

February, 4, 2009

Mr. Donald R. Metzler
Moab Federal Project Director
U.S. Department of Energy
200 Grand Avenue
Grand Junction, CO 81501

SUBJECT: REVIEW OF SUPPLEMENTAL STANDARDS APPLICATIONS FOR MOAB GAS
LINE AND VICINITY PROPERTY VP018 (DOCKET NO. WM-110)

Dear Mr. Metzler:

The U.S. Nuclear Regulatory Commission (NRC) staff has completed its review of the "Supplemental Standards Application for the Gas Line Adjacent to the Off-Pile Remediation of the Moab Mill Site" submitted to NRC by your letter dated August 26, 2008 (ML082460240) and the "Completion Report and Supplemental Standard Application for Moab Vicinity Property VP018" submitted to NRC by your letter dated March 3, 2008 (ML080840175).

Our review of the documents has identified additional information needed in order to complete the review. The information needed is identified in the enclosures.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions concerning this letter please contact me by telephone at (301) 415-6629 or by e-mail at myron.fliegel@nrc.gov.

Sincerely,

/RA/

Myron Fliegel, Senior Project Manager
Uranium Recovery Licensing Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Enclosures:

1. Comments on Gas Line Application
2. Comments on VP018

cc: J. Berwick

Mr. Donald R. Metzler
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NRC Comments
Supplemental Standards Application for
the Gas Line Adjacent to the Off-Pile Remediation
of the Moab Mill Site
[DOE document SM-4224-081210, August 2008]

1. Figure 1, **Site Location Map...**, is fuzzy and difficult to use to determine the supplemental standards area. Please provide a more legible drawing.
2. Page 4, Section 2.4, **Owner and Local Agency Input**, indicates that DOE is the property owner and that Williams Energy Company has refused DOE permission to remediate the gas line right-of-way due to the economic cost of shutting down the gas line during remediation. Please include by reference or otherwise any written communications with the Williams Energy Company regarding its refusal.
3. Section 2.2, **Major Physical Features**, indicates that a “small portion of the supplemental standards area is outside the fence.” Section 2.3, **Land Use**, indicates that there is “not public access to the site.” Section 3.0, **Health Risk Analysis**, indicates that there is no access to the site for the public for most of the area. These statements are not consistent regarding whether the public could be exposed to residual radioactive materials on the unfenced portion of the utility corridor. Please clarify.
4. Page 7, Section 4.0, **Remediation Alternatives**, addresses the alternatives 1 and 2 considered. It indicates that the gas company has not allowed DOE access to work in the gas line right-of-way because of the cost of the gas service interruption. DOE indicates that the cost to remediate the gas line right-of-way would be approximately \$123,000. The cost of gas service interruption has not been provided.

NRC staff cannot determine that adequate information has been provided to meet the 40 CFR 192.21 criteria since the total cost of cleanup (actual cleanup cost + cost of gas service interruption) has not been shown to be unreasonably high relative to the benefits. Alternatively, DOE may elect to evaluate the potential risk to workers for remediation underneath a high pressure gas line as it did in the supplemental standard application for VP018.

5. Page 7, Section 5.0, **Summary and Recommendations**, apportions the 11 mrem worker dose over 10 years since gas pipe line maintenance is expected to be needed at that frequency. NRC staff does not agree with this approach. Any radiation dose should be assigned to the worker in the calendar year it is received. NRC regulations specify worker and public dose limits on an annual or calendar-year basis.
6. Pages 14, **Results**, indicates that the external radiation dose to the worker is 0.84 mrem for both the 83 pCi/g and 980 pCi/g Ra-226 concentrations. The worker inhalation and ingestion dose increases by about 10-fold as the Ra-226 concentration increases. Explain why the external dose to the worker would not increase as well.

NRC Comments
Completion Report and Supplemental Standard Application
for Moab Vicinity Property VP018
(DOE-EM/GJ1518-2007, September 2007)

1. Page A-2, Section 2.4, **Owner and Local Agency Input**, has not been provided in the report.
2. Page A-5, Section 2.6.2, **Results**, and Section 3.1, **Alternative 1 – No Remediation (Supplemental Standards)**, and Section 4.0, **Summary and Recommendations**, all give the estimated worker dose as approximately 1.0 millirem whereas Attachment A1-5 gives a total dose for the gas line worker as 4.8 mrem. Please resolve this discrepancy.
3. Page 7, Table 4 – **Summary of Radiological Release Survey Results** – does not appear to indicate that all three criteria specified by 40 CFR 192.12 for property with occupied or habitable building were met. The three criteria in 40 CFR 192 for this situation are: the Ra-226 soil cleanup standard; the radon daughter levels (WL) in occupied or habitable building; and the gamma exposure level in the occupied or habitable structures exceeding background levels by more than 20 μ R/hr. The table does not provide information addressing the last criterion.
4. On pages A1-2 and A1-3, the values used in the D_D and D_S equations for conversions from Bq to pCi (which should be 3.7E-2) and mrem to Sv (which should be 1E+5) are incorrect. These values are correctly specified in the D_D and D_S equations on pages A1-4 and A1-5. Please correct the values.