

UNDERSTANDING THE RCRA CORRECTIVE ACTION PROGRAM TERMS 'SWMU' & 'AOC'



by

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Background

- **1980 - RCRA enacted; regulation of the management of hazardous wastes.**
- **1984 - Hazardous and Solid Waste Amendments (HSWA) to RCRA; includes Section 3004 (u) & (v) corrective action for releases from solid waste management units (SWMUs).**
- **1985 - First HSWA Codification Rule; cleanup of releases from SWMUs [50 Fed. Reg. 28702, July 15, 1985].**
- **1987 - Second HSWA Codification Rule; permit requirements for corrective action [52 Fed. Reg. 45788, Dec. 1, 1987].**
- **1990 - Proposed Subpart S Rule "Corrective Action for Solid Waste Management Units" [55 Fed. Reg. 3080, July 27, 1990].**

Background (cont)

- **1993 - CAMU and Temporary Unit Final Rule - regulations under 40 CFR 264 Subpart S [58 Fed. Reg. 8658, Feb. 16, 1993].**
- **1996 - ANPR Corrective Action for Releases from SWMUs; comments requested on strategy "Subpart S Initiative" [61 Fed. Reg. 19432, May 1, 1996].**
- **1998 - Staging Pile Rule (Part of HWIR - Media Final Rule); regulations under 40 CFR 264 Subpart S [63 Fed. Reg. 65874, Nov. 30, 1998].**
- **1999 - Partial Withdrawal of 1990 Subpart S Proposal; additional regulations not expected [64 Fed. Reg. 54604, Oct. 7, 1999].**

Statutory Authority

RCRA §3004(u) - Continuing Releases at Permitted Facilities

- **Provides EPA authority to require corrective action for all releases of hazardous waste or constituents from any SWMU at a RCRA treatment, storage or disposal (TSD) facility, regardless of the time at which waste was placed in such unit.**
- **Mandates that any permit issued after HSWA (Nov. 8, 1984) by EPA (or a State) include corrective action provisions and contain schedules of compliance (where such corrective action cannot be completed prior to issuance of the permit).**

RCRA §3004(v) - Corrective Action Beyond Facility Boundary

- **Provides EPA authority to require corrective action be taken for releases beyond the facility boundary where necessary to protect human health and the environment.**

Statutory Authority (cont)

RCRA §3005(c)(3) - "Omnibus Provision"

- **Allows EPA (or authorized state) to include permit terms or conditions as necessary to protect human health and the environment.**
- **Provides basis for requiring corrective action for an "area(s) of concern" (AOC) at a RCRA facility.**

RCRA §3008(h) - Interim Status Corrective Action

- **Provides EPA authority to issue orders requiring corrective action (e.g., for releases from SWMUs) to facilities without or seeking a RCRA TSD permit.**

RCRA §7003(a) - Imminent Hazard

- **Provides EPA the authority to take enforcement actions to compel corrective action where solid or hazardous waste may present an imminent and substantial endangerment to human health or the environment.**

Relevant RCRA Regulations

40 CFR 264.101 - Corrective Action for Solid Waste Management Units

- **Essentially codifies the RCRA §3004 (u) & (v) mandates and broadly applies to all SWMUs, not just “regulated units” under Subpart F.¹**

40 CFR 270.14(d) - Information Requirements for SWMUs

- **Requires permittees to provide descriptive information on the SWMUs themselves and all available info pertaining to any release from the units in Part B permit applications.**

40 CFR 270.32(b)(2) - Establishing Permit Conditions

- **Codifies the “Omnibus Provision” under RCRA §3005(c)(3) that provides EPA/State broad authority to include terms and conditions necessary to protect human health and the environment.**

¹Under 40 CFR 264.90, a “regulated unit” includes surface impoundments, waste pile, land treatment unit, or a landfill that received hazardous waste after July 26, 1982 and they must comply with 40 CFR 264.91 - 264.100 in lieu of 40 CFR 264.101.

SWMU Definitions

- **The term 'SWMU' was first defined in the First HSWA Codification Rule, which was based on the legislative history of RCRA §3004(u).²**
"Any unit at the facility from which hazardous constituents might migrate, irrespective of whether the units were intended for the management of solid and/or hazardous wastes."
- **The SWMU definition was revised as part of the Subpart S Proposal to be included in 40 CFR 265.501.³**
"Any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released."

²50 Fed. Reg. 28712 (July 15, 1985). The term 'hazardous constituent' means those listed in App. VIII to 40 CFR 261.

³55 Fed. Reg. 3080 (July 27, 1990).

SWMU Definitions (cont)

- **EPA has decided not to finalize most of the 1990 proposed Subpart S rules, including SWMU definition.⁴**
- **In the absence of a promulgated regulatory definition, EPA can define the term 'SWMU' on a case-by-case basis.**
- **Most recent EPA model HSWA permit definition is typically used by EPA and authorized States.**
- **The definition of a SWMU is often a point of disagreement when corrective action permits or Orders are issued.**
- **There are numerous EPA Administrative Board decisions addressing whether a particular unit/area would constitute a SWMU.**

⁴ See 64 Fed. Reg. 54604 (October 7, 1999).

Examples of SWMU Definition

Solid Waste Management Unit ⁵

- **For purposes of this permit includes any discernable units that have ever accumulated, treated, stored, or disposed of solid wastes (irrespective of whether the units were intended for waste management).**
- **Such units may include but are not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank (including storage, treatment and accumulation tanks), container storage unit, recycling unit and wastewater treatment unit.**
- **These are to include those that are subject to 40 CFR Part 264, and those which are not subject to such regulation anywhere on the Department of Energy(DOE) Oak Ridge Reservation (ORR).**
- **The definition also includes areas contaminated by routine, deliberate, or systematic discharges from process components.**

⁵ The RCRA HSWA Permit for the DOE Oak Ridge Reservation [#TN 001] Condition I.G.2. (effective 10/26/86).

Examples of SWMU Definition (cont)

Solid Waste Management Unit ⁶

- **A SWMU includes any unit which has been used for treatment, storage, or disposed of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste.**
- **Permitted or interim status hazardous waste management units are also solid waste management units.**
- **SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g., product or process spills).**

⁶The HSWA portion of the RCRA Permit for the Memphis Defense Depot [#TN4 210 020 570] Condition I.C.17. (terminated Jan. 19, 2005).

Scope of the Term 'SWMU'

Includes: Discernable Units and "Routine and Systematic Release Areas"

Discernable Units

- **RCRA permitted or interim status hazardous waste management units, (i.e., treatment, storage, or disposal units (TSDs), including "regulated units") and in some States 90-day accumulation areas.⁷**
- **"Inactive or historical" SWMUs which are not permitted or subject to RCRA regulations, but have at some time managed solid wastes (irrespective of whether the units were intended for waste management).⁸**
- **But for their dates of operation and RCRA statutory deadlines, these would likely be subject to RCRA regulations, other than corrective action.**

⁷50 Fed. Reg. 28712 (July 15, 1985); *see also* 55 Fed. Reg. 30808 (July 27, 1990).

⁸50 Fed. Reg. 28711 (July 15, 1985).

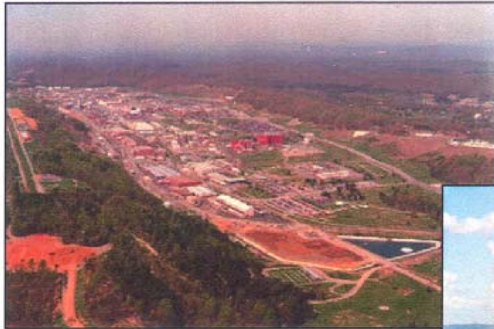
Scope of the Term 'SWMU' (cont)

“Routine and Systematic Release Areas” - Those areas of a facility, typically associated with production processes, which have been contaminated as a result of routine and systematic releases of solid or hazardous wastes or hazardous constituents.⁹

- **The areas must have become contaminated as a result of a deliberate release, as opposed to a one-time accidental spill which cannot be linked to a SWMU.**
- **Does not include areas contaminated by passive leakage from product storage.**
- **Releases and resulting contamination from production processes will generally not be considered SWMUs, unless EPA finds that the releases have been routine and systematic in nature.**

⁹55 Fed. Reg. 30808 (July 27, 1990).

Department of Energy Facilities



Y-12 Plant

ORNL



ETTP



Portsmouth



Paducah

K-1065 RCRA Container Unit



Bethel Valley Tanks



Solid Waste Landfill at Y-12



TSCA Incinerator at ETTP



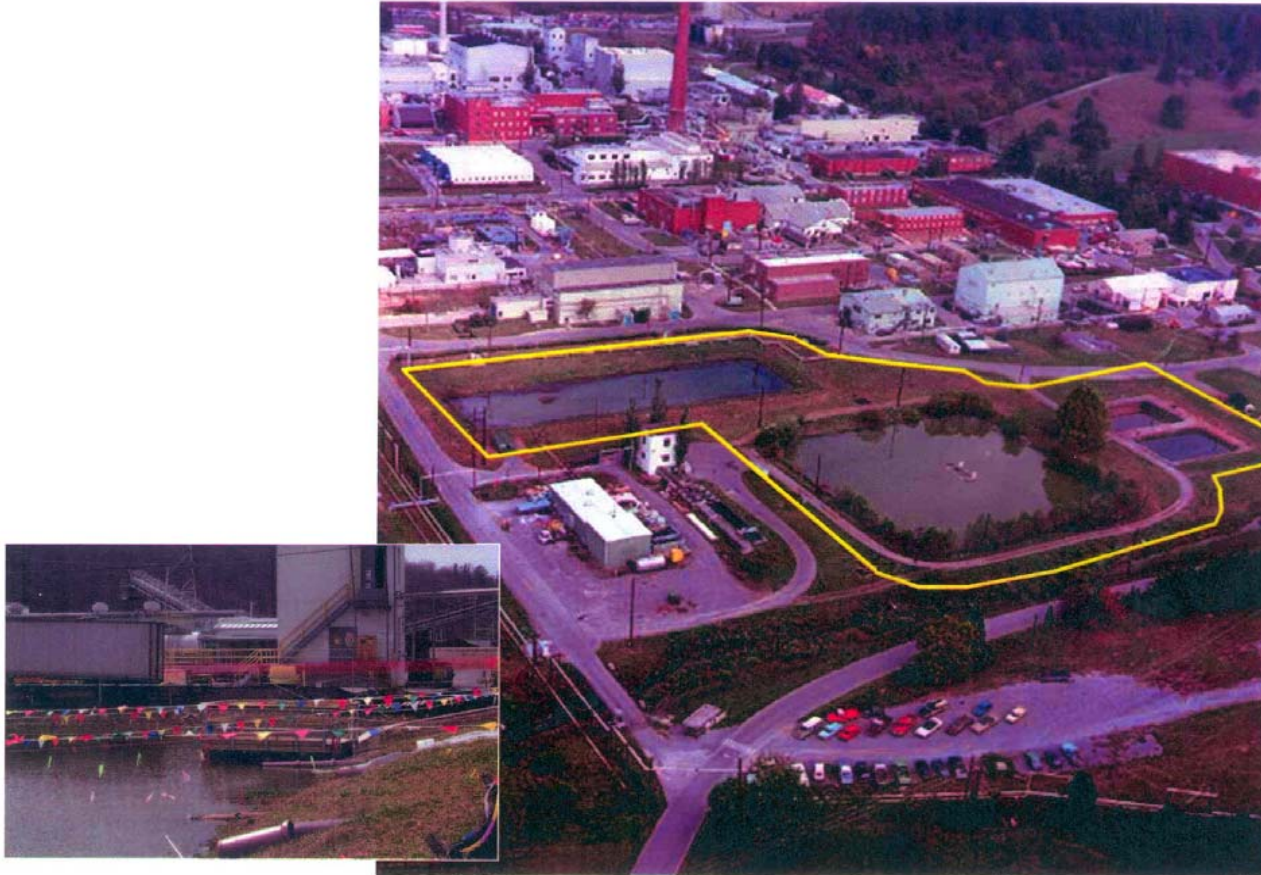
K-1070 C/D G-Pit



ORNL Burial Pits



ORNL Surface Impoundments



Paducah Scrap Metal Pile



Troublesome Categories at Facilities

- **PCB waste storage areas regulated under TSCA – Not considered a “unit” and PCBs not classified as hazardous waste under RCRA.**
- **“Waste” v. “used” oil storage units regulated under RCRA (40 CFR Part 279) – Used oil considered “product” for re-use (e.g. heating).**
- **USTs regulated under RCRA Subtitle I (40 CFR Part 280) – Petroleum product storage does not constitute waste management.**
- **Contaminated areas created by “routine and systematic releases” or a one-time spill event – Difficult to determine the cause of contamination unless detailed records available.**

The Rationale for “AOCs”

- **The EPA recognized that its interpretations of the SWMU definition had the effect of precluding §3004(u) from addressing some environmental problems at RCRA facilities.**
- **“The EPA intends to exercise its authority as necessary, under the RCRA ‘omnibus provision’ or other authorities provided in RCRA (e.g., §3008(h), §7003(a), or CERCLA (e.g., §104 or §106) to correct such problems and to protect human health and the environment”.⁹**
- **EPA has reiterated that corrective action for non-SWMU related releases may be required in RCRA permits under the “omnibus authority”.¹⁰**
- **To reflect a more holistic approach, permits and Orders often use the term ‘area of concern’ (AOC) to refer to releases which warrant investigation or remediation (i.e., corrective action).**

⁹ 55 Fed. Reg. 30809 (July 27, 1990).

¹⁰ 61 Fed. Reg. 19443 (May 1, 1996).

Scope of Omnibus Authority

- **Gives the Agency discretion to go beyond the regulations on a case-by-case basis to address unique circumstances at individual RCRA facilities.**
- **Agency can address any known or detected releases(s) and suspected release(s) of hazardous constituents from solid or hazardous waste.**
- **Agency can require soil sampling or other preliminary detection activities for suspected release(s) such as confirmatory sampling.**
- **Agency can require corrective action for non-SWMU contaminated area(s) determined to be an AOC(s).**

Limitations to Omnibus Authority

- **Omnibus authority can only be imposed where shown to be “necessary to protect human health and the environment.”¹¹**
- **Authority may not be used to override the exclusions (express or implied) from statutory RCRA jurisdiction found in the definition of “solid waste.”¹²**
- **Agency (i.e., permit writer) may not invoke unless the administrative record contains a properly supported finding that an exercise of the omnibus authority is necessary.**
- **In other words, there must be a rationale basis for EPA/State to require investigation of the suspected contaminated area. For example: dead vegetation or dark stained soils might indicate release occurred in that area.**

¹¹See RCRA §3005(c)(3).

¹²See RCRA §1004(27).

Definition of an AOC

Similar to the SWMU definition, there is not a promulgated definition in the RCRA regulations. Consequently, EPA relies on model permit language for a working definition of the term 'AOC'.

Area of Concern¹³

- **Includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a SWMU and is determined by the Commissioner to pose a current or potential threat to human health or the environment.**
- **Such areas may require investigations and remedial action as required by this permit and Rule 1220-1-11-.07(8)(b)(2)(ii) in order to ensure adequate protection of human health and the environment.**

¹³HSWA Portion of RCRA Permit for Defense Depot Memphis Condition I.C.1; (terminated Jan. 19, 2005)

Scope of the Term 'AOC'

- **Includes non-SWMU area(s) of potential or suspected contamination, as well as actual contamination.**
- **AOC can be located at the facility or off-site.**
- **Includes contamination from one-time spill.**
- **Includes contamination from passive leakage of product, since leaked material would be 'solid waste' under RCRA.**
- **Includes contamination associated with releases from production processes that are not "routine and systematic".**

AOC Examples

- **Contaminated soils from leaks at underground storage tank of product (e.g., fuel, heating oil).**
- **Lead-contaminated soils from leaching discarded bullets at closed/inactive outdoor small arms firing range.**
- **Mercury-contaminated soils from historical spills or one-time releases of product during transport.**
- **Chromium-contaminated soils adjacent to cooling tower basins from incidental releases caused by steam blowdown.**
- **PCB-contaminated soils from historical spills/leaks.
Note: 40 CFR 761.61 or Subpart G may apply to cleanup.**

Y-12 Firing Range



**UEFPC Firing Range
Completed Project
September 18, 1998**

Recommendations

- **Understand the scope of both 'SWMU' and 'AOC' definitions when evaluating potential sites.**
- **Determine whether the units/areas being listed in a permit/Order are best classified as a SWMU or an AOC.**
- **Gather any available documentation that explains origin of the release, contamination, unit or area.**
- **Be aware that other authorities may apply to the unit (e.g. CWA wastewater storage tank). Note: Unit can be listed in permit/Order despite that RCRA corrective action not required.**
- **Consult with a knowledgeable subject-matter-expert (e.g., environmental attorney) for troublesome classifications.**

QUESTIONS?