

Best Practice #67

Providing Operations-Focused Environmental Regulatory Guidance to Enhance Operational Ownership and Regulatory Compliance

Facility: U S Department of Energy, National Nuclear Security Administration, Pantex Plant

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Brief Description of Best Practice:

A Senior Manager-level memo (known as an Air Quality Management Requirement [AQMR] memo) is developed by the Regulatory Compliance Department (RCD) Air Quality team. The memo identifies:

- The Basis for the regulatory authorization that allows a specific emission unit or group of units to emit air contaminants (referencing any representations made to the regulatory agency that would be considered an enforceable basis for obtaining the authorization);
- Scope of the authorization – what units/activities/locations are authorized;
- Administrative Requirements: what is expected of management to incorporate requirements in procedures and assure compliance;
- Reporting Requirements: what records to maintain, when/what/how to file reports for compliance demonstration (performed monthly for most operations);
- Notification and Follow-up: What will happen when the reporting is submitted, particularly when activities may approach regulatory limitations?

Why the Best Practice was used:

- Historically, Pantex operational groups perceived that management of ‘environmental compliance’ was the duty of the RCD, rather than an aspect of operations that they needed to manage. This attitude was consistent with other attitudes regarding ‘safety’.
- The RCD identified a need to ‘engage’ Operational groups in planning and maintaining regulatory compliance. Those groups ‘owned’ the process, and only they could make compliance a leading, rather than a trailing, aspect.
- This ‘engagement’ had to recognize that:
 - Both Operations and RCD personnel had knowledge that needed to be understood by the other group;
 - Operational processes had to be understood by the RCD personnel in order to identify the scope of environmental regulatory requirements applicable to the processes;
 - Compliance requirements had to be communicated in a way that made sense to the Operational manager (following the K.I.S.S. principle whenever possible);
 - The communication had to be sustained within the company – it had to be process, not expert, maintained.

Best Practice #67

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What are the benefits of the Best Practice?

- Operations managers have a single reference document to use when planning and maintaining activities;
- Operations Managers assure that emissions are regularly reported and evaluated;
- As personnel change, there is continuity for demonstrating compliance with regulatory requirements;
- Development of an AQMR and issuance requires the regulatory compliance specialist to work with the Operations personnel – both parties become better informed of how each works to enable the plant to succeed. Reporting requirements are tailored to the Operations group, and in many instances require them to use data that would have been available without the development of the regular reporting requirement.

What problems/issues were associated with the Best Practice?

- Organizational Authority: Initially, memos were issued by a compliance section manager to the manager of the section conducting the emitting operation. This approach did not establish sufficient authority to ensure that practices were implemented and maintained. This has been resolved by having the documents issued on a senior management level (Division Manager), with copies routed to lower echelons.
- Reporting (format and buy-in): When initially developed, reporting was required, but there was no specific format reports were expected to follow. Reports came in as e-mails, hard-copy documents, spread-sheets; all of which required substantial time for RCD personnel to review, capture and transfer necessary data for demonstration of compliance on both operational and site-wide purposes; and then verifying that compliance was being achieved.
 - First, a system-wide mail box was established in the plant e-mail system – reporting requirements were changed, directing that all reports were to be submitted to this box, rather to specific individuals.
 - Next, RCD began issuing 'tasks' through one of the site's work management programs, setting delivery dates for submittal of the reports. The air team, and plant management, thus monitored the completion and submittal of the reports – making operational personnel and their line management aware of the need to complete the reports,
 - The air team in the past few years has internally developed a family of Microsoft Excel work-books that allow operational supervisors or their designees to enter the operational data or chemical use data that is used to calculate emissions, perform the emission calculations, approve that the data has been entered and verified by operations, and provide a summary compliance report for that operation detailing compliance for the reported month, for the past 12 months, and projections on the extent of operations that may be performed in the next month that will be 'in compliance'. The air team has approval authority control of access to these work books.

Best Practice #67

Providing Operations-Focused Environmental Regulatory Guidance to Enhance Operational Ownership and Regulatory Compliance

- The air team then developed a 'roll-up' workbook that captures the data from all these operational work books for a site wide report. These reporting upgrades have significantly reduced the time needed, site-wide, to prepare a summary for management review.

How the success of the Best Practice was measured:

- Pantex initiated the process of using Air Quality Management Requirement (AQMR) memos in the late 90's.
- Pantex has not experienced a notice of deficiency/ notice of violation from an air quality inspection since 2001;
- Pantex has successfully managed emissions records to support its continued status as an "Air Synthetic Minor" facility, under the Federal Operating Permit program;
- Comments from operational users acknowledging their responsibilities, including the ease of transferring reporting duties as the organization has changed.

Description of process experience using the Best Practice:

The process is designed along the lines of the 'Quality Circle' used by the ISM process.

- Identify Scope: Generally, a potential new or modified source of air emissions is identified during a NEPA review.
- Identify Hazards: If there are any regulatory requirements that will impact the design or operation of the new process, they are identified at that time, or as soon as information is available.
- Identify Controls: Applications or registrations are prepared, along with the AQMR document, telling operators what must be done to stay in compliance.
- Implement Controls: Get the registration/permit formally submitted, approved and documented; develop and issue the AQMR.
- Perform the Work: Operations personnel perform work and submit monthly activity/emission reports.
- Evaluate: On-going process of Operator/RCD contacts to assure the appropriate personnel are submitting, approving and reviewing reports, to identify opportunities for improvement or changes in processes that need further evaluation.

The Regulatory Compliance Department is issuing similar memos for all processes evaluated for air emissions, even when there are no air quality regulatory requirement, in order to document all process reviews. We believe that B&W Pantex needs to provide timely, positive demonstrations that potential emissions sources have been evaluated, identified for necessary controls, controls implemented in advance of process start, verified that controls are adequate.