

SAFETY EVALUATION BY OFFICE OF  
FEDERAL AND STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS  
RELATED TO AMENDMENT NO. 13 TO FACILITY OPERATING LICENSE NO. SMB-911  
FMRI  
MUSKOGEE SITE  
DOCKET NO. 40-7580

1.0 INTRODUCTION

By letter dated July 6, 2006, and supplemented by letters dated August 31, 2006 and May 24, 2007, FMRI (the licensee) submitted a request for an amendment to Facility Operating License No. SMB-911 that would authorize temporary outdoor storage of packaged waste from Ponds 2 and 3.

2.0 BACKGROUND

In 2003, as part of its Chapter 11 bankruptcy proceedings, Fansteel submitted a decommissioning plan (DP) for the Muskogee site. The DP was approved by the U.S. Nuclear Regulatory Commission (NRC) in December 2003. In January, 2004, Fansteel's Reorganization Plan went into effect, and FMRI, a special purpose subsidiary of FMRI, became the site licensee responsible for implementing the plan. In 2005, FMRI commenced excavating waste, referred to as "Work In Progress" (WIP), from Pond 3, drying it and bagging it in "supersacks" awaiting off-site shipment. Because NRC expected FMRI to promptly ship all waste it permitted FMRI, in October, 2005, to stockpile the supersacks in outdoor areas convenient for transport rather than move them to an inside location (ML052790499). Because of delays in the shipping schedule, and the rate at which the WIP is being removed from the ponds, better storage conditions are necessary.

The changes proposed by this amendment request will permit FMRI to establish outdoor, engineered storage areas for the bagged WIP awaiting shipment. Specifically, the areas for temporary storage of the sacks of WIP will have a high density polyethylene (HDPE) liner, be surrounded by berms of either earth or concrete ("jersey walls"), be covered with HDPE, and have a rainwater capture system.

3.0 REGULATORY EVALUATION

The current license condition 25 requirements are that source material be stored on pallets on a concrete floor and covered by a roof. The general practice at FMRI is to store such wastes inside a building. By an exemption granted in October, 2005, FMRI has been stockpiling the

supersacks of WIP outdoors with minimal protection from weather. This was permitted because the plan was to ship the WIP off-site within a short time of packaging, perhaps a few days to a couple of months. Subsequent events have resulted in the WIP being stockpile for a minimum of several months. This has caused additional weathering effects on the supersacks, that is not consistent with the intent of the current license condition or the exemption.

#### 4.0 TECHNICAL EVALUATION

The licensee proposes an engineered storage area that will have a 40 to 60-mil HDPE liner and containment berms. Each containment area shall be constructed in a manner that allows storm water to drain or shall be equipped with a collection sump and pump that collect precipitation that may enter the containment. Water that has come in contact with containers and drains from or collects within the staging areas shall be routed to the site's wastewater treatment plant for treatment prior to discharge. Staging areas with containers of material shall be covered with a minimum of 6-mil polyvinylchloride plastic in a manner that reduces the amount of precipitation allowed to contact the containers. The cover shall be secured in a fashion to prevent loss during high winds, but shall allow for frequent access to permit removal of containers for transportation. The staging areas shall be monitored visually on a weekly basis while containers are in storage. Any observed damage to the staging area or cover system shall be repaired as soon as practicable. Beginning July 1, 2008, staging areas with containers of material that have not been removed for transportation within twelve months of their placement into the staging area shall be equipped with an improved cover system consisting of 40-mil seam-welded HDPE that will be placed to prevent any storm water from coming in contact with the staged containers. Containers in the storage areas will be stacked no more than four layers high.

The staff determined that the proposed liner and berm around the storage areas provided conditions equivalent to those from storing the material on pallets inside a building. The staff also concluded that the proposed cover system provided adequate protection from weather. This is based in part, on the Force 1 tornado in 1999 that damaged the building in which similar material was stored, resulting in the release of a small amount of radioactive material to the environment.

#### 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, Oklahoma Department of Environmental Quality was notified of the proposed issuance of the amendment. The State official had no comments.

#### 6.0 ENVIRONMENTAL CONSIDERATION

The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. Additionally, the staff finds that the amendment will not involve any significant construction impact, and that there is no significant increase in the potential for or consequences from radiological accidents. Accordingly, pursuant to 10 CFR 51.22(c)(11), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment (ML072080063).

## 7.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security nor to the health and safety of the public.

## 8.0 REFERENCES

1. "Application for License Amendment License SMB-911," FMRI, July 6, 2006, ADAMS Accession # ML061930111.
2. "Application for License Amendment - Condition 25, July 6, 2006 License SMB-911," FMRI, August 31, 2006, ADAMS Accession # ML070740112.
3. "Response to NRC's Second Request for Additional Information Dated April 5,2007; Proposed Modification to License Condition 25 of SMB-911 Related to Storage of Packaged Material from Ponds 2 and 3," FMRI, May 24,2007, ADAMS Accession # ML071560249.

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