



1. Description of the Facility

The Ford Norfolk Assembly Plant located in Norfolk, Virginia was opened in 1925. The facility manufactures and paints the F-150 and F-250 trucks. Recently, the Norfolk Assembly Plant was awarded Ford's Total Productive Maintenance award for checkpoint "C", the first Ford facility globally to achieve such an award for proactive preventive maintenance. Also, in October 1996, the facility was approved for ISO 9000 certification.

2. Description of Waste Management System

The facilities Total Waste Management supplier, as part of their contract, working with the Paint Area Management, is responsible for reducing waste streams at the plant and is paid on a cost per unit basis. In the Paint Facility, waste streams relating to solvents are captured and recycled by their solvent supplier.

3. Description of the Problem Being Addressed

As part of the Plant's ongoing effort to reduce costs, improve quality, and their commitment to reduce VOC emissions, the paint area management asked the solvent supplier to review and improve, where possible, the current method of tracking solvent usage and also review the spray booth preventative maintenance cleaning procedure.

4. Description of the Solution

Solvent usage during non-production hours was studied and inventory taken on Friday after production and Monday before production. After several weeks of tracking usage it was determined that solvent was being used over the weekends, during non-production hours. The Booth Maintenance Cleaning practices were also reviewed to determine if any improvements could be made to the existing procedure.

After a series of meetings, and employee awareness training programs, it was agreed that the solvent supply pumps would be shut off during non-production hours. The computer logic for the pumps was programmed to shut off the pumps 15 minutes after production and turn on the pumps 30 minutes before the normal Monday morning production start-up. This time frame allowed the Booth Maintenance Staff time to obtain small quantities of material to hand clean equipment prior to their shift, thereby, eliminating unnecessary usage. The existing booth cleaning procedure was updated to reflect the changes made on the computer logic for the solvent supply pumps.

5. Barriers

Employee awareness and training was addressed through small group meetings with booth maintenance personnel. Small group training sessions provided an emphasis on safety, cost savings opportunities, and VOC reductions.

6. Savings Realized or Anticipated

- VOC solvent was reduced by 983.45 gallons per week
- \$95,355.31 cost savings per year (based on a 48 week production schedule)
- VOC reduction of 342,713 lbs./year

7. Capital/Operating Investment

There was no capital investment required.