



Department of Energy
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FEB 15 2013

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

Subject: Comments on the December 12, 2012 Class 2 Permit Modification Request:
 "Revise Waste Analysis Plan Waste Characterization Methods"

Dear Mr. Kieling:

The purpose of this letter is to provide you with comments on the Class 2 Permit Modification Request: "Revise Waste Analysis Plan Waste Characterization Methods" submitted to the New Mexico Environment Department on December 12, 2012.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our 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 our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.

Sincerely,

Jose R. Franco
 Jose R. Franco, Manager
 Carlsbad Field Office

M. F. Sharif
 M. F. Sharif, Project Manager
 Nuclear Waste Partnership, LLC

Enclosure

cc: w/enclosure
 T. Kliphuis, NMED *ED
 T. Skibitski, NMED ED
 C. Walker, Trinity Engineering ED
 CBFO M&RC
 *ED denotes electronic distribution



**Permittees' Comments on the Class 2 PMR,
"Revise Waste Analysis Plan Waste Characterization Methods"
Submitted to the New Mexico Environment Department
on December 12, 2012**

Comment 1:

In the overview of the permit modification request (PMR), the Permittees state, "*This proposed Permit modification does not restrict generator/storage sites from utilizing chemical sampling/analysis as a means for characterizing TRU mixed waste streams.*" The Permittees have determined that it is necessary to clarify the process by which a generator/storage site collects and submits additional chemical sampling and analysis information when the need for such information is identified by the Permittees during the waste stream approval process.

During the Permittees' review of the Waste Stream Profile Form (WSPF), as required by Permit Attachment C, Section C-5a, the Permittees determine whether additional characterization information is needed to address discrepancies that have not been adequately resolved. The Permittees are proposing to add text to the Permit to request additional information from the generator/storage site under specific circumstances which would include, if needed, chemical sampling and analysis. At the Permittees' request, the generator/storage site may augment the acceptable knowledge information with chemical sampling and analysis data. However, the Permittees wish to assure that such chemical sampling and analysis is performed consistent with sound laboratory practice. To this end, the Permittees propose that, prior to collecting the data, the generator/storage site provide a sampling and analysis plan and laboratory identification to the Permittees for approval. The Permittees propose clarifying text to be inserted into the Permit Part 2, Section 2.3.1.3, which was deleted in its entirety in the PMR submittal. In addition, a revision to Figure C-2, "Waste Characterization Process" (Enclosure 1), is being proposed to reflect the following revised Permit text:

2.3.1.3. Waste Sampling and Analysis Methods

If, at the time of waste stream profile form review and approval per Permit Attachment C, Section C-5a, the Permittees identify a discrepancy regarding the assignment of hazardous waste numbers not authorized in Permit Table 2.3.4, the Permittees shall require the generator/storage site to perform additional evaluation/characterization of the waste stream that may include chemical sampling and analysis of the waste.

If the Permittees determine that additional characterization is necessary using chemical sampling and analysis, the generator/storage site shall respond to the Permittees with the following documentation:

- a) Sampling and analysis plan

- b) EPA SW-846 test method(s), or functionally equivalent test method(s), to be used
- c) Identification of the laboratory(ies) that will be performing the test(s)

Upon the Permittees written approval of the sampling and analysis plan, the generator/storage shall implement the sampling and analysis plan and modify the WSPF as appropriate. The Permittees shall provide copies of the approved plan and the results of the discrepancy resolution to the NMED per Permit Attachment C, Section C-5a.

Comment 2:

The Permittees have determined that there is an inconsistency, in two separate locations, between the Table of Changes (Appendix A of the PMR) and the proposed text revisions to Table C6-1 (as presented in Appendix B of the PMR). In order to be consistent with the Table of Changes, the following revised Permit text is being proposed:

Table C6-1, Item 30, last bullet: “Use radiography or visual examination to verify the physical form of the waste matches its waste stream description as determined by AK and to verify ~~determine physical waste form,~~ the absence of prohibited items, ~~and additional waste characterization techniques that may be used based on Summary Category Groups~~”

Table C6-1, Item 56a, second bullet: “Radiography and visual examination summary to document that all prohibited items are absent in the waste and to verify that the physical form of the waste matches its waste stream description as determined by AK (if applicable)”.

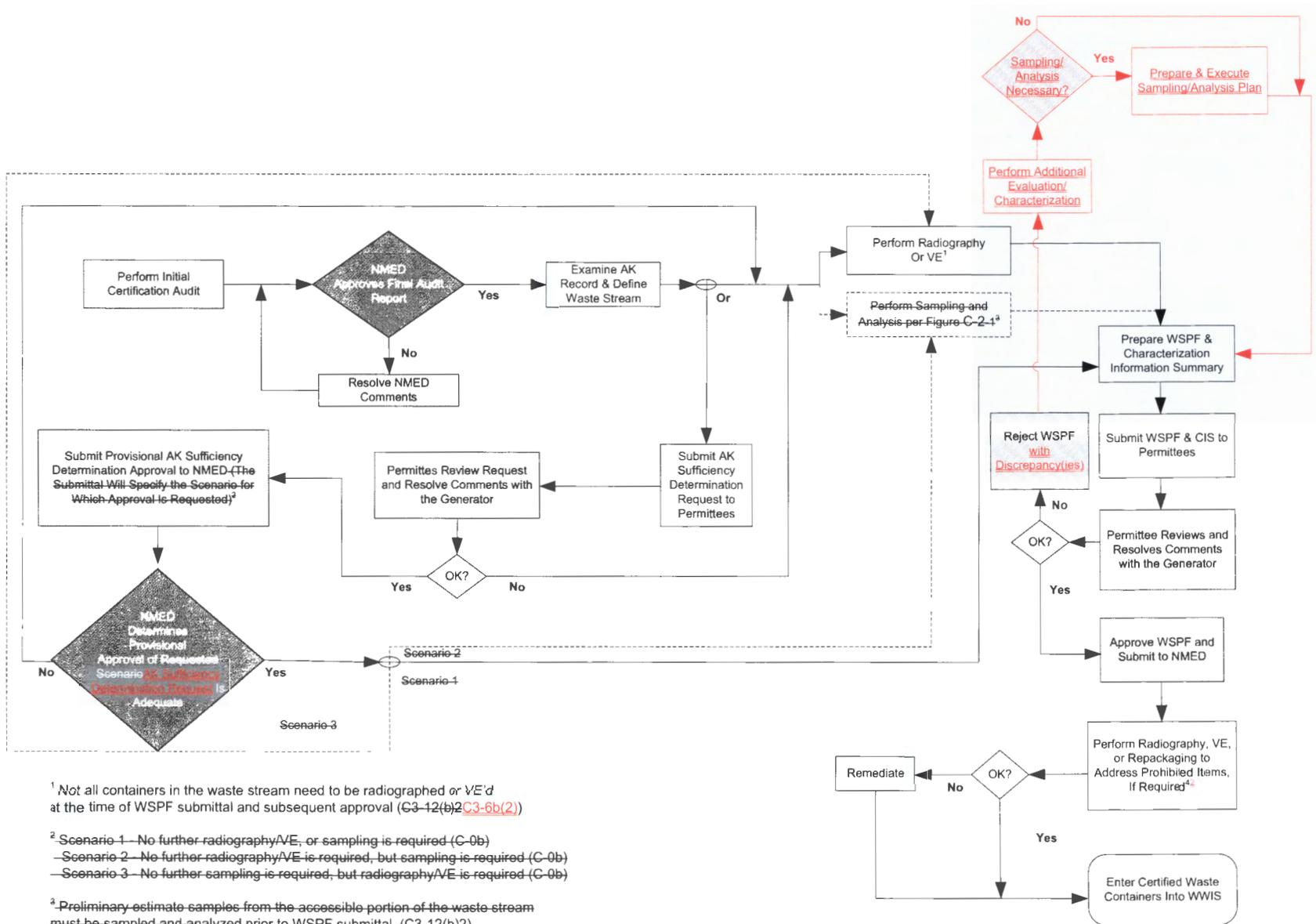
Comment 3:

The Permittees have determined the need for an additional revision to Table C-1 (Enclosure 2). The revision proposed in the PMR deleted the row entitled “Newly Generated Waste” but did not delete the row entitled “Stored Waste.” Since the waste parameters and characterization techniques are the same for both retrievably stored and newly generated waste, there is no need to distinguish between these two waste types in the table, and the Permittees propose the attached revised table to delete the “Stored Waste” row.

Enclosure 1

- Figure C-2 Waste Characterization Process (redline strikeout version – 1 page)
- Figure C-2 Waste Characterization Process (revised version – 1 page)

Figure C-2
Waste Characterization Process



¹ Not all containers in the waste stream need to be radiographed or VE'd at the time of WSPF submittal and subsequent approval (C3-12(b)2 C3-6b(2))

² Scenario 1 - No further radiography/VE, or sampling is required (C-0b)
 - Scenario 2 - No further radiography/VE is required, but sampling is required (C-0b)
 - Scenario 3 - No further sampling is required, but radiography/VE is required (C-0b)

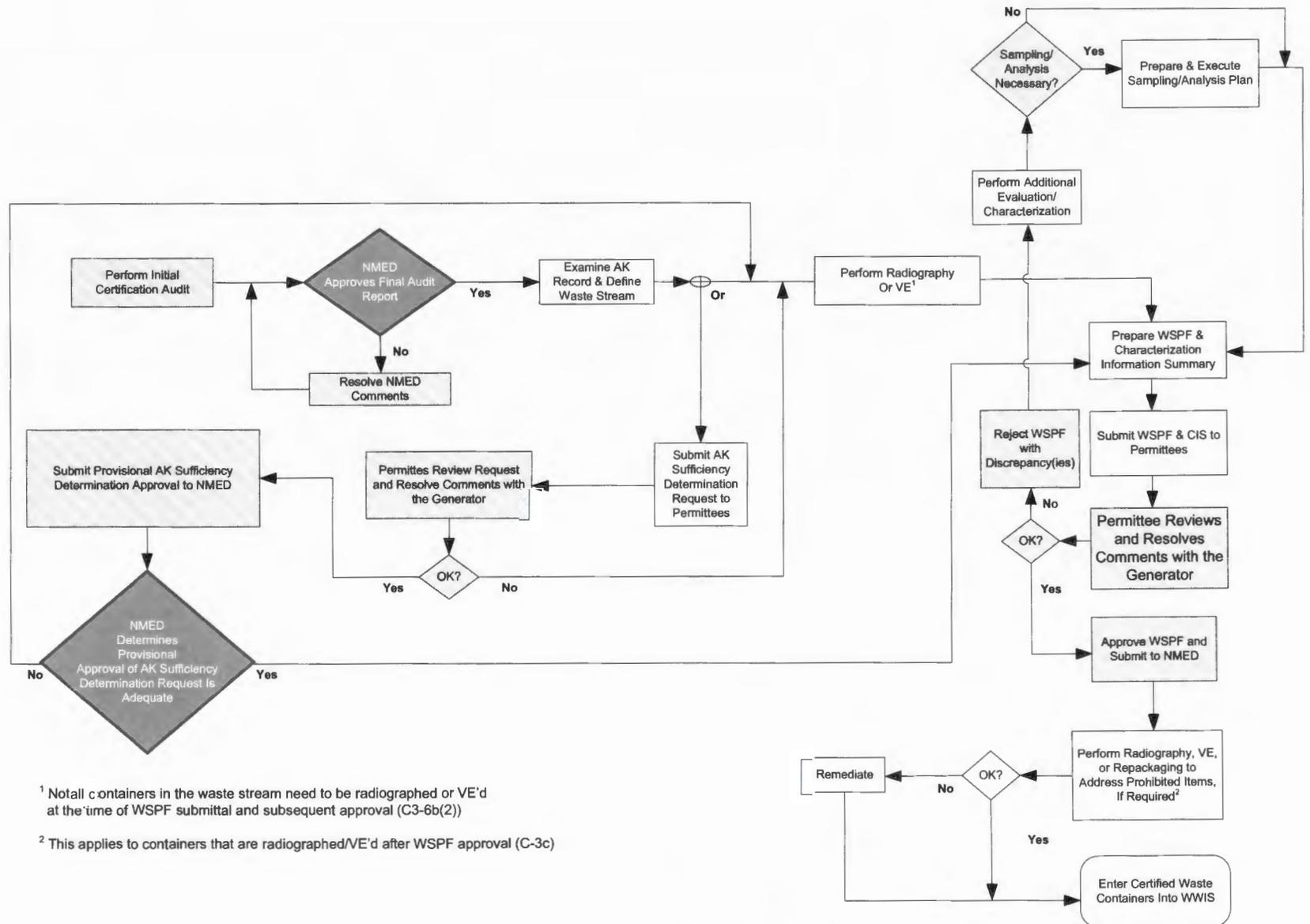
³ Preliminary estimate samples from the accessible portion of the waste stream must be sampled and analyzed prior to WSPF submittal. (C3-12(b)2)

⁴ This applies to containers that are radiographed/VE'd after WSPF approval (C-3c)



Waste Characterization Process

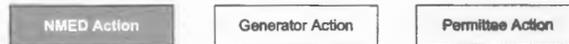
Figure C-2



¹ Not all containers in the waste stream need to be radiographed or VE'd at the time of WSPF submittal and subsequent approval (C3-6b(2))

² This applies to containers that are radiographed/VE'd after WSPF approval (C-3c)

Legend



Enclosure 2

- Table C-1 Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste (redline strikeout version – 2 pages)
- Table C-1 Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste (revised version – 1 page)

Table C-15
Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste

| Waste Matrix Code Summary Categories | Waste Matrix Code Groups | Characterization Parameter | Method | Rationale |
|--------------------------------------|--|---|--|---|
| Stored Waste | | | | |
| S3000-Homogeneous Solids | <ul style="list-style-type: none"> • Solidified inorganics • Salt waste • Solidified organics | Physical waste form | Acceptable knowledge, radiography and/or visual examination | <ul style="list-style-type: none"> • Determine waste matrix • Demonstrate compliance with waste acceptance criteria (e.g., no liquid in excess of TSDf-WAC limits, no incompatible wastes, no compressed gases) |
| S4000-Soil/Gravel | <ul style="list-style-type: none"> • Contaminated soil/debris | Hazardous constituents <ul style="list-style-type: none"> • Listed • Characteristic | Acceptable knowledge of statistical sampling ^a (see Tables C-3 and C-4) | <ul style="list-style-type: none"> • Determine characteristic metals and organics • Resolve the assignment of EPA hazardous waste numbers |
| S5000-Debris Waste | <ul style="list-style-type: none"> • Uncategorized metal (metal waste other than lead/cadmium) • Lead/cadmium waste • Inorganic nonmetal waste • Combustible waste • Graphite waste • Heterogeneous debris waste • Composite filter waste | | | |
| | | Physical waste form | Acceptable knowledge, radiography, and/or visual examination | Determine waste matrix Demonstrate compliance with waste acceptance criteria (e.g., no liquid in excess of TSDf-WAC limits, no incompatible wastes, no compressed gases) |
| | | Hazardous constituents Characteristic Listed | Statistical gas sampling and analysis ^a (see Table C-2) | Resolve the assignment of EPA hazardous waste numbers |
| | | Hazardous constituents Characteristic | Acceptable knowledge | Determine characteristic metals and organics |

Table C-5
Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste (Continued)

| Waste Matrix Code Summary Categories | Waste Matrix Code Groups | Characterization Parameter | Method | Rationale |
|--------------------------------------|--|---|--|---|
| Newly Generated Waste | | | | |
| S3000 Homogeneous Solids | <ul style="list-style-type: none"> • Solidified inorganics • Salt waste • Solidified organics | Physical waste form | Acceptable knowledge, radiography, and/or visual examination | <ul style="list-style-type: none"> • Determine waste matrix • Demonstrate compliance with waste acceptance criteria (e.g., no liquid in excess of TSDf WAC limits, no incompatible wastes, no compressed gases) |
| S4000 Soil/Gravel | <ul style="list-style-type: none"> • Contaminated soil/debris | Hazardous constituents <ul style="list-style-type: none"> • Listed • Characteristic | Statistical sampling ^a (see Tables C-3 and C-4) | <ul style="list-style-type: none"> • Determine characteristic metals and organics • Resolve the assignment of EPA hazardous waste numbers |
| S5000 Debris Waste | <ul style="list-style-type: none"> • Uncategorized metal (metal waste other than lead/cadmium) • Lead/cadmium waste • Inorganic nonmetal waste • Combustible waste • Graphite waste • Heterogeneous debris waste • Composite filter waste | Physical waste form | Acceptable knowledge, radiography, and/or visual examination | <ul style="list-style-type: none"> • Determine waste matrix • Demonstrate compliance with waste acceptance criteria (e.g., no liquid in excess of TSDf WAC limits, no incompatible wastes, no compressed gases) |
| | | Hazardous constituents <ul style="list-style-type: none"> • Characteristic • Listed | Statistical gas sampling and analysis ^a (see Table C-2) | <ul style="list-style-type: none"> • Resolve the assignment of EPA hazardous waste numbers |
| | | Hazardous constituents <ul style="list-style-type: none"> • Characteristic | Acceptable knowledge | <ul style="list-style-type: none"> • Determine characteristic metals and organics |

^a Applies to waste streams that require sampling.

**Table C-1
Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste**

| Waste Matrix Code Summary Categories | Waste Matrix Code Groups | Characterization Parameter | Method | Rationale |
|--------------------------------------|--|---|---|--|
| S3000-Homogeneous Solids | <ul style="list-style-type: none"> • Solidified inorganics • Salt waste • Solidified organics | Physical waste form | Acceptable knowledge, radiography and/or visual examination | <ul style="list-style-type: none"> • Determine waste matrix • Demonstrate compliance with waste acceptance criteria (e.g., no liquid in excess of TSDf-WAC limits, no incompatible wastes, no compressed gases) • Determine assignment of EPA hazardous waste numbers |
| S4000-Soil/Gravel | <ul style="list-style-type: none"> • Contaminated soil/debris | | | |
| S5000-Debris Waste | <ul style="list-style-type: none"> • Uncategorized metal (metal waste other than lead/cadmium) • Lead/cadmium waste • Inorganic nonmetal waste • Combustible waste • Graphite waste • Heterogeneous debris waste • Composite filter waste | Hazardous constituents <ul style="list-style-type: none"> • Listed • Characteristic | Acceptable knowledge | |