

Amy Snyder - Information that you requested on Hematite

From: Amy Snyder
To: E Hackmann
Date: 07/18/2006 9:21 AM
Subject: Information that you requested on Hematite
CC: Bernard Stapleton; Bruce Watson; Edward Johannemann; John Hull; Keith McConnell; Nardiaj@westinghouse.com; Rebecca Tadesse; Tracy D. (Notes) Chance

Kurt,

I am forwarding you the information you requested from Keith McConnell from your teleconference on Friday, July 14, 2006 concerning the Hematite Project:

- 1 - List of NRC team members on the NRC Hematite Review Team (see attached)
- 2 - Information noted at the July 10th meeting concerning burial pit logs exceeding the gram quantity limit as compiled from the WEC provided data. 19 of the 39 pits exceeded the 750 gram limit (see attached).
- 3 - Clarification of why NRC made the decision about the classification of the Hematite Physical Security Plan

Concerning 1 above, see attached file named "TeamHematite.wpd"

Concerning 2 above, a letter is forthcoming. The justification is simply that if Westinghouse believes that CAT I material may be present in the ground, Westinghouse will need a classified plan that covers how the material should be handled and protected or submit an exemption request to the NRC with information supporting what Westinghouse expects to find in the burial pits and why and the rationale for whether or not the material should be considered at risk for thief. NRC will then evaluate it. The information that Westinghouse has discussed to date with the NRC Hematite Review team has not convinced them that Westinghouse knows for certain what they have in the burial pits.

Furthermore, information Westinghouse provided in DO-02,001, designated as Non-Proprietary Class 3 by Westinghouse, that Westinghouse submitted to NRC in June 2006, also leads us to the same conclusion at this time.

In DO-02-001 WEC states that

- "much of the work on behalf of the government at the Site was classified, and therefore specific details regarding the exact nature of the processes are not known. Generally, the government work began under Mallinckrodt's supervision and then dominated Hematite production during the ownership and operation of UNC." No records of burials exist prior to July of 1965. However, an untitled memorandum has been located indicating that burial pits may have been used as early as 1958 or 1959, and that as many as three or four pits were used each year prior to 1965 (Appendix C). Accordingly, it is estimated that an additional 20-25 pits may exist for which there are no records. There is no information to indicate the nature of the material buried in these other pits."

- "On-site burial of radioactive material was terminated in November of 1970 as a result of an AEC citation issued for failure to adhere to revised AEC regulations concerning the quantity of material which could be buried on-site. It appears though that Gulf did not cover the final pit until 1974 when it sold the property."

- "There are numerous unknowns associated with the burial pits. This HSA provides a detail description of the site history and has provided valuable insight for the decommissioning planning; however, the detailed information on the pits for safe and effective remediation planning is not available. Further site characterization is needed to determine the content and extent of contamination associated with the burial pits."

Concerning 3 above, I have a summary sheet from the Project HP that shows out of 38 data logs, 19 exceeded the limit. See attached file. If these logs were used to control the amount of material that could be put in one burial pit, it appears that they did not serve their function very well.

If you need additional information, please contact me.

Sincerely,

Amy M. Snyder, Senior Project Manager
U.S Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Division of Waste Management and Environmental Protection
Materials Decommissioning Section
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Team Hematite

Team Member

Amy Snyder, Project Manager

Sam Nalluswami, Geo/Hydrologist

Anita Turner Gray, Performance Analyst

Christian Ridge, Kd Analyst

*James Park, EA Analyst

Mike McCann, Lead Inspector (RIII)

Dennis Morey, Criticality Inspector

Francis (Chip) Cameron (OGC -Facilitator for Public Meetings)

John Hull (OGC Attorney)

Thomas Fredrichs, Financial

Peter J. Lee (Tech Regional Perspective)

Harry Felsher, Criticality Engineer

Ed Johannemann, NSIR Reviewer

* Contractor will work with NRC on development of the EA.

HEMATITE FFCF
775 Gram U-235 limit
Summary of Burial Pits

Pit	Year	Grams	Enrichment %	Comments
1	1965	178	93	
2		790	93	
3	1966	767		
4		787.2		
5		797.3		
6		800.6		
7	1967	781.7		
8		799		
9		798.3		
10		790.4		
11		740.9		
12		440.6		
13		764.2		
14	1968	752.6		Declad filter cake
15		744.1		
16		784.6		
17		787.2		
18		788.9		
19		782.6		
20		801.8		
21		704.2		
22		431.4		
23		216.3		
24		451.8		
25		749.5		
26	1969	440.6		
27		329.4		
28		794.1		
29		716.3		
30		775		
31		779.4	97	
32	1970	733.2	97	
33		799.6	97	
34		798	97	
35		795	97	
36		760.9	97	
37		231.1	97	
38		645.8	97	
Totals		25828.6 x 3.33E-7 Ci/g = 8.6 Ci U-235		

19 of 38 pits or 50% exceeded the 750 gram limit.

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Subject: Information that you requested on Hematite
Creation Date 07/18/2006 9:21:43 AM
From: Amy Snyder

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Recipients	Action	Date & Time
nrc.gov OWGWPO04.HQGWDO01 AM	Delivered	07/18/2006 9:21:48
EXJ CC (Edward Johannemann) AM JTH CC (John Hull)	Opened	07/18/2006 9:23:31
nrc.gov TWGWPO01.HQGWDO01 AM KIM CC (Keith McConnell)	Delivered	07/18/2006 9:21:47
nrc.gov TWGWPO02.HQGWDO01 AM BWS2 CC (Bernard Stapleton) AM RXT CC (Rebecca Tadesse)	Delivered Opened	07/18/2006 9:21:44 07/18/2006 9:22:39
nrc.gov TWGWPO04.HQGWDO01 AM BAW1 CC (Bruce Watson)	Delivered	07/18/2006 9:21:48
us.westinghouse.com AM tracy.chance CC (Tracy D. (Notes) Chance)	Transferred	07/18/2006 9:22:21
westinghouse.com AM HackmaEK (E Hackmann) nardiaj CC (Nardiaj@westinghouse.com)	Transferred	07/18/2006 9:22:21

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OWGWPO04.HQGWDO01	07/18/2006 9:21:48 AM	nrc.gov

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Files	Size	Date & Time
MESSAGE	5086	07/18/2006 9:21:43 AM
TEXT.htm	4660	
TeamHematite.wpd	3854	07/18/2006 7:51:48 AM
Burial Pit Summary.xls	19456	07/18/2006 6:37:54 AM

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