

February 15, 2007

United States Nuclear Regulatory Commission Regional Administrator Bruce Mallett 611 Ryan Plaza Drive, Suite 400 Arlington, TX 76011

RE: License SMB-911, Docket #40-7580 – Report of concentrations of radioactive material exceeding a license limit. 10 CFR20.2203(a)(3)(ii)

Dear Mr. Mallett:

Please find attached a report issued in accordance with the requirements of 10 CFR20.2203(a)(3)(ii) and with respect to NRC Source Material License SMB-911.

Should you have any questions or comments regarding this matter, please contact Keyton Payne or me at (918) 687-6303.

Sincerely,

E Jonath Jach

E. Jonathan Jackson President

Attachment

Copy to:

James Shepherd – NRC Project Manager Bob Evans – NRC Inspector Mike Broderick – ODEQ Keyton Payne - FMRI, Inc. File (NRC – 021507)

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E. Jonathan Jackson, President, FMRI, Inc. #Ten Tantalum Place, Muskogee, OK 74403 Phone (918) 687-6303 / Fax (918) 687-6112

#### FMRI, Inc.

# Muskogee, Oklahoma U.S.NRC Materials License SMB-911

# Report of concentrations of radioactive material exceeding a license limit 10CFR20.2203(a)(3)(ii)

#### (i) Estimate of each individual's dose;

No individual received any dose as a result of exceeding the groundwater monitoring limit described in NRC Materials License SMB-911 at Section 3.5.6 "Groundwater Monitoring", item 3.

#### (ii) The concentrations of radioactive material involved;

	10 CFR 20	FMRI, Inc.		
	Appendix B Table 2	MW-74		
	Effluent Concentration	Sample Concentration	Sample	Date
Radionuclide	μCi/ml	μCi/ml	Date	Reported
U-238	3.00E-07	1.39E-05	11/15/06	02/05/07
U-235	3.00E-07	0	11/15/06	02/05/07
U-234	3.00E-07	1.14E-05	11/15/06	02/05/07

The concentrations of radioactive material in Monitoring Well 74 were:

#### (iii) The cause of the concentrations;

FMRI, Inc. collects samples of groundwater from monitoring locations on site. The monitoring is performed in accordance with NPDES Permit OK0001643 and NRC Materials License SMB-911, Section 3.5.6. The source material license includes concentration limits for these samples above which specific actions are required by the licensee.

Construction activities began on June 8, 2005 for Phase I decommissioning activities to remove WIP from Ponds 2 and 3. FMRI performs radiological sampling of its groundwater wells and interceptor trench once a quarter.

Trending analysis is reviewed by the Radiation Safety Committee once a quarter. The trending on this well has been increasing since September 2005. Currently, this is the only monitoring well that has been showing an upward trend from Phase I activities.

### (iv) Corrective steps taken or planned;

Notification was made to Mr. Bob Evans (NRC Region IV, Inspector) and Mr. James Sheperd (NRC Headquarters, Project Manager) of the condition.

A CR was issued by the PRSO for this incident on 12/18/06 when gross alpha and gross beta results were received. The CR addresses the elevated gross alpha/beta results and requests isotopic uranium and isotopic thorium analysis to be performed. The CR also states that if the isotopic result is 10x the limit specified in 10 CFR Part 20 Appendix B, Table II then it will submit a report to the Administrator, NRC Region IV, and the ODEQ within 30 days.

Enhanced groundwater monitoring has been established to track and trend the monitoring wells around Pond 3. This sample was part of the 3<sup>rd</sup> and final monthly sample of the enhanced program. The program entailed samples to be taken twice a month for two months and then go to a monthly review for three months. If no other wells are trending up then the facility will resume quarterly sampling according to facility requirements.

Monitoring Well 74 is directly upstream of the facility interceptor trench, and to the northeast of Pond 2. This well discharges into the interceptor trench and is pumped to the facility wastewater treatment plant through Sump 1. The treated wastewater then discharges through the facility NPDES permitted outfall 001. No other monitoring wells in the enhanced monitoring program have been observed as being elevated.

A review of the previous notifications found that an error was made. Isotopic headers for U-234, and U-235 were inadvertently switched in the tables. Listed below are the updated analysis results for each notification for the exceedance for Monitoring Well 74.

Sample Date	Report Date	Uranium-238 Concentration	Uranium-235 Concentration	Uranium-234 Concentration	Reporting Level
March 15, 2006	July 18, 2006	5460 pCi/l	Not Detected	4740 pCi/l	3000 pCi/l
June 28, 2006	October 24, 2006	9040 pCi/l	Not Detected	8620 pCi/l	3000 pCi/l
July 14, 2006	October 13, 2006	3800 pCi/l	Not Detected	3360 pCi/l	3000 pCi/l
July 28, 2006	September 26, 2006	4100 pCi/l	Not Detected	4180 pCi/l	3000 pCi/l
August 10, 2006	October 13, 2006	8240 pCi/l	Not Detected	7890 pCi/l	3000 pCi/l
August 24, 2006	October 13, 2006	6080 pCi/l	Not Detected	5240 pCi/l	3000 pCi/l
September 20, 2006	October 24, 2006	5460 pCi/l	Not Detected	5460 pCi/l	3000 pCi/l

## Table: Monitoring Well MW-74 Sample Results