Steve Gilrein, Deputy Director
Compliance Assurance & Enforcement Division
Region 6, EPA

EPA Enforcement Initiatives
Presentation Overview

National Initiatives/Regional Priorities
[Water, Waste, Air]

How We Target
[Louisiana Focus]
Gas Production in Conventional Fields, Lower 48 States

Source: Energy Information Administration based on data from HPDI, IN Geological Survey, USGS
Updated: April 8, 2009
Factors to Consider

- Environmental Significance
- National or Regional Priority
- Is the State/Tribe Authorized/Delegated the Program in Question
- Willingness or Interest by State to Pursue Action
- Is It a Civil or Criminal Issue

[Federal enforcement authorities are not delegable]
National Initiatives Water

- Keeping Raw Sewage and Contaminated Stormwater out of our Nation’s Waters (CSO, SSO, MS4)

- Preventing Animal Waste from Contaminating Surface and Ground Waters (CAFO)
Regional Priorities

Water Enforcement

- CAFOs
- Widespread Use of Minor Wastewater Collection & Treatment Systems (Package Plants)
- Drinking Water Quality & Health-based Limits (Enforcement Targeting Tool)
- Proper Waste Management for O&G Facilities
Petrochemical Industry: Pipelines and Offshore Platforms

- 120,000 miles of pipeline in Region 6
- 6,600 Offshore production sites off the TX and LA coasts
How We Target

- **Water**
  - Impaired Stream Segments
  - Google/Bing
  - Aerial Imagery
  - ETT
Water Impairment

Bacteria/Pathogen Impaired Water Bodies With All Municipalities Greater Than 10,000 Population in Louisiana

Source: http://epamap32.epa.gov/radims
SDWA Enforcement Targeting Tool Reports

Enforcement Targeting Tool quarterly reports are available for download in the tables below. In addition, the ETT Score Tracker provides useful metrics and graphs, as well as current and previous ETT scores.

**ETT Score Tracker** - updated January 2014 (ZIP, 19MB) - after opening the file, please ENABLE MACROS to allow all functions to work.

### 2014 Quarterly Reports

<table>
<thead>
<tr>
<th>Month</th>
<th>Change Implementations</th>
</tr>
</thead>
<tbody>
<tr>
<td>New ETT Scores Tracker feature: Copy notes or other data from another spreadsheet into the correct row.</td>
<td></td>
</tr>
<tr>
<td>Many users requested help keeping track of their ETT-related notes from quarter to quarter. To fill that need, we have added a new feature to the ETT Scores Tracker that will take care of matching your notes to the proper column. Data from any Excel spreadsheet with Public Water System IDs (PWSIDs) can be copied into the ETT Scores Tracker using these directions:</td>
<td></td>
</tr>
</tbody>
</table>

1. Open both the ETT Scores Tracker and the Excel file you want to import from in the same Excel window.
2. Enable macros in the ETT Scores Tracker.
3. Filter the data showing in the ETT Scores Tracker. (You SHOULD NOT run this for the entire country unless you can leave your computer running overnight.)
4. Scroll over to the right to column AF and click on "Fill with outside data". An Excel form should pop up.
5. In the first drop-down, select the Workbook you want to import from, and if necessary change the Worksheet.
6. Click in the box for "PWSID Column" and then click on a cell somewhere in your column of PWSIDs.
7. Click in the box for "Columns to Copy" and then select cells in all the columns you want copied.
8. If there is more than one row to copy per PWS, check the "Multiple Matches?" box.
9. Click OK.
## Public Water Systems w/ ETT Scores ≥ 11

<table>
<thead>
<tr>
<th>Pull Date</th>
<th>Tribal</th>
<th>AR</th>
<th>LA</th>
<th>NM</th>
<th>OK</th>
<th>5.3TX</th>
<th>R-6 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/10</td>
<td>1</td>
<td>67</td>
<td>94</td>
<td>67</td>
<td>89</td>
<td>1201</td>
<td>1519</td>
</tr>
<tr>
<td>10/10</td>
<td>2</td>
<td>42</td>
<td>78</td>
<td>70</td>
<td>58</td>
<td>924</td>
<td>1174</td>
</tr>
<tr>
<td>1/11</td>
<td>3</td>
<td>47</td>
<td>86</td>
<td>125</td>
<td>40</td>
<td>950</td>
<td>1251</td>
</tr>
<tr>
<td>4/11</td>
<td>9</td>
<td>48</td>
<td>56</td>
<td>71</td>
<td>112</td>
<td>614</td>
<td>910</td>
</tr>
<tr>
<td>7/11</td>
<td>6</td>
<td>37</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>332</td>
<td>489</td>
</tr>
<tr>
<td>10/11</td>
<td>9</td>
<td>23</td>
<td>26</td>
<td>29</td>
<td>24</td>
<td>382</td>
<td>493</td>
</tr>
<tr>
<td>1/12</td>
<td>8</td>
<td>18</td>
<td>34</td>
<td>36</td>
<td>36</td>
<td>380</td>
<td>512</td>
</tr>
<tr>
<td>4/12</td>
<td>7</td>
<td>23</td>
<td>50</td>
<td>34</td>
<td>63</td>
<td>465</td>
<td>642</td>
</tr>
<tr>
<td>7/12</td>
<td>9</td>
<td>20</td>
<td>80</td>
<td>34</td>
<td>30</td>
<td>415</td>
<td>588</td>
</tr>
<tr>
<td>10/12</td>
<td>3</td>
<td>20</td>
<td>69</td>
<td>34</td>
<td>19</td>
<td>352</td>
<td>497</td>
</tr>
<tr>
<td>1/13</td>
<td>6</td>
<td>22</td>
<td>93</td>
<td>37</td>
<td>39</td>
<td>364</td>
<td>561</td>
</tr>
<tr>
<td>4/13</td>
<td>6</td>
<td>33</td>
<td>95</td>
<td>51</td>
<td>52</td>
<td>352</td>
<td>589</td>
</tr>
<tr>
<td>7/13</td>
<td>11</td>
<td>32</td>
<td>96</td>
<td>39</td>
<td>21</td>
<td>473</td>
<td>692</td>
</tr>
<tr>
<td>10/13</td>
<td>7</td>
<td>27</td>
<td>117</td>
<td>39</td>
<td>54</td>
<td>408</td>
<td>652</td>
</tr>
<tr>
<td>1/14</td>
<td>8</td>
<td>26</td>
<td>126</td>
<td>54</td>
<td>92</td>
<td>529</td>
<td>835</td>
</tr>
</tbody>
</table>

### Addendum

- **# PWSs:** 86
- **% Non-Compl:** 9.3
- **1134:**
- **1434:**
- **1216:**
- **1687:**
- **7173:**
- **12730:**
Water Quality Impacts of O&G Activities

- **Produced Water Discharges**
  - Flow lines
  - Injection Well Sites
  - Tank Batteries
  - Land Application Sites
  - Haul Trucks
  - Commercial Disposal Operations

- **Drilling Muds, Cuttings, Sands, Fluid Discharges**
  - Drill Site
  - Land Farms
  - Haul Trucks

- **Storm Water Discharges**
  - Production Site Contaminated Storm Water Runoff
  - Transmission Line Construction Site Runoff
Water Quality Impacts (Cont’d)

- Natural Gas Release/Contamination
  - Surface Waters (transmission line leaks)
  - Underground Source of Drinking Water (USDW) Contamination (improper well completion)

- Oil Spills
  - Separators
  - Tank Batteries
  - Drill Sites

- USDW Contamination
  - MIT not maintained
  - Overpressure Formation
  - Improper Construction
Production Site Contaminated Storm Water Runoff
Drilling Mud Discharge from a Drilling Site
Produced Water Discharge from a Flow Line
Produced Water Discharge From a Tank Battery
Brine Program

An active tank battery located in Osage Co. Oklahoma. The tanks show extensive corrosion and poor secondary containment around the tanks.
National Initiatives Waste/RCRA

- Reducing Pollution from Mineral Processing Operations
- [10+ years; Initiative almost “finished”]
Emerging Regional Issues for RCRA

1. CWTs
   a. Industrial Pretreatment Program
   b. Headquarters List
2. TSDs receiving HW they are not permitted to receive
3. Disappearing HW streams
4. LQGs masquerading as SQGs/CESQGs
Hazardous Waste Generated (tons)

Regional Breakdown
How We Target

- **RCRA**
- **Data Sets:**
  - BRS
  - RCRA Info
  - RCRIS
  - State databases
  - RCRA 3007s
  - permits
Data Quality/Discrepancies

- Inactive facilities generating, receiving or managing HW
- Discrepancy in HW codes between shipping and receiving facilities
- Facilities receiving wastes they are not permitted to receive
- Small quantity generators and conditionally exempt SQGs shipping excessive volumes of HW
USOR – Lesson Learned

- Upon reviewing the manifest data for the facility, we found that the facility had received multiple waste streams which contained constituents which they were not permitted to treat.
Explo Systems

- Permitted to manage and long term store 51 different hazardous waste codes and yet in the three biennial reports from 2007 through 2011, only 0.13 tons of D003 waste was managed onsite, also there were no records of shipping any waste offsite.
Other Cases

- **CCS/ARKLA** – Receiving and treating waste not in their permit

- **Rhineco** – Receiving and treating waste not in their permit and using unapproved permit method (also received numerous waste codes that don’t exist!)
Offshore O&G Concerns

• Typical Hazardous Waste Generated at an Offshore Platform:
  ◦ D001 Ignitable
  ◦ D002 Corrosive
  ◦ D005-D011 Metals
  ◦ D018 Benzene

• Quantity threshold of 1000kg/M
<table>
<thead>
<tr>
<th></th>
<th>CESQGs</th>
<th>SQGs</th>
<th>LQGs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantity Limits</strong></td>
<td>≤100 kg/month</td>
<td>&gt;100 &lt;1,000 kg/month</td>
<td>≥1,000 kg/month</td>
</tr>
<tr>
<td></td>
<td>§262.34(d)</td>
<td>§262.34(d)</td>
<td>§262.34(d)</td>
</tr>
<tr>
<td></td>
<td>≤100 kg/month of acute spill residue or soil</td>
<td>≥1 kg/month of acute hazardous waste</td>
<td>&gt;100 kg/month of acute spill residue or soil</td>
</tr>
<tr>
<td></td>
<td>§261.5(a) and (e)</td>
<td>§261.5(a) and (e)</td>
<td>Part 262 and §261.5(e)</td>
</tr>
<tr>
<td><strong>EPA ID Number</strong></td>
<td>Not required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>§262.12</td>
<td>§262.12</td>
<td>§262.12</td>
</tr>
<tr>
<td><strong>On-Site Accumulation Quantity</strong></td>
<td>≤1,000 kg</td>
<td>≤6,000 kg</td>
<td>No limit</td>
</tr>
<tr>
<td></td>
<td>≤1 kg acute</td>
<td>§262.34(d)(1)</td>
<td>§262.34(d)(1)</td>
</tr>
<tr>
<td></td>
<td>≤100 kg of acute spill residue or soil</td>
<td>§262.34(d)(2) and (3)</td>
<td>§262.34(d)(2) and (3)</td>
</tr>
<tr>
<td><strong>Accumulation Time Limits</strong></td>
<td>None</td>
<td>≤180 days or</td>
<td>≤90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤270 days (if greater than 200 miles)</td>
<td>§262.34(a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§262.34(a)</td>
<td>§262.34(a)</td>
</tr>
<tr>
<td><strong>Storage Requirements</strong></td>
<td>None</td>
<td>Basic requirements with technical standards for tanks or containers</td>
<td>Full compliance for management of tanks, containers, drip pads, or containment buildings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§262.34(d)(2) and (3)</td>
<td>§262.34(d)(2) and (3)</td>
</tr>
<tr>
<td><strong>Sent To:</strong></td>
<td>State approved or RCRA permitted/interim status facility</td>
<td>RCRA permitted/interim status facility</td>
<td>RCRA permitted/interim status facility</td>
</tr>
<tr>
<td></td>
<td>§261.5(f)(3) and (g)(3)</td>
<td>§262.20(b)</td>
<td>§262.20(b)</td>
</tr>
<tr>
<td><strong>Biennial Report</strong></td>
<td>Not required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>§262.20</td>
<td>§262.20</td>
<td>§262.20</td>
</tr>
<tr>
<td><strong>Personnel Training</strong></td>
<td>Not required</td>
<td>Basic training required</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>§262.34(d)(5)(iii)</td>
<td>§262.34(a)(4)</td>
<td>§262.34(a)(4)</td>
</tr>
<tr>
<td><strong>Contingency Plan</strong></td>
<td>Not required</td>
<td>Basic plan</td>
<td>Full plan required</td>
</tr>
<tr>
<td></td>
<td>§262.34(d)(5)(i)</td>
<td>§262.34(a)(4)</td>
<td>§262.34(a)(4)</td>
</tr>
<tr>
<td><strong>Emergency Procedures</strong></td>
<td>Not required</td>
<td>Required</td>
<td>Full plan required</td>
</tr>
<tr>
<td></td>
<td>§262.34(d)(5)(iv)</td>
<td>§262.34(a)(4)</td>
<td>§262.34(a)(4)</td>
</tr>
<tr>
<td><strong>DOT Transport Requirements</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>(if required by DOT)</td>
<td>§262.30-262.33</td>
<td>§262.30-262.33</td>
</tr>
</tbody>
</table>
National Initiatives

Air

- Cutting Toxic Air Pollution that Affects Communities’ Health
- Reducing Widespread Air Pollution from the Largest Sources, especially the Coal-fired Utility, Cement, Glass, and Acid Sectors (NSR/PSD), Carbon Black
- Green House Gas
Regional Priorities

- Air Enforcement
  - 112r Risk Management Plans
  - 112r General Duty Clause
  - Flares
Air Universe

- Over 2370 major air sources in Region 6
- 75% of petrochemical production
- 50% Refining capacity
- 70% Natural gas production
Risk Management Plans

- 2300 Facilities in Region 6 are required to submit RMPs (20% of national total)
  - Louisiana accounts for 330

- 650 Considered High Risk in Region 6
  - Louisiana has 66 high risk facilities
Risk Management Plans

- Section 112(r) of CAA, the Chemical Accident Prevention Provisions require facilities that produce, handle, process, distribute, or store certain chemicals (above a regulatory threshold) to develop a Risk Management Program, prepare a Risk Management Plan (RMP), and submit the RMP to EPA.
LDEQ runs a parallel program to the EPA’s Risk Management Plan (RMP) program, the Louisiana Chemical Accident Prevention Program. This is the only state in Region 6 with an active program focused on chemical accident prevention.
Risk Management Plans

- What this means for RMP Inspectors in LA
  - Limited number of Federal inspectors
  - All will be coordinated with LDEQ

- Targeting for RMP
  - High Risk Facility in close proximity to homes
General Duty Clause

- CAA also contains the General Duty Clause (GDC)
  - A major EPA enforcement focus area
  - Requires facility to ID hazards, design and maintain a safe facility
  - Minimize consequences of accidental releases when they occur
  - Applies to a much larger universe than RMP and is applicable to many of the natural gas facilities in LA
Targeting for General Duty Clause

- Reported releases to the National Response center (NRC)
- Releases as reported by individual stats
- Severity
- Proximity to homes
GDC Common Violations

- Failure to design and maintain a safe facility
  - Taking such steps as are necessary to prevent releases
  - ***most due to poor training and contractor oversight***
  - ***most very avoidable!***

- In 2012
  - Over 2200 reported releases to the NRC
  - Close to 60% of national total
Flares

- Over 6000 flares in Region 6 (excluding O&G)
- Widespread issue of low combustion efficiencies
- Common Areas of Non-Compliance
  - Less than required BTUs
  - Over steaming
  - Failure to follow flare design parameters leading to <98% destruction efficiency
Flaring Issues at O&G facilities

- “K-mart flares”: improperly designed and poorly constructed
- Unlit flares: no mechanism to re-light pilot
- Significant variability in flow
- Too much air (single speed vs. variable speed blowers)
How We Target

- Air
  - Emission Inventories
  - Complaints
  - Proximity to homes
Who Manages the Case?

Factors:

- Program Integrity Issue?
- Direct Implementation?
  - Tribes – NM vs. OK
  - Non-delegated programs
  - Non-SIP approved programs
- Does State Want to Manage Case?
- States Willing to Settle Case in Equivalent Manner?
Administrative Authorities for EPA
(If we pursue a case)

- CWA: $177.5K, no time limit
- RCRA: no limitations
- CAA: $295K, one-year
  ($37.5K p/day)
NEW INITIATIVES UNDER CONSIDERATION FOR FY2017-2019

Recently published in federal register, comment period closed 10-14-15

- Protecting Communities from Exposure to Air Toxics;
- Keeping Industrial Pollutants out of our Nation’s Waterways;
- Reducing the Risks and Impacts of Industrial Accidents and Releases.
Questions

Steve Gilrein
Deputy Director
Compliance Assurance and Enforcement Division

(214) 665-2210
gilrein.stephen@epa.gov