

# DG 1145 – Section C.I.11

# Radioactive Waste Management



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Jean-Claude Dehmel, Health Physics Branch  
U.S. Nuclear Regulatory Commission

# Overview

- Section outline.
- Section references.
- Content highlights.\*
- “To Do List.\*”

*\* Presentation addresses only those review areas associated with Health Physics.*

# Outline

1. Source Terms.
2. Liquid Waste Management Systems.
3. Gaseous Waste Management Systems.
4. Solid Waste Management System.
5. Process and Effluent Radiological Monitoring and Sampling Systems.

**ML060230015**

# References

- 10 CFR Parts 20, 50, 61, 71 and 100.
- Regulatory Guides.
- NUREGs.
- Generic Letters, Branch Technical Positions, Information Bulletins.
- ANSI standards (ANSI/HPS N13.1-1999).

# Content Highlights

- Considerations of plant-specific features and site-specific conditions not addressed in the certified design.
- Engineering issues in the selection, installation, and operation of mobile waste processing systems and radiation monitoring systems.
- Development of operational programs and procedures used to demonstrate compliance with effluent release criteria and dose limits.
- COL issues about 10 CFR 20.1406.

# 10 CFR 20.1406

COL applicants - address the requirements of 10 CFR 20.1406, in the context of:

- Mobile systems, e.g., radwaste processing.
- Operational programs and procedures.
- Avoidance of system cross-contamination and unmonitored releases.

# “To Do List”

If a COL application references a certified design,<sup>\*</sup> which areas remain to be reviewed by the NRC staff?

*\* assume no deviation from the certified design*

# Waste Management Systems

- Using plant-specific features and site-specific conditions, confirm that the design objectives and criteria have been met.
- Describe accordance with the requirements of 10 CFR 20.1406.
- Using plant-specific features and site-specific conditions, describe all effluent discharge points to the environment.
- Discuss system capability of and requirements for utilizing mobile processing equipment.



# Waste Management Systems

- For site designs involving multi-unit stations, describe systems or subsystems that will be shared among units.
- Describe any operational program and/or procedure that will be used to demonstrate compliance with regulations, guidance documents, and effluent concentration and dose limits.

# Radiological Monitoring & Sampling

- Describe effluent radiological monitoring instrumentation and sampling systems used to monitor and control radioactive releases.
- Using plant-specific conditions, describe the locations of instrumentation and sampling points.
- Describe how plant-specific conditions and operational program aspects of the monitoring and sampling system will follow regulatory guidance documents.

Questions...?

