

Draft - May 8, 2007
Staff Lessons-Learned DCD Reviews
Radiological Effluents and Associated Doses in Unrestricted Areas

The following presents typical issues identified during technical and regulatory reviews of DCD applications.

A. Chapters 11, 12, and 14 Technical and Regulatory Topics

1. Incomplete or lack of justification for approaches, methods, or rationale used in the development of liquid and gaseous radiological effluent source terms
2. Inconsistent information describing the design basis source terms and normal operation source terms between DCD Chapters 11.1, 11.2, 11.3, and 12.2.2.
3. Inconsistent or incomplete referral of NRC regulations and use of NRC and industry guidance in developing radiological effluent source terms and in deriving offsite doses
4. Incomplete or missing parameters and assumptions used in dose assessment analyses
5. Incomplete or inconsistent descriptions of COL applicant action items for mobile waste processing systems, ODCM, RETS/SREC, REMP, and PCP
6. Internally inconsistent use of nomenclature of plant structures, systems, and components, and mobile waste processing systems
7. Incomplete discussions and descriptions of mobile waste treatment and processing systems, such as selection and performance of adsorption and filtration media for liquid and gaseous effluents
8. Incomplete descriptions of skid-mounted process and effluent radiation monitoring equipment and their interface with radioactive and non-radioactive plant systems
9. Incomplete descriptions of operational performance characteristics of skid-mounted process and effluent radiation monitoring equipment, such as sensitivity, dynamic response ranges, expected activity, features for grab sampling, etc.
10. Incomplete and inconsistent discussions of system design features applied to minimize spills and leaks, and avoiding uncontrolled and unmonitored effluent releases to unrestricted areas
11. Incomplete and inconsistent descriptions of prerequisites for startup tests in assessing the performance of permanently installed plant systems and mobile waste treatment system used to control and monitor radioactive effluents
12. Incomplete and inconsistent ITAAC commitments in confirming the proper installation and operational integration of mobile waste processing system with permanently installed plant systems

Staff Lessons-Learned DCD Reviews, Cont'd

B. Resolution of RAIs and Processing of RAIs in Subsequent Revisions of the DCD

1. Inconsistent follow-up on resolved RAIs, such as RAI response commitments not included in subsequently revised versions of the DCD
2. Resolution of a current RAI negating or voiding the satisfactory resolution of a prior closed RAI on both related and non-related subject matters
3. Essential technical information presented in RAI responses but not included in subsequently revised versions of the DCD
4. RAI responses containing internally inconsistent information
5. RAI responses not acknowledging that the satisfactory resolution of one issue may require that a related subject matter be reviewed again to assess whether there is any impact on prior results, design commitments, or COL action items