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Rocky Flats Environmental Technology Site

Via Express Mail

AUG 12 1998

98-DOE-03424

Dr. Robert S. Dinwiddie
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
Post Office Box 26110
Sante Fe, NM 87502



Dear Dr. Dinwiddie,

This is to transmit the enclosed Rocky Flats Environmental Technology Site (Site) comments on the Waste Isolation Pilot Plant Draft Permit No. NM4890139088-TSDF for consideration by the New Mexico Environment Department.

We appreciate the opportunity to review and comment on the draft permit. As we are sure you are aware, timely issuance of the final permit is extremely important in achieving the successful cleanup and closure of the Site.

If you have any questions regarding these comments please contact Lam Xuan, Rocky Flats Field Office, Office of Environmental Compliance at 303-966-3135.

Sincerely,

Handwritten signature of Joseph A. Legare

Joseph A. Legare
Assistant Manager
for Environmental Compliance

Enclosure

cc w/Enc.:
L. Xuan, RLG, RFFO

cc w/out Enc.:
S. Anderson, K-H



RFETS Comments on WIPP Draft Permit

COMMENT #	COMMENT DESCRIPTION	STATEMENT OF REQUIREMENT	AFFECTED DRAFT PERMIT SECTION	PROPOSED CHANGE TO DRAFT PERMIT	JUSTIFICATION OF PROPOSED CHANGE
1	Addition of Generator Sites to Permit	The permittees may only receive TRU mixed waste from those sites approved by the Secretary, through a modification to this permit.	Module II, page II-1, Section II.B.1	It is proposed that a letter from the Secretary to the Permittees document approval by the Secretary first, and that the approval be effective from the issuance of that letter. The newly approved generator/storage sites and newly approved waste streams would then be added to the next revision of the permit.	Under the requirement as stated in the draft permit, the permit will almost certainly be in a continuous state of revision, especially in the next few years with many generator/storage sites seeking permission to ship waste. It also seems improper that WIPP could receive a permit and then be required to receive a permit modification before any of the generator/storage sites could ship waste. Also, the cost and uncertain schedule impacts to generator/storage sites could be tremendous if a permit modification is needed for each new waste stream
2	Specifying Acceptable Characterization Methods in Permit	The permittees shall require that generator/storage sites comply with the method requirements, quality control, equipment testing, inspection, maintenance, and equipment calibration and frequency standards for the procedures specified in permit Attachment B1	Module II, Page II-2	Do not include the acceptable methods in the permit, except by reference to the Methods Manual. The issue here is adding new methods. As written, the permit would require a permit modification if a site wanted to develop a new sampling method. Again, it seems likely that the permit would be in a continuous state of revision because as characterization programs mature, new methods will also need to be developed.	The Methods Manual already has a process to request and evaluate new methods. By placing these methods in the Permit, it will require a permit modification to get new methods approved. This will result in unnecessary delays and additional costs. The current system contained in the methods manual is sufficient to ensure that methods are acceptable.
3	Suspension of Waste Acceptance	The Permittees shall immediately suspend waste acceptance from a generator/storage site and notify the Secretary in writing if either of the following actions result from an audit of a site: i. If a generator/storage site fails to complete required corrective action resulting from failure to comply with the WAP within thirty calendar (30) days after issuance of the final audit report by the Permittees, or	Module II, Page II-3	The suspension requirement should be eliminated. At a minimum, the suspension should apply only to the affected waste streams, not all of the waste streams from the generator/storage site. Also, there should be some grading on the failures. If the non-compliance is minor, and does not have a significant adverse affect on data quality, then suspending waste acceptance seems unwarranted.	RFETS will be trying to get approval to certify several waste streams over the next several years. If CAO audits a new waste stream and the audit results in CARs that take more than 60 days to correct, then the current wording would require CAO to suspend all shipments from RFETS until the CARs are resolved. The deficiencies with the new waste stream may not affect already certified waste streams, and suspension of shipment of the unaffected waste streams would be unwarranted. The same argument applies to the acceptable knowledge procedures. Only those waste streams affected by a failure to comply with AK procedures should be suspended. Also, insignificant instances of the non-compliance

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		ii. If audit findings at a generator/storage site indicate any failure to comply with the approved acceptable knowledge procedures in Permit Attachment B4.			should not result in suspension of shipment authority.
4	Sampling Method for Homogenous Solids	Representative sampling is accomplished through core sampling, which is described in Permit Attachment B1.	Attachment B, Page B-8	Allow for the use of other sampling techniques to collect a representative sample. RFETS has proposed to use a dipper to sample molten wastes and a scoop to sample pulverized wastes. These techniques are better suited to the waste streams being sampled than core sampling. Other sampling techniques may include the use of a thief or a sample splitter.	The choice of sampling equipment should be based on the characteristics (e.g., container size, physical form, hazards, etc.) of the waste being sampled. EPA and NIST have extensive guidance on sampling techniques, and any of those should be acceptable. Also, site should be given the opportunity to develop new techniques, if necessary, without the need to modify the permit to include the new techniques.
5	Residual Liquids Not Allowed in Waste Containers	When radiography is used, or visual examination of transparent containers is performed, if any liquid in inner containers is detected, the item (in the case of VE) or container (in the case of radiography) will be rejected.	Attachment B, Page B-10	Modify the wording to state that only if the liquids exceed the amount allowable per the definition of residual liquids, would the item be rejected.	RFETS has used RTR to characterize thousands of waste containers using the requirements in the QAPP. If the draft permit is adopted as written, all of that characterization would need to be redone. Also, the requirements in the QAPP reflect the RCRA definition of residual liquids, and should therefore be contained in the WIPP RCRA permit.
6	The Permit Should Not Specify Contents of Waste Generating Procedures	To ensure that the generator site procedures for waste generating processes include controls of the waste stream, these procedures will consist of sections containing the following information: <ul style="list-style-type: none"> • Scope • Purpose • Responsible organizations for implementing the requirements of the procedure 	Attachment B, Page B-12	The permit should not specify that these requirements be contained in the procedures for waste generating processes. It should be sufficient that these requirements are satisfied by the site's waste characterization program as a whole.	Sites must be given the flexibility to design and implement its waste characterization program as best meets the needs of the site. It should make no difference whether the information is in the QAPP, another site-level plan, or in characterization procedures that are different from the waste generating procedures.

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		<ul style="list-style-type: none"> • Administrative process controls • Material inputs • Waste streams generated • Process controls and range of operation (bounds) that affect final hazardous waste determinations • Rate and quantity of hazardous waste generated • List of applicable operating procedures relevant to the hazardous waste determination • Non-conformance Reporting • Process knowledge verification sampling • Reporting and records management 			
7	Procedure to Gather Preliminary Estimates of Contaminant Levels is too Cumbersome	Preliminary estimates will be based on samples from a minimum of 5 waste containers or 5% of the containers from the waste stream. New samples collected to establish preliminary estimates shall be selected in the same random method used to select the required samples.	Attachment B2, Page B2-3	Eliminate the requirement for preliminary estimates. Also, 5% is excessive for a large waste stream with very little variability in chemical constituents. The minimum should be 5 samples, as currently required by the QAPP.	Preliminary estimates should be a tool that the site can use to plan sampling programs. However, if a site chooses to pull random samples without the aid of preliminary estimates, they should be allowed to do so as long as the final results satisfy the statistical tests for hazardous waste determinations. Also, sites should be give flexibility regarding the data used to establish preliminary estimate. Sites may desire to use existing data, non-randomly selected samples (e.g., the first 10 waste containers from a waste generating process), or other characterization schemes that meet the needs of the program. This should not matter as long as the data used to support hazardous waste determinations comes from randomly selected waste packages and it

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					satisfies the appropriate statistical tests.
8	Collecting 10% Additional Samples Should Not be a Requirement	The required number of samples shall be adjusted to 110% of the calculated to account for the possibility that a collected sample may not be useable (i.e., due to breakage, poor analysis, etc.).	Attachment B2, Page B2-4	Eliminate the 110% requirement.	Sites should be allowed to design their own sampling program. It may be prudent for sites to collect additional samples to guard against the possibility of samples being unusable, but this should not be a requirement. As long as enough samples are collected to make a valid hazardous waste determination, the plan to collect those samples should be established by the site.
9	Routine NCRs Should be Handled by Site Procedures	For any non-conformance or failure to meet the QAOs specified in the Waste Analysis Plan (WAP), the Permittees shall receive written notification of the nonconformance within five (5) calendar days of identification of the incident. The Permittees shall also receive a nonconformance report within thirty (30) calendar days of identification of the incident. The Permittees shall require the generator/storage site to implement a corrective action which meets the QAOs specified in this WAP within thirty (30) calendar days of identification of the incident.	Attachment B3, Page B3-4	Delete the requirements for individual NCRs to be reported to WIPP. Instead, require generator/storage sites to have methods to identify and resolve NCRs. The implementation of these methods should be audited by CAO as part of the site certification process.	NCRs arise as part of routine operations. Examples include assay systems failing routine performance checks, analytical batches failing the QAO for 90% completeness due to a mechanical failure of an auto sampler, etc. These nonconformances are identified and resolved by site programs. It will not add quality and will add extra administrative reporting burden if every NCR must be sent to WIPP. Sites already provide trending data on NCRs to demonstrate the effectiveness of their QA programs. This, combined with the annual audits should be sufficient for WIPP to demonstrate control of nonconforming items.
10	72 Hour Equilibrium Requirement	All headspace-gas sampling will be performed on waste containers that are in compliance with the container equilibrium requirements (i.e., 72 hours at room temperature) within	Attachment B1, Section B1-1a, Page B1-1 of 40, Lines 5 through 7	All headspace - gas sampling will be performed on waste containers that are in compliance with the container equilibrium requirements (i.e., 72 hours at room temperature or other equivalent method demonstrating that the temperature of waste containers and contents at the time of headspace-gas sampling is within the range of	The purpose for the requirement for temperature equilibration of waste containers prior to headspace gas sampling is to establish that the temperature conditions of the waste contents within a waste container at the time of headspace gas sampling are representative of the waste characteristics in the WIPP repository

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		a radiation containment area (e.g., glovebox or hot/warm cell).		18°C to 29°C).	- i.e., the waste contents are within the temperature range of 18°C to 29°C. The 72 hour equilibrium period is only used as a method for ensuring that the waste and waste contents are within the temperature range of 18°C to 29°C at the time of headspace gas sampling. The strict requirement for a 72-hour equilibration time is too inflexible and ignores generator site-specific handling and storage practices that make a 72-hour equilibration period overly restrictive and burdensome. For example, a drum may be stored for months at room temperature in one building or facility at a site and then, over a period of a couple hours, be loaded into a truck and subsequently transported by the truck to the headspace gas sampling facility. Requiring the drum to equilibrate in the headspace gas sampling facility for 72 hours after such a transfer from one temperature controlled environment to another is not justified or reasonable. Other means, based upon individual generator site handling and storage practices along with heat transfer calculations demonstrating the appropriate equilibration time to ensure that the waste contents are within the required temperature range of 18°C to 29°C, are available and should be allowable. The 72-hour equilibrium period should only be required when other means are not available to demonstrate temperature equilibration in the desired temperature range.
11	Headspace Gas Sampling Methods	Two methods, sampling through the carbon filter and sampling through the drum lid, have been developed for collecting a representative sample. The lid of the drum's 90-mil poly liner shall contain a hole for	Permit Attachment B1, Section B1-1a (3), Page B1-5 of 40, Lines 27 through 28 Permit Attachment B1,	Modify to allow for the use of any accepted method if it results in acquisition of a representative sample. Eliminate the specificity in selection of the method by referencing documents outside the permit.	The lid of the drum's 90-mil poly liner (i.e., the drum's rigid liner) does not need to be punctured with a hole for venting to the drum in order to collect a representative headspace gas sample. It is agreed that collection of a headspace gas sample through the drum lid carbon filter may not be representative if the rigid liner is not vented with at puncture hole,

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		venting to the drum. A representative sample cannot be collected until the poly liner has been vented to the drum. If headspace-gas samples are collected prior to venting the 90-mil poly liner, the sample is not acceptable and a nonconformance report shall be prepared, submitted, and resolved. Nonconformance procedures are outlined in Permit Attachment B3.	Section B1-1a (3) (i), Page B1-5 of 40 and lines 42 through 47		<p>but this does not mean that a representative sample can not be collected at all. It only means that a representative sample may not be collected through the drum lid carbon filter.</p> <p>In situations where the drum lid is vented with a carbon filter, but the rigid liner lid is not vented with a puncture hole or filter, a representative headspace gas sample may be still be collected from inside the rigid liner.</p>
12	Headspace Gas Sampling of Innermost Layers of Confinement	<p>Headspace-gas sampling will occur from the innermost layer of confinement within each drum of transuranic (TRU) mixed waste. Based on the drum configuration, the innermost layer of confinement may be defined as follows (see Figure B3-1):</p> <ol style="list-style-type: none"> 1. The drum headspace (i.e., the headspace directly under the drum lid) for drums not subject to visual examination. 2. The 55-gallon (gal) (208-liter [L]) polyethylene (poly) bag headspace for drums subject to visual examination that do not have innermost layers of confinement, and 3. the headspace gas of each of the innermost 	Permit Attachment B3, Section B3-2, Page B3-4 and B3-5 of 53, Lines 41 through 46 on page B3-4 and lines 1 through 6 on page B3-5	Headspace gas sampling is performed on the drum headspace that is collected either directly under the drum lid (rigid liner vented) or directly under the rigid liner lid (if rigid liner is not vented)	DOE has conducted a study that shows the concentration of VOCs in the innermost layer of confinement can be related to the concentration of VOCs measured in samples of the drum headspace. The title of the report that provides the details of this study is <i>Position for Determining Gas Phase Volatile Organic Compound Concentrations in Transuranic Waste Containers</i> (Connolly et al. 1995). Therefore, the requirement for inner layer of confinement sampling of headspace gas is not necessary and should be eliminated in the permit.

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		layers of confinement for drums subject to visual examination that have innermost layers of confinement.			
13	Change UCL ₉₅ to UCL ₉₀	The draft permit cites use of a 95% upper confidence limit (UCL₉₅) instead of a 90% upper confidence limit (UCL₉₅) in numerous instances throughout the permit and associated attachments.	Attachment B, Section B-3a (2), Attachment B2, Section B2-3, Attachment B3, Section B3-11, Attachment B4, Section B4-3d, and potentially numerous other places within the draft permit and associated attachments.	Change all occurrences of UCL₉₅ to UCL₉₀ within the draft permit and associated attachments.	Section 9.1.1.1 of Chapter Nine of SW-846, <i>Test Methods for Evaluating Solid Waste</i> , provides guidance for determining if sampling results exceed regulatory thresholds. This guidance specifies use of an upper confidence limit of 90% and not 95%. SW-846 is the document cited and referenced in 40 CFR 260 through 268 for use in characterization of waste and in making RCRA hazardous waste determinations. For consistency, the guidance cited in SW-846 should be used and incorporated into the WIPP draft RCRA Part B permit whenever applicable.
14	Adding Tentatively Identified Compounds (TICs) to Target Analyze Lists	The draft permit cites the requirement for adding TICs to the target analyze list if detected in a given waste stream and if they appear in either the 20 NMAC 4.1.200 Appendix VIII or the 20 NMAC 4.1.500 Appendix IX list.	Attachment B, Section B-3a (1), Attachment B, Section B-3d	Change the draft permit to incorporate the wording identified in the WIPP Transuranic Waste Characterization Program Quality Assurance Program Plan (QAPP). Specifically, change the requirement to read: "Nontarget compounds shall be reported as tentatively identified compounds (TICs) and are reported with a higher uncertainty than the reported target analyte concentrations. For samples containing TICs with total ion current peaks greater than 10 percent of the nearest (RT) internal standard, appropriate search routines of the latest NIST or equivalent mass spectral library must be performed on the 20 greatest in area count. For samples analyzed using external standard quantitation, mass spectral library searches must be performed on up to 20 TICs (those with the greatest area counts) which have total ion current peak areas greater than 10 percent of the largest target analyte	The requirement as written could easily be interpreted to mean that any TIC listed in either the 20 NMAC 4.1.200 Appendix VIII or the 20 NMAC 4.1.500 Appendix IX would have to be added to the target analyte list if identified in only one sample. This is much too strict and burdensome a requirement. Tentatively identified compounds are just that "tentatively identified." There needs to be additional criteria related to frequency of detection, the certainty of the identification of, and the detection concentration of a TIC in a waste stream prior to requiring the addition of a TIC to a target analyte list for that waste stream. To impose a requirement that the one mere detection of a given TIC (which by definition is "tentatively identified") at minimum detection limit levels to the target analyte list is not technically justified or reasonable.

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				identified, or ten times greater than the standard deviation of the background. Positively identified TICs listed in 40 CFR Part 264, Appendix IX shall be added to the target analyte list by the site project officer if they are detected in greater than or equal to 25 percent of all samples from a given matrix parameter category.	
15	Specification of information to be included in site QAPJP's	The draft permit in many places identifies information (such as "description of the procedures for implementing personnel qualification and training in accordance with the QAPD and 10 CFR 830.120" - lines 12-14 on page B3-32 of 53) that must be specifically included in the site QAPJP.	All that reference QAPJP's	Include a qualifier in the definitions or other section that explains that information required to be in site QAPJP's or in associated QA program documentation referenced in the QAPJP.	Sites develop and maintain their QAPJP's primarily in response to the DOE QAPP. Additional QA program documents are maintained to respond to requirements of the QAPD, 10 CFR 830.1220, and NQA-1. Flexibility should be allowed in how site's document compliance with requirements in order to avoid unnecessary duplication of documentation. Resources are best utilized in meeting requirements rather than in creating duplicate documentation of how requirements will be met.
16	Inclusion of detailed QA requirements	In several locations in the permit (such as B3-13) QA requirements are repeated from Department of Energy documents. Also specific responsibilities are assigned to the Site Project QA Officer.	Primarily Attachment B	Require sites to have QA programs that comply with the DOE QAPD. Do not define how the project QA officer is to meet requirements. The "how" of meeting requirements should be in generator site QA documents and procedures.	This will streamline the permit and allow more flexibility and efficiency in meeting requirements. Identifying the specifics of how requirements are met will create implementation problems at generator sites.
17	Training requirements	Pages B2 & B3 of 53 require training to the WAP for all personnel performing activities that affect WAP quality.	Attachment B	Require personnel performing or managing activities affecting the quality of TRU mixed waste disposed of at the WIPP to be trained pursuant to a RCRA documented training program.	Requiring everyone to be indoctrinated to the scope, purpose, and objectives of the WAP is costly and in many cases provides little benefit. Management should determine how an employee needs to be trained in order that the results of his/her efforts meet requirements. For example, an individual in procurement buying a drum has an affect on the quality of the wastes to be shipped, but they do not need to know or understand the QAO's' in the WAP.

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					He/she needs to be trained to an approved, effective procedure for what they are to do, and needs follow that procedure.
18	Inclusion of Audit Checklists	B6-1 lines 18 and 19 require audit checklists to contain the requirements specified in the checklists found in Table B6-1.	Attachment B6	Eliminate the checklists. Require that checklists be developed for each audit that will provide for a determination of a site's compliance with requirements.	The audit procedure implemented by DOE must document a process for auditing in a manner that will make a correct determination. Specifying specific checklists is unnecessary. Also, the statement included on lines 18 and 19 says, "requirements specified in the checklists". This implies that the checklists are additional requirements. Checklists are developed to determine compliance with requirements. What is in a checklist does not become a requirement.
19	Tracking of CARs	Line 4 page B6-5 of B6 requires CARs identified by the site during self-audits to be included in Permittees' audit report and tracked in the Permittees tracking system.	Attachment B6	Remove last sentence in first paragraph of page B6-5 (lines 4 and 5).	Including the CARs from site self audits in the Permittees' tracking system presents a number of problems. It results in duplicate tracking that is not necessary to meet QA requirements. It would require all sites to have compatible CAR documentation systems, which they don't. The logistics of duplicate systems would consume many resources with no additional benefit. CARs identified during self-audits can be adequately tracked at the sites. Also, sites have many CARs that may impact the quality of TRU waste but are not the result of direct self-audits of the site's TRU project. The adequacy of a site's process of identifying and correcting deficiencies is what is important. Tracking CARs in the Permittees' system will not assure the adequacy of that process. The burden of centralized tracking would tend to discourage prompt and complete identification of deficiencies.
20	Instructions for Responding to CARs	Section B6 includes requirements for deficiencies to be identified in CARs.	Attachment B6	Require that the SOP for audits include instructions for how sites are to respond to and close CARs. Or require that there be a procedure issued by the Permittees' and	Appropriate instructions need to be provided to the sites to ensure adequate responses to CARs are developed. Without formal instructions from the Permittees' sites would

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				concurrent with by the sites that provides instructions for arranging and conducting audits, including definitions of interfaces and timing requirements for audits, and instructions for developing responses to CARs and closing CARs.	
21	Requirements to be addressed by site QAPjPs	B5-1, first paragraph requires that sites develop a QAPjP that address the requirements in Attachment B.	Attachment B5	Require sites to have QAPjPs that address the requirements of the DOE QAPP.	Several site QAPjPs, including the Rocky Flats Environmental Technology Site QAPjP, have already been developed to the requirements of the DOE QAPP. Even if attachment B, Waste Analysis Plan contains the same requirements as the QAPP, references and sections would have to be changed. Extensive rewrites of existing QAPjPs would result if this statement were not changed.
22	Specification of sections to be included in waste generating process procedures	B-3d (1) (a) page B-12 of 58 lines 26 through 53 that specifies specific sections to be included in procedures.	Attachment B, Section B-3d (1) (a)	Eliminate paragraph, specifying sections to be included.	Quality Assurance requirements assure that appropriate information are included in procedures. Requiring these specific sections would require deficiencies with existing procedure systems. Also, some of the sections (Administrative process controls for example) specified are undefined and would lead to different interpretations. Requiring a section on nonconformance reporting is unnecessary. A separate procedure exists for nonconformances that apply to all operations. It is redundant to discuss, or reference, the nonconformance process in every procedure.
23	Time for corrective action after an audit	Permittees shall immediately suspend waste acceptance from a generator/storage site and notify the Secretary in writing if of the following actions result from an audit of a site: If a generator/ storage site fails to complete required	Module II, Section II.C.1.g page II-3, Page 17	Allow for the permittees to use judgment in determining the need to suspend waste acceptance. Not all deficiencies identified in an audit would have an impact that would mean noncompliant waste was being packaged or shipped. Also, the audit might be for a new waste stream while a number of existing approved streams continue to be processed in compliance. This requirement also conflicts with the statement on page B6-5 of 124, line 41	The current statement would result in complete suspension of waste acceptance when only one small new stream might be noncompliant. The document needs to be consistent in how long a site is given to respond to correct deficiencies.

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		corrective action resulting from failing to comply with the WAP within thirty calendar (30) days after issuance of the final audit report by the Permittees, or If audit findings at a generator/storage site indicate any failure to comply with the approved acceptable knowledge procedures in Permit Attachment B4.		which allows a site 30 days to respond to a CAR. The above requirement also indicates that there are procedures in attachment B4. We have implemented procedures in response to requirements. B4 contains requirements.	
24	Requirement for weekly re-review of data	A repeat of this review is performed for at least one randomly chosen container weekly	Attachment B, B-4a (6) page B-19 of 58	Eliminate the requirement as specified.	A weekly re-review of the data does not provide any additional assurance of data quality, and does not contribute to protection of human or environmental well-being.
25	Forms and charts are unreadable	Figure B-1, Figure B-2, and Figure B-3	Attachment B, Pages B-53 of 58 through B-56 of 58	Increase the size of the printing to assure this section of the permit can be read.	Figures do not provide any value if they are unreadable.
26	Sequence of data validation needed to be corrected	Requirements for validation on page B3-22 of 53.	Attachment B3	Revise to have the Project QA Officer sign and release data and then have project manager sign and release data.	Current statements require the project manager to release data after QA Officer and the QA Officer to release data after project manager. This sequence is not possible.
27	Specification of vertical bars on revisions of QAPjP	Page B5-2 of 6 1 st paragraph requires revision bars on the left-hand margin of pages on revisions of QAPjPs.	Attachment B5	Require revision bars on page changes to documents but not on complete revisions of QAPjPs.	When complete revisions are made to documents revision bars become necessary for many entire pages and are no longer helpful in determining what has changed. Also, complete revisions usually result in changes to page numbering and it becomes difficult to assign a location to a revision bar. Compliance with QA requirement standards can be accomplished without revision bars.
28	Visual Examination by Waste Stream	The results of radiography are verified through visual examination of a statistically selected subpopulation of TRU mixed waste containers	Attachment B, Page B-10, Lines 22 and 23.	Delete the requirement for visual examination on each waste stream. Change the Permit so it is in agreement with the TRU Waste Characterization Quality Assurance Program Plan (QAPP), CAO-94-1010, section 5.4.2,	The visual examination program as described in the QAPP has been developed by DOE to provide an acceptable level of confidence in radiography. Reference the Idaho National Engineering Laboratory, Engineering Design

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		in each TRU mixed waste stream.		which requires visual examination be performed on a statistically selected portion of certified waste containers based on the percent of waste containers miscertified by radiography in previous years.	File RWMC-363, "Description of the SWEPP Certified Waste Sampling Program", for further details. The increased confidence in radiography from having every waste stream visually examined would be very small. RFETS has implemented a visual examination program in compliance with the QAPP requirements. All waste characterized to date would have to be put on hold until the program is changed, and additional drums visually examined.
29	Site Data Validation Officer	Generator sites will be responsible for data validation and release signatures from the Site Project Manager, Site Data Validation Officer, and the Site Data QA Officer shall document verification of waste characterization for each container and the data.	Attachment B, Page B-14, Lines 52-54.	Delete the position of Site Data Validation Officer or allow the Site QA Officer to assume the responsibilities of the Site Data Validation Officer.	Section 3.0 of the QAPP, "Data Validation, Usability, and Reporting", does not include the position of Site Data Validation Officer. The Site QA Officer already performs the same duties as a Site Data Validation Officer and there are three levels of data validation being performed. The addition of another position to the current validation process would add little, if any, to the quality of the work being done. All the data validated to date would have to be revalidated and recertified.
30	Laboratory Holding Time	Holding times and container requirements collected and analyzed are provided in Table B1-1. Laboratory holding time is 28 days from Verified Time of Sample Receipt.	Attachment B1, Page B1-7, Lines 28 & 29, and Table B1-1.	Allow the Laboratory Holding Time for an analytical batch to be increased on a corresponding day by day basis for each day the Field Holding Time or Shipping Allowance is decreased, up to a maximum of 34 days.	This change allows greater flexibility for the Laboratories in processing samples and yet does not add any additional days to the overall time required in providing analytical results from the day the sample is taken.
31	"H" and "Z" reporting flags	Reporting flags include the following: H and Z flags are not included.	Attachment B3, Page B3-20, Lines 18-32.	Add the "H" and "Z" flags with the following definitions: H - Holding time exceeded. Z - One or more QC samples do not meet acceptance criteria.	These flags are currently being used in the reporting of analytical data per the QAPP. Holding times are not always met for a variety of reasons. In many cases exceeding the holding time by a few days is not critical to obtaining valid results.
32	Newly Generated Waste	Retrievably stored waste is defined as TRU mixed waste generated after 1970 and before modification of the	Attachment B, page B2-58	Eliminate distinction between retrievably stored and newly generated for purposes of the permit. Such a distinction is not necessary as long as the remaining pertinent permit	By eliminating the distinction, generator sites will be able to certify waste that has been characterized, treated, processed, or repackaged in accordance with their approved

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COMMENT #	COMMENT DESCRIPTION	STATEMENT OF REQUIREMENT	AFFECTED DRAFT PERMIT SECTION	PROPOSED CHANGE TO DRAFT PERMIT	JUSTIFICATION OF PROPOSED CHANGE
		<p>Permit designating a generator/storage site as implementing and complying with the requirements of the WAP. Newly generated waste is defined as TRU mixed waste generated after modification of the Permit designating a generator/storage site as implementing and complying with the requirements of the WAP.</p>		<p>requirements are met.</p>	<p>QAPjPs, but prior to a modification of the Permit designating a generator/storage site as implementing and complying with the requirements of the WAP.</p> <p>If this draft permit requirement is not changed, waste the generator sites have characterized, treated, processed, and repackaged in accordance with their approved QAPjPs and have certified as ready to ship to WIPP may have to recharacterized, etc. after a modification of the Permit designating a generator/storage site as implementing and complying with the requirements of the WAP. This will cause unnecessary Program costs at the generator/storage sites and delays in waste shipments with no additional benefit to public health or the environment.</p>
33	<p>Evaluation of the acceptable knowledge documentation</p>	<p>Auditors will evaluate all documents associated with the evaluation of the acceptable knowledge documentation for at least one heterogeneous debris waste stream and one solidified waste stream during the audit.</p>	<p>Attachment B4, Page B4-14 of 23</p>	<p>To the above sentence add the phrase "provided the generator/storage site has characterized a solidified waste stream, including documenting all the acceptable knowledge for that stream."</p>	<p>RFETS TRU/TRM Waste Project Office has not addressed what is required for characterization and certification of a solidified waste stream and has not scheduled the characterization of such a waste stream in the near future. The site would like to proceed with audits of the heterogeneous debris waste streams which have been characterized, as well as treated, processed or repackaged, for WIPP certification and disposal and not experience delays until a solidified waste stream is characterized, treated, processed or repackaged according to approved QAPjP requirements.</p> <p>If this draft permit requirement is not changed, audits of all waste streams will be delayed until a solidified waste stream is characterized and certified as meeting approved QAPjP requirements. Since heterogeneous debris waste streams represent about 80% of RFETS TRU/TRM waste, there will be unnecessary delays in disposal of the majority of RFETS</p>

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					TRU/TRM waste.
34	Use of "only black ink"		Attachment B3, page B3-18 of 53	Line 29 to read: All raw data shall be signed and dated in preferably black ink by the person generating it.	The record must be identifiable, legible and reproducible when this is ensured the use of "only black ink" is entirely too inflexible.
35	Delete the 28 day Records Transmittal Requirement (LMW)		Attachment B6, page B6-26 of 124	The third block under Records Management: Delete the requirement of 28 days. The requirements for records are that they meet NQA-1 record requirements and that they are transmitted to the PDCO within a reasonable time. The 28 days is not connected to any of the known requirements.	The requirement will not increase protection of human health and environment.
36	Waste Characterization Sampling and Analysis Methods	For waste characterization <u>sampling</u> and <u>analytical</u> methods (commenter's underline), the draft permit states that generator sites must comply with the method requirements specified in Attachment B-1 (Waste Characterization Sampling Methods). Attachments B and B-1 further state that core sampling is the method to be used for <u>sampling</u> homogenous solids and soil/gravel. For <u>analytical</u> methods not otherwise specified in Attachment B-1, EPA's SW-846 methods must be used.	Module II, Section II,C.1.b., page II-2 Attachment B, Section B-3a (2) Attachment B-1, pages B1-11, to B1-17	Modify to state that both analytical and sampling methods specified in SW-846 can be used to characterize TRU Mixed Waste. In addition, the Permit should state that other appropriate, generally recognized sampling methods can be used, such as those endorsed by the American Society for Testing and Materials (ASTM).	<p>The Permit is unnecessarily restrictive since it limits the generator's choice of solid sampling methods to one, which is core sampling. There are other generally recognized and authenticated methods for environmental and other types of sampling, such as SW-846 and ASTM methods, that waste generators should be able to use without going through the lengthy and burdensome process of obtaining a Permit Modification for each method.</p> <p>Core sampling of homogenous solids (as described in the permit) is not the best choice of methods, for example, for sampling of small containers in a glovebox. In radiation confinement, equivalent sample representativeness and lower worker radiation exposure can be achieved through simpler and more cost-effective methods, such as statistically based scoop or thief sampling, which are recognized in SW-846.</p> <p>The choice of methods for obtaining statistically based representative samples should be left to the waste generators who must adhere to the sampling and analysis quality assurance objectives in the QAPP.</p>

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37	Preservation for solid samples used for total metals.	Solid samples collected for total metals analysis (including mercury) must be preserved by cooling to 4°C.	Attachment B1, Section B1-2a (2) Attachment B1, Table B1-4, page B1-29	<p>The permit should be changed to incorporate by reference Table 3-1 of SW-846 (reference USEPA, SW-846, Draft Update IVA, January 1998) which contains preservation methods for aqueous and solid sample holding times, as well as sample digestion volumes and suggested collection volumes.</p> <p>Allowance should be made for technically justified deviation from Table 3-1 requirements where sample representativeness or integrity is not jeopardized.</p>	<p>The draft permit requires that all metal samples be preserved by cooling to 4°C whereas the recent version of SW-846, which is the generally accepted standard for environmental sampling and analysis, requires that metals samples for only hexavalent chromium and mercury need to be chilled. There is no technical justification for having a more stringent standard in the Permit. In addition, the Permit can be more easily be kept up to date by incorporating by reference SW-846 and other appropriate and authenticated standards documents rather than repeating their technical details.</p> <p>With regard to allowing deviations from sample preservation requirements, the case of sampling pyro-oxidized salt for mercury must be considered. The high temperature (850°C) of the pyro-oxidation process tends to prevent the existence of mercury compounds and any mercury which survives the pyro-oxidation process would be so nonvolatile at room temperature after cool-down that further cooling to 4°C would not improve data quality.</p> <p>Eliminating unnecessary sample handling and processing reduces worker exposure to radiation and streamlines the waste characterization process.</p>
38	Usage of terms that could be considered vague and/or create difficulties in compliance	Supplemental documentation is required, if applicable, and shall be used to further document the rationale for the hazardous waste designations.	Attachment B-4, Section B4-2c	Eliminate the words "if applicable"	There is a concern that use of the words "if applicable" and similar terms will lead to a great deal of investigative effort with little associated benefit. That is, how far does a generating site need to go to identify all supplemental information, and how is it determined how much is good enough?
39	Specifying headspace gas sampling and	Headspace-gas sampling and analysis shall be conducted on all TRU mixed	Attachment B4, Section B4-3d,; Attachment B,	Provide a mechanism to allow for alternatives to the requirement to perform headspace sampling and analysis on all TRU mixed waste	While the need to verify the presence of listed constituents is understood, it would become burdensome to sample and analyze 100% of

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	analysis on all TRU mixed waste	waste to be sent to the WIPP facility	Section B-3a(1); Module II, Section II.C.2.i., and a variety of other locations through Attachment B and other locations of the permit.	if it can be demonstrated via an alternate mechanism that F listed volatile organics can not be present, e.g., the waste has been thermally treated, or if the waste is undergoing physical sampling and analysis.	the population of a waste stream for which there is no expectation of the presence of hazardous organics or for which organic concentrations have been determined by other means (e.g., physical sampling). In the case of the former, waste generated from a thermal treatment process would have little chance of having any remaining organics. While the waste would still carry the F code, it would be of little value to the generating site to perform headspace analysis to prove this fact. In the case of the latter, wastes undergoing solid sampling will be characterized through a more rigorous process, thus the need to perform headspace analysis would seem redundant.
40	Definition of debris is inconsistent	Debris means solid material exceeding a 2.36 inch (in.) (60 millimeter) particle size that is intended for disposal and that is ...	Attachment B	Change definition to match that of WIPP.	The particle size constraint does not account for other heterogeneous wastes that are not amenable to statistical sampling and analysis, but are more appropriately characterized through acceptable knowledge and headspace gas analysis confirmation.
41	Reconciliation of LDR prohibitions with the Land Withdrawal Act	The following TRU mixed waste are prohibited at the WIPP facility...any waste container containing mixed wastes restricted from land disposal which have not been treated to treatment standards described ...	Module II, Section II.C.2.1, Attachment B, Section B-1c, and other locations throughout the permit.	Eliminate requirement prohibiting acceptance of TRU mixed waste that has not been treated to meet the LDR treatment standards.	The Land Withdrawal Act, as amended, specifies that such TRU mixed waste is exempt from treatment standards ... and shall not be subject to the land disposal prohibitions ... Notably, Permit Module VII.B.4 recognizes that the WIPP Land Withdrawal Act, as amended, exempts certain TRU mixed wastes from land disposal restrictions. This exemption is not clearly delineated in other affected permit sections
42	TRU Mixed Waste Definition	"TRU Mixed Waste" means transuranic mixed waste containing more than ...	Module I, Section I.C.5	Change definition to include the RCRA hazardous component as an integral part of the definition of TRU Mixed Waste	The definition of TRU Mixed waste does not define what "mixed" means. As written, it implies all TRU waste whether or not it is mixed with a RCRA hazardous component is "mixed".
43	Waste Prohibited at WIPP	Before accepting a container holding TRU mixed waste, the Permittees will examine the radiography data records as part of its Level III analysis...	Attachment B, Section B-1c	Eliminate discussion on verification of RTR records as the mechanism for validating the container holds no prohibited items and the waste stream is consistent with its description.	As written, it does not allow verification of compliance with prohibited items by means other than RTR (e.g., visual examination) and is unnecessarily restrictive.
44	Totals Analysis vs.	Totals analyses for PCBs,	Attachment B,	Allow use of TCLP for hazardous waste	This section currently requires RCRA

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	TCLP	VOCs, SVOCs, and RCRA-regulated metals are used instead of the TCLP to determine waste parameters that may be important to the performance within the disposal system.	Section B-3a(2); Section B-3d(1)(a)	determinations.	determinations to be made on the results of total analysis versus TCLP. This conflicts with guidance from the EPA and the State of Colorado which allow RCRA determinations to be made with TCLP results. Total analysis should be used only for the repository performance assessment and not for RCRA determinations. While the requirement may be achievable for newly generated waste, it could invalidate all previous TCLP analysis events.
45	Characterization Techniques	General requirements	Attachment B, Section B-3d; Attachment B1; checklists of Attachment B6	A system should be developed and referenced in the permit that allows flexibility in defining approaches and for allowing minor changes to characterization approaches to be made without requiring a permit modification.	Similar to comment 2 above. The specificity provided in the draft permit could discourage the use of innovative and cost effective approaches to meeting the desired criteria. Additionally, minor changes could create significant time delays while processing permit modifications.
46	Equilibration Time	All waste containers designated as summary category S5000 (Debris waste) shall be sampled a minimum 142 days after packaging and all waste containers designate as summary categories S3000 (Homogeneous solids) and S4000 (Soil/gravel) shall be sampled a minimum of 225 days after packaging.	Attachment B1, Section B1-1a	Clarify that the 225 day requirement applies to cemented organics and inorganics but that solid organics and inorganics require only 125 days.	The cited reference actually requires only 125 days equilibration period for both solid inorganics and solid organics. Cemented inorganics and cemented organics require 225 days to equilibrate.
47	Acceptable Knowledge	Acceptable knowledge is confirmed using nondestructive techniques, and sampling and analysis.	Attachment B4, Section B4-1	change "and" to "and/or" as follows: Acceptable knowledge is confirmed using nondestructive techniques, and/or sampling and analysis.	As written the statement will require confirmation of AK on all waste types, homogenous solids and debris using nondestructive techniques, AND sampling and analysis. This is clearly not the intended message.
48	Waste Acceptance Criteria	general comment	Module II, Section II.C.2.	All subsections should be modified to specifically reflect applicability of these conditions to TRU Mixed Waste.	While it is implicit that the conditions apply to mixed waste and not to non-mixed TRU, use of the words such as "any waste" and "all waste" could be interpreted to extend RCRA authority into areas in which it does not apply (e.g., non-mixed TRU waste which is acceptable at

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49	Sampling Techniques	Coring tools shall be used to collect cores of homogeneous solids and soil/gravel from waste containers, when possible, in a manner that minimizes disturbance to the core.	Attachment B1, Section B1-2a(1); Section B1-2a(a)	Modify discussion to incorporate examples of sampling methods other than coring devices, perhaps even referencing SW-846 and/or other sampling methods that obtain a representative sample.	WIPP). The discussion in this section specifies that coring tools shall be used WHEN POSSIBLE, but gives no examples of alternatives. Additionally, the section proceeds into a detailed discussion of coring tool construction. In the case of mixed waste, use of a coring tool is likely not the safest and most accurate method in all cases. SW-846 allows for a variety of other methods with equivalent confidence in the outcome of the sampling event. Significant re-sampling (i.e., cost, schedule, and personnel exposure) would be required for many residue containers.