

# **Successful Cleanup Stories From the Indiana Department of Environmental Management**

**2008 Annual Fund  
Administrators Conference  
Charleston, South Carolina  
May 10, 2008**

# Strategies for Closing LUST Sites

- **People Resources**
- **File reviews**
- **Risk-based Corrective Action**
- **Multi-site Agreements**
- **Cleanup Funding**
- **Outreach**

# People Resources – Project Managers

- Without adequate staff to review files and manage sites, there would be no “Success Story” to tell
- The program has grown from less than 10 Project Managers in 1995 to 22 in 2007

# File Reviews

- Beginning in 1996, IDEM began the process of reviewing low and medium priority LUST sites that were previously unassigned

# File Reviews

- **PROS**

- **Low hanging fruit resulted in >4,000 closures or no further actions (NFA)**
- **Many are now in corrective action and nearing closure**

# File Reviews

- **CONS**

- **Four project managers 12 years**
- **Many sites are in tax default, estates or bankruptcy**

# File Reviews

- **CONS**

- Many sites are brownfields, have changed ownership many times or are owned by “85 year old widows”
- IDEM authority is limited based on “owner” definitions

# Risk-based Corrective Action

- IDEM Implemented the Risk Integrated System of Closure in February 2001
- Prior to that, closure objectives were very stringent

# Risk-based Corrective Action

- **PROS**

- **IDEM Risk Integrated System of Closure utilizes commercial, industrial, and residential land-use with environmental restrictive covenants (ERCs)**
- **Industrial closure objectives allow for more contamination to be left in place in soil and groundwater**

# Risk-based Corrective Action

- **CONS**

- **Site characterization (SC) and closure is more complicated**
- **Science, policy and law are always evolving**
- **Owners are sometimes reluctant to utilize ERCs**

# Multi-site Agreements

- **Multi-site approach creates efficiency in scale. Examples of mechanisms used include -**
  - **Memorandum of Understanding**
  - **Multi-site Agreement**
  - **Agreed Order**
  - **Unwritten agreement**

# Multi-site Agreements

- **PROS**

- **Improved communication between owner, consultant and IDEM**
- **More focus on getting more sites to closure**
- **Avoid formal enforcement action**
- **Reduced staff resources for everyone**

# Multi-site Agreements

- **CONS**

- It won't work for every owner
- Front end cost to develop

# Shell Oil

- **Results – 85 active releases Oct / 2003**
  - **Before**
    - **51 (60%) SCs approved**
    - **27 (32%) CAPs approved**
  - **After**
    - **78 (92%) SCs approved**
    - **71 (84%) CAPs approved**
    - **41 (48%) NFAs approved**

# British Petroleum

- **Results – 232 active releases Apr 2002**
  - **Before 2002**
    - **27 (12%) SC approval**
    - **28 (12%) CAP approval**
  - **After 2002**
    - **(84%) SC approval**
    - **(69%) CAP approval**
    - **(42%) NFA approval**

# INDOT

- **Results – 60 active releases Nov 2006**
  - **Before**
    - **27 (45%) SC approved**
    - **10 (17%) CAP approved**
  - **After**
    - **43 (72%) SC approved**
    - **28 (47%) CAP approved**
    - **20 (33%) NFA approved**

# Swifty Oil Company

- **Results – 36 active releases Nov 2006**
  - **Before**
    - **1 (3%) SC approved**
    - **1 (3%) CAP approved**
  - **After**
    - **14 (39%) SC approved**
    - **10 (28%) CAP approved**
    - **4 (11%) NFA approved**

# **Viabile State Fund and Other Financial Resources**

- **It is all about the money!**
  - **Excess Liability Trust Fund (State Fund) reached a break point at the end of 2005, but was corrected in 2006 when fuel inspection fees resulted in an increase from \$20M to \$50M per year in revenue**

# **Viabile State Fund and Other Financial Resources**

- **It is all about the money!**
  - **General liability insurance – Case law created a more favorable environment for collection of money from insurance companies relative to environmental liability for cleanup when State Fund money is unavailable**

# Outreach

- **Communication**
  - **Standardized report formats**
  - **Consultants Day quarterly**
  - **Reach and educate the audience**

# IDEM ELTF Technical Section

- Background information
- Backlog existed for various reasons:
  - unassigned releases
  - monitoring only stage
  - nothing being done
  - nature of the beast

# IDEM ELTF Technical Section

- Committed the resources needed to determine status of each backlog release:
  - one FT staff
  - reviewed each release
  - suggested next step for each

# IDEM ELTF Technical Section

- Backlog totaled 505 releases:
  - 385 doing what they should
  - 66 unresponsive to IDEM
  - 23 appeared ready for closure
  - 19 needed major CAP revision
  - 8 revised monitoring plans
  - 4 lost in the shuffle

# IDEM ELTF Technical Section

- Assigned all of the 505 backlog releases to one of four active Project Managers:
  - increased their case load to 350+
  - reviewed results of first effort
  - determined needs and schedules
  - worked reviews into normal load

# IDEM ELTF Technical Section

- Completed technical reviews of the 120 needing immediate care:
  - issued technical review letters
  - issued status update letters
  - issued violation letters
  - requested CAP revisions
  - requested monitoring plan revisions

# IDEM ELTF Technical Section

- Initial results of the this effort were impressive:
  - Of the 66 unresponsive releases:
    - 54 moved to up-to-date status
    - 11 closed with No Further Action
    - 1 transferred to other IDEM office

# IDEM ELTF Technical Section

- Initial results of the this effort were impressive:
  - Of the 23 near closure releases:
    - 16 closed with No Further Action;
    - 2 moved to ERC/NFA review stage;
    - 4 moved to MNA monitoring;
    - 1 remained recalcitrant

# IDEM ELTF Technical Section

- Initial results of the this effort were impressive:
  - Of the 19 needing CAP makeovers:
    - 5 closed with No Further Action;
    - 8 moved to current CAP status;
    - 4 moved to final monitoring stage;
    - 2 remained recalcitrant

# IDEM ELTF Technical Section

- Initial results of the this effort were impressive:
  - Of the 8 needing revised monitoring and sampling plans:
    - 4 closed with No Further Action
    - 4 moved to final ERC requests

# IDEM ELTF Technical Section

- Initial results of the this effort were impressive:
  - Of the 4 lost in the shuffle:
    - 2 closed with No Further Action
    - 2 moved to current CAP status

# IDEM ELTF Technical Section

- ELTF Technical Section Staff continued work on backlog releases with good results:
  - 148 up-to date monitoring stage
  - 83 closed with No Further Action
  - 90 moved to final closure stages
  - 59 moved to revised CAP approval
  - 21 achieved site characterization

# IDEM ELTF Technical Section

- ELTF Technical Section Staff continued work on backlog releases, not all results positive:
  - 43 not current over the past two reporting periods; problems with CAP implementation, etc.
  - 23 although in good standing, yet to achieve site characterization

# IDEM ELTF Technical Section

## ■ Bottom Line:

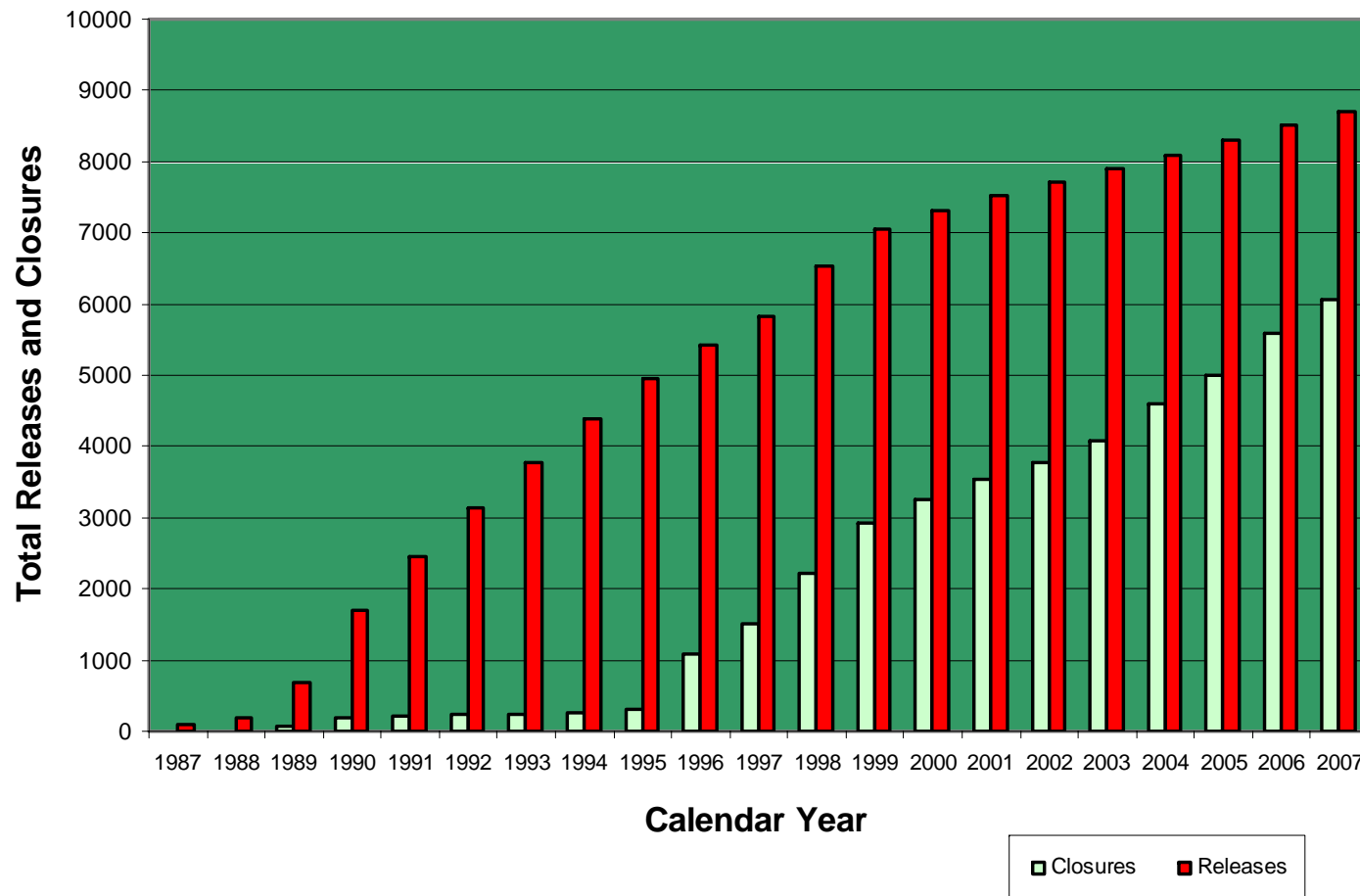
- 148 releases are up-to-date with efficient monitoring plans
- 121 releases closed or transferred to other IDEM offices
- 90 releases in final closure stage
- 21 releases in CAP development
- 66 recalcitrant releases known

# IDEM ELTF Technical Section

- **Bottom Line on 121 Closures:**
  - represents an estimated monthly savings to the Fund of almost \$202,000 in the normal quarterly monitoring and sampling costs (assuming an average of \$5,000);
  - provides additional management time for new, problem, and high priority releases.

# Program Status – Closing the Gap

6% cleanups completed in 1995; 70% in 2007





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