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**Department of Energy**  
Carlsbad Field Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221

JAN 31 2012



Mr. John Kieling, Acting Bureau Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303

Subject: Waste Stream Profile Form Change Notice #1 for BN510.1, Supercompacted Debris Waste (BN510.1)

Dear Mr. Kieling:

The Department of Energy, Carlsbad Field Office has approved the Update for the Waste Isolation Pilot Plant (WIPP) Operating Record (Change Notice #1) for Waste Stream Profile Form Number BN510.1, *Supercompacted Debris Waste*, for the Advanced Mixed Waste Treatment Project (AMWTP).

Enclosed is a copy of the Change Notice as required by Section C-5a of the WIPP, Hazardous Waste Facility Permit, No. NM4890139088-TSDF.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have questions, please contact Mr. J. R. Stroble, Director of the Office of the National TRU Program, at (575) 234-7313.

Sincerely,

Edward Ziemianski  
Interim Manager

Enclosure



M. John Kieling

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JAN 31 2012

cc: w/enclosure

G. Basabilvazo, CGFO \*ED

J.R. Stroble, CBFO ED

N. Castaneda, CBFO ED

M. Pinzel, CBFO ED

T. Morgan, CBFO ED

B. Mackie, CBFO ED

T. Hall, NMED ED

S. Holmes, NMED ED

T. Kliphuis, NMED ED

R. Maestes, NMED ED

CBFO M&RC

\*ED denotes electronic distribution

Mr. John Kieling

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bcc: w/enclosure

D. Garcia, CBFO	*ED
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R. Unger, CBFO	ED
C. Fesmire, CBFO	ED
J. Wells, DOE-ID	ED
W. Lattin, DOE-ID	ED
J. Cooper, DOE-ID	ED
D. Haar, ICP	ED
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F. Sharif, WTS	ED
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C. Kirkes, WTS	ED
M. Percy, WTS	ED
D. Ploetz, WTS	ED
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R. Galbraith, RES	ED
K. Guillermo, RES	ED
J. Haschets, RES	ED
R. Kehrman, RES	ED
S. Kouba, RES	ED
W. Most, RES	ED
P. Gilbert, LANL	ED
G. Lyshik, LANL	ED
S. Lott, LANL	ED
C. Walker, TechLaw	ED
D. Sellmer, CTAC	ED
L. Pastorello, WTS RCRA Chronology	ED
P. Roush, WIPP Operating Record	ED

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**Update for WIPP Operating Record (Change Notice #1)**  
**Supercompacted Debris Waste (BN510.1)**

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Please add the following information to the WIPP Operating Record for Waste Stream Profile Form (WSPF) BN510.1. This waste stream is Supercompacted Debris Waste and was approved by DOE/CBFO on September 10, 2010.

This WSPF is being revised. The WSPF components are bolded. The updates are:

**1. WSPF Form-1195, Date of audit report approval by NMED**

Added additional audit approval date January 25, 2011.

**2. WSPF Form-1195, Technical contact:, Technical contact phone number:**

Updated to: Sue Peterman, (208) 557 6383

**3. WSPF Form-1195, Title, version, number, and date of documents used for WAP Certification**

Updated the following procedures:

- Certification Plan for INL Transuranic Waste, MP-TRUW-8.1, Rev. 21, 8/05/11
- Quality Assurance Project Plan, MP-TRUW-8.2, Rev. 15, 8/09/11
- CCP Transuranic Authorized Methods For Payload Control (CCP CH-TRAMPAC), CCP-PO-003, Rev. 12, 12/29/10.

**4. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), ACRONYMS**

Added the following acronyms: “HWMA - Hazardous Waste Management Act” and “SDOP – six-drum overpack box.”

**5. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.2.10, Description from the ATWIR.**

Updated section as follows: “The Annual Transuranic Waste Inventory Report (ATWIR) description for waste stream BN510.1 is a newly generated debris waste stream generated from supercompacted 55-gallon containers of debris waste.<sup>(28)a</sup>”

**6. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.3, Waste Stream Description.**

Revised the first paragraph third sentence to read: “The supercompacted debris waste (i.e., BN510.1) has a common physical form that contains similar hazardous constituents and is generated from a single process or activity.”

Added fourth sentence to read: “The generation of BN510 waste has been discontinued and WSPF BN510.1 has been developed due to the addition of HWNs to the Supercompactor feedstock from Hanford debris waste.<sup>(29, 31)</sup>”

## Update for WIPP Operating Record (Change Notice #1)

### Supercompacted Debris Waste (BN510.1)

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Updated Table 1, Physical waste form description for BN510.1, to remove the existing footnote a and to relabel the existing footnote b as footnote a.

**7. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.4.3, Waste Generating Process.**

Modified second paragraph, second sentence and added new third and fourth sentences. That paragraph now reads as follows: “Debris waste feedstock drums (e.g., 55- or 85-gallon drums) that require repackaging are introduced into the DWPG [*drummed waste packaging glovebox*]. Boxed waste, including six-drum overpacks (SDOPs containing up to six 55- or 85 gallon drums), are introduced into a boxline for sorting and repackaging into 55-gal drums. The boxed wastes, including the SDOPs undergo RTR to confirm the waste form is approved feed stock. Certified VE is performed on the waste processed in the boxline as IDC BN-508. Prohibited items are processed in the boxline or special-case waste (SCW) glovebox (prohibited items processed in the SCW glovebox are not returned as feedstock). After treating, sorting, and/or removal of prohibited item(s), the waste is repackaged into 55 gallon drums as IDC BN-508.<sup>(10, 11, 47)</sup> No campaigning of feedstock type or generator site debris waste feedstock occurs during the supercompaction process. There is no cleanout of the boxline(s) except for periodic housekeeping. Repackaged waste drums and direct feed drums (not requiring repack) are fed into the Supercompactor.”

**8. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.4.4, Material Inputs.**

Revised the second to the last paragraph to add PIG absorbents. That paragraph now reads as follows: “Non-hazardous solidification agents Aquaset<sup>®</sup>, Aquaset II-G<sup>®</sup>, Micro-Cel<sup>®</sup> E, Petrosel II<sup>®</sup>, Petrosel IIG<sup>®</sup>, or PIG<sup>®</sup> absorbents may be added to the waste by AMWTP to absorb prohibited liquids within debris waste.<sup>(38, 39, 42, 48, 49, 50),,</sup>”

**9. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.4.5, Waste Material Parameters.**

Revised the first paragraph to read as follows: “The original waste material parameter (WMP) weight percentages for the BN510.1 waste stream estimate were based on the visual examination (VE) data for 100-gallon product drums generated from 2005 through 2009. WMP data for 22,399 containers with completed RTR/VE data from the BN510 waste stream were obtained from the AMWTP Waste Tracking System (WTS) database for containers examined prior to January 1, 2010. This population represented approximately 54% of the estimated volume of supercompacted waste (i.e., 22,399 out of 41,600 drums projected for BN510 and BN510.1 waste streams). The updated estimate is based on the VE data from 3,426 drums of BN510.1 supercompacted waste visually examined prior to September 12, 2011. The estimated WMP weights (by percent) for the BN510.1 waste stream, excluding 100 gallon drum packaging, were calculated in accordance with the requirements of MP-TRUW-8.13. The updated estimated WMP weight parameters are representative of the BN510.1 waste stream and are summarized in Table 2.<sup>(12, 13, 46),,</sup>”

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**Supercompacted Debris Waste (BN510.1)**

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Revised Table 2, "Waste material parameters for supercompacted debris waste," to read as follows:

Waste Material Parameters	Estimated Percent WMP weight/unit waste
Iron-based Metals/Alloys	79
Aluminum-based Metals/Alloys	<1
Other Metals	<1
Other Inorganic Materials	1
Cellulosics	12
Rubber	<1
Plastics (waste materials)	7
Inorganic Matrix	<1
Organic Matrix	0
Soils/Gravel	<1

**10. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.6, Prohibited Items.**

Deleted the last bullet because it is not needed for a waste stream approved for shipment to WIPP. This is per discussion with CBFO during review and approval for AMWTP WSPF BN600.

Revised 3rd paragraph to read as follows: "Boxline(s) are used to VE and repackage the boxed debris waste into 55-gallon drums. Debris waste feedstock treated or examined in the DWPG, and waste from maintenance and cleanup activities, is either examined by RTR or visually examined. The 55-gallon drums are non-destructive assayed. These drums of debris waste feedstock are then supercompacted and the pucks packaged into a 100-gallon product drum (IDC BN-550).<sup>(10, 11),</sup>"

Revised last paragraph to add PIG<sup>®</sup> absorbents.

**11. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7, Resource Conservation and Recovery Act (RCRA) Determination.**

Inserted new paragraph to read as follows: "The BN510.1 waste is (and has been) subject to the State of Idaho Hazardous Waste Management Act (HWMA)/RCRA requirements (e.g., 40 CFR 264 and 40 CFR 265) and is currently being managed under the AMWTP RCRA permitting requirements until it is shipped off-site.<sup>(44, 45),</sup>"

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**Supercompacted Debris Waste (BN510.1)**

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**12. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2, Hazardous Determination.**

Deleted the paragraph and inserted new paragraphs to read as follows:

**“1.7.2.1 Hazardous Waste Management**

“The wastes that comprise this waste stream are newly generated. HWNs initially or historically assigned to the wastes are the same as the current HWN assignments.<sup>(1)</sup> The wastes that comprise this waste stream have historically been managed as mixed TRU waste at the AMWTP and are currently classified by AMWTP AK as mixed TRU waste based on the RCRA mixture and/or derived-from rules.<sup>(1,6)</sup>

“The generation of BN510 waste has been discontinued and WSPF BN510.1 has been developed due to the addition of HWNs to the Supercompactor feedstock from Hanford debris waste.<sup>(29, 31)”</sup>

The addition of the section heading numbered 1.7.2.1 renumbered subsequent sections in 1.7.2.

**13. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2.1, Ignitability.**

Revised paragraph to add PIG<sup>®</sup> absorbents and references 48, 49, and 50.

**14. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2.2, Corrosivity.**

Revised paragraph to add PIG<sup>®</sup> absorbents and references 48, 49, and 50.

**15. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2.3, Reactivity.**

Revised paragraph to add PIG<sup>®</sup> absorbents and references 48, 49, and 50.

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**16. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 3, References**

Revised the following reference: “28. DOE/TRU-11-3425, Annual Transuranic Waste Inventory report – 2011, U. S. Department of Energy, Carlsbad Field Office, Rev. 0 [P1374A]”

Revised the following references to read:

“40. CCP-PK-RL-101, Central Characterization Project Process Knowledge Summary Report For Hanford Plutonium Finishing Plant Contact-Handled Transuranic Debris Waste, 85-Gallon Overpacked Drums, Waste Stream MPFPDD, Rev. 2, June 4, 2010 [P853A]”

“41. CCP-PK-RL-102, Central Characterization Project Process Knowledge Summary Report For The Hanford 325 Building Radiochemical Processing Laboratory Contact-Handled Transuranic Debris Waste, 85-Gallon Overpacked Drums, Waste Stream RLM325D.001, Rev. 2, June 4, 2010 [P854A]”

Added Reference 43 as follows:

“43.CCP-PK-RL-103, Central Characterization Project Process Knowledge Summary Report For Hanford 231-Z building Contact Handled Transuranic Debris Waste, 85-Gallon Overpacked Drums, Waste Stream RLM231ZD.001, Rev. 2, June 4 2010 [P855A]”

Added the following references:

“44. ID4890008952, AMWTP HWMA/RCRA Permit and interim status documents.”

“45. Resource Conservation and Recovery Act, 40 CFR Parts 260 through 280.”

“46. MLJ-03-11, Memorandum to File, Updated Waste Material Parameter Weight per Unit of Waste Calculations for the BN510.1 Supercompacted Debris Waste Stream, September 27, 2011. [C1045A]”

“47. Hazardous Waste Determination #071511-01, Hazardous Debris from Zone 3 of the AMWTF generated under IDC BN-508. [C1051A]”

“48. Material Safety Data Sheets for Universal PIG® Absorbents (MSD-014) New Pig Corp. October 10, 2011. [P1376S]”

“49. Material Safety Data Sheets for Oil-Only PIG® Absorbents (MSD-016) New Pig Corp. August 3, 2011. [P1377S]”

“50. Material Safety Data Sheets for BLUE PIG® Sock Absorbents (MSD-029) New Pig Corp. February 9, 2011. [P1378S]”



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**17. AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Appendix A**

Added the following IDCs in their proper location in the table:

<b>Waste Type</b>	<b>Site</b>	<b>IDC</b>	<b>Description</b>
Combustibles	RF	010	Paper & Rags
Combustibles	RF	020	Wood & Benelex
Combustibles	RF	030	Plastic
Combustibles	RF	040	Rubber
Graphite	RF	070	Graphite
Heterogeneous	RF	750	Pits 11 and 12 Debris
Heterogeneous	RF	760	Pad 1 Cells 1 and 2 RF Debris
Inorganic Non-Metal	RF	060	Glass
Uncategorized Metal	RF	050	Metal Scrap

**Reason/Justification for Changes**

***Item 1.***

WSPF, Form-1195, the audit report approval dates were updated to reflect the most recent approval date.

***Item 2.***

WSPF Form-1195, updated the technical contact and phone number.

***Item 3.***

WSPF Form-1195, documents used for WAP certification were revised to reflect the most recent revisions.

***Item 4.***

AK Summary Report, List of Acronyms was updated to reflect revised information.

***Item 5.***

AK Summary Report, Section 1.2.10, Description from the ATWIR, and footnote a was updated and footnote b was deleted per issue of 2011 ATWIR.

***Item 6.***

AK Summary Report, Section 1.3, Waste Stream Description, First paragraph was updated per the current WAP language. Text was added to state that the BN510 waste was not being

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**Supercompacted Debris Waste (BN510.1)**

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generated after addition of the Hanford waste. Table 1 was updated to remove the existing footnote a and to relabel the existing footnote b as footnote a.

***Item 7.***

AK Summary Report, Section 1.4.3, Waste Generating Process language was updated to add current process flow. The SDOPs are currently created from 85-gallon or 55-gallon drums that have a certified RTR/VE and non-destructive assay (NDA). These drums were originally characterized because they were planned to be processed as direct feed. The SDOPs loaded with these drums, are dumped into the box lines for processing and packaging as BN-508s. It was determined that it was more economical to process containers via SDOP than direct feed. A revised process for creating SDOPs is proposed based on the following information. At retrieval, the historical information listed on the container is entered into the WTS. The historical information includes the generator, waste type (IDC), weight, and pack date. If the container information identifies the waste as an approved feedstock IDC, then it is acceptable for SDOP building. SDOPs will be built from specific sole generator approved feedstock IDCs. Boxed waste RTR will be performed on the SDOP to confirm that each container's contents are greater than 50 percent approved feedstock debris from the identified generator. The SDOPs will be sent to the boxline for processing. A certified VE is performed on the repackaged waste from the boxline to confirm the waste as a BN-508. RTR/VE and NDA will not be required for the individual containers prior to loading into the SDOP.

***Item 8.***

AK Summary Report, Section 1.4.4, Material Input, was updated to include the addition of PIG absorbents.

***Item 9.***

AK Summary Report, Section 1.4.5, Waste Material Parameters, was updated for BN510.1 waste only, rather than a composite of BN510 and BN510.1 waste.

***Item 10.***

AK Summary Report, Section 1.6, Prohibited Items, was updated. The last bullet was deleted because it is not needed for a waste stream approved for shipment to WIPP. Revised third paragraph for clarification and consistency with the process. Revised last paragraph to add PIG<sup>®</sup> absorbents.

***Item 11.***

AK Summary Report, Section 1.7, RCRA Determination, was changed to support recent WIPP Permit Modification concerning assigning hazardous waste numbers (HWNs) consistent with RCRA requirements.

***Item 12.***

AK Summary Report, Section 1.7.2, Hazardous Determination, was changed to support recent WIPP Permit Modification concerning documentation of how waste was historically managed.

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**Supercompacted Debris Waste (BN510.1)**

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Text was added to state that the BN510 waste was not being generated after addition of the Hanford waste.

***Item 13.***

AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2.1, Ignitability. Revised paragraph to add PIG<sup>®</sup> absorbents.

***Item 14.***

AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2.2, Corrosivity. Revised paragraph to add PIG<sup>®</sup> absorbents.

***Item 15.***

AK Summary, Supercompacted Debris Waste (RPT-TRUW-83), Section 1.7.2.3, Reactivity. Revised paragraph to add PIG<sup>®</sup> absorbents.

***Item 16.***

AK Summary Report, Section 3, References, was updated to update revised documents referenced in the AK Summary and to identify references that support the information revised.

***Item 17.***

AK Summary Report, Appendix A, IDCs RF-010, RF-020, RF-030, RF-040, RF-050, RF-070, and RF-060 were added to support their addition to the BN510.1 waste stream. These debris IDCs were used by the Rocky Flats Plant prior to June 1971. They are precursor IDCs to the three-digit IDCs currently approved as feed stock and listed in Appendix A. An example is RF-010 (paper and rags) is equivalent to RF-330 (paper and rags-dry) and RF-336 (paper and rags-moist). Waste to be retrieved by AMWTP includes waste shipped from the Rocky Flats Plant prior to 1972. Some of this waste may be included in the historically retrieved waste from the Subsurface Disposal Area (SDA), and stored in cargos, bins, and 85-gallon over packs at the Transuranic Storage Area-Retrieval Enclosure (TSA-RE). This waste may also be retrievably stored on Pad 1, Cells 1 and 2. Waste assigned these IDCs may be retrieved and treated in the Supercompactor facility. The addition of these IDCs to the BN510.1 waste stream does not increase the total volume of waste shipped to WIPP because this waste is included in the inventory and does not add additional EPA Hazardous Waste numbers to the profile.

AK Summary Report, Appendix A, IDCs RF-750 and RF-760 were added to support their addition to the BN510.1 waste stream. These IDCs are assigned by AMWTP to Rocky Flats Plant debris waste that was generated prior to the assignment of IDCs by the Rocky Flats Plant and is equivalent to approved RF IDCs listed in Appendix A. IDC RF-750 is assigned to debris waste historically retrieved from Pits 11 and 12 and stored in cargos, bins and 85-gallon over packs at TSA-RE.. IDC RF-760 is assigned to waste being retrieved from the TSA-RE, Pad 1, Cells 1 and 2. IDC RF-750 and RF-760 are also assigned to debris waste from these locations where the historical information on the container is limited but based on adequate container information and characterization (RTR/VE and NDA); the waste is determined to be equivalent

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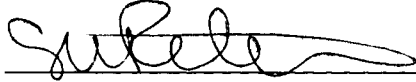
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to approved Rocky Flats debris waste. The addition of these IDCs to the BN510.1 waste stream does not increase the total volume of waste shipped to WIPP and does not add additional EPA Hazardous Waste Numbers to the profile.

The changes submitted in this change notice do not affect the waste stream designation, assignment of EPA hazardous waste numbers, or the waste matrix code as identified in the previously approved waste stream profile form.

**Update for the WIPP Operating Record (BN510.1) certification**

I hereby certify that I have reviewed this Update for WIPP Operating Record, and it is complete and accurate to the best of my knowledge. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.



Signature of TRU Programs Manager

SM Peterman

Printed Name and Title

1/30/12

Date

TRU Programs Manager