

# memorandum

DATE: October 11, 2007

Audit Report Number: OAS-L-08-01

REPLY TO  
ATTN OF: IG-32 (A06YT025)

SUBJECT: Audit Report on "Follow-up on the Depleted Uranium Process at the Y-12 National Security Complex"

TO: Director, Policy and Internal Controls Management, NA-66

## INTRODUCTION AND OBJECTIVE

In September 2002, the Office of Inspector General issued a report on *Depleted Uranium Operations at the Y-12 National Security Complex*, (DOE/IG-0570). Although the depleted uranium (DU) process was capable of producing weapon components at that time, its continued reliability could not be ensured. Thus, the audit recommended that a series of immediate actions be undertaken to ensure continued viability of the DU process.

The purpose of this audit was to determine if the National Nuclear Security Administration (NNSA) had taken action to ensure that the DU process will be able to meet upcoming demand.

## CONCLUSIONS AND OBSERVATIONS

The NNSA took several actions to improve the DU process. Specifically, it:

- requested funding during the budget formulation cycle to support the DU process reliability;
- preserved essential equipment; and,
- implemented performance based incentives related to DU.

However, the DU process is no longer fully operational; scheduled activities required to reestablish the process continue to slip; and not all preventive maintenance activities are being performed. In particular, part of the wrought cycle portion of the DU process, which includes material rolling, forming, and pressing operations, failed in September 2005 and has not been reestablished. According to management, this portion of the process must be reestablished by mid-Fiscal Year (FY) 2008 in order to support FY 2008 production requirements.

We also noted key activities required to reestablish DU operations are not being completed as scheduled. For example, certain essential equipment, which was supposed to be relocated and installed by September 2006, is currently projected to be ready by January 2008. In another example, the operational date for a solution heat treat furnace used in the heat treating portion of the DU process has been delayed from October 2006 to May 2008.

Further, process operability is at risk because not all preventive maintenance activities are being performed on the DU process equipment. Specifically, certain preventive maintenance activities are not being performed on 16 of the 17 major pieces of DU process equipment. These activities include inspecting and replacing items as necessary; cleaning and lubricating systems; and, verifying equipment component functionality.

According to management, this situation occurred primarily due to a lack of funding and competing priorities with other Department missions. For example, according to management, DU process equipment may not be provided preventive maintenance because of the need for such maintenance on higher priority equipment. However, we noted that a lack of project management controls had likely contributed to the delays. For instance, until November 2006, the contractor had not assigned an integrating manager to the project. NNSA's Y-12 Site Office had also determined that the contractor had not developed a well-defined performance baseline or a risk management system. The Y-12 Site Office has instructed the contractor to develop a performance baseline and improve its risk management system for the DU project.

We recognize that the contractor is working to reestablish DU operations in a timely manner. However, we are concerned with the limited time remaining before the DU process must be fully operational. Specifically, the process must be reestablished by mid-FY 2008 to ensure FY 2008 weapon program requirements are met. In particular, joint-test assemblies which are used in weapon certification flight tests would be further delayed if the DU process is not reestablished. Also, the DU process would be unable to mitigate production risk for on-going life extension programs; support future life extension programs; or support future reliable replacement warhead design.

We are not making recommendations at this time because of the actions taken by NNSA to improve the contractor's project management, including the assignment of a project manager; the development of a performance baseline; and, a risk management plan.

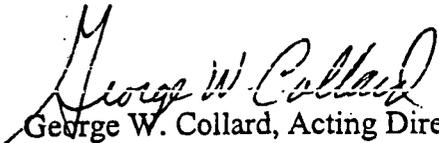
#### SCOPE AND METHODOLOGY

The audit was performed from October 3, 2006 to October 2, 2007, at NNSA Headquarters and the Y-12 National Security Complex (Y-12). The scope of the audit was limited to the DU process at Y-12.

To accomplish the audit objective we reviewed and evaluated documentation related to the on-going depleted uranium upgrades and process consolidation as well as interviewed NNSA Headquarters, Y-12 Site Office, and BWXT Y-12, LLC personnel responsible for the DU process.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We coordinated this letter with Y-12 Site Office staff on October 2, 2007. Since no formal recommendations are being made, a formal response is not required. We appreciated the cooperation of your staff throughout the audit.

  
George W. Collard, Acting Director  
National Nuclear Security Administration  
Audits Division  
Office of Inspector General

cc: Team Leader, Audit Liaison Team, CF 1.2  
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