

Enforcement Inspections: Lessons Learned and Being Prepared

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INTRODUCTION

1. Brief overviews of enforcement cases
2. ASTM standard practice for environmental regulatory compliance audits
3. Self-auditing “Top 10”



ENFORCEMENT CASES

- WHAT WAS THE COMPLIANCE ISSUE ?
- HOW DID THEY END UP IN THE SITUATION ?



CASE 1: EXPORT RECYCLING OF HAZARDOUS WASTE

WHAT WAS THE COMPLIANCE ISSUE ?

- Federal and state rules for recycling of hazardous waste do not have the same exemptions.
- EPA regulations conditionally exempt from regulation those hazardous waste materials that are beneficially reclaimed.
- For those same materials MA has permit requirements for regulated recyclable materials.



CASE 1: EXPORT RECYCLING OF HAZARDOUS WASTE

HOW DID THEY END UP IN THE SITUATION ?

- The waste disposal company identified a broker who would offer to pay for value of rare-earth metal content in the waste and reclamation of the waste made more sense than disposal
- The waste was exported for processing in China and Kazakhstan as Federally exempt waste
- Proud of their beneficial recycling they shared their success with a regulator during discussions on another topic



CASE 1: EXPORT RECYCLING OF HAZARDOUS WASTE

HOW DID THEY END UP IN THE SITUATION ?

- A MASSDEP inspector was sent to the facility to investigate
- An inexperienced facilities engineer was assigned to coordinate with the inspector
- When the inspector showed up the second day.....



CASE 1: EXPORT RECYCLING OF HAZARDOUS WASTE

HOW DID THEY END UP IN THE SITUATION ?

- ...Then not long after... the Environmental Strike Force showed up to continue the investigation into export “dumping” of hazardous waste to third-world countries



CASE 1: EXPORT RECYCLING OF HAZARDOUS WASTE

RESOLUTION

- The company was cited by MA for failure to obtain the recycling permit
- EPA found no issue with beneficial reclamation
- After a lengthy investigation the company officials were not charged



CASE STUDY 2



CASE 2: SMOKE AND ODOR

WHAT WAS THE COMPLIANCE ISSUE ?

- Stack emissions with visible smoke and/or odor is a nuisance and considered a condition of air pollution regardless of whether pollutant emissions are less than permit thresholds.



CASE 2: SMOKE AND ODOR

HOW DID THEY END UP IN THE SITUATION ?

- New homes were constructed uphill from the existing manufacturing facility that had been operating there for decades
- The new neighbors were bothered by the visible smoke and characteristic odor that emanated from the plant and they started to complain
- The owner of the plant was annoyed and felt that since he was there first.....



CASE 2: SMOKE AND ODOR

HOW DID THEY END UP IN THE SITUATION ?

- The neighbors being rebuffed by the owner then called MASSDEP who showed up for an inspection
- The owner of the plant dismissed the neighbor complaints as unreasonable and berated the inspector... using inappropriate and derogatory language.... for taking their side



CASE 2: SMOKE AND ODOR

HOW DID THEY END UP IN THE SITUATION ?

- The neighbor put MASSDEP on speed dial and called almost daily about the odors and smoke... and MASSDEP inspected frequently to confirm visible smoke
- MASSDEP issued an Administrative Consent Order with Penalty
- The owner finally capitulated and conducted an engineering study which identified a raw material that was causing the smoke and made a product substitution that eliminated the smoke



CASE 2: SMOKE AND ODOR

HOW DID THEY END UP IN THE SITUATION ?

- A year later the smoke reappeared
- The neighbor called MASSDEP and an inspection was conducted.
- Analysis of the raw material found that the supplier had substituted the original lower cost product...though was charging the “no smoke” premium price.
- MASSDEP issued another ACOP



CASE 2: SMOKE AND ODOR

HOW DID THEY END UP IN THE SITUATION ?

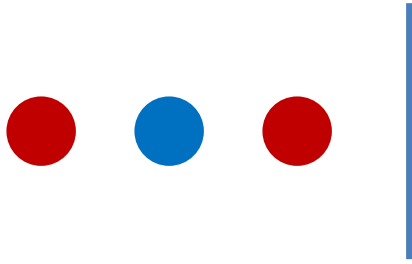
- A control system was installed but the neighbor continued to call and MASSDEP conducted inspections.
- Although MASSDEP did not find visible emissions they occasionally observed faint but characteristic odors outside the plant but not in the control system stack.
- Ownership changed
- MASSDEP issued another ACOP



CASE 2: SMOKE AND ODOR

RESOLUTION

- A new plant manager had the building HVAC reconfigured so that all ventilation exhausts went out through carbon filters
- He reached out directly to the neighbors to open a direct communication link if there was a smoke or odor problem
- The neighbors, having been acknowledged and seeing the efforts made, stopped their complaints.



CASE STUDY 3



CASE 3: SLUG DISCHARGE

WHAT WAS THE COMPLIANCE ISSUE ?

- Federal pretreatment regulations at 40 CFR 403 prohibit “slug discharges”
- Local waste water pretreatment discharge permits also prohibit discharge of “slug discharges”

SLUG DISCHARGE = Pollutant that may pass through or inhibit operations of the publicly owned treatment works ... and other high strength or deleterious wastes.



CASE 3: SLUG DISCHARGE

HOW DID THEY END UP IN THE SITUATION?

- Use of perchloric acid was identified as a process reagent in the wastewater permit application
- The facility used various inorganic acids and bases in the process that they expected would be neutralized by pH control.
- A pH limit was set in the waste water permit and there were no established compound limits.
- One of the neutralized salt anions (perchlorate) was a pass-through compound at the POTW and this property of the chemical was unknown to the facility



CASE 3: SLUG DISCHARGE

HOW DID THEY END UP IN THE SITUATION ?

- A water supply drawing water from the river downstream from the POTW discharge was tested by MASSDEP and found to have perchlorate above the drinking water limit
- MASSDEP testing along the river identified the POTW discharge as the point of entry into the river
- The facility heard about perchlorate detections in the river and suggested to the POTW that they might be the source



CASE 3: SLUG DISCHARGE

HOW DID THEY END UP IN THE SITUATION ?

- Some time went by as MASSDEP tested the POTW collection system network and ultimately identified the facility as the source
- The facility was ordered to immediately implement treatment to remove perchlorate from the discharge
- Ion exchange treatment was installed with accumulation of batches for analysis and approval by MASSDEP prior to discharge of each batch
- The facility manager allowed one batch to be discharged prior to receipt of approval from MASSDEP where there was a slight delay in response and the test results were within acceptable limits



CASE 3: SLUG DISCHARGE

RESOLUTION

- The facility was charged with a penalty for
 - Allowing an uncontrolled slug discharge
 - Not complying with the interim provisions for batch treatment discharge
- A zero discharge system was promptly designed and installed to eliminate industrial discharge to the POTW



CASE STUDY 4



CASE 4: INSPECTOR FINDS NO PROBLEM

WHAT WAS THE COMPLIANCE ISSUE ?

- Federal pretreatment regulations at 40 CFR 403 prohibit “slug discharges”
- Local waste water pretreatment discharge permits also prohibit discharge of “slug discharges”
- MWRA prohibits disposal of large solids into sewer that have potential for line blockage



CASE 4: INSPECTOR FINDS NO PROBLEM

HOW DID THEY END UP IN THE SITUATION ?

- Removal of waste solids from process containers was generating a significant amount of waste and dust was a housekeeping challenge
- Vendor suggested Facility A buy an aqueous ‘washing machine’ that would not generate dust and clean the containers.
- A grinder pump would disintegrate and discharge the wet solids down the sewer.



CASE 4: INSPECTOR FINDS NO PROBLEM

HOW DID THEY END UP IN THE SITUATION ?

- Facility A consultant pointed out prohibition on disposal of solids to sewer in MWRA regulations.
- Vendor responds saying they checked with MWRA and their machine is okay

Nothing in writing

- Machine installed – worked as advertised
- MWRA inspector visited plant at least six times over several years – noted presence of washing machine on written report – when asked verbally, said “no problem” ...



CASE 4: INSPECTOR FINDS NO PROBLEM

HOW DID THEY END UP IN THE SITUATION ?

- Vendor proposes sale of same machine to Facility B with similar operation.
- Facility B checks formally with MWRA and agency says equipment not allowed based upon solids discharge prohibition.



CASE 4: INSPECTOR FINDS NO PROBLEM

HOW DID THEY END UP IN THE SITUATION ?

- Facility B says to MWRA that “Facility A has installed the same machine and operated for years discharging to your system.....”
- Facility A makes case that inspector who saw equipment never made a comment or citation that the discharge was prohibited



CASE 4: INSPECTOR FINDS NO PROBLEM

RESOLUTION

- MWRA response:
 - The inspector is not authorized to make the regulatory determination
 - The facility should have sought a written interpretation from MWRA management.
- Facility A receives Notice of Violation (NOV) for making prohibited discharge
- Compliance schedule agreed to eliminate the discharge



TAKE AWAY POINTS

- **Current knowledge of regulations at state and federal program levels is an obligation for the Facility**
 - Applicability of exemptions
 - Categorical prohibitions
- **Respect and attitude matter in interactions with :**
 - Inspectors/regulators
 - Neighbors
- **Listen to your advisors**
 - Bad news before the fact is better than bad news after the fact
 - Choose advisors based on experience & knowledge – not just that you prefer their answer



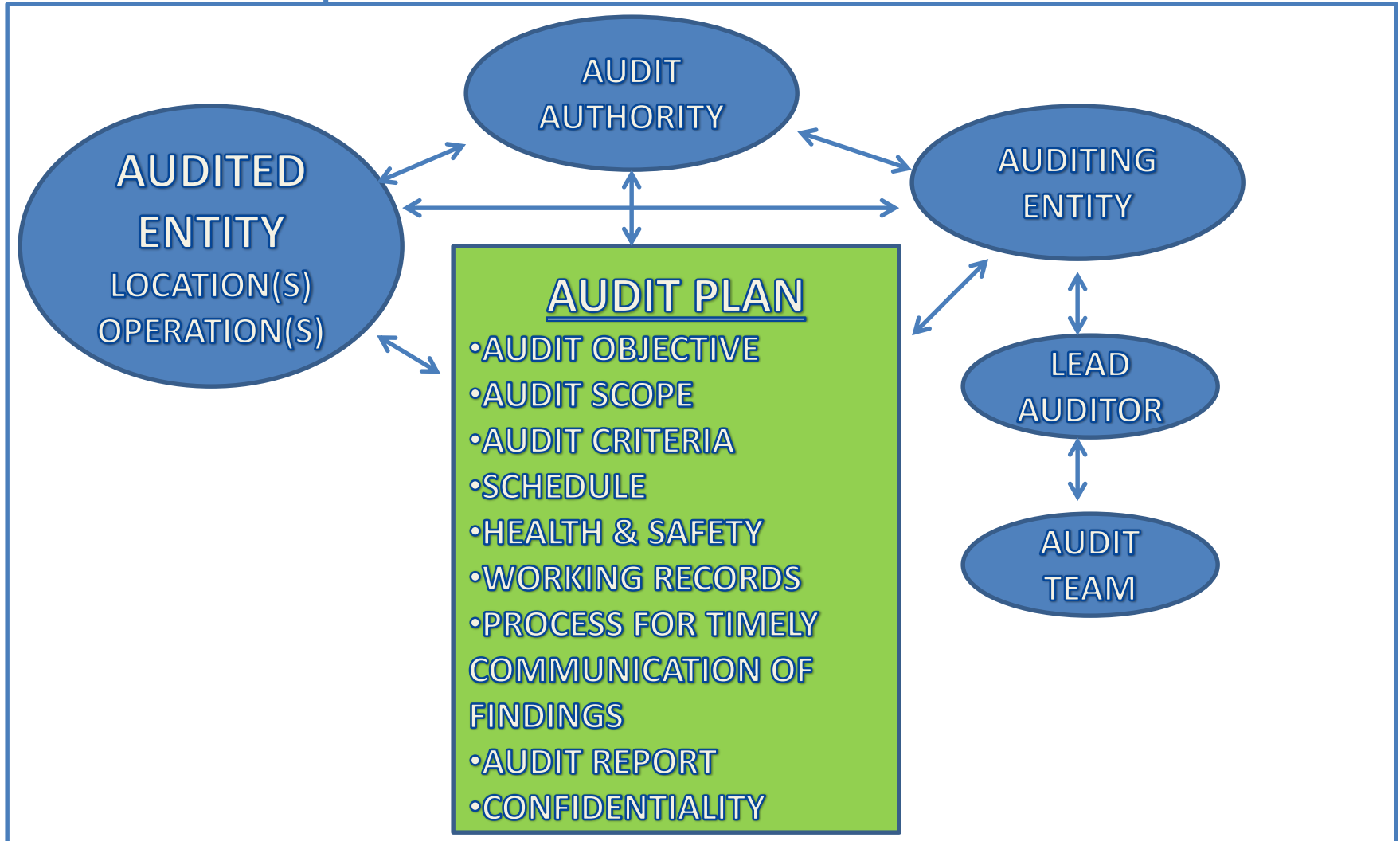
ASTM E2107-11 STANDARD PRACTICE FOR ENVIRONMENTAL REGULATORY COMPLIANCE AUDITS

Environmental regulatory compliance audit

(audit)—a systematic, documented, and objective review of an audited entity to evaluate its compliance status relative to audit criteria.

objectivity—a condition characterized by the absence of bias, influences, and conflicts of interest that affect or have the potential to compromise audit findings.

Auditing Framework





AUDIT PLAN ELEMENTS

- *audit objective(s)*—broad statement(s) of what the audit intends to accomplish.
- *audit scope*—a description of what is to be audited. The audit scope shall include a description of the period under review, the audited entity, and the audit criteria.



AUDIT CRITERIA

- environmental requirements that are applicable to an audited entity. Examples include laws, regulations, orders, and permits.
 - FEDERAL – EPA, OSHA, DHS, Others
 - STATE(S) – MassDEP, DPH, DFS, DPS, Others and/or analogous agencies in other states.
 - LOCAL BYLAWS
 - SITE SPECIFIC REQUIREMENTS



Conditions on Audits

- 4.6.1 *Not Exhaustive*—An audit shall not constitute an exhaustive review of audited entity compliance with all potentially applicable audit criteria unless explicitly intended and stated as an audit objective in the audit plan.



Conditions on Audits

- 4.6.2 *Level of Review is Variable*—The audit scope may vary to meet different audit objectives. For example, the audit scope may include only selected audit criteria, selected period under review, or selected portions of a facility or organization.



Conditions on Audits (cont'd)

- 4.6.3 *Continued Viability of Environmental Audit*—An audit completed in accordance with this practice shall be **valid for only the period under review**. Because audit criteria and audited entity conditions may change over time, it shall not be assumed that an audit report is reliable, or has continued viability, for other than the period under review.



Conditions on Audits (cont'd)

- 4.6.4 *Usage of Prior Audits*—Information contained within reports from prior audits should be used only if it has continued viability and if use of that information is appropriate.



REPORTING

- *audit report*—a written summary of audit findings that is objective, clear, concise, constructive and timely.



REPORTING

- *audit finding*—a statement of audited entity conditions at the time of the audit compared to audit criteria.

Audit findings shall be based upon verifiable audit data and may be either positive or negative with respect to audit criteria.

- *open issues*—potential audit findings that cannot be verified or resolved without additional information.

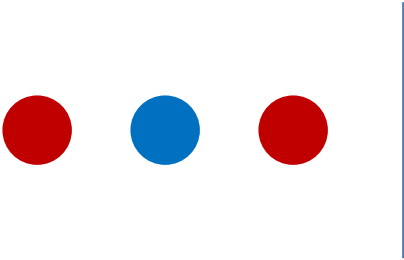


SELF-AUDIT FINDINGS



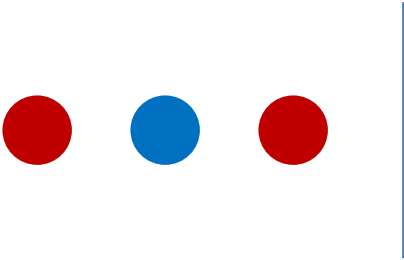
HONORABLE MENTIONS

- **RCRA – INCOMPLETE OR MISSING HAZARDOUS WASTE DRUM LABELS**
- **RCRA – SUBMISSION OF MANIFEST COPY 3 PHOTOCOPY TO MA FOR OUT OF STATE SHIPMENT**
- **OSHA – HAZARD COMMUNICATION – HAZ-COM PROGRAM**
 - **MISSING/OUTDATED SDS RECORDS**
 - **MISSING OR INCOMPLETE LABELING**
 - **AVAILABILITY OF TRAINING RECORDS**



SELF-AUDITING “TOP 10” FINDINGS

- 6. AIR – ODS LEAK RATE DETERMINATIONS FOR LARGER REFRIGERANT EQUIPMENT**
- 7. TURA – TUR PLAN PURPOSE OF TOXIC / PROCESS CHARACTERIZATION / MATERIALS ACCOUNTING**
- 8. OSHA – PLAN FOR ELECTRICAL SAFETY CLASSIFIED AREAS**
- 9. DFS – HAZ MAT PROCESSING PERMIT RENEWALS AND TRIENNIAL REVIEW OF CATEGORY 4 PROCESS SAFETY PROGRAMS**
- 10. AIR – NON-COMPLIANT VOC CONTENT OF ADHESIVES OR COATINGS**



SELF-AUDITING “TOP 10” FINDINGS

- 1. AIR – DOCUMENTATION OF PERMIT APPLICABILITY EVALUATION FOR NEW EQUIPMENT**
- 2. WASTE WATER/AIR – PERMIT RECORD KEEPING REQUIREMENTS**
- 3. STORMWATER – FILING AND MAINTAINING NO EXPOSURE CERTIFICATION**
- 4. WATER SUPPLY – ABSENCE OF ADEQUATE BACKFLOW PREVENTION**
- 5. TURA – REPORTING FOR STATE ONLY CHEMICALS**