



United States Department of the Interior

U. S. GEOLOGICAL SURVEY
Box 25046 M.S. 205
Denver Federal Center
Denver, Colorado 80225

February 3, 2025

Response to NRC Request for Information

Mail Control Number: 642341

Docket Number: 030-03728

License Number: 05-01399-08

Licensee Name: U.S. Department of the Interior, U.S. Geological Survey

General comments/requests

1. Each Final Status Survey Report (FSSR) provides a table with proposed MARSSIM classification, suggested sizes in square meters, and scan coverage. The reviewer could not locate the area sizes (square meters) of the surveyed areas for comparison to the table values.
 - USGS is requested to provide estimates of the % scan coverages for the different MARSSIM classes (Class 1, 2, and 3) for the different survey units. A general statement is acceptable in lieu of a survey unit by survey unit explanation. **The survey unit sizes were based on room sizes obtained from floorplan drawings provided by USGS. Scan percentage is noted on the individual surveys with those for Building 15 with typical coverages of 100% for class 1, 60% for class 2, and 30% for class 3. For buildings 11, 9G, and the Waste Shed, the note for scan coverage was left off the survey; however, review of field notes indicates that scan coverage was consistent with the percentages noted above.**
2. The reviewer did not identify records of gamma surveys.
 - USGS is requested to confirm that gamma surveys were not conducted. **Gamma scan surveys were not conducted as part of this FSS. This decision was based on information obtained before the formal FSS during a prior investigation of the site in which no elevated gamma readings were noted.**
3. The licensee used a Derived Concentration Guideline Level (DCGL) of 50% of the fixed point DCGL for removable swipe samples instead of the commonly used standard of 10%.
 - USGS is requested to explain the reason for using 50% for removable DGCLs. **As MARSSIM is a guidance document and Section 8.5.4 states that smear**

samples should not be used for determining compliance, some application flexibility was applied. Three primary factors went into this decision – 1) a site specific DCGL was not developed; instead, very conservative default DCGLs were used. For example, the beta site specific DCGL based on site possession limits for RUP 85 would have been around 14,000 dpm; 2) initial investigation activities did not suggest that contamination, removable or otherwise, would be an issue; and 3) radon was a known problem historically (and was a challenge while performing the survey at times), though it is generally less of an issue with removable evaluations it remained a consideration; and 3) achieving an MDC to meet the 10% level would have increased the evaluation time five fold or more.

4. The various FSSRs use color coding in the room drawings in the Appendices B. The NRC reviewer assumed that the color coding was based on material type.

- USGS is requested to explain the color coding used in the room figures. The color coding was used as a differentiation of different material types within the survey; however, this color coding was applied on a per survey basis and had some inconsistency across different surveys.

5. Some of the data tables include duplicate quality control sample results. The requirement for collection of Quality Control (QC) samples was not clearly identified by the reviewer in either the FSSRs or associated Decommissioning Plan (DP).

- What was the actual % resurvey effort for QC reasons? What document requires QC samples? QC was performed at approximately 20% (10% static and 10% removable). 20% is the general standard used by the contractor, though not specifically noted within documentation. The use of 20% considers the number of measurements, the experience of the personnel involved, and the level of remediation.

Building 15 FSSR

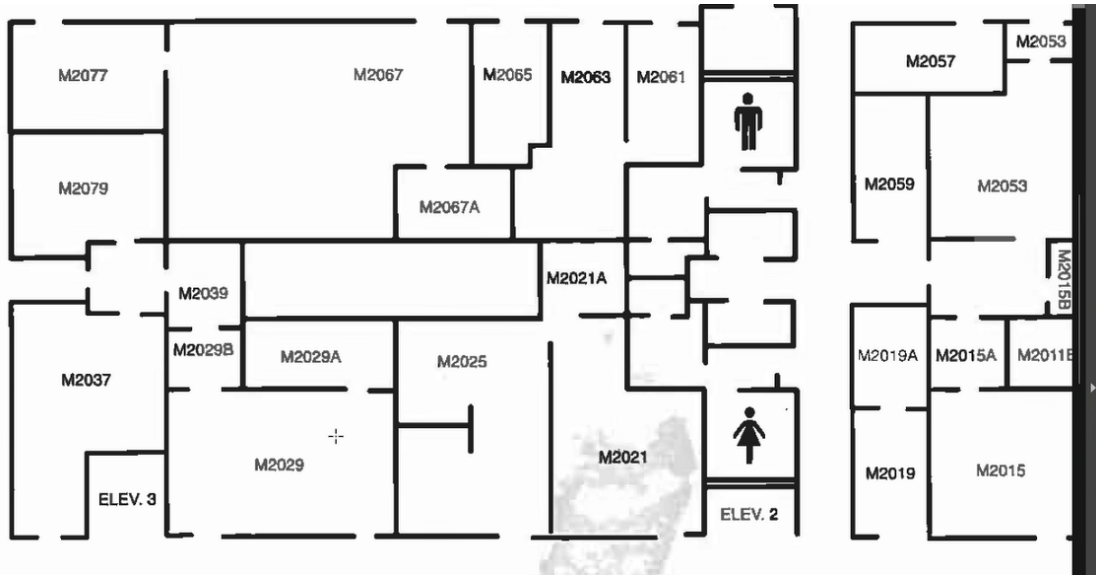
6. Section 2.1.1 mentions the use of a laboratory truck at temporary field sites.

- What is the status of the truck? Was it free-released or is it still in use? The Laboratory truck was free-released in 2019 following extensive contamination wipes and dose rate surveys. No readings above USGS action levels were identified. Documents attached.

7. Amendment 33 to license 04-06674-07 included rooms M2039 (Permit 8) and M2061 (Permit 9). The application dated August 12, 2024 does not include these two rooms in the FSSR for Building 15. The NRC reviewer could not locate records in ADAMS that subsequently released these two rooms.

- A review of available records and interviews of cognizant USGS personnel indicated that licensed materials were never used or stored in Room M2039

(Permit 8). M2309 was utilized by USGS as a field and laboratory equipment storage area for the non-radiological work being conducted in Rooms M2029, M2029A and M2029B. The reasoning for the location being added as an authorized location of use in the referenced amendment is unknown to USGS.



- Please see the attached final status survey report for Permit 9 (M2061) from Calendar year 2012 which indicated the area as acceptable for unrestricted release. Current USGS staff believed that the FSSR had been submitted to the NRC for review and it was accepted as part of the retiring of license 04-06674-07 and the transferring of activities to be under the authority of license 05-01399-08. USGS continues to maintain control of Room M2061.

Waste Shed FSSR

8. As noted in Section 2.1.1, the radionuclides of concern included both Am-241 and Th-228. The reason for choosing the Am-241 DCGL over the Th-228 DCGL was not clear, since the section noted that Th-228 was more conservative than Am-241.

- USGS is requested to explain why the Am-241 DCGL was chosen over the Th-228 DCGL. RUP 61 was very broad with respect to quantity limits. Other RUPs were more specific with respect to radionuclides with the exception of RUP 82 which listed mixed fission and irradiated materials in samples. As the likelihood of Th-228 being present in any significant quantity within RUP 61 above background was minimal at best, Am-241 was retained as the DCGL value.

Building 9G

9. Per Section 3.0, the horizontal surfaces were one survey unit, while the vertical surfaces were a second survey unit. However, as noted on the data sheet for Building 9G Room 3A SU-02, the surveyed areas included both drywall and tile floor.

- Please explain this discrepancy. Perhaps the drywall measurements should have been in SU-03? This question also applies to other survey units. **The discrepancy was with the description within the report and should have been “horizontal surfaces (floors, counter tops) and walls up to 2 meters were considered as class 2 units and overhead spaces (ceilings) were considered class 3 units”. The survey performed provided a more thorough coverage than what was described within the report narrative which stated horizontal surfaces as class 2 units and walls and ceilings as class 3 units.**

Building 11

No additional comments or questions.