

# **Environmental Audits in the Primary Metals Sector**

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## **Discussion Topics**

- **Environmental Audits**
    - What are they?
    - Why?
    - What are typical findings?
  - **Environmental Disclosure**
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## **Environmental Compliance Audit**

- **What is a compliance audit?**
    - Can be a snapshot of current compliance status
  - OR
  - A more detailed compliance assessment.
    - Record searches
    - Findings/corrective Actions
    - Risk/Costs
  - Can be “in-house” or “3<sup>rd</sup> Party”
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## **Why?**

- To assess the overall Environmental Management System or compliance status of a metalcasting facility
  - To develop an environmental improvement plan
  - To assess the environmental risk or future liabilities
  - Can be performed as a part of a compliance settlement
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## The Process

- Should be performed under the direction of Legal Counsel
  - Pre-audit
    - Set audit Scope
    - Conference call with participants
    - Record searches
  - Site Visit
    - Opening Conference
    - Site Tour
    - Records Review
    - Develop Preliminary Findings
    - Closing Conference
  - Audit Report
    - Verify Findings
    - Written Report including recommended Corrective Actions
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## Compliance Audit Findings

The most common problems found during foundry compliance audits can in most cases be traced back to the same “root causes”, lack of, or incomplete, monitoring, recordkeeping and reporting practices.

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Permitting issues caused by outdated permits or equipment listings

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## **Air Findings**

- **Construction Permits**
  - **Operating Permits / Title V**
  - **Prevention of Significant Deterioration (PSD) / New Source Review (NSR)**
  - **MACT / Air Toxics**
  - **SARA 313 Reporting**
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## **Air – Construction Permits**

- **Construction permits either have not been obtained for source modifications, or**
  - **Proper documentation of the need for a construction permit not evaluated and/or documented**
  - **All emission units are not properly permitted**
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## **Air Operating Permits / Title V**

- **Do all sources at the facility have either:**
    - An operating permit, or
    - Documentation as to why an operating permit is NOT required
  - **Has the facility determined it's major source status**
    - PTE > 100 TPY for any criteria pollutant
      - Including “fugitive emissions”
      - 10/25 TPY for Hazardous Air Pollutants (Title V and MACT Applicability)
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## **Air Operating Permits / Title V**

- **Emission Factors?**
    - Many emission factors were developed during the last 10 years
      - VOCs
      - CO
      - HAPs
  - **Annual Compliance Certification and Reporting Requirements**
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## **Air Findings – PSD/NSR**

- **Determination of major source status**  
PTE > 100 TPY for listed source categories  
PTE > 250 TPY for non-listed source categories
    - Per existing guidance gray iron foundries are not part of the “iron and steel” listed source category, however they are considered “secondary metal production plants” if scrap is melted to produce the iron.
  - **Modification**
  - **PSD/NSR look-back**
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## **Air Findings - MACT**

- **Major source status**
    - Was the PTE for HAPs from all operations at the facility included when determining whether the source is major for HAPs?
    - Do existing permits adequately limit PTE for HAPs?
    - Did the facility:
      - Submit Notifications and Required Plans for Approval?
      - Notifications for all MACTs?
    - Is there a PLAN?
    - Is there a PLAN?
    - Is there a PLAN?
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## **Air Findings – SARA 313**

- Does the facility have a complete and up-to-date chemical inventory?
  - Is the raw material data accurate?
    - ID, wt% reportable components, usage
  - Is the waste stream data accurate?
    - Does the facility have test data/analysis for all waste streams potentially containing reportable chemicals?
  - Have the lower reporting thresholds for PBT chemicals been considered?
    - i.e. lower threshold for Pb and Pb compounds
  - Dioxins/Furans?
  - Mercury?
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## **What about CFCs?**

- **Certifications?**
    - Maintenance activities both equipment and personnel
  - **CFC Inventories (or lack of inventories)**
  - **Additional recordkeeping and maintenance requirements when equipment exceeds 50 pounds CFC/HCFC**
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## **Water Findings**

- **National Pollutant Discharge Elimination System (NPDES) Permit**
  - **Stormwater Pollution Prevention Plan (SWPPP)**
  - **Stormwater Sampling**
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## **NPDES**

- **Do the Categorical Standards/Effluent Guidelines (Pretreatment) apply to the facility?**
    - **Can be required for processes such as casting quench operations.**
  - **Are you're a direct discharger?**
  - **Are you discharging to a POTW?**
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## NPDES

- Are all sources of process water listed in the permit?
  - Are Discharge Monitoring Reports (DMRs) for process water discharges:
    - Consistently submitted, and/or
    - Accurately completed
  - Are proper notifications regarding exceedances in discharges of wastewater being made, including:
    - Documentation of the event and actions taken
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## POTW

- Is the plant meeting the requirements of the local sewer ordinance?
    - Do you have a copy of the local ordinance?
    - Is required monitoring being performed?
    - Are there prohibitions of certain types of discharges?
      - Noncontact Cooling Water
      - Stormwater
      - Metals
      - Chlorine
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## **SWPPP**

- **Has the plan been updated to reflect current operations and Best management practices (BMPs)?**
    - Include all stormwater and contamination sources
    - Identify all stormwater discharge points
    - Identify and evaluate all current BMPs
  - **Have annual compliance evaluations been completed and documented?**
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## **SWPPP (cont'd)**

- **Poor housekeeping with regard to areas that may impact stormwater drainage areas.**
  - **Has the facility identified the destination of all drains?**
  - **Has a water balance been completed for all flows into and out of the facility?**
  - **Is training on the SWPPP up-to-date?**
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## **Stormwater Sampling**

- **Has stormwater sampling/analysis been completed correctly?**
    - Type of sampling (grab versus composite)
    - Monitoring parameters adequately reported?
      - i.e. precipitation amount and duration
    - Are the correct parameters being reported?
  - **Is the SWPPP signed by the responsible corporate official?**
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## **Solid Waste**

- **Solid waste testing**
  - **Disposal / Recycle Activities**
  - **Hazardous Waste Requirements**
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## Solid Waste Testing

- **Are wastes properly classified?**
    - Initial and routine profiles
    - Use generator knowledge infrequently
  - **Point of generation**
    - Are you testing mixed waste streams?
  - **Are you properly reporting hazardous waste treatment?**
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## Disposal and Recycle

- **Disposal or recycle issues**
    - Where does it all go? Does  $2 + 2 = 4$ 
      - Make a waste table listing
        - List all wastes generated
        - List profiles and determination method
        - List recycle or disposal method / facility
  - **If disposed is your landfill are you permitted to accept the waste streams?**
    - Limited to certain types of waste
      - Foundry sands
      - Construction waste
      - Dry waste? (Paint filter test)
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## **Hazardous Waste**

- **Satellite areas not properly labeled**
  - **Hazardous Waste Storage Area**
    - **Labeling**
    - **Inspections**
    - **Shipping within 90 days**
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## **Environmental Risk/Cost**

- **Environmental Compliance Audits can go beyond compliance and identify BMPs to reduce risk.**
  - **Additional record searches and assessments can assist facilities in determining environmental liability and risk associated with current and past practices**
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## **Why?**

- **Environmental disclosure rules have changed**
  - **Sarbanes-Oxley Act 2002**
    - “Enron”, Enacted to require better financial disclosure and oversight of publicly owned companies. Includes additional environmental reporting requirements. (SEC and EPA)
  - **Be prepared to provide additional information to CFO on environmental liabilities both present and future.**
  - **Will require environmental cost projections for idled facilities**
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## **Sarbanes-Oxley Act 2002**

- **S-K Item 101**
    - “companies must disclose the material effects of compliance with federal, state, and local environmental provisions on their capital expenditures and competitive position;”
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## **Sarbanes-Oxley Act 2002**

- **S-K item 103 – “companies must describe certain administrative or judicial legal proceedings arising from federal, state, or local environmental provisions;”**
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## **Sarbanes-Oxley Act 2002**

- **S-K item 303 – “companies must discuss their liquidity, capital resources, and results of operations.” “must identify known trends, demands, commitments, events, or uncertainties” “that may result in a change in the companies liquidity”**
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## **Sarbanes-Oxley Act 2002**

- **How far will the reporting requirement go?**
  - **Discuss this new requirement with CFO prior the 2006 reporting period**
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## **Summary**

- **Environmental Audits can be an important tool for identifying “gaps” in plant Environmental Management Systems**
  - **Audit can be a simple or detailed as required to fit site specific requirements**
  - **Most findings can be corrected with little cost to foundries**
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