

Regulatory Guide Periodic Review

Regulatory Guide Number: 1.21
Revision: 2

Title: **Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste**

Office/division/branch: **NRR/DRA/ARCB**

Technical Lead: **Steven Garry**

Recommended Staff Action: **Reviewed with issues identified for future consideration**

1. What are the known technical or regulatory issues with the current version of the Regulatory Guide (RG)?

Questions and observations have arisen as a result of comments from industry and inspections that have identified issues that warrant addressing. Clarification is needed on the regulatory background for the reporting requirements found in Section C "Regulatory Position" on pages 31-32. The requirements apply to shipment of solid radioactive waste shipped for processing or disposal, specifically low-level waste. There are no regulatory requirements on reporting shipment of low-level waste from the facility unless a licensee made a specific licensing commitment. This should be clarified in the Discussion section of the RG.

2. What is the impact on internal and external stakeholders of not updating the RG for the known issues, in terms of anticipated numbers of licensing and inspection activities over the next several years?

For licensing activities, there is no new large power reactor license applications anticipated in the near future (next 3 to 5 years). Thus, there is no immediate need for revising the guide at this time to address their licensing. For small modular reactors at least one application is anticipated in the next two years.

For inspection activities, there is NRC inspector and industry uncertainty as to how to report solid radwaste in the Annual Radiological Effluent reports (as described in this regulatory guide). This uncertainty has led to inspectors questioning whether licensees are reporting correctly, and licensees questioning exactly what NRC requires. Some licensees have challenged the inspector findings under the Reactor Oversight Process (e.g., Diablo Canyon).

3. What is an estimate of the level of effort needed to address identified issues in terms of full-time equivalent (FTE) and contractor resources?

Approximately 0.2 FTE of staff effort will be required to revise the RG. No contractor resources will be required.

4. Based on the answers to the questions above, what is the staff action for this guide (Reviewed with no issues identified, Reviewed with issues identified for future consideration, Revise, or Withdraw)?

Reviewed with issues identified for future consideration.

5. Provide a conceptual plan and timeframe to address the issues identified during the review.

1. Revise the RG in accordance with existing regulations. Estimated completion by Qtr. 4, FY 2016.
2. Transmit to the Regulatory Guidance and Generic Issues Branch for processing approximately Qtr. 2, FY 2017.

NOTE: This review was conducted in March 2015 and reflects the staff's plans as of that date. These plans are tentative and subject to change.