

National Aeronautics and Space Administration

George C. Marshall Space Flight Center
Michoud Assembly Facility
13800 Old Gentilly Road
New Orleans, LA 70129



May 14, 2019

Reply to Attn of: SF02 (19-011)

TO: Louisiana Department of Environmental Quality
Radiation Protection
602 North Fifth Street
Baton Rouge, LA 70802

SUBJECT: LDEQ Notification of Lost Radioactive Source circa 2013 in
Accordance with LA Regulation LAC 33:XV.485

ATTENTION: Radiation Licensing Section

During a routine self-assessment NASA's current facility operations contractor, Syncom Space Services discovered that a piece of equipment that included a radioactive source was shipped to a recycling center that was not properly licensed to receive radioactive material from the NASA Michoud Assembly Facility (MAF) on September 9, 2013.

The source was imbedded in an Alnor 7000U Dew Point Tester (DPT) serial #25829. The DPT contained a foil strip (1/2" X 5/8") of non-exempt 35 micro-curie, Americium-241 (Am-241) source with a half-life of 432 years, and alpha energy of 5.5 mega electron volts (Mev).

The DPT was no longer able to be calibrated and was apparently erroneously placed in the recycle equipment waste stream by NASA's previous facility operations subcontractor, Jacobs MSFOC Group. NASA MAF records include the DPT in a larger recycling transfer made to the Unicor Recycle Facility in Marianna Florida, during a routine Unicor operated transportation and recycling pickup at the MAF in 2013.

The DPT source foil possesses little to no external exposure hazard to the workers and general public due to the mode of decay being primarily alpha emission. In addition, based upon the physical foil construction, radioactivity levels, and the likely disposal routes (i.e.-including as radioactive/hazardous) from the recycling facility, NASA concludes the likely worker and public exposure levels would be minimal.

Upon discovery of this issue NASA initiated an investigation and promptly contacted Unicor to resolve the source disposition. However, the investigation could not directly resolve the DPT's handling and disposal, primarily due to the lack of identification of the source in the shipment and nature of the record keeping and availability at Unicor. The investigation concluded that NASA records demonstrate the source inclusion in the Unicor transfer for shipment, proper radioactive material labeling of the DPT item itself and that the recycling process Unicor employs includes specific training and procedures to identify and deal with radioactive and hazardous material found during their segregation activities.

No record was found to definitively confirm the MAF DPT was properly handled upon arrival at the Unicom facility. NASA concludes based on discussions with their management and their general operational records demonstrating their segregation and controls for both radioactive and hazardous materials was being successfully executed during their work at their facility in the 2013 timeframe; and that this NASA DPT source was most likely properly disposed of by the facility.

NASA further notes the DPT was mishandled under a previous NASA MAF contractor and our current contractor has a senior staff member assigned as the Radiation Safety Officer (RSO). He both identified this issue and has incorporated appropriate program enhancements/controls which controls include removal of the DPTs that use radioactive sources from inventory by sending them to properly licensed facilities for recycle and or disposal.

If you have any questions concerning the above information, please contact Sam Engelhard, the MAF RSO at (720) 552-4325.

A handwritten signature in black ink, appearing to read "Keith G. Savoy", with a long horizontal flourish extending to the right.

Keith G. Savoy
Manager, NASA MAF Operations Office