Lessons Learned
NRC Inspections at Operating Sites

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,

Overview

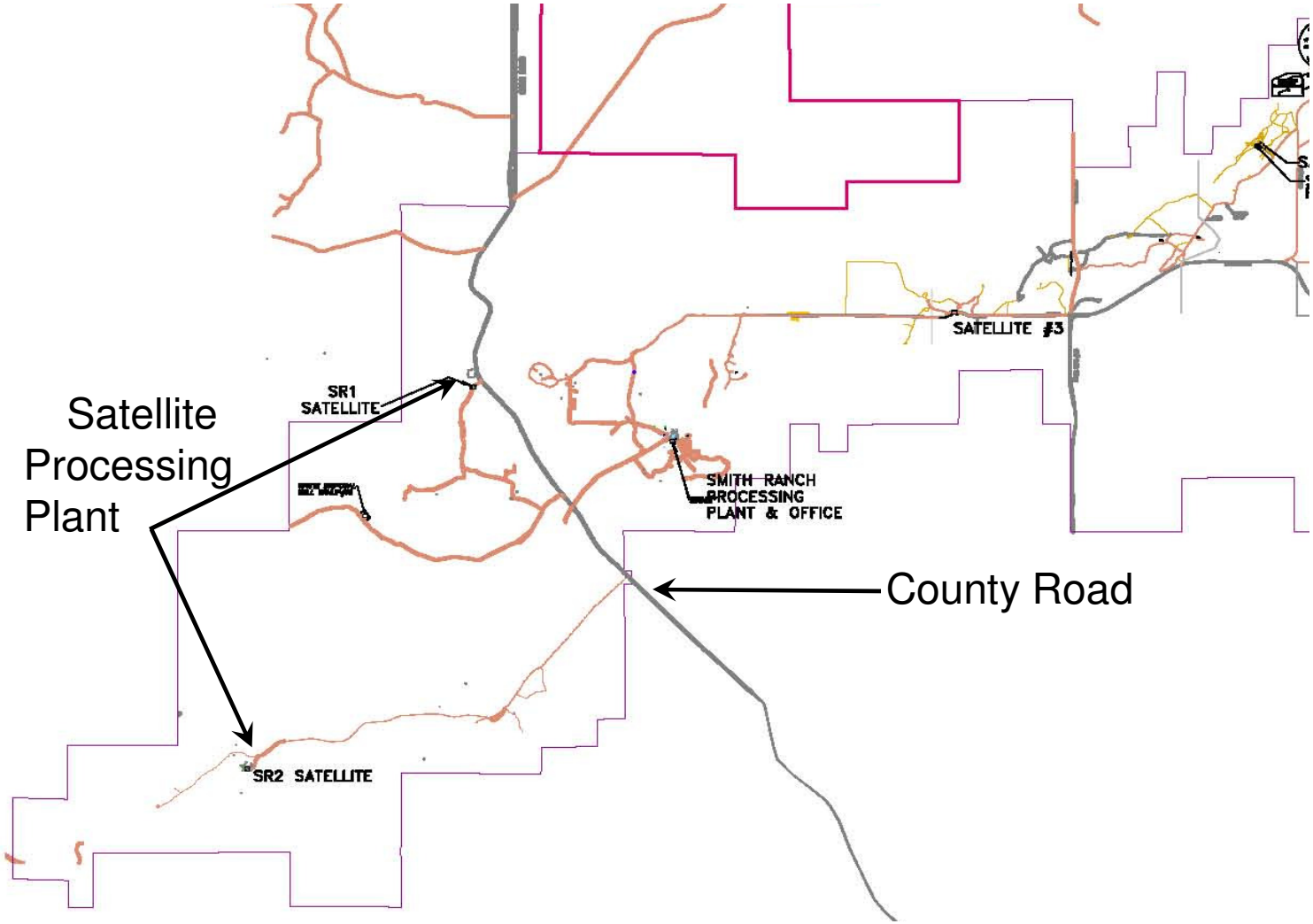
- **Cameco Resources had inspections at both of their operating facilities:**
  - Smith-Ranch Highlands-Wyoming
    - February 22-25
    - August 24-26
  - Crow Butte Resources-Nebraska
    - June 8-10

Overview

- **Smith Ranch-Highland**
  - Inspection of August 24-26
    - One Notice of Violation
  - Inspection of February 22-25
    - One Notice of Violation
- **Crow Butte Resources**
  - Inspection of June 2010
    - One Notice of Violation

Issue #1

- **NRC Inspection of August 24-26**
  - Revealed One violation Concerning DOT regulations and Transportation of Radioactive Material.


Satellite Processing Plant
SR1 SATELLITE
SATELLITE #3
SMITH RANCH PROCESSING PLANT & OFFICE
County Road
SR2 SATELLITE

Issue #1

- **Issue: Transportation of 11(e)2 By-product Material inside the License Area but across public roads.**
  - Proper vehicle scanning was not being completed
  - No documents were generated about the shipment of By-Product

- **Corrective Action**
  - An SOP addressing Transportation of By-product material in the License Area was developed and implemented

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Lesson Learned

- Documentation, documentation and documentation. Proper labeling and scan out procedures are required for transportation between facilities within the NRC Licensed area

Issue #2

- **NRC Inspection of February 22-25**
  - Revealed One violation concerning not posting a Radiation Area Properly

Issue #2

- **Issue: Not posting a "Radiation Area" (> or equal to 5 mRems/hr at 30 centimeters from a surface).**

  None of the previous surveys including the week prior to the inspection were within the 5 mR/hr range. We have found the radiation levels in tanks/vessels fluctuate over time

- **Corrective Action**
  - All tanks and vessels will be posted to the highest radiation levels recorded during routine surveys.

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Lesson Learned

- Make sure to check and double check all your postings and Radiation areas. Do surveys at peak times and perform spot checks to make sure all areas are posted properly

Issue #3

- **NRC Inspection of June 8-10**
  - Reveled that the Health Physics Technician did not meet the proper training guidelines

Reg. Guide 8.31

2.4.2 Health Physics Technicians
In addition to the RSO, there should be a minimum of one full-time health physics technician at any full-scale operating UR facility. The health physics technician should have **one of** the following combinations of education, training, and experience:

1. Education: An associate degree or 2 or more years of study in the physical sciences,
engineering, or a health-related field;
Training: At least a total of 4 weeks of generalized training (up to 2 weeks may be on the-job training) in radiation health protection applicable to UR facilities;

Experience: One year of work experience using sampling and analytical laboratory procedures that involve health physics, industrial hygiene, or industrial safety measures to be applied in a UR facility; or

2. Education: A high school diploma;
Training: A total of at least 3 months of specialized training (up to 1 month may be on the-job training) in radiation health protection relevant to UR facilities;

Experience: Two years of relevant work experience in applied radiation protection.
The health physics technician should demonstrate a working knowledge of the proper operation of health physics instruments used in the UR facility, surveying and sampling techniques, and personnel dosimetry requirements.

Issue #3

- **Issue: For HPT's with only high school diploma's the requirements for training are 12 weeks, 4 weeks which can be on the job training. Although both had the experience, neither of the CBR HPT's had sufficient training "specialized training"**

- **Corrective Action**
  - Specialized training for the HPT's was sought out and they are currently receiving the necessary requirement to fulfill this requirement.

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Lesson Learned

- Make sure all individuals in your operations meet the requirements for all aspects of your operation. Not limited to just Radiation Training.

Issue #4

- **NRC Inspection of June 8-10**
  - Information/Data was not being properly characterized and disclosed to NRC

Issue #4

- **Issue: 10 CFR 20.1502(b)(1) which states "that all information required by the Commissions' regulations to be maintained by the licensee shall be complete and accurate in all material respects.**
  - Contrary to that one of the spreadsheets used to calculate radon daughter concentrations contained an error involving incorrect time factors, which in turn caused exposure calculations for radon daughters to be off by a factor of about 10%.

- **Corrective Action**
  - The spreadsheet has been corrected and we are in the process of recalculating the affect exposures.

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Lesson Learned

- Make sure that all you thoroughly understand all calculations that are imbedded in spreadsheets that are used for calculations that are submitted to NRC.

Items of Discussion

- **ORC-SERP-(Managing Change)**

- **Lesson Learned-**
  - Know your Audience
  - ADAMS is a “public” data clearing house

Conclusion

- Documentation, documentation and documentation.
- Make sure to check and double check all your postings
- Training
- Calculations
- Know your Audience