Environmental Enforcement: the Good, the Bad, and the Ugly

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What’s EPA’s Job?

Enforcing The Law

Assuring Compliance

EPA is responsible for civil and criminal enforcement of 28 environmental and public health protection programs.
Obama EPA Enforcement Goals

- **Tough civil and criminal enforcement** for violations that threaten communities and the environment
- **Next Generation Compliance** – reduce pollution, increase compliance
- **Strong EPA/state/tribal environmental protection**
Tough Enforcement

- Protecting communities by reducing pollution and requiring compliance
- Deterring others from violating
- Level playing field for those who play by the rules

THE WALL STREET JOURNAL
Volkswagen to Pay Up to $14.7 Billion to Settle Diesel-Emissions Claims

Tampa Bay Times
Phosphate giant Mosaic agrees to pay nearly $2 billion over mishandling of hazardous waste

The New York Times
Year After W.Va. River Spill, Execs Face Charges

REUTERS
Trader Joe's to cut greenhouse gases, pay fine in U.S. settlement

The Denver Post
Noble Energy settles state, federal pollution claim, could spend $73.5 million on fines, fixes
## Civil and Criminal Enforcement

### Civil
- Buy back or fix cars on the road: (≈$10 B)
- NOx reducing projects ($2.7 B)
- Zero-emission vehicle infrastructure ($2 B)
- Add’l measures for 3L cars
- Civil penalty: $1.45 B

### Criminal
- Corporate guilty plea
- Individual executives indicted
- Corporate criminal fine: $2.8 B

### Example: Volkswagen
Enforcement: Air Pollution

Berkshire Power Plant
- Plant owner & management company pleaded guilty to tampering with emissions equipment and submitting false information.
- $8.5 million in penalties + funding for a wood stove change-out program.

Coal fired power
- Over 2 million tons of pollution reduced per year through direct enforcement

*Emission reductions are not attributable to enforcement alone.
*Data source: EPA Acid Rain Database (http://ampd.epa.gov/ampd/).
Enforcement: Water Pollution

Southern Coal Corp.

- Upgrades to prevent unlawful discharges of wastewater from coal operations in Appalachia.
- New management controls and third party auditing.
- Co-plaintiffs Alabama, Kentucky, Tennessee and Virginia.

Freedom Industries

- 2014 chemical spill contaminated the Elk River and drinking water for 300,000 people in West Virginia.
- Criminal case: 6 officials prosecuted.
- $900,000 in fines and projects.

Gazette-Mail

EPA, Jim Justice coal firms reach $6M deal over water pollution
Enforcement: Waste and Toxics

Mosaic Fertilizer, LLC
- 60 billion pounds of hazardous waste to be properly handled & disposed.
- $1.8 billion in financial assurance to treat waste & close 4 plants + $170 million for mitigation projects.
- $8 million in penalties; $2 million for local environmental projects.

Terminix
- Terminix responsible for illegally applying methyl bromide in USVI, severely harming family.
- Company to pay total of $10 million in criminal fine, community service and restitution.

Terminix fined $10M in Virgin Islands toxic pesticide case
Compliance Challenges

- Large number of regulated sources
- Widespread noncompliance
- Budgets declining
Implementation in the Real World

- The real world is messy
- The limits of deterrence
- Assumption of compliance
Next Generation Compliance

Making compliance more self-implementing

- New technologies
- New strategies
New Technologies: Advanced Monitoring

- Real-time monitoring
- Fence line monitoring
- Community monitoring
- Remote sensing
- Developing technologies
  - Rapid gene testing of water
  - Smart cement
New Technologies: Electronic Reporting

- Information technologies make new solutions possible
- Smart tools and two-way communication

Examples:
- NPDES e-reporting rule
- e-manifest
- Photos/video
New Technologies: Transparency

- Pollutant Loading Tool launched; drinking water data added
- Site updated—fully mobile-friendly
- System upgrade
- Transparency is made an Agency enforcement goal
New Technologies: Data Analytics

- Finding the signal in the noise
- Statistical footprint of fraud
- E-manifest
- Predictive analytics

Detecting fraud

Normal

Suspicious
New Strategies: Better Design

- Not all about technology
  - IRS
  - Low tech transparency
- Design for compliance as default
- Simplicity
- Markets
- Compliance drivers

OH NPDES permit
The Research/Regulatory Gap

**Researchers**
- Know a lot about what drives better performance
- Behavioral economics for companies
- Example: independence of auditors
- Much of what’s known in academia isn’t known in government.

**Regulators**
- Until recently, didn’t consider implementation their job
- Unaware of research
- Example – state

“I think you should be more explicit here in step two.”
Federalism and EPA

Why not leave it to the states?

- Cross state pollution
- National companies
- Criminal enforcement
- Political will
- Level playing field
- Weak EPA = harder job for states
What’s next?

- Tough civil and criminal enforcement: defending EPA’s budget and authority
- Next Gen: compliance for the real world
- Bridge the research/regulatory gap