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memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: June 11, 2002

REPLY TO ATTN OF: CBFO:QA:MPN:GS:02-1088:UFC 2300.00

SUBJECT: CBFO Surveillance Report S-02-17, Idaho National Engineering and Environmental Laboratory

TO: Edward Ziemianski, ID

The Carlsbad Field Office (CBFO) conducted a surveillance of the Idaho National Engineering and Environmental Laboratory (INEEL) recovery option of standard waste box blending activities on May 21 and 22, 2002.

The surveillance team concluded that, overall, the INEEL technical and quality assurance procedures within the scope of this surveillance were adequate relative to the flow down of requirements from the CBFO Quality Assurance Program Document (QAPD), TRUPACT-II Authorized Methods for Payload Control (TRAMPAC), Waste Analysis Plan (WAP), and Waste Acceptance Criteria (WAC).

The surveillance team also concluded that the defined blending methods for the payload characterization data, payload assembly, payload certification, payload loading, preparation of payload documentation, and approval of payload documentation were satisfactorily implemented and effective in accordance with the INEEL Program Plans for Certification of INEEL Contact-Handled Stored Transuranic Waste, TRUPACT-II Authorized Methods for Payload Control (TRAMPAC) Compliance Plan, Quality Assurance Project Plan for the Transuranic Waste Certification Program, and implementing procedures. The CBFO surveillance report is attached.

Three deficiencies, which were corrected and therefore classified as corrected during the surveillance, one Observation, and one Recommendation, were identified during the surveillance.

If you have any questions or comments concerning this report, please contact me at, (505) 234-7423.

Ava L. Holland //signature on file//
Ava L. Holland
Quality Assurance Manager

Attachment

cc w/attachment:

I. Triay, CBFO	*ED
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S. Monroe, EPA	*ED
E. Feltcorn, EPA	*ED
M. Eagle, EPA	*ED
S. Zappe, NMED	*ED
B. Walker, EEG	*ED
R. Taft, ID	*ED
J. Wells, ID	*ED
T. Monk, BBWI	*ED
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*ED denotes electronic distribution
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U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

SURVEILLANCE REPORT
OF THE
IDAHO NATIONAL ENGINEERING AND
ENVIRONMENTAL LABORATORY (INEEL)

IDAHO FALLS, IDAHO

SURVEILLANCE NUMBER S-02-17

May 21 – 22, 2002

RECOVERY OPTION OF STANDARD WASTE BOX BLENDING ACTIVITIES

Prepared by: *Jeffrey D. May* //signature on file// **Date:** *5/31/02*
Jeffrey D. May
Surveillance Team Leader, CTAC

Approved by: *Ava L. Holland* //signature on file// **Date:** *6/11/02*
Ava L. Holland
Quality Assurance Manager

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Surveillance S-02-17 was conducted to evaluate the adequacy, implementation, and effectiveness of the Idaho National Engineering and Environmental Laboratory (INEEL) recovery option of standard waste box (SWB) blending activities as applied to the payload assembly, certification, and loading process, and the Transuranic Reporting, Inventory, and Processing System (TRIPS) and Waste Isolation Pilot Plant (WIPP) Waste Information System (WWIS) Interface for this option. Five concerns were identified and three conditions adverse to quality were corrected during the surveillance. One Observation and one Recommendation were offered for INEEL management consideration.

2.0 SCOPE

CBFO Surveillance S-02-17 was conducted to evaluate the adequacy, implementation, and effectiveness of INEEL's recovery option of SWB blending activities as applied to the payload assembly, certification, and loading process as well as the TRIPS and WWIS Interface for this option.

3.0 SURVEILLANCE TEAM

Jeff May	Surveillance Team Leader, CTAC
Dee Scott	Surveillance Team Member, CTAC
Jim Schuetz	Surveillance Team Member, CTAC
Mark Doherty	Surveillance Team Member, Technical Specialist

4.0 SURVEILLANCE PARTICIPANTS

Personnel contacted during the surveillance are identified in Attachment 1.

5.0 SUMMARY OF SURVEILLANCE RESULTS

5.1 Surveillance Activities

5.1.1 Payload Assembly, Certification, and Loading, Preparation of Payload Documentation, and Approval of Payload Documentation

Procedures for SWB payload certification, assembly, and loading were reviewed for adequacy and CBFO review and approval of the procedures were verified. Verification was made that controlled copies of the procedures were filed in the INEEL Document Control Center in the Radioactive Waste Management Complex (RWMC) Shift Supervisor's Office and that the correct and approved versions of the procedures were being used in the field. Procedures and associated data for loading, closure, surveying, and labeling of the SWBs were reviewed and were found acceptable. The assembly of two SWBs into a payload assembly was observed, as was the lifting and balancing of the payload assembly using the SWB lift fixture and Adjustable Center of Gravity Lift Fixture (ACGLF). Surveillance team members observed the certification process of the SWB payload by the INEEL TRIPS system. Team members also reviewed the TRIPS system generation of the Payload Container Transportation Certification Document (PCTCD) and the Overpack Payload Container Transportation Certification Document

(OPCTCD). Overall, it was concluded the payload assembly, certification, and loading, including the preparation and approval of the payload documentation, were adequate, satisfactory implemented, and effective except for the TRIPS and WWIS interface, which failed during the attempt to submit and obtain acceptance of characterization data.

Four of the five concerns were identified for this area during the surveillance: 1) PCTCDs have an incorrect certification statement; 2) RWMC forms are not included as part of the procedures, creating a potential for errors in the forms since the forms may not be reviewed along with the procedures; 3) TPR-1648 and Form 287 do not contain the requirement to identify the container number, payload assembly number and/or shipping number to provide positive traceability; and 4) INEEL's attempt to submit and obtain acceptance of the characterization data by WWIS and the Electronic TRUPACT-II Authorized Methods for Payload Control (E-TRAMPAC) failed.

The first concern was an isolated instance that was corrected by remedial action during the surveillance. The remedial action was to correct the applicable PCTCDs and prepare a TRIPS Change Request (TCR) Number 2568 to change the wording on the PCTCDs (CDS No. 1). The second concern was classified as a recommendation (Recommendation No. 1) and reported to INEEL management for their consideration. The third concern was an isolated instance that was corrected by remedial action during the surveillance by issuing Document Action Request (DAR) 33679 to revise TPR-1648 by adding data fields for Pack No. and/or SWB No. (CDS No. 2). The fourth concern was classified as an observation (Observation 1) and reported to INEEL management for their consideration.

5.1.2 Transuranic Reports, Inventory, and Processing System and the WIPP Waste Information System Interface

Tasks necessary to develop, test, and verify software changes to the existing TRIPS program for SWB overpackaging were evaluated to the requirements of the CBFO Quality Assurance Program Document (QAPD) and INEEL site procedures. The evaluation included demonstrations of functions of SWB container identification and payload building. Documentation was reviewed covering the TRIPS mini-design, code testing, and configuration management of the revised code. The surveillance team determined that the proposed code change was evaluated by the INEEL TCR Committee and was properly defined as a mini-design in accordance with INEEL procedures. It was also determined that the required functionality and computer codes were adequately documented, tested, and verified in accordance with INEEL procedures for the classification of the scope of the change. The required functionality and change were determined to be in compliance with QAPD and WWIS requirements for characterization and assembly of an SWB overpack container. The TRIPS portion related to characterization and payload assembly of an SWB is adequate with the exception of the transfer of the data to the WWIS. Data transfer was demonstrated and failed in a few instances, resulting in the failure of the SWB overpack to be accepted by WWIS. An evaluation of the reasons for the failure to receive acceptance revealed inconsistencies in transmittal of some data by INEEL and failure of the WWIS to interpret the data received and to evaluate the data as an overpack container, rather

than a standard drum or direct-fill SWB. It was determined that INEEL and the WWIS Administrator would resolve data submittal and receipt issues and that the WWIS program will be evaluated for its ability to recognize an SWB overpacked container. Overall, it was concluded that except for the failure of the TRIPS and WWIS interface, TRIPS was adequate, satisfactorily implemented, and effective.

5.1.3 Technical Evaluation of Blending Methods

The data dictionary presented in Table 1 of EDF-1892 was verified by comparing the information from four overpacked drums to the results calculated for the SWB. One of the two overpack configurations, IDRFXWB020002, was selected for review. The drum parameters, equations, and rules, as listed in Table 1, were evaluated by performing hand calculations to ensure they matched the computer-generated results. The ability of the software to select parameters from the correct drum to represent the SWB and to combine drum parameters mathematically where required was verified. While the individual drum data provided from screen prints were not always the same values used by the software (for example, the software takes liner weights from a reference table different from the one used to show drum weights), the calculated results were not significantly different. The screen prints were provided as a convenient source of data for comparison; they are not intended nor required to reproduce the same values used by the software. All the equations shown in Table 1 were verified and found to be correct. Overall, it was concluded that the blending methods utilized were adequate, satisfactory implemented, and effective.

The fifth concern was identified during the surveillance that pertained to differences in the wording of a rule between the text and Table 1 of EDF-1892. The concern was an isolated instance that was corrected by remedial action during the surveillance by revising EDF-1892 to correct the difference (CDS No. 3).

6.0 CORRECTIVE ACTION REPORTS, CORRECTED DURING THE SURVEILLANCE, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

No Corrective Action Reports were prepared as a result of this surveillance.

6.2 Corrected During the Surveillance

Three minor deficiencies requiring only remedial corrective action were corrected during the surveillance.

6.2.1 CDS-1

PCTCD's for containers IDRF074703847, IDRF074704429, IDRF074705479, IDRF074701778, IDRF074705604, IDRF001906261, IDRF074704009, and IDRF074704637, which were signed and approved by the Transportation Certification Official (TCO), contained a certification statement that was not as required by Revision 19 of the TRAMPAC.

The applicable PCTCDs were corrected by the TCO, who inserted the correct certification statement on the form. INEEL prepared TCR 2568 to change the wording on the PCTCDs. The corrections on the PCTCDs and the issuance of the TCR were verified and found acceptable.

6.2.2 CDS-2

Form 287, *Operations Document Checklist for Field File/TRUPACT Loading File* and Procedure TPR-1648, *TRUPACT-II Payload Assembly Operation*, do not contain a requirement to identify the container number, payload assembly number, and/or shipping number that would provide positive traceability.

INEEL DAR 33679 was issued to revise TPR-1648 by adding data fields for Pack No. and/or SWB No. The DAR was reviewed and found acceptable.

6.2.3 CDS-3

The rule for gas ID and date in Table 1 of EDF-1892, R3 is not worded in the same way as it is in Section 2.2 Paragraph 1 of the procedure.

INEEL revised EDF-1892 to correct the difference between the table and text. The revision was reviewed and was found acceptable.

6.3 Observations

One Observation was identified during the surveillance. This Observation documents a condition which, if not addressed, could lead to deficiencies.

6.3.1 Observation 1

INEEL's attempt to submit and obtain acceptance of characterization data by WWIS/E-TRAMPAC failed at the E-TRAMPAC check phase and at the certification transfer phase. Numerous error messages were received that related to Drum Age Criteria (DAC), weights, dates of analysis vs. sample, and filter modules. TRIPS accepted the characterization data and certification and successfully generated an OPCTCD for each SWB (IDRFXWB020002 and IDRFXWB020001). TRIPS must be able to generate all required data fields and format data for successful electronic parse to WWIS/E-TRAMPAC. INEEL cannot ship overpacked SWBs until this failure is corrected unless a manual method is used. At the time of this surveillance it was determined that this failure did not violate any regulatory or CBFO requirements.

6.4 Recommendations

One Recommendation was identified during the surveillance and was offered for INEEL management consideration.

6.4.1 Recommendation 1

RWMC forms are not included as part of the procedures and are maintained under a separate controlled system. It is recommended that INEEL personnel perform a review of the forms during internal procedure reviews and that forms be transmitted along with procedures for review by CBFO during adequacy reviews.

PERSONNEL CONTACTED DURING THE SURVEILLANCE

PERSONNEL CONTACTED				
NAME	TITLE/ORG	PRE SURVEILLANCE MEETING	CONTACTED DURING SURVEILLANCE	POST SURVEILLANCE MEETING
Bass, Karen	Audit Support, GTI		X	X
Baker, Julie	WCO/TCO/Traffic, SPO	X		X
Bolander, Tahane	Sr. Engineer, GTI	X		
Cook, Kevin	TRIPS		X	
Croft, Kevin	Project Engineer, Engineering	X	X	X
Erhart, David	SPO		X	
Edgett, S. Mike	Recovery/Options Project Engineer, BBWI	X	X	
Evans, Robert	TRIPS, Software QA		X	
Griffin, Michael	WCO, SPO	X		X
Hovis, Darrin	WCO/TCO, SPO	X	X	X
Hughes, Mark	TRIPS		X	
Johnsen, Tom	SPO-CBFO Interface/BBWI	X	X	X
Krivanek, Kenneth	Engineer, GTI	X		
Krusch, Susan	TRIPS Software QA	X	X	
Mancuso, Carol			X	
Miklos, Robert	3100M^3 Production Manager/BBWI			X
Monk, Tom	SPM/BBWI	X	X	X

PERSONNEL CONTACTED				
NAME	**TITLE/ORG**	**PRE SURVEILLANCE MEETING**	**CONTACTED DURING SURVEILLANCE**	**POST SURVEILLANCE MEETING**
Preston, Tim	SQAO/BBWI	X	X	X
Schaeffer, Steve	TRIPS		X	
Shainholtz, Jeff	GTI, Audit Support	X	X	X
Sherick, Mark	TRIPS, BBWI	X	X	X
Siddoway, Ingrid	Production Lead, SPO		X	X
Spencer, Dave	TRIPS		X	
Tisdale, W. S.	SQAO Staff /3100M[3]	X		
Wander, Sandy	Consultant	X	X	X
Wells, Jerry	TRU Waste Program/ DOE-ID	X	X	X

INEEL PROCEDURES REVIEWED DURING S-02-17		
NUMBER	**PROCEDURE NUMBER**	**TITLE**
1.	EDF-1892	Engineering Design File for Defining Characterization and Certification Data for Drums Overpacked in an SWB
2.	TPR-1632	Transportation Certification Using TRIPS and WWIS
3.	TPR-1648	TRUPACT-II Payload Assembly Operation
4.	TPR-1649	TRUPACT II Loading Operation in WMF-618
5.	TPR-1666	TRUPACT II Loading Operation in WMF-635
6.	PLN-582	Transuranic Reporting, Inventory, and Processing System (TRIPS) Software Configuration Management Plan