DEPARTMENT OF THE ARMY
US ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

21 Dec 2018

RDAR-CRM

04006377

MEMORANDUM FOR Nuclear Regulatory Commission (NRC); Region I

SUBJECT: Request Review of Revised Final Status Survey Plan for Building 315 (NRC License # SUB-348)

RDECOM ARDEC respectfully requests a review of the attached comments pertaining to the revised final status survey plan for former DU research and development facility, Building 315, at Picatinny Arsenal, NJ, that was sent to NRC on 6 Nov 2018 for review and was further discussed over the phone.

The point of contact for this request is Margaret Kouretas; malgorzata.e.kouretas.civ@mail.mil or 973-724-6518.

Malgorzata E. Kouretas

Malgorzata E. Kouretas
RDECOM ARDEC Radiation Safety Officer

Encl

610417
NMSS/RGN1 MATERIALS-002

Malcolm Baldrige National Quality Award 2007 Award Recipient

Printed on Recycled Paper

Rec'd in LAT - 12/26/2018

Document: Hidden Water Responses to Nuclear Regulatory Commission Comments on the Radiological Survey Plan for Structures at Picatinny Arsenal (September 2018)

	Page/ Section/ Paragraph	Comment	
1.	Pg 5	Plates are discussed with regards to old survey criteria but later in section 3.1 reassessing against current DCGL is somewhat implied. This area needs to be re-evaluated and shown possibly through a dose evaluation that the sole plates meet current DCGL.	The sill plates discussed in the comment are in the DU Machine Shop. In 2010 surveys were performed on 100% of the floor and wall areas in the DU Machine Shop and adjacent rooms including the surfaces directly adjacent to the sill plates. There was no indication of contamination directly adjacent to the sill plates. There was no indication of contamination in any of the grids on either side of the sill plate in the 2010 surveys performed and it is reasonable to conclude that if the grids adjacent to the sill plates are clean, there is likely no contamination under the sill plates. Additionally the sheetrock on the walls that covered the side of the sill plates was not contaminated, and no indications of any spills that could have seeped under the plates. If a historic spill had seeped under the sill plates, it is reasonable to assume that some or all of the grids adjacent would have indications of contamination. All data used for the final status survey will be compared to the DCGL.

	Page/ Section/ Paragraph	Comment	
2.	Section 4.7.4	In section 4.7.4, NRC does not concur with the statement that the roof is a non-impacted area.	Actual survey data was collected in 2010. In the 2010 Building 315 radiological survey report it states that *"HWI utilized a boom lift to access the outside of the roof and performed a survey of the two roof stacks and surrounding areas at the base of the stacks obtaining directs frisks and smears."* A total of 12 direct and removable measurements were collected in the 2010 roof survey. The results of these surveys were a small fraction of the DCGL developed in Section 3.3 of the plan. Using results from ventilation exhaust stacks and the surrounding area of the roof is a standard approach for determining if an area should be classified as impacted or non-impacted. Section 4.7.4 for the radiological survey plan will be revised to clarify that the results are compared to the DCGL and not Regulatory Guide 1.86 criteria. The plan will be revised to state: *"Historical assessment and review of previous survey results indicate fixed and removable contamination surveys of the exterior roof stacks and the area on the roof directly adjacent to the roof stacks, and removable contamination surveys of the horizontal beam at the roof peak inside the*

	Page/ Section/ Paragraph	Comment	
			building from the 2010 building surveys are a small fraction of the DCGL."
3.	Section 4.2	Ventilation/parts that aren't being removed from the building must meet building surface criteria in accordance with NUREG 1757 vol. 2, appendices G.1.1 and G.1.2. Thus you can't compare it against equipment release criteria.	Ventilation or other items or materials that are part of the remaining structure will be compared to the DCGL and not to Regulatory Guide 1.86 criteria. Note that during site mobilization in early 2018, the fume hood, drain lines, pump, and other associated piping were removed and the all materials were disposed of as radioactive material. Table 4-2 Summary of Radiological Surveys to be performed for the Metallography Lab will be revised to state: *"Representative accessible surfaces of any remaining floor drains and the ventilation system in the mezzanine overhead area will be surveyed and compared to the DCGL."* Table 4-2 Summary of Radiological Surveys to be performed for the DU Machine Shop will be revised to include a survey of the remaining ventilation system exhaust. The following will be added to the table: *Representative accessible surfaces of any ventilation system in the overhead area will be surveyed and compared to the DCGL.*

Document: Hidden Water Responses to Nuclear Regulatory Commission Comments on the Radiological Survey Plan for Structures at Picatinny Arsenal (September 2018)

	Page/ Section/ Paragraph	Comment	
4.	General	Drain lines need to be surveyed at entrance access points to get an indication if they will add to dose.	Floor and sink drains will be surveyed as discussed in Section 4.7.5 and Table 4.2. The drain lines in the Metallography Lab were removed during the mobilization to the site in early 2018 and disposed of as radiological waste. There are no other above ground historical drain lines in the building.