Mr. Don Hancock  
Southwest Research and Information Center  
P.O. Box 4524  
Albuquerque, NM 87196

Dear Mr. Hancock:

In response to your concerns, requests, and suggestions provided via an email dated May 6, 2008, the Carlsbad Field Office (CBFO) of the Department of Energy (DOE) is providing you with more detailed information regarding the 2007 Annual Transuranic (TRU) Inventory Report, the TRU waste inventory, and the Comprehensive Inventory Database (CID).

Inventory Waste Profile Sheets

Regarding inventory profile report sheets, Southwest Research and Information Center (SRIC) suggested that the sheets be expanded to include the number of containers, not just volumes, for current and final waste forms, the time ranges for expected emplacement of projected waste volumes, and historical tracking information.

Additional information on container numbers is already available in the CID and in Waste Stream Data Reports. If additional container-specific information is required, the Waste Isolation Pilot Plant (WIPP) Waste Information System (WWIS) database can provide more detailed information on containers coming to WIPP. The DOE does not intend to expand the content of the inventory profile report sheets at this time because the information identified by SRIC is available from other sources within the CID.

Elimination of Some Waste Sites from TRU Waste Inventory

SRIC recommended that West Valley waste should be removed from the TRU waste inventory for the WIPP. Inclusion of this waste as Greater Than Class C (GTCC) in the Environmental Impact Statement (EIS) does not define the path for disposal of this waste but accounts for its possible shipment to WIPP in the event that this disposal path is selected in the future. Regarding completion of a comprehensive inventory and analysis of how such wastes impact WIPP, this is the specific purpose of the GTCC EIS, which is ongoing. It is not appropriate to analyze the GTCC inventory as part of the WIPP compliance determinations before a preferred alternative is selected and a Record of Decision (ROD) is reached.

In addition, questions regarding the defense determination for the West Valley Demonstration Project (WVDP) TRU waste is still being resolved. Until the GTCC EIS process is complete and a defense determination is approved, DOE has determined it is appropriate for planning purposes to include West Valley TRU waste in the potential waste destined for WIPP and in the GTCC EIS.
Further, the other sites that SRIC believes should be excluded from the WIPP Inventory because they are not "atomic energy defense" sites, such as: Framatome (FR), Separations Process Research Unit (SP), General Electric Valleitos Nuclear Center (VN), Lawrence Berkeley Laboratory (LB) and Knolls Atomic Power Laboratory - Nuclear Fuels Services (KN), are in process for defense determination. Until this determination is completed, DOE has determined that it is appropriate for planning purposes to include these sites' TRU waste in the potential waste destined for WIPP.

Sealed Sources

The difference in categorization between MC-W001 and MC-W002 is that the MC-W002 waste stream contains lithium sources that cannot be shipped to WIPP due to a possible reactivity issue. Therefore, the MC-W002 waste stream will remain potential until the reactivity issue is resolved.

Regarding foreign sealed sources, the material for these sources for the most part has been generated in the United States. A small number of sources of foreign origin have been recovered by the Off-site Source Recovery Program (OSRP) for national security purposes at the request of the International Atomic Energy Agency (IAEA), Department of Defense and Department of Homeland Security. These sources will continue to be handled on a case-by-case basis in the WIPP inventory.

Format of the Annual Report

SRIC recommended four separate appendices to the annual report be used for different waste types:

- Waste emplaced at WIPP
- Waste to be shipped to WIPP that meets all WIPP disposal criteria
- Waste potentially to be shipped to WIPP prior to the next Recertification Application
- Waste potentially to be shipped to WIPP, but not expected until after the next Recertification Application.

DOE believes that the format of the current annual report is adequate for reporting TRU waste information. The first two appendices are already included in the annual report. Emplaced waste is reported in Appendix B and stored to be shipped waste, also known as WIPP bound waste, is included in Appendix A. Potential waste is included in Appendix C. With regard to the final two suggestions related to the expected timing of shipments, Appendices B and C do not include estimates for times of shipment to and emplacement in the WIPP. It is noted that there are many parameters that affect the timing of shipments to WIPP, many of which can change over time so that it is impossible to consistently determine time frames. Some of the parameters involve possible changes in funding levels and/or DOE policy, while others are under the control of the states where sites are located, such as Records of Decisions (RODs). This makes it impossible to forecast the exact timing of waste shipments with regard to recertification cycles.
Regarding the request for a brief description of what WIPP disposal criteria remain to be determined for each waste stream, this information is included in the tables and text provided under section 4.2 of the annual report.

Availability of the Comprehensive Inventory Database

During the public meeting on April 30, 2008, DOE stated that the database would not be made available to the public for a number of reasons. First, the database is operated on a SQL server and is not compatible with operation on any other system. Secondly, the data and the relationships that can be deduced from the data in the database are easily misrepresented without an in-depth knowledge of the data and how they are related. However, the Waste Stream Data Reports generated by the CID contain all the information available in the CID and these reports will be provided to stakeholders upon request.

National Environmental Policy Act (NEPA) Documentation for the ROD for INL

As pointed out by SRIC, on March 7, 2008 (73 Federal Register 12401-12403), DOE amended the Waste Management Programmatic EIS ROD to allow wastes from up to 14 sites to be shipped to the Idaho National Lab (INL) for treatment and subsequent disposal at WIPP. The two sites identified by SRIC (BW and NRD) from Table 1 of the Supplement Analysis (DOE/EIS-0200-SA-03) are new sites and defense determinations are being processed for the waste that is being proposed for shipment from them. In addition, the four other sites (VN, KN, LB, SP) that have been identified by SRIC as commercial sites are also undergoing defense determinations. The results of the defense determinations will be reported by DOE in future updates to the WIPP TRU inventory report.

In regard to the comparison SRIC made on Table 1 volumes with the 2007 Inventory, the volumes for the sites reported in the EIS ROD were obtained from TWBIR-2004 with some case-by-case updates provided by the sites. In addition, the number of 85-gallon drums that are expected to be shipped to INL from Hanford Richland (RL) was based on estimates of over packing required to prepare corroded and weakened drums for shipment and has been applied as a percentage to the containers identified in the waste streams.

Omissions in Appendix F Historic Crosswalk

SRIC has identified several typographical errors that will be reworked in the next annual inventory report. These changes include: 1) removal of KN from the list of sites that are expecting to ship waste to WIPP; 2) inclusion of the BT-006 waste stream in Table F-4; 3) inclusion of waste stream IN-ID-RTC-S5000 in Table F-9; and 4) inclusion of waste stream LA-LA238HOR in Table F-13. In addition to these omissions, a table identifying waste to be shipped from Lawrence Berkeley will be added to Appendix F.
Changes in Waste Streams Resulting from Waste Management

In general, when TRU waste sites start the Acceptable Knowledge (AK) process, containers within an existing waste stream may be moved to another waste stream, or categorized into an entirely new waste stream depending on the information gathered. Therefore, the waste streams can and do change as the waste is managed and prepared for shipment to WIPP. Therefore it may be easier for readers; to understand the changes better if the tracking of waste streams started with the most current waste stream identification and comparisons were provided for the previous year. Each year can then be compared working back to TWBIR Revision 2 waste stream identification. For the next annual report, the waste streams will only be cross walked to the latest annual inventory. Previous copies of the annual report will provide additional information that tracks waste streams to those reported in TWBIR Revision 2.

SRIC identified several categories of waste and associated waste streams that have changed since TWBIR-2004 was issued. Categories, waste streams, and explanations are provided below.

In 2004, waste streams were “Non-WIPP,” now are “Not reported” (13) or “Unavailable” (1) (See Appendix F.). Please explain the status of these waste streams.

Waste Stream(s) Identified: BL-001
Explanation: During TRU waste inventory data collection, the site decided that a defense determination for the waste identified in this waste stream would not be pursued. This waste stream has been removed from the inventory.

Waste Stream(s) Identified: RL-W284; RL-W559; RL-W328; RL-W332; RL-W334; RL-W609; RL-W550; RL-W651; RL-W652; RL-W667; RL-Z002; and RL-Z003
Explanation: A management change and associated responsibility for reporting TRU waste for Hanford RL resulted in reassessment of waste streams to bring waste in alignment with what will be shipped by the site in the future. Hanford waste streams are now tracked by facility and waste form.

Waste Stream(s) Identified: RL-Z001; RL-Z002; and RL-Z003
Explanation: Z designations on waste streams were used historically to report buried waste and were reported in the past as a result of the Land Withdrawal Act where it called for in section 7 part 6 paragraph 5 (prior to the 1996 amendment):

"the submittal to the congress by the Secretary of comprehensive recommendations for the disposal of all transuranic waste under the control of the Secretary, including a time table for the disposal of such waste...."

Hanford RL has not determined that this waste will be shipped off-site at this time.
Waste Stream(s) Identified: SA-Z001 ("Unavailable" in 2007) – 1.3 m³ buried TRU stored
Explanation: See above explanation regarding Z designations. During the 2006 data
collection effort, SNL reported that this waste stream was no longer being tracked by the site. Since many sites intend to manage and ultimately dispose of buried waste in place at this
time, this waste has not been included in the TRU waste inventory.

In 2004, waste streams were "Non-WIPP," in 2007 are "WIPP-bound" (38) (See
Appendix F). Listing is 2004 number, then 2007 number(s). Please explain the basis
for the change in status.

Waste Stream(s) Identified: RL-W684 – RL-324-08; RL-W722 – RLCFF-01 & 03;
RL-W557 – RLPFP-01 & -03; RL-W562 – RLPFP-01; RL-W327 – RLPFP-01, 03 & 04;
05; RL-W475 – RLPURX-01 & 05; RL-W478 – RLPURX-01 & 05; RL-W366 – RLPURX-01;
RLPURX-01 & 05; RL-W580 – RLPURX-01 & 05; RL-W391 – RL-308-01; RL-W558 –
RLPURX-01; RL-W580 – RLPURX-01; RLSWO-01; RL-W58 – RLPFP-03; RLSWO-01; RL-W756 –

Explanation: RL has changed the personnel that provide the inventory estimates and have
applied a better methodology to collection of the inventory information that is now in
alignment with the manner in which waste will be shipped from the site. They are now using
several databases to report inventory that begins with AK and includes characterization data
as it becomes available. As a result waste streams at Hanford are better segregated now
and have been reassigned according to facility of origin and waste forms. By using the Solid
Waste Information Tracking system (SWITS), the production database (characterization
data), and AK information, the RL inventory personnel assigned containers to the waste
streams that will ultimately be shipped to WIPP.

Waste Stream(s) Identified: RL-Z001 – RL-Z001 (RL-618-01 & 07 as "Potential")
Explanation: RL-618-01 and -07 are waste streams that will be taken from the 618-10 & -11
burial grounds. In TWBIR-2004 some of the waste from RL-Z001 was defined as this burial
ground waste. Waste stream RL-Z001 has always been a "potential" waste stream and was
included in the TWBIR rev.2 as a "potential" waste stream. The waste streams, RL-618-01
and RL-608-01, that have originated from RL-Z001 have limited information available to
them. All waste streams with unknowns or limited information are screened out during the
inventory data review and placed in the "potential" category until more information is
available. As a result, the waste defined has always been "potential" and remains in that
category for this update.

Waste Stream(s) Identified: IN-Z001 – IN-SDA-Sludge, ID-SDA-Debris
Explanation: A federal judge declared that pre-1970 TRU buried waste at INL would be
removed and shipped off-site. Negotiations have been taking place with the state of Idaho
about the volume of waste that must be shipped from INL. The 2007 report provided INL's
best estimate of that waste volume at the time of inventory data collection.
Waste Stream(s) Identified: IN-Z001A – IN-SDA-Sludge, ID-SDA-Sludge
Explanation: The IN-Z001A waste stream is made up of Beryllium blocks and was considered a potential waste stream at the time inventory data were collected for the CRA-2004. This waste stream is not included in the 2007 report because Idaho has identified a different disposition path for this waste stream.

Waste Stream(s) Identified: KN-B234PCBTRU – KN-B234PCBTRU
Explanation: For the TWBIR 2004 (data cut-off date of September 30, 2002), waste containing PCBs in concentrations greater than 50 ppm were not accepted at WIPP. Now greater concentrations are allowed at WIPP and this waste stream is included in “WIPP bound.”

Waste Stream(s) Identified: LA-TA-03-29 – LA-TA-03-29; LA-OS-00-02 – LA-OS-00-03; LA-TA-00-01 – LA-TA-00-01; LA-TA-00-02 – LA-TA-00-01; LA-TA-00-05 – LA-TA-00-05; LA-TA-00-06 – LA-TA-00-06; LA-TA-00-07 – LA-TA-00-07; LA-TA-00-08 – LA-TA-00-08; LA-TA-00-09 – LA-TA-00-09
Explanation: In 2004 all of the LANL Technical Area (TA) waste had not been assigned to waste streams. The site now has assigned this waste to waste streams according to what is being reported in AK Summary Reports in preparation for shipment to WIPP. Sites will typically reassign waste streams when going through information for AK. A waste stream can be combined with other waste streams or may be divided into several waste streams as AK information is collected.

Waste Stream(s) Identified: PA-B015 – PA-B015
Explanation: This waste stream was treated under an emergency permit rendering it non-RCRA and not TRU, and will be dispositioned along a different path.

In 2004, waste streams were “WIPP-bound.” in 2007 are “Potential” (19). (See Appendix F.) Listing is 2004 number, then 2007 number(s). Please explain the basis for the change in status.

Waste Stream(s) Identified: AW-W048
Explanation: This waste stream requires a defense determination.

Waste Stream(s) Identified: RL-T140 – RLRFET-01; RL-W436 – RLCH2-08; RL-W445 – RL 105-09A
Explanation: RLRFET-01 has been assigned to potential waste due to uncertainties associated with waste contents and RL-CH2-08 has been assigned to potential waste by the site due to possible affiliation with tank waste. Waste stream RL 105-09A is the knock out pot sludge that has been separated from the rest of the K Basin sludges.
Explanation: All TRU waste inventory tank wastes at Hanford historically managed as high-level waste has been removed from WIPP shippable inventory until a TRU waste determination is completed for them.

Waste Stream(s) Identified: IN-W159.1072 – IN-W159.1072
Explanation: This waste stream was screened out of the inventory because no radionuclide information was reported for it by the site.

Waste Stream(s) Identified: IN-W353.859 – IN-W353.859
Explanation: This waste stream was screened out of the inventory because no radionuclide information was reported for it by the site.

Waste Stream(s) Identified: IN-W341.671 – IN-W341.671
Explanation: This waste stream was screened out of the inventory because no radionuclide information was reported for it by the site.

Waste Stream(s) Identified: LL-T001 – LL-T001; LL-T003 – LL-T003
Explanation: These waste streams were screened out of the inventory because no radionuclide information was reported for them by the site.

Waste Stream(s) Identified: PA-A015 – PA-A015
Explanation: Waste processing methods have not been defined for this waste stream and treatment will be required before it can be shipped to WIPP. Therefore, this waste stream is now reported in the potential waste.

Waste Stream(s) Identified: T001-773A-CLAS – SR-T001-773A-CLAS
Explanation: This waste stream has been assigned to potential waste due to uncertainties associated with waste contents.

Explanation: These waste streams were screened out of the inventory because no radionuclide information was reported for them by the site.

Waste Stream(s) Identified: MC-W001 – MC-W002
Explanation: The MC-W002 waste stream contains lithium which is prohibited in WIPP and is included in potential waste. As noted under sealed sources, lithium sources are currently prohibited at WIPP due to potential reactivity issues, and these are included as potential waste until the reactivity issues have been resolved.
In 2004, waste streams were "N/A" or "Not reported," that are "WIPP-bound" or "Potential" in 2007. (See Appendix F.) Listing is 2007 number. Please explain how these "new" waste streams were created and whether they were included in the 2004 Inventory.

Waste Stream(s) Identified: RLWTP-08; RP-TFC001; RP-TFC002; RP-TFC-003
Explanation: These four waste streams are new waste streams identified in the 2008 inventory report and were not included in the 2004 inventory. The three RP waste streams are additional tanks that the Office of River Protection believes will turn out to be TRU waste. The RLWTP-08 is a new waste stream from Hanford RL and was not reported in the 2004 inventory. This waste stream is a projected waste stream for waste that will be generated in the Hanford Tank Treatment Plant currently under construction.

Waste Stream(s) Identified: LL-W018b
Explanation: The original waste stream, LL-W018 was subdivided into a portion of sealed sources. The remaining waste is now included in waste stream LL-W018a. This waste was included in the 2004 Inventory.

Explanation: In 2004, all of the LANL TA waste had not been assigned to waste streams. The site now has assigned this waste to waste streams according to what is being reported in AK Summary Reports in preparation for shipment to WIPP. Sites will typically reassign waste streams when going through information for AK. A waste stream can be combined with other waste streams or may be divided into several waste streams. This waste was reported in the 2004 Inventory.
Waste Stream(s) Identified: OR-W205
Explanation: This waste stream is a new waste stream containing KAPL-NFS contaminated soils. This waste stream is new and was not included in the 2004 Inventory.

Waste Stream(s) Identified: SA-W-136
Explanation: This is a new waste stream from a new project at SNL and was not included in the 2004 Inventory.

Waste Stream(s) Identified: MC-W002
Explanation: This is a new waste stream containing sealed sources with lithium, which is prohibited in WIPP, and is now included as potential waste. This waste was not included in the 2004 Inventory.

In 2004, waste streams that were “WIPP,” now are “N/A” or “Not reported.” (See Appendix F.) Please explain the basis for the change in status. Listing is 2004 number. (Some waste streams are listed more than once because of TWBIR, Rev. 2 waste streams.)

Waste Stream(s) Identified: AW-W-012.10
Explanation: This waste stream was established prior to Experimental Breeder Reactor II (EBR-II) shutdown and the start of pyro-processing activities at the Fuel Conditioning Facility. Since it is a result of EBR-II irradiated fuel treatment, this waste stream will be converted to a ceramic form and will be disposed as high level waste.

Explaination: As part of the reassignment of waste to those waste streams identified in AK Summary Reports, these waste streams have been folded into those waste streams that have been reported in the 2007 report. A waste stream can be combined with other waste streams or may be divided into several waste streams under different identification than what was provided in the TWBIR-2004.

Waste Stream(s) Identified: MC-W001

Explaination: This waste stream is the original sources waste stream at USAMC and has been subdivided to account for a fraction of the waste being lithium sources (potential).

We appreciate your interest in the TRU waste inventory destined for shipment to the WIPP. We recognize your concern in how waste is managed at WIPP and reported in the TRU Waste Inventory Annual reports. If you have any questions, please contact Mr. Russell Patterson at 575-234-7457.

Sincerely,

[Signature]

David C. Moody
Manager

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