



**CABRERA SERVICES**  
RADIOLOGICAL • ENVIRONMENTAL • REMEDIATION

August 10, 2009

Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406  
ATTN: Director, Division of Nuclear Materials Safety

RE: Activities at temporary job site utilizing U.S. NRC Radioactive Material  
License #06-30556-01 Amendment 01

Dear Sir or Madam:

Cabrera Services Inc. (CABRERA) is providing this written notification of its intent to utilize CABRERA Material License #06-30556-01 Amendment 01 at a temporary job site. The attached information is provided as required by license condition 18A.

We trust that this information is sufficient to grant our use of CABRERA material license # 06-30556-01 Amendment 01 at the temporary job site. This license is currently in use at 3 other sites (MD, MO, CA). No activity exceeding license limitations will be exceeded. CABRERA will notify the Regional Administrator, U.S. Nuclear Regulatory Commission, within 30 days of termination of activities at this job site in keeping with license condition 18B.

If you should have any questions regarding this notification, please contact either Henry W. Siegrist or David J. Watters at CABRERA (860) 569-0095.

Sincerely,

Shawn Googins, MS, CHP for  
Henry W. Siegrist, P.E., CHP  
Corporate Health Physicist

attachment

**ATTACHMENT  
WAYNE INTERIM STORAGE SITE  
WAYNE, NJ  
(August 2009)**

Cabrera Services, Inc. (CABRERA) is providing radiological characterization, spot remediation, sample analysis, and final status survey (FSS) at the Wayne Interim Storage Site (Site) located in Wayne, NJ. The work entails soil sample analysis associated with characterization and FSS activities at the Site. A gamma spectroscopy system using a non-exempt radioactive source will be utilized to calibrate sample analysis equipment used to provide the FSS for the Site. This information is being transmitted to you as required by condition 18A of the CABRERA Materials License.

**BACKGROUND**

Radiological contaminants were deposited on the property via drainage from the former Thorium manufacturing process and subsequent waste handling operations at the WISS along Sheffield Brook. Sheffield Brook flooded and spread contamination beyond its banks. The Department of Energy (DOE) remediated the site in 1986. Residual contamination may exist at the southern most boundary of the former WISS property and extend approximately 300 ft to the northern boundary of the property. These locations roughly correlate to a manhole on the southern boundary and a drainage grate located immediately South of the driveway belonging to the property's northern neighbor. The radiological contaminants of concern are radium-226, thorium-232, and natural uranium.

**RADIOLOGICAL WORK DETAILS**

CABRERA has prepared this notification to the NRC with respect to CABRERA's intent to utilize the CABRERA Materials License, number 06-30556-01 Amendment 01, at the Wayne Interim Storage Site, Wayne, NJ temporary job site. As required by condition 18A of the CABRERA Materials License, the following information is provided:

Surface and subsurface soil samples will be collected for characterization and FSS purposes. The remediated areas are expected to result in the generation of less than 20 cubic yard of contaminated soil

Collected soil samples will be collected, prepared, and placed into 1-liter marinelli containers for radiological analysis. The samples will be analyzed onsite utilizing portable high purity germanium (HPGe) gamma spectroscopy equipment. The gamma spectroscopy equipment will be calibrated using a solid source geometry marinelli container maintained under CABRERA at the Site during the work evolution. Approximately 100 soil samples will be collected and analyzed onsite and up to 25 QA samples will be analyzed by an offsite laboratory licensed to perform this work.

Investigation derived wastes (IDW) will be handled in accordance with federal and state regulations. This includes onsite samples, small amounts of contaminated PPE and equipment (gloves, smears, used marinelli containers, etc.). Total IDW is expected to be several cubic feet in volume. Cabrera will not take possession of any radioactive materials derived from the Site.

A calibration source will be utilized during this work evolution. The calibration source to be controlled under CABRERA NRC Materials License (No. 06-30556-01) is an Isotope Products 1-L marinelli beaker, source. The source has an active volume of 1,000 ml and is contained in an epoxy matrix having a density of 1.5 g/cc.

The calibration source is a multinuclide gamma source containing licensed material, Americium-241. The source has a total activity of approximately of 3.1  $\mu\text{Ci}$ . No other licensed radioactive materials are requested for use by this notification. The radionuclides and approximate individual activities present in the marinelli source beaker are:

Marinelli 1 L Epoxy Source

<sup>241</sup> Am	0.091 $\mu\text{Ci}$
<sup>109</sup> Cd	1.260 $\mu\text{Ci}$
<sup>57</sup> Co	0.045 $\mu\text{Ci}$
<sup>139</sup> Ce	0.058 $\mu\text{Ci}$
<sup>203</sup> Hg	0.180 $\mu\text{Ci}$
<sup>113</sup> Sn	0.215 $\mu\text{Ci}$
<sup>85</sup> Sr	0.299 $\mu\text{Ci}$
<sup>137</sup> Cs	0.208 $\mu\text{Ci}$
<sup>88</sup> Y	0.475 $\mu\text{Ci}$
<sup>60</sup> Co	0.250 $\mu\text{Ci}$

The marinelli source container will be shipped to the Site directly to a CABRERA Employee. Source controls and leak tests associated with the marinelli calibration source will be performed upon receipt and follow CABRERA NRC License conditions. In addition, CABRERA Radiation Safety Procedure "Use and Control of Radioactive Check Sources", OP-009, will be utilized to document the source receipt.

CABRERA NRC Materials License (No. 06-30556-01) requirements, including previously submitted procedures, will be adhered to with respect to the duration of this work evolution. Radiological surveys of affected work areas, and decontamination of equipment used for the work effort will be conducted after completion of remediation investigation activities to ensure the absence of radioactive contamination. These values are consistent with NRC Regulatory Guide 1.86.

The project marinelli source receipt date is on or about August 25, 2009. Work within this scope of remediation and FSS activity is expected to be completed prior to September 30, 2009. Non-radiological activities may commence onsite earlier than the date noted above.

Key project personnel and supporting information is available from:

Allen Roos or Ann (Riedel) Ewy , Project Engineers  
US Army Corps of Engineers, Kansas City District  
601 E. 12th Street  
Kansas City, MO 64106  
Direct (816) 389-3863

Mr. Bill Lorenz - Cabrera Project Manager  
4715 Harris Hill  
Williamsville, NY 14221  
716.374.0835

Mr. Henry Siegrist, P.E., CHP – CABRERA Corporate Health Physicist  
Cabrera Services, Inc.  
473 Silver Lane  
East Hartford, CT 06118  
Tele (860) 569-0095 ext 18

Please contact Henry Siegrist (CABRERA) at (860) 569-0095 should you have any questions regarding this CABRERA notification of intent to utilize NRC Materials License, number 06-30556-01 Amendment No. 1.

This is to acknowledge the receipt of your letter/application dated

8/10/09 and to inform you that the initial processing which includes an administrative review has been performed.

Notification (06-30556-01)  
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 144045.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (R1)  
(6-96)

Sincerely,  
Licensing Assistance Team Leader

Mail Envelope Properties (2856BC46F6A308418F033D973BB0EE7201197F210A62)

Subject: FW: Cancel NRC notification for use of license at a temporary jobsite  
(License 06-30556-01; NRC Mail Control Number 144045)

Sent Date: 8/21/2009 11:31:35 AM

Received Date: 8/21/2009 11:31:35 AM

From: Modes, Kathy

Created By: Kathy.Modes@nrc.gov

Recipients:

R1LAT.RESOURCE@nrc.gov (R1LAT RESOURCE)

Tracking Status: None

Post Office:

R1CLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	594884	8/21/2009
NRCRequestWayneISS082009.PDF	405159	
NRC Control Number 144045.PDF	177592	

Options

Expiration Date:

Priority: olImportanceNormal

ReplyRequested: False

Return Notification: False

Sensitivity: olNormal

Recipients received: