./ft to a suitable drain, and drain in such a manner that the quality of finished water is not endangered - there is a suitable outlet for drainage from s boxes and air release valves that have an air gap and do not discharge onto a floor - there is adequate space, access hatches, and doors for the installation of additional pumping units, if necessary, and for the convenient and safe servicing of all equipment embedded lifting eyes, crane ways, or hoist rails are provided above the locations where pumps are installed in a building - an access or passageway is provided, to facilitate the removal of the pumps, motors and heavy equipment for servicing or repair - any underground structures are externally waterproofed. WQ.10.11.NV. Pumping Verify that suction wells and clear wells meet the following standards: facilities must meet suction - are watertight well and clear well - have a floor that is sloped in such a manner as to allow the removal of water requirements (NAC

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445A.6699) [Added October 1998].	and settled solids - are covered and otherwise protected from contamination - are arranged in a manner that conforms to the criteria specified by the manufacturers of the pumps for the well - if water cascades into the well or enters at such a velocity as to entrain air, have alternating floor and roof baffles in the basin of the well.
	Verify that clear wells are placed above the highest anticipated elevation of the ground water.
	Verify that suction wells include at least two compartments, such that one compartment can be taken out of service for cleaning, maintenance, and repair.
WQ.10.12.NV. Pumping facilities must meet priming requirements (NAC	Verify that water used for priming is of no less a sanitary quality than that of the water being pumped.
445A.67005) [Added October	Verify that there is a means to prevent backflow from occurring during priming.
1998].	Verify that, where vent lines discharge to a drain, the vent lines are designed with an air gap.
	(NOTE: The use of self-priming pumps is not prohibited.)
WQ.10.13.NV. Pumping facilities must meet gauging and metering requirements	Verify that pumps have a standard pressure gauge on its discharge line located upstream from any check valve.
(NAC 445A.6705) [Added October 1998].	Verify that, except for a vertical turbine pump, pumps have either a standard pressure gauge on its suction line if the pump is in suction head or a compound pressure gauge on its suction line if the pump is in suction lift.
	Verify that pumping stations have a device for measuring the rate of flow of discharge and the total flow.
WQ.10.14.NV. Pumping facilities must meet heating, ventilation, and lighting requirements (NAC 445A.67055) [Added October	Verify that pumping system equipment used during winter is adequately heated in a manner that ensures the safe and efficient operation of the components of the pumping system. (NOTE: A pump house not occupied by any personnel need only be heated
1998].	sufficiently to prevent any freezing of the equipment and processes for treatment.)

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that pumping installation equipment not used during winter is isolated and drained in such a manner as to prevent damage from freezing. Verify that pumping stations have forced ventilation that results in at least six changes of air per hour for all rooms, compartments, pits, vaults, and other enclosures below the ground floor, and in any area where an unsafe atmosphere may develop or excessive heat may build up. Verify that pumping stations are adequately lighted in a manner that provides a safe and functional environment for work. WQ.10.15.NV. Storage Verify that products used to coat, seal, patch, or otherwise become attached to structures must meet general the interior surface of a storage structure are compatible with drinking water. (NAC requirements 445A.67085. Verify that metal surfaces of a storage structure are properly protected by the 445A.67065. application of paint or another coating. 445A.6709,) [Added October 1998]. Verify that the coating used does not result in the transfer of any substance into the water which imparts a taste or odor to the water or causes the water to exceed any primary or secondary standards. Verify that storage structures are disinfected before being put into service for the first time and after being entered for cleaning, repair, or painting. Verify that locks are installed on manholes and ladders, and such other precautions are taken, as are necessary to prevent trespassing, vandalism, and sabotage. Verify that there is fencing around any reservoir or tank that is highly accessible to the public or livestock. WQ.10.16.NV. Clear wells Verify that the capacity of a clear well is sufficient to provide for the storage of the amount of finished water required for all of the following: must meet storage requirements (NAC 445A.6707) [Added October - backwashing 1998]. - equalizing the storage of water necessary for the high-service pumping station of a treatment facility - the operation of a treatment facility, if necessary. Verify that finished water is not stored or conveyed in a compartment that is adjacent to a compartment of untreated water unless the two compartments are separated by more than a single wall.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that, if a clear well is used to provide the period of contact required for disinfection, the clear well is designed in such a manner that it is of the appropriate size and has such baffles as are necessary to accomplish that function. WQ.10.17.NV. Verify that the bottom of a ground-level tank, reservoir, or standpipe used for Storage structures must meet drainage distribution storage is protected from floods at the maximum flood level. requirements (NAC 445A.67095) [Added October Verify that the area surrounding a ground-level tank, reservoir, or standpipe used for distribution storage is graded in a manner that will prevent standing surface 1998]. water. Verify that subsurface storage structures are lined and covered, and located: - above the maximum elevation of the ground water - at least 50 ft from any sewer main - at least 150 ft from all other sewerage facilities. Verify that the land adjacent to a subsurface storage structure is graded in such a manner as to route surface water away from the structure. WO.10.18.NV. Public water Verify that public water systems develop and carry out a program for the control of cross-connections that is approved by the health authority. systems must have an approved program for control of cross-connections (NAC Verify that programs for control cross-connections not approved by a health 445A.67185) [Added October authority before 20 February 1997 are submitted to the health authority for approval no later than 1 January 1999 or 18 mo after the public water system 1998]. begins operation, whichever is later. WO.10.19.NV. Water Verify that water hauling is used only in an emergency or on a temporary basis when water hauling is the only means of distributing drinking water to the hauling must be approved (NAC 445A.6728) [Added customers of a public water system and if all of the following circumstances are October 1998]. met: - the proposal for water hauling is submitted to and approved by the health authority before the water hauling begins - each vehicle to be used for water hauling is inspected by the health authority before it is used for water hauling and annually thereafter.

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WQ.10.20.NV. Water hauling must meet sanitation requirements (NAC 445A.67285) [Added October 1998].	Verify that water used for water hauling is obtained only from sources that both: - meet primary and secondary standards - have been approved by the health authority before the water is obtained.	
	Verify that the transfer of water from its source to the tanks used for water hauling and from those tanks to the tanks owned or used by customers of the public water system is sanitary.	
	Verify that the chlorine residual in hauled water is not less than 1 mg/l and not more than 5 mg/l.	
	Verify that vehicles used for water hauling are used only for the distribution of potable water and have never contained, hauled, or carried any materials or substances other than water from a source approved by the health authority.	
	Verify that there is no modification of the facilities where the water is obtained or the tanks in which the water is hauled without the prior approval of the health authority.	
WQ.10.21.NV. Water hauling records must be maintained (NAC 445A.6729) [Added October 1998].	Verify that public water systems maintain a log of activities relating to the water hauling which includes: - the dates of hauling - the amounts hauled - an identification of each vehicle used for hauling - the source of the water hauled - the concentration of chlorine in the water hauled - the places where the water was delivered - copies of any relevant contracts or other agreements - the results of the required analyses for coliform bacteria.	
WQ.10.22.NV. Vehicles used for water hauling must have specific markings (NAC 445A.67305) [Added October 1998].	Verify that vehicles used for water hauling are marked in such a manner that: - the name and address of the person or other entity responsible for performing the water hauling appear on both sides of the tank, or on both of the doors of the vehicle, in letters that are completely legible at all times from a distance of 50 ft- the words "domestic water," "drinking water," or "potable water" appear on both sides of the tank in letters that are completely legible at all times.	

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WQ.10.23.NV. Public water systems must meet primary and secondary drinking water	(NOTE: For the primary drinking water requirements, see the list of Federal regulations adopted by reference.)
standards (NAC 445A455(2)) [Revised October 1998].	Verify that the following chemical substances, as measured at representative points in the distribution system, are not present in a public water supply in excess of the listed levels:
	 chloride, 400.0 mg/L iron, 0.6 mg/L magnesium, 150.0 mg/L manganese, 0.1 mg/L sulfate, 500.0 mg/L total dissolved solids dried at 180 °C, 1000 mg/L.

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REGULATORY	REVIEWER CHECKS:
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PUBLIC WATER SYSTEMS	
WQ.15. MONITORING/ SAMPLING	
WQ.15.1.NV. [Deleted October 1998].	[Regulation deleted]
WQ.15.2.NV. [Deleted October 1998].	[Regulation deleted]
WQ.15.3.NV. Public water systems must meet monitoring requirements for secondary drinking water standards (NAC 445A.456) [Cite Revised October 1997; Revised October 1998].	Verify that public water systems conduct analyses for secondary contaminants at 3 yr intervals, or at less frequent intervals specified by the Health Authority. Verify that samples are collected at representative points in the distribution system. Verify that, if the maximum contaminant level for any secondary contaminant specified in appendices 13-1 or 13-2 is exceeded, three additional analyses are initiated at the same sampling point within 90 days. Verify that, if the average of the four analyses required above exceeds the maximum contaminant level, systems monitor at the frequency specified by the Health Authority and continue to do so until the maximum contaminant level is not exceeded in two consecutive samples or until a monitoring schedule as a condition to a variance or enforcement action becomes effective.
WQ.15.4.NV. Public water systems must meet analytical methodology requirements for secondary drinking water standards (NAC 445A.457) [Revised October 1997].	Verify that public water systems use one of the following when conducting analyses of secondary contaminants: - any method listed in 40 CFR Part 143 - any method listed in 40 CFR Part 136 - any method approved by the United States Environmental Protection Agency as an accepted alternative test procedure for drinking water.

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WQ.15.5.NV. Public water systems must use a certified laboratory or specific equipment for analyses of drinking water (NAC 445A.458 [Revised October 1997].

Verify that analyses for primary and secondary drinking water standards are conducted by certified laboratories.

Verify that analyses for turbidity are conducted by a certified laboratory or water supply personnel utilizing an instrument capable of meeting the requirements of 40 CFR § 141.22(a), as adopted pursuant to NAC 445A.454.

(NOTE: Chlorine residual measurements authorized as substitutes for coliform bacteria monitoring may be made by the water supplier utilizing an instrument and methods capable of meeting the requirements of 40 CFR § 141.74, as adopted pursuant to NAC 445A.460.

WQ.15.6.NV. Public water systems using surface water or ground water under the direct influence of surface water must meet turbidity monitoring requirements (NAC 445A.527(1)(a) through (e)) [Moved from WQ.20.5.NV., October 1998].

(NOTE: These regulations are identical to the Federal regulations. See the U.S. TEAM Guide for specific requirements.)

(NOTE: Continuous turbidity measurements may be used in lieu of grab sampling if the system validates the accuracy of the measurements each week. A supplier of water using slow sand filtration or serving fewer than 500 persons may reduce turbidity monitoring to one sample per day, with the approval of the Health Division. A supplier of water serving less than 500 persons may collect and analyze one grab sample of water for residual disinfectant each day. A supplier serving 500 to 1000 persons may collect and analyzed two grab samples of water for residual disinfectant each day. If the residual disinfectant concentration falls below 0.2 mg/L, samples in addition to those required above must be collected and analyzed ever 4 h until the concentration is equal to or greater than 0.2 mg/L.)

Verify that systems measure and record the parameters needed to determine compliance with concentration time requirements including, but not limited to, the following:

- temperature of the disinfected water
- pH of the disinfected water, if chlorine is used as a disinfectant
- disinfectant contact time
- residual disinfectant concentration before or at the point the water reaches the first customer.

Verify that systems measure the residual disinfectant concentration or heterotrophic plate count within the distribution system at the same frequency and at the same time and location as total coliforms are measured.

(NOTE: Systems using both a surface water source and a ground water source that is not under the direct influence of surface water may be allowed by the

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: October 2000
	Health Division to sample at alternate locations.)
WQ.15.7.NV. Distribution systems that lose all pressure must be sampled and analyzed for coliform bacteria (NAC 445A.67265(2)) [Added October 1998].	Verify that any part of a public water system's distribution system that loses all pressure is sampled on two or more consecutive days and found to comply with primary standards for coliform bacteria before that part of the system is put back into service.
WQ.15.8.NV. Hauled water must be sampled and analyzed for coliform bacteria (NAC 445A.67285(2)(b)) [Added October 1998].	Verify that hauled water is sampled and analyzed at a frequency approved by the health authority to determine whether the hauled water meets primary standards for coliform bacteria. Verify that, if the water in any vehicle fails to meet those standards, the vehicle is not be used for water hauling until further testing indicates that the contamination has been eradicated.

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[Regulation deleted].
[Same as Federal].
Verify that public water systems using surface water or ground water under the direct influence of surface water treat the water using one of the following: - conventional filtration - direct filtration - diatomaceous earth filtration - slow sand filtration. (NOTE: The Health Division may approve an alternative process of filtration or the use of an alternative filtration technology, including packaged treatment plants.) (NOTE: The Health Division may allow a supplier of water to operate without installing a filtration system.) Verify that, in systems using conventional filtration, direct filtration, or diatomaceous earth filtration, the level of turbidity of representative samples of filtered water is less than or equal to 0.5 NTU in at least 95 percent of the measurements taken each month and that turbidity does not exceed 5 NTU. (NOTE: The Division may allow a higher level of turbidity, but not exceeding 1 NTU, if systems meet the 95 percentage requirement, above, at this higher turbidity level.)

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 representative samples of filtered water is less than or equal to 1 NTU in at least 95 percent of the measurements taken each month and that turbidity does not exceed 5 NTU. (NOTE: The Division may allow a higher level of turbidity if systems meet the 95 percentage requirement, above, at this higher turbidity level.) Verify that public water systems using surface water or ground water under the WO.20.4.NV. Public water systems using surface water or direct influence of surface water provide for the continuous disinfection of any ground water under the direct ground water used by the public water system which either: influence of surface water meet disinfection - does not comply with primary standards requirements (NAC 445A.526 - is obtained from a well that does not meet location and construction requirements and 445A.66825) [Revised - is distributed through a distribution system that does not meet construction October 1998]. requirements. Verify that adequate housing is provided for equipment used for disinfection and for the storage of disinfectants. Verify that, if any disinfectants other than chlorine (including iodine, ozone, chlorine dioxide, chloramines or ultraviolet light) are used, the health authority has approved the use. Verify that, if chloramines are used a secondary disinfectant to maintain an effective residual of disinfectant in a distribution system, the health authority has approved the use. WQ.20.5.NV. [Moved to WQ.15.6.NV, October 1998]. Verify that plants for conventional and direct filtration are operated at a rate of **WQ.20.6.NV.** Public water systems using surface water or flow less than or equal to the following: ground water under the direct - 3 gal/min/ft² for single media filters influence of surface water - 6 gal/min/ft² for deep bed, dual, or mixed media filters under conditions of meet operation gravity flow requirements for filtration - 2 gal/min/ft² for single media pressure filters. facilities (NAC 445A.533). Verify that slow sand filters are operated at a rate of filtration less than or equal

to 0.1 gal/min/ft² and that the filter bed is not dewatered, except for cleaning and

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	maintenance.
	Verify that diatomaceous earth filters are operated at a rate less than or equal to 1 gal/ min/ft ² .
	Verify that, during normal operating conditions, filters removed from service are backwashed upon start-up and that rates of filtration are increased gradually when placing filters back into service after backwashing or any other interruption in the operation of the filter
	Verify that plants using conventional and direct filtration meet the following turbidity level requirements for filtered water from any individual filter after backwashing or any other interruption:
	- turbidity level is less than 0.5 NTU after 4 h of the initial operation of the filter
	 individual turbidity of the filter effluent is less than or equal to 1 NTU in at least 90 percent of interruption event during any consecutive 12-mo period turbidity level does not exceed 2 NTU prior to placing the filter back into operation.
	Verify that pressure filters are inspected physically and evaluated annually for occurrences such as media condition, formation of mud balls, and short circuiting and that a written record of the inspection is maintained at the treatment plant.
	Verify that coagulation and flocculation unit processes are in use at all times when a plant using conventional and direct filtration is in operation and that these processes are evaluated using jar testing, pilot filter column testing, or other means approved by the Health Division.
	Verify that the turbidity level of filtered water from each filter unit is monitored with a continuous turbidity meter and recorder or with a sampling program approved by the Health Division.
	Verify that filters not meeting performance requirements are taken out of service and inspected to determine the cause and that they are not returned to service until the deficiencies have been corrected and tests have verified the filter will meet performance requirements.
	(NOTE: The Health Division may approve rates of flow higher than those specified above if the filters can ensure the same water quality at the increased rates.)
	Verify that systems have an emergency plan to be put into effect if there is a failure in the disinfection process and that the plan is posted in the treatment

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	plant or in any other place that is accessible to the operator of the plant.
WQ.20.7.NV. Public water systems using surface water or ground water under the direct influence of surface water	Verify that suppliers of water maintain accurate and complete records of operation for each treatment plant using surface water or ground water under the influence of surface water.
must meet recordkeeping requirements (NAC	Verify that the records include the following information:
445A.536(1) and (2)).	 results of all turbidity monitoring date of any maintenance or inspection of a filter and the result of the inspection, including any evaluation of a pressure filter quantity of water produced
	- hours of operation - rates of flow at the plant
	 rates of filtration rates of backwash dates and description of failures of major equipment or unit processes and the action taken to correct the failures.
	Verify that the records are maintained for at least 2 yr, unless specified otherwise by the Health Division.
WQ.20.8.NV. Public water systems must disinfect facilities for collection or distribution of water before initial use (NAC 445A.6726) [Added October 1998].	Verify that, before a public water system initially uses a facility for the collection or distribution of water, the facility is disinfected.
WQ.20.9.NV. Public water systems must disinfect water mains after cleaning or repair (NAC 445A.6727) [Added October 1998].	Verify that water mains that have been cleaned or repaired are disinfected before they are placed back into service.
	(NOTE: Disinfection is not required if a water main is kept full of water under continuous pressure while it is being repaired.)
WQ.20.10.NV. Public water systems must clean and disinfect tanks used for water hauling (NAC)	Verify that tanks used for water hauling are cleaned and disinfected with a chlorine solution, at such frequencies as the health authority determines appropriate, in accordance with the following procedure:

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PUBLIC WATER SYSTEMS	
WQ.25. LEAD AND COPPER	
WQ.25.1.NV. Public water systems must meet specific requirements in order to use pipe, solder, or flux that contains lead (NAC 445A.678(3) and (4)).	These regulations are identical to the Federal regulations. See the U.S. TEAM Guide for specific requirements.
WQ.25.2.NV. Public water systems must control corrosion (NAC 445A.66675) [Added October 1998].	Verify that public water systems, where warranted by the presence of lead or copper in the public water system, install and operate a system for the control of corrosion that minimizes the concentrations of lead and copper at the taps of persons who use the public water system.

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PUBLIC WATER SYSTEMS	
WQ.30. NOTIFICATION AND REPORTING REQUIREMENTS	
WQ.30.1.NV. Public water system must certify that water projects are completed in substantial compliance with approved plans and specifications (NAC 445A.66715).	Verify that, within 30 days after the completion of a water project, the public water system certifies to the health authority that the water project was completed in substantial compliance with the plans and specifications approved for the water project by the health authority.
WQ.30.2.NV. Existing public water systems must meet recordkeeping and reporting requirements (NAC 445A.66725(4) and (5)) [Added October 1998].	Verify that existing public water systems maintain a current list of the users of the public water system and a copy of each pending acknowledgment of water service it has issued. Verify that existing public water systems provide the health authority, upon request and at no charge, any data, technical information or engineering analyses or reports necessary to determine the acceptability of any technologies, processes, products, facilities, or materials associated with the design, construction, operation or maintenance of the public water system.
WQ.30.3.NV. Public water systems using surface water or ground water under the direct influence of surface water must meet monthly reporting requirements (NAC 445A.537(1) through (4)) [Moved from WQ.20.9.NV., October 1998].	Verify that turbidity measurements are reported when filtration is installed and within 10 days after the end of each month the system serves water to the pubic, including the following information: - total number of filtered water turbidity measurements taken during the month - number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits for the filtration technology being used - date and value of any turbidity measurements taken during the month which exceed 5 NTU.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that disinfection information is reported when filtration is installed and within 10 days after the end of each month the system serves water to the pubic, including the following: - lowest daily measurement of residual disinfectant concentration in mg/L in water entering the distribution system - date and duration of each period when the residual disinfectant concentration in water entering the distribution system fell below 0.3 mg/L and when the Department was notified of the occurrence - the following information on samples taken in conjunction with total coliform monitoring: - number of instances where the residual disinfectant concentration is - number of instances where the residual disinfectant concentration is not measured but heterotrophic plate count is measured - number of instances where the residual disinfectant concentration is measured but not detected and no heterotrophic plate count is - number of instances where no residual disinfectant concentration is detected and where heterotrophic plate count is greater than 500 mg/L. Verify that the monthly report also includes the following: - a written explanation of the cause of any violation of performance standards and operating criteria - a summary of complaints made due to the water quality - a summary of any report of gastrointestinal illness. WO.30.4.NV. Public water (NOTE: The regulations for Health Division notification requirements are systems using surface water or identical to the Federal regulations. See the U.S. TEAM Guide for specific ground water under the direct requirements.) influence of surface water must meet Health Division Verify that the supplier of water notifies persons served by the system when the public notification following occur: and requirements - turbidity exceeds 5 NTU, if the supplier is not required to install a filtration 445A.538(1) through (5) and .540(1), (2), and (4)) [Moved - a filtration system was not installed by 29 June 1993 and the supplier has from WQ.20.11.NV., October not met filtration avoidance requirements 1998]. - an outbreak of water-borne disease - beginning on the date a filtration system is installed, failure to meet the filtration and disinfection requirements of WQ.20.3.NV. and WQ.20.4.NV.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that the public notices for the failure to meet the requirements specified in WQ.20.3.NV. and WQ.20.4.NV. include the following language: - the Health Division of the Department of Human Resources sets standards for drinking water and has determined that the presence of microbiological contaminants in water is a health concern at certain levels of exposure. If water is treated inadequately, microbiological contaminants in that water may cause disease. Symptoms may include diarrhea, cramps, nausea, and jaundice, and any associated headaches and fatigue. These symptoms, however, are not only associated with disease-causing organisms in drinking water but also may be caused by a number of factors other than your drinking water. - the United States Environmental Protection Agency has set standards for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water that is treated to meet these standards is associated with little to none of this risk and should be considered safe. WO.30.5.NV. Verify that if any part of a public water system's distribution system loses all Distribution pressure the customers within the affected portion of its area of service are systems that lose all pressure informed of the need to boil their water before consumption before that part of must notify customers of the need to boil their water (NAC the system is put back into service. 445A.67265(1)) [Added October 1998]. Verify that analyses of water hauling tanks, lines, and appurtenances for primary **WQ.30.6.NV.** Public water standards for coliform bacteria are reported to the health authority before they systems must report coliform bacteria analyses of water are placed into service. hauling tanks, lines, and appurtenances to the Health Authority (NAC 445A.67285(2)(c)(2)) [Added October 1998]. WQ.30.7.NV. Public water Verify that the public is notified if the chemical substances listed in Appendix systems must meet specific 13-1, as measured at representative points in the distribution system, are present in a public water supply in excess of the listed levels and the Health Authority notification requirements when secondary drinking determines that there is another more suitable supply of water which is

economically feasible, available in a sufficient quantity, and of a significantly

water standards are exceeded

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(NAC 445A.455) [Added October 1998].	higher quality. Verify that the public is notified if the chemicals listed in Appendix 13-2, as measured at representative points in the distribution system, are present in a public water supply in excess of the listed levels or if the state board or health grants a variance from this contaminant level. Verify that notification is made by all of the following means: - published in a newspaper of general circulation in the area served by the system not more than 30 days after the standard is exceeded - delivered personally or by mail to each person served by the system not more than 45 days after the standard is exceeded - published and delivered annually thereafter as provided in this section if the
WQ.30.8.NV. Public water systems must meet notification requirements for secondary drinking water standards (NAC 445A.456) [Cite Revised October 1997; Moved from WQ.15.3.NV October 1998].	Verify that, if the maximum contaminant level for any secondary contaminant specified in appendices 13-1 and 13-2 is exceeded, the public water system reports to the Health Authority within 30 days and initiates three additional analyses at the same sampling point within 90 days. Verify that the Health Authority and the public are notified when the average of the four analyses, required above, exceeds the maximum contaminant level. (NOTE: Notice to the public, in this case, must be in a form and in a manner which is prescribed by the Health Authority and which ensures that the public using the system is adequately informed.) (NOTE: A supplier of water is not required to report results to the Health Authority if a state laboratory performs the analysis and reports the results to the Health Authority.)

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 **COMMUNITY WATER SYSTEMS** WQ.45. NOTIFICATION AND REPORTING REQUIREMENTS WQ.45.1.NV. Community Verify that, if fluoride is present in a community water system in excess of 2.0 water systems must meet mg/L or if the state board or health grants a variance from this contaminant level, specific notification the water system gives notice to the public. requirements when the Verify that notification is made by all of the following means: fluoride level exceeds 2.0 445A.455(3) mg/L (NAC - published in a newspaper of general circulation in the area served by the through (5)) [Added October system not more than 30 days after the standard is exceeded 1998]. - delivered personally or by mail to each person served by the system not more than 45 days after the standard is exceeded - published and delivered annually thereafter as provided in this section if the standard continues to be exceeded.

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NONTRANSIENT NONCOMMUNITY WATER SYSTEMS	
WQ.79. NOTIFICATION AND REPORTING REQUIREMENTS	
WQ.79.1.NV. Nontransient noncommunity water systems must meet specific notification requirements when the fluoride level exceeds 2.0 mg/L (NAC 445A.455(3) through (5)) [Added October 1998].	Verify that, if fluoride is present in a nontransient noncommunity water system in excess of 2.0 mg/L or if the state board or health grants a variance from this contaminant level, the water system gives notice to the public. Verify that notification is made by all of the following means: - published in a newspaper of general circulation in the area served by the system not more than 30 days after the standard is exceeded - delivered personally or by mail to each person served by the system not more than 45 days after the standard is exceeded - published and delivered annually thereafter as provided in this section if the standard continues to be exceeded.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY REVIEWER CHECKS: **REQUIREMENTS:** October 2000 WQ.90. (NOTE: This section was substantially revised in October 1998.) DRINKING WATER WELL (NOTE: See Miscellaneous Wells (WQ.100) for requirements applicable to all wells.) (NOTE: These requirements apply to every public water system in Nevada except those that the health division has determined safe and not subject to pollution or contamination as a result of the location, protection, construction, operation, or maintenance of that public water system (water projects performed after 20 February 1997 are not eligible for this exception) (NAC 445A.6662).) WQ.90.1.NV. Public water Verify that, before designing and carrying out a proposal for the location of a water well, a supplier of water takes the following actions: systems must meet specific requirements before a water well can be used as a water - submits information on any flood zone that includes the proposed location to source (NAC 445A.66865(1), the health authority - in consultation with the health authority, identifies all potential sources for 445A.66875, 445A.6688, and the pollution or contamination of ground water at the proposed location. 445A.66885). Verify that, before a public water system uses a water well as a source of water, the supplier of water submits documentation to the health authority indicating their legal right to divert water from the well for municipal, quasi-municipal, or domestic purposes. Verify that, after construction of a water well but before attachment of a permanent pump, the supplier of water takes the following actions: - in coordination with the Division, tests the characteristics of the well and submits the results to the health authority - determines the well yield and submits the information to the health authority.

health authority and obtains their approval.

actions:

Verify that, after construction of a water well is completed but before its water is allowed to enter a public water system, the supplier of water takes the following

- submits to the health authority a copy of a chemical analysis conducted by a properly certified laboratory indicating that the water complies with all

Nevada water quality standards (NAC 445A.450 through 445A.492) - if the supplier of water proposes to blend, dilute or otherwise treat the water to attain compliance, submits a complete description of the proposal to the

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	Verify that, after construction of any modification or reconditioning of a water well is completed but before it is placed into service, the well and associated pumping equipment is disinfected and a satisfactory bacteriological analysis of a sample of water from the well is submitted to the health authority.
WQ.90.2.NV. Water wells must meet location requirements (NAC 445A.66865(2)).	Verify that no water well is located: - within 50 ft of a gravity sanitary sewer or gravity storm sewer - within 150 ft of a wastewater force main, wastewater lift station, septic tank or absorption field, or any other source of pollution or contamination.
WQ.90.3.NV. Specific types of wells are prohibited from use as a water source for public water systems (NAC 445A.6687).	Verify that the following types of wells are not used as a source of water for a public water system: - drive point water wells - dug water wells - jetted water wells.
WQ.90.4.NV. Water wells used as a water source for public water systems must meet casing requirements (NAC 445A.6689, 445A.6691(1), 445A.66915(1) and (2)(a)).	Verify that water wells are cased to the bottom of the drill hole and constructed in such a manner as to prevent any pollution or contamination of the ground water. (NOTE: If no additional water develops in the bottom portion of a water well, neat cement, cement grout, or concrete grout may be placed by tremie pipe from the total depth to the bottom of the casing.) Verify that the casing is free of pits and breaks. Verify that, if a water well is drilled within 1/4 mi of a perennial stream, river, lake, unlined reservoir or unlined canal, there are no perforations in the production casing from ground level to a depth of 100 ft. Verify that the casing extends to a height of at least 12 in. above the slab (if present) and at least 18 in. above the level of the final ground surface or 100-year flood plain, whichever is greater. Verify that, if a water well is equipped with a lineshaft turbine pump, the top of the casing is either sealed into the base of the pump or inserted into a recess extending at least 1 in. into the base of the pump.

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WQ.90.5.NV. Water wells used as a water source for public water systems must take measures to prevent pollution and contamination during construction (NAC 445A.6695).	Verify that drilling fluids and additives do not impart any substances into the water which will cause or promote any pollution or contamination. Verify that, if inferior quality water is encountered at any time during the construction of a water well, the aquifers containing that water are adequately cased or sealed off in such a manner that the water cannot enter the well or move either up or down the annular space outside the casing of the well. Verify that, if a gravel-packed well encounters inferior quality water, the aquifers containing that water are sealed off by pressure grouting, or with appropriate packers or seals, in such manner as to prevent that water from moving vertically in the gravel-packed portions of the well.
	(NOTE: As used in this section, "inferior quality water" means any mineralized water or water known to be polluted or contaminated.)
WQ.90.6.NV. Water wells with an above-ground discharge and used as a water source for public water systems must be protected by concrete slabs and pedestals (NAC 445A.66915(1)).	Verify that water wells with an above-ground discharge are protected by a concrete slab constructed of continuously poured concrete. Verify that the slab meets the following requirements: - is placed above the finished grade - has a minimum thickness of 6 in slopes away from the pedestal (if present) at a minimum slope of 2 percent - extends a minimum of 4 ft from the casing of the well in all directions - is free from cracks and other defects likely to detract from its capability to remain watertight. Verify that water wells with an above-ground discharge and equipped with a lineshaft turbine pump, are protected with a concrete pedestal constructed of continuously poured concrete. Verify that the pedestal extends at least 3 in. beyond the outer periphery of the sanitary seal.
WQ.90.7.NV. Water wells used as a water source for public water systems must have an access port that meets specific requirements (NAC 445A.6692(1) and (2)).	Verify that water wells have an access port which can be used for measuring the level of water. Verify that, if the diameter of the casing is smaller than 8 5/8 in., the access port meets all of the following requirements:

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement **REVIEWER CHECKS:** REGULATORY **REQUIREMENTS:** October 2000 445A.6692(1) and (2)). - is 1 in. in diameter - is located at the top or in the cover of the casing - has a removable plug or bolt that prevents pollutants and contaminants from entering the well. Verify that, if the diameter of the casing is larger than 8 5/8 in., the well has either an access port or sounding tube. Verify that, if a well with a casing larger than 8 5/8 in. uses an access port, it meets all of the following requirements: - is 2 in. in diameter - is located near the top of the casing - has a watertight, screw-type cap. Verify that screw-type caps are sealed in such a manner as to prevent pollutants and contaminants from entering the well and kept sealed when not being used for measuring the level of water. Verify that, if a well with a casing greater than 8 5/8 in. uses a sounding tube, it meets all of the following requirements: - is not less than 3/4 in. nor more than 1 in. in diameter - the sounder is installed so that it cannot become entangled around the drop pipe or in the wires of any submersible pump - any interference with cascading water is prevented. WQ.90.8.NV. Water wells Verify that water wells are equipped with a means for sampling the quality of used as a water source for water, consisting of a smooth-nosed sampling tap located on the discharge piping public water systems must be at a point where pressure is maintained. equipped with a means for sampling the quality of water (NAC 445A.6693). WQ.90.9.NV. Verify that water wells are equipped with either a vent or air and vacuum valve. Water wells used as a water source for Verify that, if the well is equipped with a vent, it meets all of the following public water systems must have a vent or air and vacuum requirements: valve that meets specific - extends above the wellhead requirements (NAC - is elbowed toward the ground in the shape of an inverted "J" 445A.6692(3)). - is covered with a screen that is not susceptible to damage by corrosion and

has not less than 22 nor more than 24 mesh per inch.

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that, if the well is equipped with an air and vacuum valve, it is attached to discharge piping. WQ.90.10.NV. Water wells Verify that water wells are able to pump to a system for waste, in addition to the system for distribution, to allow flushing of the well. used as a water source for public water systems must Verify that piping that discharges into the system for waste meets all of the have a system for flushing waste (NAC 445A.66925). following requirements: - is not be connected directly to a sanitary sewer or storm sewer - is equipped with an air gap and an angled flapper valve on the opening for discharge. WO.90.11.NV. Water wells Verify that wells are plugged by a driller licensed by the state engineer. meet plugging requirements (NAC 534.420) Verify that the Division is notified of intent to plug a water well not less than 3 working days before the drill rig is moved to the location where the well will be [Added October 1998]. plugged and again not less than 24 h before plugging begins. Verify that, on abandonment or order of the state engineer, a water well is plugged by: - removing the pump or debris from the well bore with appropriate equipment - if an annular cement seal was not installed, breaking the casing free with appropriate equipment so that the casing may be pulled from the well. Verify that, if the casing in the well breaks free, the borehole is plugged as the casing is pulled from the well or after the casing is removed from the well if the borehole remains intact. Verify that, if the casing in the well does not break free, that portion of the casing which extends from the bottom of the well to not less than 50 ft above the top of

setting the surface plug.

the uppermost saturated ground water stratum is perforated.

grout, or concrete grout, from a depth of at least 20 ft to the surface.

Verify that a surface plug is placed in the well consisting of neat cement, cement

Verify that, if the well casing does not break free and there is no evidence of a sanitary seal around the well casing, the upper 50 ft of casing is perforated before

Verify that a written report containing the following information is submitted to

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REQUIREMENTS.	the Division within 30 days after a water well has been plugged: - the location of the well by public survey and county assessor's parcel number - the name of the owner of the well - the condition of the well - the static water level before plugging - a detailed description of the method of plugging, including the following: - the depth of the well - the depth to which the materials used to plug the well were placed - the type, size and location of the perforations which were made in the casing - the debris encountered in, milled out of or retrieved from the well - the materials used to plug the well.
WQ.90.12.NV. Certain water wells must be plugged (NAC 534.427(1)) [Added October 1998].	Verify that water wells are plugged when any type of permit, waiver, or application to appropriate its water is canceled, abrogated, forfeited, withdrawn, or denied.

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WQ.100. MISCELLANEOUS WELLS	
General	
WQ.100.1.NV. Well drillers must be licensed (NAC 534.294 and 534.330(1) and (3)) [Added October 1998].	Verify that drilling, reconditioning, or plugging of water wells, monitoring wells, or geothermal wells is done by personnel licensed for the class of well-drilling they are undertaking. Verify that a licensed well driller is present at the well-drilling site when the
	drilling rig is in operation. Verify that licensed well drillers carry their license card when present at the drilling site and produce the card when requested to do so by a representative of the Division.
WQ.100.2.NV. The Division must be notified before a well is drilled, reconditioned, or plugged (NAC 534.320 and 534.325(1)) [Added October 1998].	Verify that a notice of intent to drill is submitted to the Division at least 3 working days before an exploratory, water, geothermal, or monitoring well is drilled, reconditioned, or plugged.
	Verify that, if the well described on a notice of intent to drill is not drilled within 60 days after the Division receives the notice, a new notice is submitted before the well is drilled.
	Verify that, if a well is to be drilled in a township located north of the Mount Diablo baseline, the notice of intent to drill is submitted to Division office in Carson City.
	Verify that, if a well is to be drilled in a township located south of the Mount Diablo baseline, the notice of intent to drill is submitted to the Division office in Las Vegas.
WQ.100.3.NV. Well drillers must meet recordkeeping and reporting requirements for	Verify that the well driller maintains the following information for every well drilled:
each well drilled (NRS 534.170) [Added October	- a log of the depth, thickness, and character of the different strata penetrated and the location of water-bearing strata

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1998].	- an accurate record of the work.
	Verify that the well driller submits a copy of the log and the record of work to the state engineer within 30 days after the well is completed.
WQ.100.4.NV. Licensed well drillers must report improper construction or abandonment of a well to the Division (NAC 534.350 and 534.355) [Added October 1998].	Verify that licensed well drillers who become aware of specific information relating to improper construction or the abandonment of a well report it to the Division as soon as practical.
WQ.100.5.NV. Wells must meet casing requirements (NAC 534.360) [Added October 1998].	Verify that wells are cased to the bottom of the well bore and constructed to prevent contamination or waste of ground water.
	Verify that, if no additional water develops in the bottom portion of a well, neat cement, cement grout, or concrete grout is placed by tremie pipe in an upward direction from the bottom of the well to the bottom of the casing.
	Verify that well casing meets the following requirements:
	 is constructed of new steel or clean and sanitary used steel is free of pits and breaks the top of the casing is at least 12 in. above the surface of the ground or the finished grade production casing joints are watertight.
	Verify that the integrity of any casing to be used in the construction of the well has not been impaired by storage, shipping, handling, or exposure to ultraviolet light.
WQ.100.6.NV. Well construction must not cause contamination (NAC 534.370)	Verify that any known zones of poor quality water which may affect the zones of good quality water in the well are sealed off.
[Added October 1998].	Verify that ground water is not contaminated or wasted.
	Verify that additives used in drilling a well are safe and do not contaminate or induce contamination of the ground water.
	Verify that, if it becomes necessary to discontinue drilling operations before completion of the well, the well is covered securely to prevent a contaminant from

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	entering the casing or borehole and rendered secure against entry by children, domestic animals, and wildlife.
	Verify that all openings are closed off after drilling is completed.
	Verify that a sanitary well cap or welded plate is welded to the well.
	Verify that, if drilling is suspended for any reason, the Division is notified within 24 h after drilling is suspended or before the drilling equipment is moved from the drilling site, whichever occurs first.
	Verify that a suspension of drilling without completing or plugging the well is approved by the Division.
WQ.100.7.NV. Contamination encountered during well construction must be sealed (NAC 534.375) [Added October 1998].	Verify that, if a contaminant or contaminated water is encountered during the construction of a well, the strata which contains the contaminant or contaminated water is cased or sealed in such a manner (by grouting or by using special seals or packers) that the contaminant or contaminated water does not commingle with or impair other strata or the water contained in other strata.
WQ.100.8.NV. Artisan [sic] conditions encountered during well construction must be sealed (NAC 534.378) [Added October 1998].	Verify that, if an artisan [sic] condition is encountered in a well, unperforated casing extends through the confining strata above the artisan [sic] zone and the annular space between the casing and the walls of the well bore is sealed by placing neat cement, cement grout, or bentonite grout, that consists of not less than 30 percent bentonite, by tremie pipe in an upward direction from the top of the artisan [sic] zone to the level necessary to prevent the leakage of artisan [sic] water above or below the surface.
	Verify that artisan [sic] water flows are stopped completely before the drill rig is removed.
WQ.100.9.NV. Wells must meet seal requirements (NAC 534.380) [Added October 1998].	Verify that, before the drill rig is removed from the drill site of a well, the annular space between the well bore and the casing is sealed.
	Verify that the casing is centered as nearly as practicable in the well bore to allow the sanitary seal to surround the casing.
	Verify that, if a pitless adapter is used in domestic or small commercial wells:
	 - the sanitary seal begins not more than 5 ft below ground level - the sanitary seal extends at least 50 ft below ground level

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REQUIREMENTS.	- the portion of the casing above the sanitary seal is backfilled to ground level with uncontaminated compacted soil.
	Verify that pipe used to feed gravel through the cement seal or to provide access to the interior of the well is fitted with a watertight cap.
	Verify that a licensed driller places the seal or directly supervises the placement of the seal.
	Verify that a watertight welded plate or concrete seal is installed at the surface level between the conductor casing and the production casing to prevent any contaminants from entering the gravel pack conductor area.
WQ.100.10.NV. Drilled, deepened, or reconditioned wells must have access ports (NAC 534.430) [Added	Verify that wells that are drilled, deepened, or reconditioned have either: - an access port near the top of the casing that is not less than 1 in. in diameter - a commercially manufactured sanitary well cap that may be easily removed to
October 1998].	determine the level of water in the well. Verify that access ports have a watertight, screw-type cap seal to prevent
	contamination.
	Verify that access ports are kept closed when not in use. (NOTE: The access port on wells that are 8 in. in diameter or smaller may be a 1/2 in. hole at the top of the casing or in the casing cover with a removable plug or bolt.)
WQ.100.11.NV. Wells located near a river, perennial stream, unlined reservoir, or unlined canal must meet construction requirements (NAC 534.390) [Added	Verify that wells, other than monitoring wells, drilled within 1/4 mi of a river, lake perennial stream, unlined reservoir, or unlined canal do not have perforations in the production casing from ground level to a depth of 100 ft and are sealed to a depth of 100 ft. (NOTE: A permanent conductor casing may be used to convey the gravel pack to
October 1998].	the 100 ft level.).
Well Plugging	
WQ.100.12.NV. Wells	Verify that wells drilled for any purpose other than as a water well that do not

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drilled for purposes other than as water wells must meet plugging requirements (NAC	penetrate the aquifer are either backfilled from the total depth with the cuttings drilled from the well or inorganic fill material or plugged.	
534.421, 534.422(1), 534.423, and 534.425) [Added October 1998].	Verify that wells drilled for any purpose other than as a water well that do not penetrate the aquifer are plugged by one of the following means:	
	 in accordance with the requirements for water wells (see WQ.90.11.NV.) in accordance with the requirements for wells that penetrate the aquifer (see next paragraph). 	
	Verify that wells drilled for any purpose other than as a water well that penetrate the aquifer are plugged with either:	
	 a mixture of cement grout, concrete grout, or neat cement, circulated from the total depth to the surface, or a graded bentonite product such as Wyoming bentonite introduced from the top to fill completely the drill hole. 	
	Verify that the top 50 ft of any well that is plugged is sealed with a cement grout, concrete grout, or neat cement plug.	
	Verify that wells drilled for monitoring the water table or environmental conditions are plugged in accordance with the requirements for water wells (see WQ.90.11.NV.).	
	(NOTE: Blast holes that are drilled and loaded with explosives for mining purposes are not wells subject to these requirements.)	
WQ.100.13.NV. Certain wells must be plugged (NAC 534.427(2), 534.428(1), and 534.430) [Added October 1998].	Verify that wells other than water wells drilled for a domestic purpose, for which a permit or waiver has not been issued, are plugged.	
	Verify that wells other than water wells, are plugged within 30 days after the collection of the data pertinent to the project.	
	Verify that, if a well was constructed by a person who was not the holder of a well-drilling license at the time of construction, it is plugged.	
	Verify that, if the state engineer determines that a well was not constructed or completed in compliance with Nevada well construction requirements, the well is abandoned and plugged in accordance with the requirements for water wells (see WQ.90.11.NV.).	

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Specific Well Types	
WQ.100.14.NV. Specific types of wells are prohibited (NAC 534.461) [Added October 1998].	Verify that the following wells are prohibited: - drive point wells - dug wells - jetted wells.
WQ.100.15.NV. Observation or monitor wells must meet specific requirements (NAC 534.435 and 534.4351(1)), 534.4355, and 534.4359) [Added October 1998].	Verify that a written request for a waiver to drill an observation or a monitor well is submitted before: - drilling a well to observe the static water level - drilling a well for sampling the quality of water - drilling in a restricted basin - using a casing made of a material other than steel - using a seal less than 50 ft from the surface of the well - deviating from the construction requirements for the drilling of water wells in any other manner. Verify that the diameter of the casing for an observation or monitor well does not
	exceed 4 in. Verify that the connections of the casing are made watertight by wrapping them with teflon tape, placing a ring or gasket between them, or by any other method which will not introduce contaminants into the well.
	(NOTE: A permit to appropriate water is not required to drill and collect data from an observation or monitor well.)
	Verify that monitoring wells are:
	 drilled only by a well driller who is licensed by the state engineer drilled only for the purpose of complying with federal, state or local environmental requirements or any other federal, state or local requirements.
	Verify that casing is installed in monitoring wells.
	Verify that the equipment used to construct a monitoring well is decontaminated before the construction of the well is commenced.
	Verify that monitoring wells are an adequate distance from each other to ensure that there is no commingling of the contaminants or ground water encountered in

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	the wells. Verify that, if a contaminant or contaminated water is encountered during the construction of a monitoring well, the strata which contain the contaminant or contaminated water is cased and sealed in such a manner (by grouting or using special seals or packers) that the contaminant or contaminated water does not commingle with or impair other strata or the water contained in other strata.
WQ.100.16.NV. Exploratory wells must meet specific requirements (NAC 534.405 and 534.440) [Added October 1998].	Verify that a waiver is obtained prior to drilling of an exploratory well to determine quality or quantity of water in a designated basin. Verify that water from an exploratory well is not used for any purpose other than the purposes set forth in the waiver without the written approval of the state engineer.
	Verify that exploratory wells are only drilled by well drillers who are licensed by the state engineer. Verify that the well driller maintains a copy of the waiver for an exploratory well with him at all times at the drilling site.
	Verify that exploratory wells are plugged either: - in accordance with the requirements for water wells (see WQ.90.11.NV.) within 3 days after the completion of the aquifer tests for which the well was drilled - completed as a well pursuant to the provisions of this chapter before the drill rig is removed from the drill site.
WQ.100.17NV. Wells with flowing water must meet specific requirements (NAC 534.410) [Added October 1998].	Verify that an effective shut-off valve is installed before the well driller moves the rig from a flowing water well. Verify that well drilling operations that encounter flowing water at the surface take every reasonable precaution to prevent any water from escaping around the outside of the casing and seal.
Boreholes	
WQ.100.18.NV. Boreholes must meet general	(NOTE: Blast holes are not boreholes. If the construction of a shot hole or a hole used for the installation of electrical conductors as part of a system to prevent

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requirements (NAC 534.4369) [Added October 1998].	corrosion or provide electrical grounding may cause waste or contamination of the ground water, the hole is considered a borehole (NAC 534.4377).)
	(NOTE: Boreholes may be drilled or plugged by a person who is not a licensed well driller, a person who constructs a borehole is not required to file with the Division a notice of intent to drill or plug the borehole, and a borehole may be drilled without obtaining from the Division a permit to appropriate water or a waiver of the requirement to obtain such a permit.)
	Verify that the ground water is uncontaminated during the drilling, operation, or plugging of a borehole.
	Verify that a record of borehole drilling operations is maintained that includes:
	 the dates on which the borehole is constructed and plugged the location of the borehole as shown by public survey the depth and diameter of the borehole the depth at which ground water is encountered in the borehole the methods and materials used to plug the borehole.
WQ.100.19.NV. Boreholes must meet plugging requirements (NAC 534.4371 and 534.4375).	Verify that boreholes are plugged within 60 days after being drilled. Verify that boreholes are plugged using one of the following means: - the requirements for water wells (see WQ.90.11.NV.) - if the highest saturated stratum is not more than 60 ft above the bottom of the borehole, by placing concrete grout, cement grout, neat cement, or bentonite grout by tremie pipe in an upward direction from the bottom of the borehole to the surface or by placing sodium bentonite chips or pellets specifically designed to be used to plug boreholes from the bottom of the borehole to the surface - if the highest saturated stratum encountered in the borehole is more than 60 ft above the bottom of the borehole, by all of the following: - plugging the portion of the borehole from the bottom to 50 ft above the highest saturated stratum encountered in the borehole - backfilling the portion of the borehole that extends from the materials placed in the borehole to 10 ft from the surface with compacted soil which is uncontaminated - placing any of the materials from 10 ft below the surface to the surface. Verify that, if a contaminant or contaminated water is encountered in a borehole, the strata that contain the contaminant or contaminated water is sealed to prevent the contaminant or contaminated water from commingling with other strata or the

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Verify that, if casing is set in a borehole, the borehole is completed as a well and plugged.	
Verify that, if an artisan condition is encountered in any borehole, blast hole, seismic shot hole, the artisan water strata is contained and the borehole, blast hole or seismic shot hole is sealed	

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WQ.110. INJECTION CONTROL WELLS	(NOTE: See Miscellaneous Wells (WQ.100) for requirements applicable to all wells.)
WQ.110.1. Injection wells must be permitted for construction or operation (NAC 445A.867 and 445A.905 and 455A.906).	Verify that the injection well is permitted before construction, and during operating. Verify that the permit holder complies with the terms of the permit. Verify that all facilities, devices, or systems installed or used by the holder to achieve compliance with the terms and conditions of the permit are maintained in good working order. Verify that all reasonable steps are taken to minimize or correct any adverse impact on the environment resulting from failure to comply with the terms and conditions of the permit.
WQ.110.2. Injection well permit holders must notify the Director of failure to comply with the terms of the permit (NAC 445A. 889).	Verify that the permit holder notifies the Director within 5 days after becoming aware of a failure to comply with the terms of permit.
WQ.110.3. Fluid injected into injection wells must be analyzed regularly (NAC 445A.912 and 913).	Verify that the physical, chemical, and biological nature of the injected fluid in analyzed according to the following time table: - once a week for the disposal operations of a Class II well - twice a month for Class III wells - once each month for enhanced recovery of a Class II well - once a day for injection of liquid hydrocarbons and the injection for withdrawal of stored hydrocarbons for a Class II well - as required by the permit for the operation of a Class V well.
WQ.110.5. Injection well permit holders must meet record keeping and reporting requirements (NAC 445A.921	Verify that the monitoring results are filed with the Director at least quarterly. Verify that the mechanical integrity results and any other periodic testing are filed with the first quarterly report after the completion of the test(s).

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and 445A.922).	filed with the first quarterly report after the completion of the test(s).	
	Verify that the holder of the permit maintains the following records for the noted time period:	
	- monitoring records (3 yr)	
	- calibration and maintenance (3 yr)	
	- other reports required by the permit (3 yr)	
	- data used to complete the application for the permit (3 yr)	
	- nature and composition of all injected fluids (5 yr).	
WQ.110.6. The plugging or abandoning an injection well must meet specific requirements (NAC 445A.923).	Verify that the following procedures are followed when a well is plugged or abandoned: - estimate of cost is performed - notify the Director 30 days in advance - plug with cement before abandonment - all cavities not plugged with cement are filled with heavy drilling fluids in a state of static equilibrium - notify the Director upon completion.	

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 WQ.115. (NOTE: WQ.115.2.NV. through WQ.115.6.NV. apply to all natural streams and WATER QUALITY lakes, reservoirs or impoundments on natural streams, and other specified **STANDARDS** waterways, unless excepted on the basis of irreparable conditions which preclude this use.) WQ.115.1.NV. Water quality Verify that the water quality criteria for designated beneficial uses in Appendix 13-3 are met. criteria for designated beneficial uses must be met Verify that the following criteria for existing and designated beneficial uses are (NAC 445A.119 and 445A.122). met: - without treatment, water is suitable for the watering of livestock - without treatment, water is suitable for irrigation - water is suitable as a habitat for fish and other aquatic life existing in a body - there is no evidence of manmade pollution, floating debris, sludge accumulation, or similar pollutants in water used for water-contact recreation - there is no presence of the following in water used for nonwater-contact recreation: - visible floating, suspended, or settled solids arising from human activities - sludge banks - slime infestation - heavy growth of attached plants, blooms, or high concentrations of plankton, discoloration, or excessive acidity or alkalinity leading to the corrosion of boats and docks - surfactants that foam when the water is agitated or aerated - excessive water temperatures - water is capable of being treated by conventional methods to comply with state drinking water standards for municipal and domestic water supplies - water is treatable to provide a quality of water suitable for industrial uses - without treatment, water is suitable for the propagation of wildlife and waterfowl - the unique ecological or aesthetic values of water are maintained - water supports the natural enhancement or improvement of water quality in waters downstream. WO.115.2.NV. All surface Verify that domestic or industrial waste or other controllable sources do not cause surface waters to contain the following: waters of the state must meet

general water quality criteria

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(NAC 445A.121) [Revised October 1999.	- substances that settle to form sludge or bottom deposits in amounts sufficient to:				
	- be unsightly, putrescent, or odorous				
	 interfere with any beneficial use of the water floating debris, oil, grease, scum, and other floating materials in amounts 				
	sufficient to be unsightly or interfere with any beneficial use of the water - materials in amounts sufficient to:				
	- produce taste or odor in the water or detectable off-flavor in the flesh of fish				
	 change the existing color, turbidity, or other conditions in the receiving stream to such a degree as to create a public nuisance interfere with any beneficial use of the water 				
	- high temperature, biocides, organisms pathogenic to human beings, toxic,				
	corrosive, or other deleterious substances at levels or combinations sufficient to:				
	- be toxic to human, animal, plant, or aquatic life				
	- interfere with any beneficial use of the water.				
	Verify that radioactive materials attributable to municipal, industrial, or other controllable sources are at or below the minimum concentrations which are physically and economically feasible to achieve and that the concentrations in water do not result in accumulation of radioactivity in plants or animals that result in a hazard to humans or harm to aquatic life.				
	Verify that wastes containing the following chemicals (which are reasonably amenable to treatment or control) are not discharged untreated or uncontrolled from municipal, industrial, or other controllable sources into surface waters of the state:				
	- arsenic				
	- barium				
	- boron				
	- cadmium				
	- chromium				
	- cyanide				
	- fluoride - lead				
	- selenium				
	- silver				
	- copper				
	- zinc.				
	Verify that the limits for concentrations of the chemical constituents provide water quality consistent with the mandatory requirements of the Drinking Water Standards as adopted by the State Board of Health.				

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 (NOTE: The above standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of extreme high or low flow. Where effluents are discharged to these waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment according to permit requirements is maintained.) WO.115.3.NV. Class A (NOTE: Class A waters include waters, or portions of waters, located in areas of waters must meet specific little human habitation, no industrial development or intensive agriculture, and where the watershed is relatively undisturbed by man's activity. The beneficial water quality criteria (NAC 445A.124(1) through (3)). uses of Class A waters are municipal and/or domestic supply with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, water contact recreation, and non-contact recreation.) Verify that human activities do not cause the presence of floating solids, sludge deposits, tastes, or odor-producing substances in Class A waters. Verify that sewage, industrial wastes, toxic materials, oils, deleterious substances, colored, or other wastes are not present in Class A waters. Verify that human activities do not cause the presence of settleable solids in amounts: - which cause Class A waters to be unsafe or unsuitable as a drinking water source - which are detrimental to aquatic life - which are detrimental to any other beneficial use established for this Class. Verify that pH is maintained between 6.5 and 8.5 and that dissolved oxygen is not less than 6.0 mg/L. Verify that the temperature of Class A waters does not exceed 20 °C. (NOTE: Temperature is not allowed to increase above the natural receiving water temperature.) Verify that the fecal coliform concentration, based on a minimum of five samples during any 30-day period, does not exceed a geometric mean of 200 per 100 mL. Verify that no more than 10 percent of total samples of the fecal coliform concentration taken during any 30-day period do not exceed 400 per 100 mL. Verify that total phosphate does not exceed the following levels: - 0.15 mg/L in any stream at the point where it enters any reservoir or lake

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 - 0.075 mg/L in any reservoir or lake - 0.30 mg/L in streams and other flowing waters. Verify that total dissolved solids does not exceed 500 mg/L or one-third above natural conditions, whichever is less. WO.115.4.NV. Class B (NOTE: Class B waters include waters, or portions of waters, located in areas of waters must meet specific light or moderate human habitation, little industrial development, light to moderate agricultural development, and where the watershed is only moderately water quality criteria (NAC influenced by man's activity. The beneficial uses of Class B waters are 445A.125(1) through (3)). municipal and/or domestic supply with treatment by disinfection and filtration only, industrial supply, aquatic life, propagation of wildlife, irrigation, watering of livestock, water contact recreation, and noncontact recreation.) Verify that human activities do not cause the presence of settleable solids, floating solids, or sludge deposits in amounts: - which cause Class B waters to be unsafe or unsuitable as a drinking water source - which are injurious to fish or wildlife - which impair any other beneficial use established for this Class. Verify that sewage, industrial wastes, or other wastes are effectively treated to the satisfaction of the Department. Verify that odor-producing substances are not present in amounts which: - impair the palatability of drinking water or fish - have a deleterious effect upon fish, wildlife, or any beneficial uses established for this Class. Verify that toxic material, oil, deleterious substances, colored or other wastes, or heated or cooled liquids are not present in amounts which render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this Class. Verify that pH is maintained between 6.5 and 8.5 and that dissolved oxygen is not less than 6.0 mg/L, for trout waters, and 5.0 mg/L, for nontrout waters. Verify that the temperature of Class B waters does not exceed 20 °C, for trout waters, and 24 °C, for nontrout waters. (NOTE: Temperature is not allowed to increase above the natural receiving water temperature.)

COMPLIANCE CATEGORY: WATER QUALITY MANAGEMENT Nevada Supplement REGULATORY **REVIEWER CHECKS: REQUIREMENTS:** October 2000 Verify that the fecal coliform concentration, based on a minimum of five samples during any 30-day period, does not exceed a geometric mean of 200 per 100 mL. Verify that no more than 10 percent of total samples of the fecal coliform concentration taken during any 30-day period do not exceed 400 per 100 mL. Verify that total phosphate does not exceed 0.3 mg/L. Verify that total dissolved solids does not exceed 500 mg/L or one-third above natural conditions, whichever is less. WQ.115.5.NV. Class C (NOTE: Class C waters include waters, or portions of waters, located in areas of waters must meet specific moderate to urban human habitation, moderate industrial development, intensive water quality criteria (NAC agricultural practices, and where the watershed is considerably altered by man's activity. The beneficial uses of Class C waters are municipal and/or domestic 445A.126(1) through (3)(a) supply receiving complete treatment, industrial supply, aquatic life, propagation through (j)). of wildlife, irrigation, watering of livestock, water contact recreation, and noncontact recreation.) Verify that human activities do not cause the presence of settleable solids, floating solids, sludge deposits, toxic material, oil, deleterious substances, colored or other wastes, or heated or cooled liquids in amounts: - which render the receiving waters injurious to fish or wildlife - which impair any other beneficial use established for this Class. Verify that sewage, industrial wastes, or other wastes are effectively treated to the satisfaction of the Department. Verify that pH is maintained between 6.5 and 8.5 and that dissolved oxygen is not less than 6.0 mg/L, for trout waters, and 5.0 mg/L, for nontrout waters. Verify that the temperature of Class C waters does not exceed 20 °C, for trout waters, 34 °C, for nontrout waters, and does not increase more than 3 °C above the natural receiving water temperature. Verify that the more stringent of the following two fecal coliform water quality criteria is met: - fecal coliform concentration does not exceed a geometric mean of 1000/100 mL and less than or equal to 20 percent of the total samples exceed 2400/100 mL - fecal coliform concentration does not exceed an annual geometric mean of 200/ 100 mL above natural conditions and the number of fecal coliform in

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WQ.115.6.NV. Class D waters must meet specific water quality criteria (NAC 445A.127(1) through (3)(a) through (e)).	a single sample does not exceed 400/100 mL above natural conditions. (NOTE: The fecal coliform levels specified in Appendix 13-3 apply only to Class C waters used for primary contact recreation.) Verify that total phosphate does not exceed 1.0 mg/L. Verify that total dissolved solids does not exceed 500 mg/L or one-third above natural conditions, whichever is less. (NOTE: Class D waters include waters, or portions of waters, located in areas of urban development, highly industrialized and/or intensively used for agriculture, and where effluent sources include a multiplicity of waste discharges from the highly altered watershed. The beneficial uses of Class D waters are industrial supply, except for food processing purposes, aquatic life, propagation of wildlife, irrigation, watering of livestock, and noncontact recreation.) Verify that human activities do not cause the presence of settleable solids, floating solids, sludge deposits, toxic material, oil, deleterious substances, colored or other wastes, or heated or cooled liquids in amounts which impair the receiving waters for any beneficial use established for this Class. Verify that sewage, industrial wastes, or other wastes are effectively treated to the satisfaction of the Department. Verify that pH is maintained between 6.0 and 9.0 and that dissolved oxygen is not less than 3.0 mg/L.				
Springs					
WQ.115.7.NV. Use of a spring as a source of water for a public water system must be approved by the health authority (NAC 445A.6694(3)) [Added October 1998].	Verify that water from a spring is not introduced into a public water system until the use of the water is approved, in writing, by the health authority.				
WQ.115.8.NV. A zone of	Verify that, if a spring is used as a source of water for a public water system, the				

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protection must be established to protect a spring used as a source of water for a public water system (NAC 445A.66945(1) and 445A.6695) [Added October 1998].	supplier of water establishes a zone of protection for the spring to protect the source of water from the establishment of a source of pollution or contamination. Verify that the supplier of water executes a written agreement not to locate or permit a source of pollution or contamination within any part of the zone of protection he owns and obtains the written agreement of all other owners of land within the zone of protection not to locate or permit a source of pollution or contamination within the zone of protection. Verify that no source of pollution or contamination is allowed within a zone of protection.				
	 (NOTE: The health authority may: allow sewer lines within the zone of protection, subject to such precautionary conditions as the health authority deems appropriate authorize other exceptions to the provisions of subsection 1 if the health authority determines, after evaluating the particular situation in each case, that there are special circumstances which justify each exception.) 				
WQ.115.9.NV. Devices used to collect water from a spring used as a source of water for a public water system must be covered (NAC 445A.66955) [Added October 1998].	Verify that a device for the collection of water from a spring which is used as a source of water for a public water system is covered with a minimum of 10 ft of impervious soil cover that extends a minimum of 15 ft in all horizontal directions up gradient from the device for the collection of water. Verify that, if it is impossible to cover the device with impervious soil cover as required by the previous paragraph, the spring is covered with an impermeable				
	liner. Verify that, if an impermeable liner is necessary, it meets all of the following standards: - has a total thickness of at least 12 mils				
	 all seams are folded or welded in such a manner as to prevent leakage is compatible with drinking water is installed in such a manner as to ensure its integrity is not located within 6 in. of any stones that are 2 in. or more in any dimension, or that have any sharp edges is covered with a minimum of 2 ft of relatively impervious soil it and the soil cover extend a minimum of 15 ft in all horizontal directions up gradient from the device for the collection of water. 				
WQ.115.10.NV. Development of a spring used	Verify that, if a spring is used as a source of water for a public water system, a diversionary channel is constructed in such a manner as to be capable of				

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as a source of water for a public water system must meet specific requirements (NAC 445A.6696) [Added October 1998].

diverting from the area of the spring all anticipated runoff of surface water.

Verify that each area for the collection of water from the spring has at least one lockable junction box, suitable for the inspection of the spring and the testing of water from the spring.

Verify that collection boxes and junction boxes meet all of the following requirements:

- incorporate access by manholes, air vents, and overflow piping
- have gasketed lids
- the chambers are adequately [undefined] screened and vented
- the chambers' vents are elbowed downward and placed not less than 12 in. nor more than 18 in. off the ground.

Verify that vegetation with a root system greater than 2 ft in length is not located within 100 ft of the spring.

Verify that a permanent device for measuring the flow of water is installed and properly [undefined] housed and otherwise protected.

Verify that, to the extent possible, water does not pond within the area for collection.

Verify that, where the ponding of water is unavoidable, the excess is collected as drainage and routed down gradient beyond the immediate area for collection in a controlled manner which avoids the possibility for pollution or contamination of the spring.

supplier of water must meet recordkeeping and reporting requirements for springs used as a source of water for a public water system (NAC 445A.6694(2) and

The

[Added

WQ.115.11.NV.

445A.66945(2))

October 1998].

Verify that the supplier of water submits the following to the health authority:

- a microscopic particulate analysis which shows that the water from the spring is not ground water under the direct influence of surface water
- information regarding the rate of flow developed from the spring
- a depiction of the development of the spring as built.

Verify that the supplier of water's written agreement not to locate or permit a source of pollution or contamination within any part of the spring's zone of protection is documented as follows:

- if the property is not public land, the agreement and a description of the property are recorded in the office of the county recorder of each county in which the property is located and submitted to the health authority for its review
- if the property is public land, a copy of the agreement is submitted to the

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	health authority for its review.				

Appendix 13-1

Secondary Maximum Contaminant Levels - Table 1

(Source: NAC 445A.455(1))

Substance	Secondary Maximum Contaminant Levels		
Chloride	250 mg/L		
Color	15 color units		
Copper	1 mg/L		
Foaming agents	0.5 mg/L		
Iron	0.3 mg/L		
Magnesium	125 mg/L		
Manganese	0.05 mg/L		
Odor	3 threshold odor number		
pН	6.5 - 8.5		
Sulfate	250 mg/L		
Total dissolved solids	500 mg/L		
(total residue dried at 103 °C to 105 °C)	•		
Zinc	5 mg/L		
	· ·		

Appendix 13-2

Secondary Maximum Contaminant Levels - Table 2

(Source: NAC 445A.455(2))

Substance	Secondary Maximum Contaminant Level (mg/L)		
Chloride	400		
Iron	0.6		
Magnesium	150		
Manganese	0.1		
Sulfate	500		
Total dissolved solids	1000		
(total residue dried at 103 °C to 105 °C)			

Appendix 13-3

Water Quality Criteria for Designated Beneficial ${\rm Uses}^2$

(Source: NAC 445A.119)

Table 1

Parameter		Beneficial Uses							
		Agricultural Use		Aquatic Life Use					
				Cold Wat	er	Warm Water			
		Irrigation Watering of Livestock		Propagation	Put & Take	Propaga- tion	Put & Take		
Temperature		X	X	Site Specific Determination ^a , b					
pН		4.5 - 9.0 ^{a, b}	5.0 - 9.0 ^b	6.5 - 9.0 ^b	6.5 - 9.0 ^b	6.5 - 9.0 ^b	6.5 - 9.0 ^b		
Dissolved Oxygen	>	X	aerobic ^b	5.0 ^b mg/L	5.0 ^b mg/L	$5.0^{\text{b}} \text{ mg/L}$ $5.0^{\text{b}} \text{ mg}$			
Chlorides	<	y ^a	1500 ^f mg/ L	X	X	X	X		
Total Phosphates		X	X	Site Specific Determination ^b , e					
Nitrates	<	X	100 ^a mg/L	yb	X	90 ^b mg/L	90 ^b mg/L		
Nitrites	<	X	10 ^a mg/L	0.06 ^b mg/L	X	X	X		
Total Nitrogen		X	X	Site Specific Determination ^b , e					
Unionized Ammonia	\	х	Х	0.02 ^b , e mg/L	Site Specific Determinati on				
Total Dis- solved Solids	<	X	3000 ^a mg/ L	X	X	X	X		
Color	<	X	X	X	Х	X	X		
Turbidity	<	X	X	10 ^d NTU	10 ^d NTU	50 ^d NTU	50 ^d NTU		
Fecal Coliform (MF/ 100 mL)	<	1000 ^a	1000 ^a	X	Х	X	Х		
Alkalinity as CaCO ₃		х	х	< 25 percent change from natural conditions ^a , e					
Suspended Solids	<	Х	X	25 - 80 ^a mg/L	25 - 80 ^a mg/L	25 - 80 ^a mg/L	25 - 80 ^a mg/L		
Sulfate	<	X	X	X	X	X	X		

Table 2

Parameter		Beneficial Uses					
		Contact Recreation	Non-contact Recreation	Municipal or Domestic Supply	Industrial Supply	Propagation of Wildlife	
Temperature		15 - 34 °C ^a	X	X	X	X	
pН		6.5 - 8.3 ^a	X	5.0 - 9.0 ^a	3.0 - 11.7 ^a	7.0 - 9.2 ^a	
Dissolved Oxygen	>	aerobic ^b	aerobic ^b	aerobic ^b	X	aerobic ^b	
Chlorides	<	X	X	250/400 ^c mg/L		1500 ^f mg/L	
Total Phosphates		Site Specific Determination ^b , e			X	X	
Nitrates	<	X	X	10 ^b , ^c mg/L	X	100 ^a mg/L	
Nitrites	<	X	X	1.0 ^a , b mg/L	X	10 ^a mg/L	
Total Nitrogen		Site Specific Determination ^b , e			X	X	
Unionized Ammonia	<	X	X	0.5 mg/L (Total NH ₃ N) ^b	X	X	
Total Dissolved Solids	<	X	X	500/1000 ^c mg/ L	X	X	
Color	<	X	X	75 ^b (PT-CO)	X	X	
Turbidity	<	X	X	yb	X	X	
Fecal Coliform (MF/ 100 mL)	<	200/400b, 1	1000/2000 ^d	2000 ^a	X	1000 ^a	
Alkalinity as CaCO ₃		X	X	X	X	30 - 130 ^a mg/L	
Suspended Solids	<	X	X	X	X	X	
Sulfate	<	X	X	250 ^b , c/500 ^c mg/L	X	X	

- < Less than.
- > Greater than.
- x A specific recommendation has not been developed.
- y The cited reference recommended that no value be established.
- 1 Based on a minimum of five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 mL nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 mL.
- 2 The table is not all-inclusive.
- a National Academy of Sciences, Water Quality Criteria (Blue Book) (1972).
- b USEPA, Pub. No. EPA 440/9-76-023, Quality Criteria for Water (1976).
- c Nevada Division of Health, Water Supply Regulation, Part I, Water Quality Standards, Monitoring, Record Keeping, and Reporting (1977).
- d Report of the Commission on Water Quality Criteria (FWPCA) (Green Book) (1968).
- e American Fisheries Society, Water Quality Section, A Review of the EPA Red Book; Quality Criteria for Water (1979).
- f McKee and Wolf, California State Water Resources Control Board, Water Quality Criteria (1963).