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August 30, 2004

Secretary Ron Curry
New Mexico Environment Department
PO Box 26110
Santa Fe, NM 87502-0110

RE: INEEL Waste Streams BNINW216 and BNINW218

Dear Secretary Curry:

Southwest Research and Information Center (SRIC) continues to closely follow the situation with INEEL Waste Streams BNINW216 and BNINW218 and the associated suspension of shipments to WIPP. We greatly appreciate your decision on August 19 to not allow future shipments from INEEL until "all the proper actions have been taken to investigate and correct the recent waste analysis failure." Your decision was appropriate and necessary. SRIC wants to share additional concerns which we hope you will consider in your future decision making.

SRIC's concerns about the current situation have been heightened by a review of WIPP Acting Manager Paul Detwiler's letter of August 10, 2004 to you and the documentation from BNFL at INEEL regarding the situation. Of particular note is that those documents show that at least 24 of the 26 shipments from INEEL to WIPP between March 15 and July 8, 2004 contained drums that should not have been shipped to WIPP. That 92.3 percent error rate in shipments because of noncompliance with the WIPP permit is a gross violation of the permit and a substantial threat to public health and the environment that must be addressed with strong enforcement action that will prevent any recurrence.

Although designed to resolve the situation that resulted in a suspension of WIPP shipments from INEEL on July 14, those DOE and BNFL documents contain clearly inaccurate and incomplete information. Such inadequate information is totally inappropriate and could constitute yet further violations of the permit. The documents do not provide sufficient information for "the proper actions" that BNFL, DOE, and NMED must take. Further, the actions so far taken by the Carlsbad Field Office (CBFO) raise major concerns regarding its procedures and judgment, especially its decision on August 20 to allow BNFL to resume data entry into the WIPP Waste Information System (WWIS), when BNFL is still providing inaccurate information. The inaccurate and incomplete information also raise questions about whether there are severe systemic problems that are not limited to INEEL. SRIC believes that those possible systemic problems must be addressed, and that full, accurate information, and successful resolution of NMED Compliance Orders must be accomplished before waste shipments resume from INEEL.

In his August 10, 2004 letter, Mr. Detwiler asks you to allow "34 TDOPs to remain in the repository" and to allow INEEL to "resume shipments from the group of 1803 containers that remain" from Waste Streams BNINW216 and BNINW218. SRIC does not agree that approval of any of those actions would be appropriate based on the current information.

Basic information that is inaccurate

The basic document used to determine how many containers from the two waste streams have been shipped to WIPP and which ones were inappropriate is *Population Determination for Waste Stream Profiles BNINW216 and BNINW218*, BNFL-5232-RPT-TRUW-19, Rev. 2. Appendix C of that document lists 103 containers "that have been shipped, but cannot be traced to the original lot lists." (p. 4).

However, even a cursory review of Appendix C shows clearly inaccurate information. For example, that appendix shows nine containers in Shipment Number IN040012. The table also shows that five containers (10006477, 10006756, 10006763, 10007012, and 10007095) were shipped on May 20, while the other four containers (10007007, 10007063, 10007064, and 10007185) were shipped on May 24. Some combination of the container number, shipment date, and shipment number are wrong!

Those errors are perpetuated and compounded in *Evaluation of Characterization Data Associated with 74 AMWTP Containers of Rocky Flats First/Second Stage Sludge Waste*, BNFL-5232-RPT-TRUW-21, the key document that Mr. Detwiler uses to justify the request to leave the containers from that waste stream at WIPP. Table 1 includes the same misinformation from Appendix C and adds a further error – containers 10007007, 10007063, 10007064, and 10007185 are shown to be in Shipment Number IN040012, shipment date May 24, in TDOP container BN10013538, while container 10007012, is in Shipment Number IN040012, shipment date May 20, and also in TDOP BN10013538. Thus, some combination of container number, shipment date, shipment number, and TDOP number are wrong!

Since SRIC can identify such obvious errors with a cursory review, what are the dozens of BNFL, DOE-INEEL, CBFO, and Washington TRU Solutions people with multi-million-dollar budgets doing? The fact that their information is still inaccurate is a serious problem. Their quality assurance is clearly inadequate. If DOE and its contractors made such obvious errors on such relatively easy aspects of the current situation, SRIC does not have any confidence in their reliability on the much more difficult aspects of the problem. Such matters include whether each of the containers in the BNINW216 and BNINW218 waste streams have been properly identified and accounted for, whether each container is adequately characterized, whether the containers that have been emplaced at WIPP meet the WIPP permit requirements, whether the any of containers emplaced at WIPP should be removed, and whether the containers that remain at INEEL that are said to be from those waste streams meet the requirements of the WIPP permit.

Mr. Detwiler's August 10 letter admits that the CBFO letter of December 12, 2003 from Ines Triay to Sandra Martin of NMED and his letter to the Idaho DOE Manager on March 9, 2004

contained inaccurate information as to the number of containers that remained at INEEL from BNINW216. The Triay and Detwiler letters state that 1,761 containers remained at INEEL. Mr. Detwiler does not explain the source of that erroneous number. Attachment 3 of the *Population Determination* has yet a different number – 1,776 containers. But there is no explanation of the discrepancy.

Mr. Detwiler's August 10 letter, using Attachment 5 of the *Population Determination*, now states that 847 containers from the original lot list for waste stream INW216.001 were turned over to BNFL on December 24, 2002. Attachment 5 also indicates that of those 847 containers, 93 (designated with an *) have subsequently been shipped by BNFL to WIPP. That would indicate that 754 containers from the turnover remain at INEEL. However, Mr. Detwiler's August 10 letter, using Appendix D of the *Population Determination*, states that there 523 containers remaining at INEEL. The 231 container discrepancy is not explained in the *Population Determination* or in the August 10 Detwiler letter.

There are other discrepancies, but SRIC believes that the above examples show various violations of the permit, sloppy work and inadequate quality assurance at INEEL and CBFO, and continuing inaccurate and contradictory information. One conclusion is that the existing information that CBFO is providing NMED is not reliable, and that CBFO must provide demonstrably accurate information.

Basic information that is incomplete

SRIC believes that NMED should have no confidence that 103 containers is the correct number until BNFL and CBFO also provide much more complete information. Such additional information would include:

* The status of each of the 6,751 55-gallon drums that Attachment 1 of the *Population Determination* shows as being included in BNINW216.
* The status of each of the 6,083 55-gallon drums that Attachment 2 of the *Population Determination* shows as being included in BNINW216.

The status of each drum of those original lots should correlate with the individually identified drums emplaced at WIPP from each waste stream before December 24, 2002 (information which BNFL and CBFO have not provided in the Detwiler letter and cited documents), the individually identified drums from each waste stream emplaced at WIPP since BNFL began shipping on March 15, 2004 (information which BNFL and CBFO have not provided in the Detwiler letter and cited documents), the individually identified drums that were rejected because of prohibited items or other problems (information which BNFL and CBFO have not provided in the Detwiler letter and cited documents), and the containers from each waste stream that remain at INEEL (included in Appendixes D and E of the *Population Determination*).

SRIC believes that all such information should be provided in NMED in electronic form so that more complete and efficient analysis can be done that the manual reviews of hard copy that SRIC (and NMED) must do with the existing documents.

Such a correlation should have been done by CBFO before sending the admittedly erroneous letter on December 12, 2003 from Ines Triay to Sandra Martin of NMED, and the admittedly erroneous letter from Mr. Detwiler to the DOE-ID Manager on March 9, 2004. Such an analysis should have uncovered the incorrect information to prevent such inaccurate letters. Moreover, such an analysis should have identified the fact that BNFL did not have accurate information about the original lots in those two waste streams, so that the 24 shipments from March 15 to July 8 would not have occurred.

What's wrong with the WIPP Waste Information System (WWIS)?

In addition to the specific problems related to INEEL shipment/waste characterization, SRIC is very concerned about the WWIS, which is the key source of information about WIPP waste containers from all sites.

Neither the Detwiler letter nor the *Population Determination* discuss why the problems with the waste streams were not discovered earlier and why they were not detected by the WWIS. The obvious question is whether the problem is fundamental to the WWIS or whether the WWIS was not properly used by INEEL and CBFO. If the former is the case, there is a need to revise the WWIS requirement of the WIPP permit and to investigate whether similar problems are occurring at the other shipping sites. If the latter is the case, there must be a detailed investigation of the problem, a Compliance Order by NMED, and successful changes to prevent a recurrence. If both circumstances exist, then substantial changes are needed in the permit and implementation and use of the WWIS.

At a minimum, CBFO must explain why it did not use the WWIS to check how many containers from waste streams BNINW216 and BNINW218 were emplaced at WIPP before sending the December 12, 2003 letter to NMED and the March 9, 2004 letter to INEEL. CBFO should also document from the WWIS how many containers from those waste streams are emplaced at WIPP. Such analysis also is needed to verify the accuracy or demonstrate the inaccuracy of the information in the *Population Determination*.

Verifying the accuracy of the WWIS would also be enhanced if the WWIS was available to the public. Thus, SRIC asks that you support a request that we have frequently made, and which is supported by the National Academy of Sciences Committee on Optimizing the Characterization and Transportation of Transuranic Waste Destined for the Waste Isolation Pilot Plant, that DOE provides public access to the WWIS. SRIC believes that such public access should be provided before INEEL shipments can resume.

Which Waste Stream Profile Forms is CBFO using?

On May 29, 2001, NMED received from CBFO Waste Stream Profile Form (WSPF) Number INW216.001. That WSPF was used to justify shipping presumably thousands of 55-gallon drums from INEEL to WIPP in 2001 and 2002. That WSPF states that the waste stream contains 6,752 55-gallon drums that were fully characterized in compliance with the WIPP permit and for which NMED approved the audit report on May 18, 2001.

The Detwiler letter and the *Population Determination* both state that there are 6,751 drums in the BNINW216 waste stream, without explaining what happened to the additional drum. In addition, SRIC understands that NMED has received a new WSPF for BNINW216 which shows more than 21,000 containers in the waste stream. SRIC believes that given the existing problems with the waste stream that the new WSPF should not be accepted as reliable by NMED.

Before shipments can resume from INEEL, CBFO must identify and re-certify the accuracy of whatever WSPF it is using for the waste streams. All requirements for the WSPF, including an approved audit and surveillance, must be verified.

What characterization requirements have the containers in the two waste streams met?
Under the WIPP permit, "*Once the required waste characterization is complete*, the generator/storage site will complete a Waste Stream Profile Form (WSPF) to document the results of their characterization activities." Attachment B, page B-5, *emphasis added.*

If those permit requirements were met for the original lots of INW216 and INW218 and all of the 12,834 or 12,835 55-gallon drums from those two lots were properly characterized, footnote 4 in Mr. Detwiler's August 10 letter is puzzling. That footnote states: "Not all of the 1803 containers that remain at the AMWTP have undergone full characterization yet." CBFO should explain the characterization procedures that those 1,803 containers have undergone, including information for each individual container and how it has been verified, and whether some of those containers were characterized and did not meet all requirements of the permit. CBFO should also explain whether the other 11,032 drums were adequately characterized.

Which containers have been "segregated"?
CBFO's CAR No. 04-033, Revision 1 required INEEL to "physically or administratively segregate the actual BNINW216 and BNINW218 containers that were not available for sampling from the remaining containers within those waste streams." Block 10, Action 3.

While CBFO has accepted BNFL's remedial action regarding that requirement, there is no listing by container number or other information provided in the Detwiler letter or the *Population Determination*. SRIC believes much more should be done, or at least more specific information provided, as to the segregation of those containers and assurance provided that none of those drums can be shipped to WIPP. In addition, CBFO should clearly describe its future actions related to those drums, including their classification and certification requirements.

Possible systemic problems
Fundamental inadequacies with the WWIS would affect other sites, not just INEEL. So a determination about the issues raised regarding the WWIS must be made and adequate resolution found and implemented to ensure that the problem does not affect other sites.

A further possible systematic problem may be indicated by the INEEL situation. Implicitly, INEEL and CBFO have stated that a significant part of the problem was the handover of the two

waste streams from Bechtel, the contractor for the 3100 m3 Project, to BNFL. It is highly likely that at other WIPP generator/storage sites there will be changes in contractors. Thus, unless remedial steps are taken, it is likely that similar problems could occur at other sites. While CBFO should address the issue directly, NMED must give increased very close scrutiny in its audit and surveillance to any site in which contractors change.

In addition, the Centralized Characterization Project (CCP) relies on site characterization activities, especially related to acceptable knowledge. SRIC believes that, at a minimum, NMED should request that CBFO demonstrate that inaccurate, incomplete information and characterization activities at INEEL have not and will not affect the CCP at other sites.

Thank you very much for your consideration. I would be pleased to further discuss these and other related issues with you or your staff. In addition, please keep me informed as to your actions regarding this important matter.

Sincerely,

Don Hancock

Don Hancock