

United States Government



Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

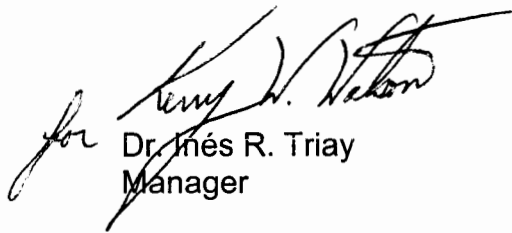
DATE: June 21, 2001

REPLY TO  
ATTN OF: CBFO:NTP:KWW:VW:01-1054:UFC:5822SUBJECT: INEEL Certification Authority for Transportation and Characterization of Homogeneous  
Solid and Debris Waste

TO: Ms. Beverly Cook, Manager, Idaho Operations Office

The Carlsbad Field Office (CBFO) has completed the evaluation of the Idaho National Engineering and Environmental Laboratory (INEEL) SWEPP Waste Assay Gamma Spectrometer (WAGS) System. This evaluation determined the equivalency of the WAGS system to the SWEPP Gamma Ray Spectrometer (SGRS) System that was previously approved for debris (CBFO audit A-00-06) and homogeneous solids (CBFO audit A-01-02). Based on this evaluation (see attachment 1), the CBFO is satisfied that these systems and processes meet CBFO standards for waste characterization, certification, and transportation authority for debris and retrievably stored inorganic homogeneous solids.

Previous INEEL authority is revised to include the use of the WAGS system. See attachment 2 for the list of applicable procedures and documents that have been added to INEEL's certification as a result of this evaluation. TRU waste characterization, certification, or transportation using significantly revised or new processes and systems must be evaluated by the CBFO prior to their implementation.

*for*   
Dr. Inés R. Triay  
Manager

Attachments

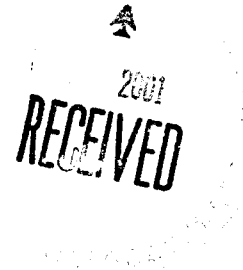


Ms. Beverly Cook

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June 21, 2001

cc: w/attachments  
T. Harms, DOE-HQ  
K. Watson, CBFO  
S. Vega, CBFO  
C. Zvonar, CBFO  
B. Bennington, CBFO  
J. Wells, DOE/ID  
L. Fritz, DOE/ID  
T. Monk, BBWI  
D. Murphy, BBWI  
F. Marcinowski, EPA  
S. Monroe, EPA  
S. Zappe, NMED  
J. Cotton, WTS  
R. Kehrman, WTS  
M. Gerle, WTS  
D. Standiford, WTS  
A. Pangle, CTAC  
S. Calvert, CTAC  
T. Bowden, CTAC



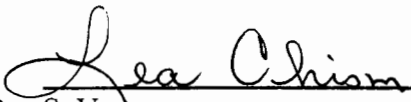
**INEEL CERTIFICATION PROGRAM STATUS**

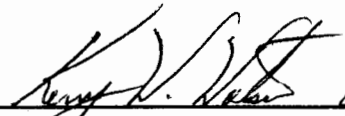
The site certification panel evaluated the documentation supporting the compliance and/or continued compliance of INEEL TRU waste programs. The panel unanimously recommends that the INEEL authority be revised to include the SWEPP Waste Assay Gamma Spectrometer (WAGS) System. See attachment 2 for a list of applicable procedures that are being added to INEEL's certification. See attachment 3 for the evaluation of the WAGS system relative to the previously approved SGRS system.

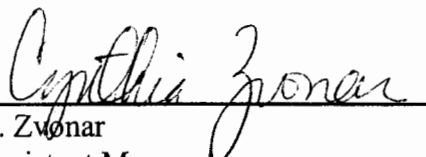
**RECOMMENDATION**

The panel recommends that the CBFO Manager grant and/or continue the INEEL authority to characterize, certify, and transport debris and retrievably stored inorganic homogeneous solid waste characterized to the retrievably stored waste characterization requirements. It is also recommended that the INEEL authority be revised to include those systems and processes listed in attachment 2.

**CONCURRENCE**

  
for Lea Chism 06/21/2001  
S. Vega  
Quality Assurance Manager

  
K. Watson 06/21/2001  
K. Watson  
Assistant Manager  
National TRU Program

  
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Regulatory Compliance

<b>INEEL PROCEDURES EVALUATED</b>		
<b>NUMBER</b>	<b>PROCEDURE NUMBER</b>	<b>TITLE</b>
1.	TPR-1654	SWEPP Waste Assay Gamma Spectrometer (WAGS) System

### **Evaluation of the SWEPP Waste Assay Gamma Spectrometer (WAGS) System**

The WAGS system is used by INEEL to determine the isotopic ratios of waste being assayed. These isotopic ratios are used in conjunction with the assay results obtained from the INEEL PAN drum assay system to determine the radionuclide content of the waste. The actual quantitative determination is made using the PAN system.

INEEL has been previously certified by the Carlsbad Field Office (CBFO) to use a similar gamma spectrometer system, the SWEPP Gamma Ray Spectrometer System (SGRS), for assay of debris and homogeneous solids. The PAN system has also been certified by CBFO for these waste forms.

The operating procedure for the WAGS system (TPR-1654, Rev. 1) was compared to the CBFO approved operating procedure for the SGRS system (TPR-1528, Rev. 26). The procedure steps for gamma scan and analysis, detector control menu, and miscellaneous menu functions are identical in both procedures. The only differences between the two procedures are in the area of loading drums into the assay equipment and system power-up and shutdown. These differences have no effect on the assay data.

The calibration of the WAGS system is performed per INEEL procedure TPR-1719, *Calibration of Gamma Assay System*. This procedure has been previously certified by CBFO. Signed off calibration procedure sheets for the WAGS from TPR-1719 were reviewed. The calibration measurement series for the WAGS was initiated on November 22, 2000.

The quality assurance objective (QAO) test report for the WAGS system was reviewed (memorandum McIsaac to Menkhous, dated December 12, 2000). This summary report indicates the the WAGS system meets the QAOs specified in the WIPP Waste Acceptance Criteria (WAC).

A "Gap Analysis" (INEEL document, dated 6/21/2001) comparing the features and attributes of the WAGS system to the SGRS system was reviewed. This analysis demonstrates that the WAGS system is functionally equivalent to the previously approved SGRS system.

Based on this evaluation, the WAGS system is functionally identical to the previously approved SGRS system. Both are four (4) detector systems utilizing identical software and electronics. The operating procedures are identical in all aspects that could impact assay data. The calibration of the system is performed to the same procedure which has been previously certified by CBFO. The systems are operated by the same personnel and the data is verified and validated by processes certified by CBFO.

It is recommended that procedure TPR-1654, *SWEPP Waste Assay Gamma Spectrometer (WAGS) System*, be added to INEEL's list of CBFO certified procedures.