



December 22, 2006

SENT VIA OVERNIGHT CARRIER

U.S. Nuclear Regulatory Commission
ATTN: Mr. James C. Shepherd, Project Manager
Decommissioning Branch/Division of Waste Management
11545 Rockville Pike
Two White Flint North
Rockville, MD 20852

**RE: Response to NRC Request for Additional Information Regarding the Proposed
Temporary Staging of Excavated Material Letter dated November 6, 2006.**

Dear Mr. Shepherd:

FMRI has reviewed the referenced letter and has prepared this response to the comments contained therein. The Nuclear Regulatory Commission's (NRC) comments from the November 6th letter and FMRI's responses are provided in Attachment 1 in the order presented in the referenced letter.

Should you have any questions regarding this letter, please contact me or Keyton Payne.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Jonathan Jackson'. The signature is fluid and cursive.

E. Jonathan Jackson
President, FMRI

cc: Blair Spitzberg, Region IV
Keyton Payne, FMRI
File (NRC-122206-02)

Enclosure: Attachment 1

Attachment 1

Response to NRC Request for Additional Information Regarding the Proposed Temporary Staging of Excavated Material Letter dated November 6, 2006

NRC Comment 1. The amendment application identifies a range of thicknesses for the High Density Polyethylene (HDPE) covers and liners. Please provide the criteria by which the choice will be made. Also, include the actual thickness for the initial pieces, and criteria by which any replacement pieces may be of a different thickness or material.

Response: HDPE with a 40 mil minimum thickness will be used for both the covers and liners. The reasons for this choice are:

- The life expectancy of 40 mil HPDE significantly exceeds the anticipated duration of the need for temporary staging facilities at the FMRI Site.
- 40 mil HPDE has been used elsewhere on Site (i.e. soil pillow) and has performed well under existing site conditions.
- 40 mil and thicker HPDE can be successfully welded.

Replacement HDPE pieces will be a minimum thickness of 40 mil.

NRC Comment 2. Please provide the design life and technical specifications on the resistance to damage of the liners and covers from sun, wind, hail, contact with wet soil, and missiles (wood, metal, rigid plastic, etc. during a strong wind, e.g. tornado).

Response: The life expectancy for 40 or thicker mil HDPE that is exposed to the elements (e.g., precipitation, wind, sun, etc.) is 20 to 40 years. This is significantly longer than FMRI expects to keep bagged WIP stored at its facility. Some of the minimum performance standards for a typical 40 mil HDPE are listed as follows:

Sheet density	0.940 g/cc
Yield strength	84 lb/in
Yield Elongation	12%
Break Elongation	700%
Break strength	152 lb/in
Tear Resistance	28 lb
Puncture Resistance	72 lb
UV Resistance	50% retained
Shear Strength	80 lb/in
Thickness	0.036 inches

The smooth surface of the HPDE will provide low friction for debris that may tear the cover and will repel rainfall and hail away from the storage area. The force of a tornado may inflict damage from debris that may hit the cover or liner of the bagged WIP storage area; however, a

continuous tear of the HDPE is very unlikely due to the elasticity of the material. Any punctures that may occur should be limited and will be repaired after the incident

Since 40 or thicker mil HDPE has low permeability and good chemical resistance, in the rare case that contact with any wet soil should occur, there will be no effect on the HDPE's integrity. The liner and cover will be placed over the earthen berm and the cover will be anchored to prevent wind damage.

NRC Comment 3. Please provide the inspection and repair plan for the liners and covers. This should include a frequent visual inspection and a regular, more detailed inspection to identify incipient failures, as well as a plan for patching or repairing actual failures.

Response: An inspection program will be established that will require a weekly visual inspection of all outside Bagged Residual Material Containment Storage Areas that are intended for storage of bagged WIP material beyond 30 days. Additionally, a monthly inspection of the containment areas will be conducted. The following information will be recorded or developed as part of each monthly inspection:

1. Date
2. Time
3. Technician
4. Designation of Containment being inspected
5. Is proper posting/signage in place?
6. Visual failures (tears, rips, punctures); including a sketch of the area showing precise location of failure.
7. Description of all failures (size, type, integrity of bagged WIP at failure, quantity of any spills)
8. Notation of any water present and the operability of the sump system.
9. The condition of the earthen berm.
10. The condition of the outer perimeter cover anchors.
11. Potential problems (loose HDPE, debris on cover, stretched HDPE, loose anchors).
12. Address liner and cover failures in accordance with FMRI Contamination Control Procedure G-014.
13. If failures are identified, describe root cause of failure.

In the event that a failure is identified as part of these inspections, the cover or liner will be decontaminated if needed and a loose contamination survey will confirm this area meets the requirements for health and safety. The damaged cover or liner will be dried and cleaned prior to any repairs. At a minimum, a 40 mil HDPE patch will be welded (Extrusion Weld) at the failed HDPE area with no less than 6 inches of patch overlap beyond all failures. A final clearance survey will be performed for loose contamination on the outside surface of the patch and surrounding outside surface of the HDPE cover. In the event a section of the bottom liner requires repair, the repaired section will be re-covered by up to (1) foot of common coarse-grained fill buffer material.

NRC Comment 4. Please provide a plan and basis for the time the bagged WIP material will remain in storage in the proposed configuration. If any such material will remain on-site beyond the design life of the liners or covers, describe the replacement criteria and plan for replacement activities.

Response: It is the intention of FMRI to ship off-site all of the bagged WIP material well before the minimum 20-year life expectancy of the 40 or thicker mil HPDE. As a result, no replacement of any HDPE liners or covers is contemplated.