

January 24, 2006

Board Notification 2006-01

MEMORANDUM TO : Atomic Safety and Licensing Board  
and All Parties

FROM: Thomas McLaughlin, Project Manager **/RA/**  
Materials Decommissioning Section  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: SUPPLEMENTAL INFORMATION POTENTIALLY RELEVANT  
AND MATERIAL TO PROCEEDING IN THE MATTER OF THE  
U.S. ARMY AND THE JEFFERSON PROVING GROUND SITE

In conformance with the Commission's policy on notification of the Atomic Safety and Licensing Board and all parties of new, relevant, and material information, this memorandum provides the information discussed below.

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its evaluation of the Army's proposed Field Sampling Plan (FSP) for Jefferson Proving Ground (JPG). To support the evaluation of the FSP, the NRC staff has requested additional information on three issues (See Enclosed).

This information is being brought to the attention of the Atomic Safety and Licensing Board and all parties, as it may be relevant and material to the JPG proceeding.

Enclosure:  
Letter to the Army dated January 18, 2006.

Docket No.: 40-8838-MLA  
ASLBP No.: 04-819-04 MLA

cc: See next page

CONTACT: Thomas McLaughlin, NMSS  
301-415-5869

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<b>DATE</b>	01/23/06	01/23/06	01/23/06	1/24/06	1/24/06

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BOARD NOTIFICATION NO. 2006-01

U.S. ARMY  
(Jefferson Proving Ground Site)  
Docket No. 40-8838-MLA

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Jefferson Proving Ground Site

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January 18, 2006

Alan G. Wilson, Garrison Manager  
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SUBJECT: REQUEST FOR ADDITIONAL INFORMATION TO SUPPORT NRC'S  
EVALUATION OF THE PROPOSED FIELD SAMPLING PLAN FOR  
JEFFERSON PROVING GROUND (LICENSE SUB-1435)

Dear Mr. Wilson:

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its evaluation of the Army's proposed Field Sampling Plan (FSP) for Jefferson Proving Ground. To support the evaluation of the FSP, the staff hereby requests additional information on three issues (attached). We would appreciate your response within 30 days of the receipt of this letter.

If you have any questions, I can be reached at (301) 415-5869.

Sincerely

**/RA/**

Tom McLaughlin, Project Manager  
Materials Decommissioning Branch  
Division of Waste Management and  
Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

License No.: SUB-1435  
Docket No.: 040-08838

Attachment: Request for Additional Information

cc: JPG Distribution List

Enclosure

## REQUEST FOR ADDITIONAL INFORMATION TO SUPPORT NRC'S EVALUATION OF THE PROPOSED FIELD SAMPLING PLAN FOR JEFFERSON PROVING GROUND

### QUESTION 1:

The Army should provide additional information on its rationale for postponing the installation of stream and cave gauging stations and measurement of stream and cave flows until the new monitoring wells are operable. The Army also should clarify its phased approach for collecting stream and cave flow data based upon the interrelationships of stream flow, cave flow, and groundwater flow. This should include a discussion on how it will decide if low flow or base flow stream and cave values should be collected and on how it will perform these measurements during the phased stream and cave monitoring program if these items are determined to be needed. The Army should also provide additional information on its rationale for postponing the gathering of climatic data and why it is not installing an automated climatic station.

### BASIS:

Information on the interrelationships of precipitation, recharge to the groundwater, stream flow, cave flow, and groundwater flow is critical to measuring and understanding the fate and potential transport of depleted uranium at Jefferson Proving Ground (JPG). It is important to gather precipitation, stream flow, cave flow, and groundwater flow data over different flow and climatic conditions.

### REFERENCES:

U.S. Department of Army Installation Support Management Activity. 2005. *Field Sampling Plan, Depleted Uranium Impact Area Site Characterization, Jefferson Proving Ground, Madison, Indiana*. Aberdeen Proving Ground, Maryland. May 2005.

Department of Army Installation Management Agency. 2005. *Responses to Action Items Identified at the 8 September 2005 Meeting Between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Army Regarding NRC License SUB-1435, Jefferson Proving Ground*. Rock Island, Illinois. October 2005.

Enclosure

QUESTION 2:

The Army should provide additional information to justify why a phased approach for determining the hydraulic properties (hydraulic conductivity and storage parameters) of the water-bearing units (both the unconsolidated and limestone units), utilizing aquifer pump test procedures and other approaches, should not be performed at JPG.

BASIS:

The hydraulic properties of the water-bearing units are needed to understand the rate of groundwater flow and storage of groundwater. Both are important factors that impact the fate and potential transport of the depleted uranium at JPG. A phased approach for obtaining the hydraulic properties of the water-bearing units permits the Army to determine these parameters and to evaluate whether additional data should be obtained.

REFERENCES:

U.S. Department of Army Installation Support Management Activity. 2005. *Field Sampling Plan, Depleted Uranium Impact Area Site Characterization, Jefferson Proving Ground, Madison, Indiana*. Aberdeen Proving Ground, Maryland. May 2005.

Department of Army Installation Management Agency. 2005. *Responses to Action Items Identified at the 8 September 2005 Meeting Between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Army Regarding NRC License SUB-1435, Jefferson Proving Ground*. Rock Island, Illinois. October 2005.

QUESTION 3 :

The Army should provide additional information on its approach or approaches for measuring, calculating, or estimating recharge to each water-bearing unit. The Army should also discuss the parameters that it will use to determine recharge to each water-bearing unit.

BASIS:

The measurement of recharge to each water-bearing unit and the movement of this water through the soils and the unsaturated zone provide important information on the fate and potential transport of the depleted uranium at JPG.

REFERENCES:

U.S. Department of Army Installation Support Management Activity. 2005. *Field Sampling Plan, Depleted Uranium Impact Area Site Characterization, Jefferson Proving Ground, Madison, Indiana*. Aberdeen Proving Ground, Maryland. May 2005.

Department of Army Installation Management Agency. 2005. *Responses to Action Items Identified at the 8 September 2005 Meeting Between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Army Regarding NRC License SUB-1435, Jefferson Proving Ground*. Rock Island, Illinois. October 2005.