



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3391

**RECEIVED
REGION 1**

2007 SEP 20 AM 11: 04

CENAP-SA
Safety & Occupational Health Office

17 September 2007

MEMORANDUM FOR: U.S NRC Region I, King of Prussia, PA 19406

SUBJECT: Notification of U.S. Army Corps of Engineers' Internal
Audit Finding

Dear Ms. Jenny Johansen:

03032866

This letter is to inform you of a recent audit finding involving the source decommissioning activities that were discussed in our letter to NRC Region I dated 08 June 2007. It was discovered through an internal audit performed on 24 August 2007 that a violation of NRC Byproduct Materials License 37-28775-01 occurred during the decommissioning of our previously owned Co-60 density gauges. Contrary to License Condition 22, the removal from service work was performed by Colonna Naval Shipyard on 14 January 2007. Colonna is not authorized to perform this service as required by our specific NRC license.

We have investigated the matter to determine if any exposure to personnel may have occurred during the uninstallation process and to identify what steps we must take to prevent recurrence. An event report with all pertinent details is attached.

We are providing information about this self-identified violation because it is our policy to be as forthcoming as possible about any action that occurs on our NRC license. If you have questions or concerns about this matter or require additional information, please contact me at 215-656-6933.

Sincerely,

Sharon M. Wilkinson, RPO

NMSS/RGNI MATERIALS-004

EVENT REPORT

Self-identified violation

NRC Byproduct Materials License 37-28775-01

14 Sept 2007

In accordance with 10 CFR 20.1101(c), the U.S. Army Corps of Engineers, Baltimore District (CENAB) conducted an audit of the Philadelphia District (CENAP) radiation protection program content and its implementation. During this 24 August 2007 audit, it was determined that a violation of Condition 22 of NRC Byproduct Materials License 37-28775-01, Amendment #4. Specific details regarding the violations are as follows.

On 14 January 2007, personnel from Colonna Naval Shipyard, located in Norfolk, VA, uninstalled the two IHC Holland Density Gauges from the Dredge McFarland. The request to remove the gauges was initiated by CENAP Operations personnel without my knowledge.

License Condition 22 states that removal from service of the sealed source shall only be performed by persons specifically licensed to perform such services. Colonna Naval Shipyard personnel were not specifically licensed and, thus, the violations occurred.

According to the safety evaluation in the Registry of Radioactive Sealed Sources and Devices (No: NR-8025-D-804-S), the radiation level on any accessible surface of the application is ≤ 0.5 mR/hr. The Co-60 sources in the Dredge McFarland gauges had decayed for almost two half-lives. Further, the field service report prepared by Ohmart/VEGA stated that upon receipt of the gauges, the shutters were proved closed and the highest radiation level reading on either gauge was 0.05 mR/hr. Based on this information, it is assumed that radiation exposure to shipyard personnel during removal from service was insignificant.

Our internal investigation indicated that at no point during removal/retrieval was the security of the gauges in jeopardy. These gauges are very large; each weighing approximately 1800 lbs. They could not be easily carried-off. Following removal, the Co-60 density gauges were stored in a Quonset hut with a padlocked steel door until decommissioning was completed by Ohmart/VEGA. Keys to the gauges were kept secure until given to Ohmart/VEGA. Details regarding Ohmart/VEGA's activities were given in our 08 June 2007 letter to NRC Region I.

On 28 June 2007, Byproduct Materials License 37-28775-01 was amended; removing the Co-60 sources and all conditions that pertained solely to them. This eliminates the possibility of future violations of Condition 22.

On 18 May 2007, Ohmart/VEGA commissioned two 2400 mCi Cs-137 sources (Ohmart/VEGA source holder model SR-2) onto the Dredge McFarland.

• CENAP has reviewed the safety evaluation for this device type (No: OH-0522-D-115-B). I have discussed the limitations and/or considerations of use for these gauges with the CENAB auditor to ensure complete awareness of CENAP's responsibilities. In addition, I will provide specific training/instructions to CENAP Operations personnel and dredge personnel regarding the proper procedures to follow when working with, or handling these new gauges. I will also incorporate this information into our radiation protection program to be reviewed on an annual basis. These measures will help ensure compliance with all applicable requirements.