Indiana’s Auto Salvage Environmental Results Program (ERP)

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In Memoriam: Rosemary Cantwell

- IDEM 1986-2010
- Industrial Waste 1 Section Chief
- Lead Auto Salvage Environmental Results Program (ERP)
Presentation Overview

- Auto salvage sector
- How we used ERP
- Our auto salvage results and plans
  - Communication of results within IDEM
Indiana Auto Salvage Yards: A Persistent Problem

- Auto Salvage Initiative 2000-2004 (Compliance and Enforcement Focus)
  - Environmental violations commonplace: solid waste, storm water, refrigerants, containers, hazardous waste
New Approach Needed

- Need for a holistic approach
- Need approach suitable for size of the universe
Environmental Results Program: Potential Solution?

- ERP integrates tools to affect performance in sectors with large numbers of small sources of pollution
- By 2006, had been associated with progress in several sectors
- Auto salvage yards, traditionally a difficult sector, would be a new challenge
A Typical ERP Cycle

Step 1: Inventory
Step 2: Statistical Baseline Inspections
Step 3: Compliance Assistance
Step 4: Self-Certification
Step 5: Targeted Follow-Up
Step 6: Statistical Post-Certification Inspections
Step 7: Informed Decision-Making
Timeline of Auto Salvage ERP

• **2006**: U.S. EPA State Innovation Grant to implement ERP
  – Auto Salvage Yards an untested sector for ERP

• **2007**: Identified 548 facilities in Bureau of Motor Vehicles’ data
  – Random inspections at 48 facilities, to baseline performance
  – Economic downturn begins December 2007

• **2008**: Preparation for certification and recognition program launch
  – IDEM begins to hear of staffing reductions at salvage yards

• **2009**: Deliver workbooks and workshops
  – Launch voluntary certification and recognition programs
  – Conduct random inspections at 50 more facilities

• **2010**: Statistical analysis of performance change, reporting
IDEM Universe Identification

• Typically, identified only in the course of responding to complaints
• In 2007, began thorough identification
• Used BMV list
• Over 600 with BMV permits
• Winnowed to 548
IDEM Baseline

- 48 valid random inspections
- June 2007-September 2007
- 7 different inspectors
- Data collected with tablet PCs (improve the efficiency and quality)
- Training of inspectors beforehand, to improve consistency
IDEM Compliance Assistance

• Distributed multimedia workbooks to all facilities
  – April 2009
• 3 Workshops: May and June 2009
  – Indianapolis, Valparaiso and New Albany
  – Cosponsored by trade association
• Multimedia Focus:
  – Included Air and Water
• Created ERP website for auto salvage yards
  – http://www.in.gov/idem/4993.htm
  – Consultant: “[The] IDEM Auto Salvage website is phenomenal.”
IDEM Self-Certification

• Certification was voluntary
• Deadline: July 15, 2009
• Incentive: Possible recognition as Indiana Clean Yard
• Outcome:
  – 45 facilities submitted certifications
  – 26 of those submitted return-to-compliance plans
IDEM Targeted Follow-up

- Phone calls
- Record check (storm water, mercury)
- Assistance
- Begin helping Indiana Clean Yard applicants achieve goals
IDEM Post-Certification Random Inspections

- 50 random site visits
- September 2009 - November 2009
- Conducted by 9 different inspectors
- Inspectors received data quality training to improve consistency in interpretation
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Statistical Analysis: Primary Measures

• 10 priority multimedia compliance measures
• 5 observed increases in performance
  – Statistically significant increase in used oil container condition
• 5 observed decreases in performance
  – Statistically significant decreases in 2 storm water measures (planning, sample submission)
Statistical Analysis: All Measures

• All performance measures: voluntary and compliance issues
• 3 statistically significant increases
  – 2 used oil, 1 storm water
• 6 maintained performance at 100%
• 9 statistically significant decreases
  – 6 storm water, 2 refrigerant, 1 floor drain closure
Finding: AS Performance Steady In Bad Economy (Except for Storm Water)

• Removing storm water, we see:
  – 2 statistically significant compliance improvements (used oil)
  – Only statistically significant decreases relate to voluntary practices
  – Statistically significant improvement in percentage of facilities achieving ALL performance measures, including best management practices (BMPs)
  – Overall measures of compliance performance show steady performance at around 75% compliance, both rounds

• Considering economic context, expectation would be overall decrease in performance

• So, this would be a clear success, but for storm water
Storm Water Performance Declined: Why?

• Our theory:
  – Salvage yards reported staffing reductions related to changes in scrap metal prices and the overall economic downturn
  – Storm water requirements already confusing for yards
    • We noted accuracy issues on storm water self certification
  – Storm water requirements require active attention and maintenance (e.g., regular checks, sampling)
  – Yards consciously or subconsciously let these things slip
Direct Comparison: RI Auto Salvage ERP

- U. S. EPA SIG-Funded in 2005
- Prior experience with ERP implementation
- Timeline:
  - Early 2006: baseline visits
  - Mid-2007: certification deadline
  - First-half 2008: post-certification random visits
- Only 59 active auto salvage yards statewide
- Over 50% of salvage yards attended 3 workshops
- 37 yards (>60%) certified
RI Auto Salvage ERP Results

- 6 comparable indicators
  - Relating to storm water, mercury, used oil, fluids, and refrigerants
- Comparison:
  - RI, 6 significant increases
  - IN, no change or decrease
- RI also saw substantial increase in switch recycling (IN non significant increase)
- Consider project differences:
  - RI Project wrapping up before full impact of downturn?
  - Small RI universe and geographic size of RI
  - RI Past experience with ERP
  - RIDEM Partnership/Coordination: Narragansett Bay Commission, URI, ELVS
Beyond Statistics: Other Signs of Progress

- Increased interest in compliance assistance
- Increased trust/partnership with industry
- Increased environmental leadership within the sector
Increased Interest in Compliance Assistance

• 70 businesses attended workshops
  – >12% of all auto salvage yards
• After workshops began, 50% increase in confidential assistance visits:
Increased Trust/Partnership with Industry

• “This is the first time I have seen a government regulatory agency work with business in a cooperative nature ... thank you for starting the Clean Yard Program.”
  – Marty Hollingshead, Northlake Auto Recyclers, Oct 2009
• Active Participation by Pull-A-Part
• Active Participation of Automotive Recyclers of Indiana
  – Materials development and outreach
  – Unfortunately, limited membership (<10% universe)
  – IDEM at semi-annual meetings
Increased Environmental Leadership within the Sector

• Improved auto salvage yard presence in their communities

• 12 Indiana Clean Yards (7 Gold)
Indiana Clean Yards Recognition Program

- Voluntary self-certification
- Two levels of recognition:
  - Indiana Clean Yard and Indiana Clean Yard-Gold
- Rewards: certificate, counter mats, logo, press release
- Gold level presented by Commissioner and/or AC
- Intangibles: good neighbor, environmental steward
Adkins Auto Parts

- Indiana Clean Yard-Gold
  - 9/15/2010
  - Community support
- Positive press coverage
Wright's Auto Parts: Started As a Laggard

- Located in Brown County, typical auto salvage yard
- Variety of violations noted at baseline: storm water, oil/fluids, mercury, refrigerants
Wright's Auto Parts: Finished As a Leader

- Mr. Wright reacted proactively
- Attended workshop and made positive, public comments
- Submitted self-certification
- Resolved violations and implemented voluntary BMPs
- Became Gold-level Clean Yard in March 2010
Additional Benefits for IDEM

- Improved capacity for evidence-based decision-making
  - Collecting quality data
  - Conduct straightforward statistical analysis
  - Interpret results
- Easy Excel-based tool to help with exploratory data analysis
- Long-lasting compliance assistance materials
- Repeatable self-certification process
- Ongoing Indiana Clean Yards program
Lessons Learned

• New program required reasonable investment
  – Expenditures: ~$61,000 annually (84% grant money)

• Multimedia initiatives continue to create challenges

• You can lead a horse to water...

• Issues with certification accuracy with regard to water, refrigerants, mercury
  – Issues generally confusing for shops?
What's Next for Auto Salvage Yards?

• Yards need to work on key issues:
  – Storm water; refrigerant management; fluid spills; mercury management, floor drain closure

• Current plans:
  – 2-year renewal cycle for Indiana Clean Yard award winners
  – Compliance assistance materials (workbook, DVD) to all new BMV auto salvage license holders
  – Continue compliance assistance, workshops
  – Continue to respond to complaints
What's Next: Additional AS Options

Other options could be considered by themselves or combined:

• Occasional sector-wide re-certification process
  – Statistical measurement is optional; could do occasionally
• Ongoing compliance assistance: materials, *more workshops*
  – Targeted at just subset of facilities, or not
• Streamlined focus just on biggest problem areas identified
  – Focuses facility attention and IDEM resources
  – Maybe partner with key media program(s)
• Lessons from RI Auto Salvage ERP
  – Partner with organizations outside of IDEM?
• Potential to target efforts based on GIS analysis?
Communication of results within IDEM

- Presentation to management September 2010
- Auto salvage ERP results and other potential avenues for IDEM
Potential ERP Avenues for IDEM

• Integrated ERP Approaches
  – More collaborations with Region 5 and States
  – Integrate ERP approaches into core programs
  – Business partnerships

• ERP-Style Measurement Approaches
  – Statistical snapshots
  – Performance benchmarking
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