HS-40 Integrated Program Review of Pacific Northwest National Laboratory (PNNL)

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Safeguards and Security

Date, 2008

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Date and Intended Scope for the HS-40 Integrated Program Review

- Conducted June 24 through June 26, 2008

- Scope for the review:
  - Conduct an integrated program review to evaluate the Nuclear Safety (PAAA), Worker Safety (10 CFR 850/851) and Classified Information Security program (10 CFR 824) elements supporting the associated regulatory compliance programs.
  - Assess the effectiveness of internal assessments, causal/root cause analysis, and corrective actions associated with these safety and security programs.
- In addition to the program review, this visit served to pilot the HS-40 Office of Enforcement's approach and protocols for conducting these program reviews in an integrated fashion.
- The final product expected is an assessment of the programs' strengths and weaknesses in a final report.

Purpose for the HS-40 Integrated Program Review

To ensure that PNNL

- applies a sound process to identify noncompliances
- makes proper decisions on reportability
- and undertakes timely steps to correct noncompliances.

Would also focus on the effectiveness of the Lab's assessment processes in

- self-identifying issues
- and on specific safety and security improvements that enhance performance and prevent recurrence of noncompliances.

The primary focus at PNNL was to be primarily on nuclear safety and classified information security. The review could also evaluate selected compliance issues in the areas of radiation protection, safety basis, quality assurance, worker safety or classified information security.

OE Team Members

Team Lead: Martha S. Thompson, Deputy Director, Office of Enforcement

- Office of Worker Safety and Health Enforcement: Kathy McCarty, Topic Team Lead; Phil Wilhelm, Enforcement Officer; Kevin Dressman
- Office of Price-Anderson Enforcement; Tony Weadock, Topic Team Lead; Dick Trevillian, Team Member
- **Office of Security Enforcement; Steven G. Crowe, Topic Team Lead; Carrianne Zimmerman, Enforcement Officer; Ralph Kurtzman, Team Member**

Observers:

Solita Greene (DOE CH, Security)

J Tarpinian (Battelle Corporate)

Joe Drago (DOE CH/SC, Safety and Technical Services – Nuclear Engineer

Raul Bhat (HS Legal)

Arnold Guevara (Director, OE) and Russell Shearer (Deputy Chief for Enforcement and Technical Matters (potential to drop in)

Conduct of the HS-40 Integrated Program Review

- OE requested and reviewed an extensive data call and completed their team orientation prior to the visit.
- 3 days for the onsite visit
  - Interviews, data collection, observation and validation of results
  - Facility tours for select members of the review team
  - HS-40 provided an exit briefing to discuss preliminary conclusions on the strengths and weaknesses
- Anticipate a final report describing the results after the team returns to HQ
  - Copies of final report will be sent directly to PNNL and affiliated DOE offices and posted to the OE website.

Onsite Activities for the HS-40 Integrated Program Review

- A high level inbrief with all participants and PNNL/PNSO management
- Teams broke out by the three main topics
- HS-40 met with local DOE Office first, then PNNL
- Documents (data call) were reviewed prior to arrival
  - Included summaries of incident data, self assessment reports, trend reports, etc.
- Interviews through the individual teams were scheduled with key PNNL staff and management (generally round-table interviews)
- PNNL staff and management participated in the interviews and provided hands-on demonstrations of certain processes
  - Specific PNNL individuals were identified as primary representatives and were present during all associated interviews
- Program files (i.e., incident files, assessment files) were reviewed
- A high level outbrief with all participants and PNNL/PNSO management to describe strengths and weaknesses

Initial Results of the HS-40 Integrated Program Review

(SAS) Strengths	(SAS) Weaknesses
The Cyber Security organization/function is within the SAS organization.	A perceived lack of integration between incidents, assessments and other SAS disciplines when trending and considering issues. All areas should be trended together to determine if higher level programmatic issues exist.
The positive efforts to decrease cyber holdings, specifically ACREM.	Coordination or integration with the PNNL Enforcement Coordinator relative to the assessment program could be strengthened.
PNNL is aggressively moving from the use of administrative controls to engineered solutions (i.e., Securesafe).	The role of the PNNL Enforcement Coordinator relating to 824 is not formalized within SAS processes.
Use of ATS.	The causal analysis process is not well documented – it is based on knowledge of one individual.
PNNL has a very comprehensive self assessment program (including use of outside expertise, formal validation processes, etc.).	The categorization of IMI's is not consistent with department policies. As such, trending of previous incidents may be suspect.
The causal analysis process is effective.	The "near miss" category is not formalized or documented (accepted or approved by DOE).
The CMPC education program includes discussion on 824.	Continued:

Big Deal!

Concern

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table interpretation issue

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The Cyber Security organization/function is within the SAS organization. The positive efforts to decrease cyber holdings, specifically ACREM. PNNL is aggressively moving from the use of administrative controls to engineered solutions (i.e., Securesafe). Use of ATS. PNNL has a very comprehensive self assessment program (including use of outside expertise, formal validation processes, etc.). The causal analysis process is effective. The CMPC education program includes discussion on 824.	Continued: During incident categorization, not all SAS topical area SME's are involved. There is a lack of documentation to support the conclusions drawn in incident reports. Facts relative to actions taken, mitigation, and the overall basis for determining what level is not in the reports.

Response to Weaknesses from the HS-40 Integrated Program Review

- Establish a corrective action plan (documented through Laboratory tracking system – ATS).
- Actions include:
  - Expanding internal processes to include more integration between SAS disciplines. Considering realignment of certain SAS functions.
  - Modifying program documentation with more detail – internal procedures, Lab-level procedures, SAS Management Plan, SSP, SAS Training Program Plan, and etc.
  - Coordinating a deviation to permit use of the "near miss" category of incident
  - Strengthening internal processes to include stronger documentation for reports, more conservative approaches to categorization, etc.

Lessons Learned from the HS-40 Integrated Program Review

- Prepare for the review as if it was a detailed compliance program review
- Engage your DOE Site Office in the ongoing incident categorization process
- Make sure related processes are well documented and approved by the Site Office

- Overall –
  - OE is very driven to improve consistent categorization across all Sites to improve the data trending and analysis.