



# **NRC Inspection Program**

**NMA/NRC Workshop 2010**

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# Discussion topics

- **Conducting inspections**
  - Evening and unannounced inspections
  - Preoperational inspections
- **Inspection findings**
  - Self-identified violations
  - Inadequate HAZMAT training
  - Posting of Radiation Areas
  - Understanding of survey meter operation
  - Embedded spreadsheet equations

# Conducting inspections

10 CFR Part 40.62 states:

- (a) “Each licensee shall afford...at all reasonable times opportunity to inspect source or byproduct material and the premises and facilities wherein...material is used or stored”
- (b) “Each licensee shall make available...for inspection...records kept by him”

## **Conducting inspections, cont.**

- NRC inspectors can arrive on site at any time during normal operations
- No prior announcement of inspection is required
- If a facility is operating 24/7, expect that an inspection could occur at any time
- NRC gives a licensee reasonable time to find a record during inspections

# Conducting inspections, cont.

## Preoperational inspections

- Anticipate 2 weeks of inspection effort
  - 1 week to review procedures & QA/QC programs and observe equipment & flowpaths
  - 1 week (possibly 24/7) on-site when or after you “turn on the switch”
- 4-5 inspectors with different expertise (HPs, hydro, geotech, etc.)
- NRC working on policy for conducting preoperational inspections-none have been conducted in years

# Inspection findings

## Self-identified violations

- It is always better for a licensee to identify a violation and to correct it, than for the NRC to identify it
- NRC's enforcement policy gives credit for licensee when they self identify and correct a violation

# Inspection findings, cont.

## Example of self-identified violation:

A licensee fails to perform mechanical integrity tests on 10 wells within a five year period, contrary to license requirement. The licensee identifies the mistake after several months and immediately performs the tests on the wells. Licensee documents the self-identified violation and corrective actions, and proposes how they plan to prevent recurrence. The licensee then presents this information to the NRC inspectors during routine inspections.

# Inspection findings, cont.

## Self-Identified Example, cont.

If the inspector had identified the failure to perform the MITs every 5 years: potential Severity Level IV violation with a written response required because the licensee did not identify or correct the problem

Since the licensee self-identified and corrected, credit is given during the enforcement process and the it may become a non-cited violation, with no response required to the NRC

# **Inspection findings, cont.**

## **Inadequate DOT HAZMAT training**

- NRC has identified several violations related to failure to provide HAZMAT training in accordance with 49 CFR 172.704
- Any employee who performs ANY function of HAZMAT shipping must have training
  - Administrative person who generates a shipping paper
  - Staff who performs a survey of a package being shipped OR surveying a trailer before transport

# Inspection Findings, Cont.

What is included in HAZMAT training:

1. General awareness/familiarization training
2. Function-specific training
3. Safety training
  - a) Emergency response information
  - b) Measures to protect employee from hazards of material being shipped
  - c) Methods and procedures for avoiding accidents
4. Security awareness training

# Inspection findings, cont.

- Initial training
  - New employee must perform under supervision
  - Completed within 90 days of employment
- Every HAZMAT employees must be retrained every 3 years
- Training conducted by employer or contractor
- Tested by “appropriate means”
- Recordkeeping
  - Employee’s name & most recent training date
  - A description, copy, or location of training materials used
  - Certification that the employee has been training and tested

# Inspection Findings, Cont.

## Posting of radiation areas

- Intent of posting is to alert personnel of radiological hazards and to aid them in minimizing exposures
- Need to find a balance between over-posting and under-posting
  - Over-posting desensitizes staff of hazards
  - Under-posting is a violation of 10 CFR 20.1902

# Inspection findings, cont.

## Use of survey meters

- NRC noticing that licensee employees are going through the motions of using a survey meter (for personal exit surveys and surveys for shipping of yellowcake)
- Unaware of limitations and how the survey meters work
  - use of zinc sulfide meters and how they cannot detect gamma radiation
  - What is reasonable background for the area?

# Inspection findings, cont.

## Embedded spreadsheet equations

- Most data from air monitoring and dosimetry results are input into a spreadsheet that conducts calculations automatically
- Inspectors expect the licensee to know what these calculations are
- We find errors in the calculations
- Licensees must validate and verify these equations are correct and be able to provide inspectors with the embedded equations for review



Any Questions?