

| NATIONAL AERONAUTICS AND SPACE ADMINISTRATION WHITE SANDS TEST FACILITY, RESOURCE CONSERVATION AND RECOVERY ACT PERMIT, NASA COMMENTS SUMMARY AND RESPONSES | | | | | | |
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| NMED COMMENT NUMBER | NASA REFERENCE COMMENT NUMBER | COMMENT LOCATION | TOPIC AREA OR PERMIT SECTION | COMMENT SUMMARY | NMED RESPONSE TO COMMENT | CHANGE MADE TO PERMIT Yes/No |
| 1 | I-1 | Title page | Title Page | The commenter indicates that 'aeronautics' was misspelled | NMED agrees and this has been corrected. | Yes |
| 2 | I-2 | Page xii, Line 5 | Table of contents | The commenter recommends that based on text contained within the Draft Permit, Attachment 4 should be titled "Required Hazardous Waste Characterization Information". | NMED agrees and this has been changed. | Yes |
| 3 | I-3 | Page 1, Line 4 | Section I.A | The commenter indicates that 'aeronautics' was misspelled | NMED agrees and this has been corrected. | Yes |
| 4 | I-4 | Page 1, Lines 36 and 37 | Section I.D | The commenter is concerned about the final disposition of the 3008 (h) Administrative Order on Consent (signed by EPA Region 6 and NASA on December 18, 1989). The commenter states that multiple directives within the Draft Permit and the Order are not consistent. | According to an April 7, 1999 letter from Region 6 EPA, the Permit will achieve the same requirements as EPA's 1989 Order, and thus replaces the requirements of the Order. Once the final Permit is issued, NASA may petition EPA to terminate the Order | No |
| 5 | I-5 | Page 2, Lines 12 to 15 | Section I | The commenter is concerned that if any inaccuracies are found in the Permit Application, this is grounds for the termination, revocation and reissuance, or modification of the Permit. The Commenters state that this statement is inconsistent with 40 CFR 270.43(a)(2). | The Permittee is required to submit accurate data and information. The text referring to "grounds for terminating a permit" is consistent with 40 CFR 270.43. Permit Section I.E. is consistent with 40 CFR 270.43(a)(2). The certification statement is required in 40 CFR 270.11((d)(1) and specifies that any person signing a document under paragraph (a) or (b) must believe that the information submitted is, to the best of his/her knowledge and belief, true, accurate, and complete. | Yes |

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| 6 | I-6 | Page 2, Lines 31 to 32 | Section I.G | Draft Permit references Permit Attachments 1 to 21 The Commenter points out that there are Attachments 1 to 22 | There are 22 Attachments to the Draft Permit. NMED has corrected Section I.G. | Yes |
| 7 | I-7 | Page 4, Lines 15 to 17 | Section I.H.6.1 | The commenter indicates that references to 40 CFR 270.14 and 40 CFR 270.15 should be changed to 40 CFR 270.10 and 40 CFR 270.13, respectively. | NMED has changed this citation to 40 CFR 270.13 through 40 CFR 270.28. 40 CFR 270.10 does not apply. | Yes |
| 8 | I-8 | Page 8, Lines 26 to 27 | Section I.K.6 | The commenter states that the requirement in Draft Permit about submission of all deliverables in paper and electronic form would conflict with the signed Project XL agreement between EPA, NMED, and NASA which allows electronic submittals, in lieu of paper copies. | Project XL is a pilot project (FR, October 31, 2001, Vol. 66, No. 211, pp. 55050-55060,). Based on Section 3.0 of the Final Project Agreement (August 31, 2000), the Agreement does not create legal rights or obligations and is not an enforceable contract or a regulatory action such as a permit or rule. NMED believes that Project XL has not enhanced our ability to analyze and manage the Permittees' regulatory and permitting information. In some cases electronic submittals are appropriate and are specified in the Permit. In addition Permit Section I.K.6 specifies that information and records requested by NMED pursuant to this condition shall be provided in paper form <u>or</u> an electronic format acceptable to NMED or both as NMED may specify. | No |

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| 9 | I-9 | Page 8, Line 31 to Page 9, Line 10 | Section I.K.7 | Section I.K.7 of the draft Permit states that NMED will be granted access to WSTF at any time upon presentation of credentials. The Commenter proposes that the Draft Permit indicate that, for the purposes of National Security, Prior Clearance of foreign nationals who are employed by NMED may be required for access to WSTF. | The immediate issue related to NMED personnel has been resolved.. | No |
| 10 | I-10 | Page 9, Lines 15 to 16 | Section I.K.8.a | The commenter mentions that Attachment 17 should be referenced instead of Attachment 16. | NMED has changed the reference in Permit Section I.K.8.a, lines 15 and 16 from Attachment 16 to Attachment 17. | Yes |
| 11 | I-11 | Page 9, Lines 21 to 23 | Section I.K.8.a | The commenter mentions that Attachment 12 should be referenced instead of Attachment B. | NMED has changed the reference in Permit Section I.K.8.a, lines 21 through 23 from Attachment B to Attachment 12 | Yes |
| 12 | I-12 | Page 10, Lines 1, 2, and 4 | Section I.K.8 | The Draft Permit requires that the qualifications of individuals who perform sampling, measurements, or analyses be maintained in the monitoring records per the Draft Permit. The commenter requests that, in accordance with 40 CFR 270.30(j), that this requirement be deleted. | NMED agrees that this requirement in Permit Section I.K.8 is already covered in Permit Section II.H. NMED removed the reference of personnel qualifications in Permit Section I.K.8, items 2 and 4. | Yes |
| 13 | I-13 | Page 10, Lines 25 to 26 | Section I.K.9.c | The Commenter indicates that the referenced section I.J.10.3.a does not exist. | NMED agrees that I.J.10.3.a does not exist. This reference was replaced with I.K 9.a. | Yes |
| 14 | I-14 | Page 11, Lines 22 to 23 | Section I.K.9.d.ii | The Draft Permit requires that the Permittee submit a written report within five days from the time when the Permittee becomes aware of the noncompliance. The commenter requests that, per 40 CFR 270.30, | The Permittee is required to report any noncompliance whether or not it endangers health or the environment. 40 CFR 270.30(k)(2) contains the requirements of reporting | Yes |

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| | | | | this is only required when the non-compliance may endanger health or the environment. | anticipated noncompliance. The requirement in I.K.9.d.ii states that the Permittee must report any non-compliance when they become aware of it. The reference to the five day written report in lines 22 and 23 on page 11 have been changed to reference a written notice. | |
| 15 | I-15 | Page 12, Lines 12 to 14 | Section I.K.9.g | The commenter mentions that 40 CFR 270.30(K)(8) should be referenced instead of 40 CFR 270.30(l)(6). | NMED has changed the reference in Permit Section I.K. 9.g, lines 12 through 14 from 40 CFR 270.30(i)(6) to 40 CFR 270.30(l)(8). | Yes |
| 16 | I-16 | Page 12, Lines 16 to 17 | Section I.K.9.i | The Draft Permit indicates that the biennial report is to be submitted to NMED during odd numbered calendar years. Per the regulations, the commenter proposes modified text to indicate that the biennials report will be provided in even number years. | NMED has changed the text in Permit Section I.K.9.i to state that the biennial reports must be submitted in even numbered years. | Yes |
| 17 | I-17 | Page 12, Lines 20 to 21 | Section I.K.9.i | The Commenter indicates that the referenced section I.J.10 does not exist. | NMED agrees that Permit Section I.J.10 does not exist. This incorrect reference has been replaced with Permit Section I.K.9. | Yes |
| 18 | I-18 | Page 12, Lines 30 to 33 | Section I.K.9.k | The Commenter indicates that the Draft Permit referenced an incorrect citation, 40 CFR 270.30(l). | This citation has been deleted. NMED also added Section I.K.9.l. to describe the content of the Monthly Environmental Activities Report. | Yes |
| 19 | I-19 | Page 13, Lines 11 to 12 | Section I.K.10 | The Draft Permit mandates that all submissions shall include a minimum of two paper copies and an electronic version. In accordance with the signed Project | See Comment Response 8. The last sentence in Permit Section I.K.10 has been revised to state that all submissions shall be submitted in a format | Yes |

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| | | | | XL agreement, the commenter proposes paper reporting be eliminated. | acceptable to NMED. | |
| 20 | I-20 | Page 13, Lines 19 to 23 | Section I.K.12 | Due to large the numbers of reports and information generated by NASA, the commenter proposes modifications to the text to ensure that specific submittals, for specific amounts of time (as directed by NMED), be placed in the information repository to be available to the public. | NMED requires that all submittals be placed in the information repository, except for documents that are deemed confidential. Permit Section I.K.12 has been modified to include the option of placing the information on the Permittee's website. This requirement is consistent with the requirements specified in 40 CFR 124.33(c). NMED may consider a proposal from NASA to place their entire record on a fully searchable website. | Yes |
| 21 | I-21 | Page 13, Lines 25 to 28 | Section I.K.13 | The commenter indicates that Draft Permit Section I.K.13 contains typographical errors and needs to be reworded to reflect its intent. | <p>NMED has made modifications to the Permit Section I.K.13 for clarification.</p> <p>NMED has re-worded this paragraph to state "The Permittee shall maintain at the Facility until completion of closure and post-closure care in compliance with Permit Condition I.K.8, the following documents and all amendments, revisions, and modifications to these documents:" Items 2 and 3 of Permit Section I.K.13 have been deleted and Item 16 has been converted into its own paragraph.</p> | Yes |

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| 22 | I-22 | Page 14, Lines 10 to 14 | Section I.K.13 | The commenter states that the reference to 40 CFR 264.56(j) is incorrect and the regulation does not exist. | NMED verified that 40 CFR 264.56(j) does not exist in the current regulations and changed the reference to include 40 CFR 264.56(i) which is applicable to this Permit Section. | Yes |
| 23 | I-23 | Page 14, Lines 28 to 29 | Section I.K.13 | The commenter indicates that Permit Condition I.K.11.a does not exist. The commenter also states that records required by the Permit be maintained in paper and electronic form is inconsistent with the signed Project XL agreement. | In Permit Section I.K.13, NMED has removed the reference to Permit Condition I.K.11.a and has replaced it with "this Permit Section." Also, see Comment Response 8. | Yes |
| 24 | I-24 | Page 14, Lines 32 to 35 | Section I.K.14 | The commenter states that Permit Section I.K.14 indicates that a Community Relations Plan could be required by NMED, which is inconsistent with Section VII.K.4 which indicates that a plan is required within 90 days of the effective date of the Permit. | NMED has revised Permit Section I.K.14 to require a Community Relations Plan. | Yes |
| 25 | I-25 | Page 15, Lines 13 to 18 | Section I.L | The Draft Permit indicates that the Reports submitted by NASA are subject to NMED approval. The commenter recommends that text regarding NMED approval/disapproval of reports be deleted from Section I.L because reports are for informational purposes and that Attachment 20 be utilized to ensure reports meet NMED specifications. | The data, conclusions, and recommendations generated in reports are intended to demonstrate compliance with corrective action requirements, and, therefore are all subject to NMED approval. NMED has the authority to enforce all requirements of the hazardous waste act which incorporates 40 CFR 260 through 270 including the corrective action requirements of 40 CFR 264.101. Therefore, all corrective action documents | Yes |

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| | | | | | prepared by the Permittee are subject to NMED approval. NMED deleted the last paragraph in Section I.L of the September 25, 2008 permit draft because the fee regulations at 20.4.2 NMAC already control this process. | |
| 26 | II-1 | Page 16, Lines 3 to 15 | Section II.A | Section II.A of the Draft Permit indicates that hazardous waste treatment is limited to authorized treatment of hazardous wastes in the ETU and FTU. The commenter proposes to clarify that treatment in containers to meet LDR treatment standards under 40 CFR 262.34 prior to discharge to the ETU is allowed and similar treatment is allowed for safety reasons prior to treatment and storage in the FTU. | As per Permit Condition I.B, the scope of the Permit is limited to the general and specific standards for the ETU, FTU and for the closure and post-closure care of hazardous waste management units. Although NMED acknowledges the possibility of preliminary treatment without a permit under 40 CFR 268.7(a)(5), the scope of this permit limits inclusion of the commenter's recommended language. The elementary neutralization exemption specifically applies as specified in 270.1(c)(2)(v). Such preliminary treatment does not require a permit and the Permit does not require a permit modification. | Yes |
| 27 | II-2 | Page 16, Lines 18 to 21 and Page 17, Lines 11 to 18 | Section II.B.1 | The commenter recommends that restrictions to treatment and storage be made to specific waste codes identified in the Part A Application instead of limiting treatment and storage to only waste streams identified in Permit Attachment 5. The commenter also proposes that | The waste codes themselves do not specifically identify the contents of each waste stream; therefore, the Permittee must identify the composition of each waste stream. NASA has been cited for similar issues in the NOV dated Feb 7, 2006. NMED | Yes |

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| | | | | <p>the removal of waste in the ETU be based on the concentration of the inorganic constituents that have the potential to accumulate in the ETU tanks rather than a specified period of time (five years).</p> | <p>approved the discharge of the waste streams, provided in the Permit Application, to the ETU.</p> <p>The list of compounds originally included in Attachment 5 was provided by the Permittee as part of their approved permit application. NMED recognizes that this list will likely be expanded as new waste streams are created from Facility operations. The list provides a partial record of the substances placed in the ETU. This limitation on the waste streams allowed to be placed into the ETU requires that the Permittee notify NMED if any new waste stream will be added to those already allowed to be disposed/treated in the unit. 40 CFR 270.13(j) requires identification of wastes sent to a TSD. NMED modified the Permit to require an annual update to the list in Attachment 5. In addition, the Permittee must modify the Part A to include any new waste codes for wastes sent to the ETU prior to sending such wastes to the ETU. The Permittee must record and report annually the amount of all wastes placed into the ETU by WIWPS code. 40 CFR 264.73(b)(1) and (2), and 264 appendix I, require a record</p> | |

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| | | | | | <p>of the description and quantity of each waste placed into a permitted unit.</p> <p>Permit Attachment 5 was subsequently removed from the Permit and placed in reserved status. Only hazardous wastes listed in Permit Attachment 2 (Part A Permit Application) may be stored and treated in the ETU.</p> <p>The Permittee has not removed accumulated sludge from the ETU since the liners were installed. The ETU is not permitted as a storage unit. Storage of hazardous waste for longer than one year is prohibited (40 CFR 268.50); however, as stated in the draft Permit, NMED is willing to allow storage of accumulated sludge for up to five years. Under no circumstance will NMED allow NASA to dilute wastes in the ETU in violation of 40 CFR 268.3 so that they attain their treatment standards.</p> | |

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| 28 | II-3 | Page 16, Lines 22 to 23 | Section II.B.1 | The commenter claims not to be using or treating 1,2-dimethylhydrazine which the Draft Permit identifies as being managed at the FTU. The commenter recommends that all references to the chemical be deleted from the Draft Permit. Waste code U098 is the incorrect code for 1,2-dimethylhydrazine and should be applied to 1,1-dimethylhydrazine. | All references to 1,2-dimethylhydrazine in the Permit have been deleted and the Permittee will be prohibited from treating 1,2-dimethylhydrazine. The code U098 has been attached to 1,1-dimethylhydrazine. | Yes |
| 29 | II-4 | Page 16, Lines 25 to 28 | Section II.B.2 | The commenter claims not to be using or treating 1,2-dimethylhydrazine which the Draft Permit restricts from disposing in the ETU. The commenter recommends the chemical to be deleted and link the U098 code to 1,1-dimethylhydrazine. | All references to 1,2-dimethylhydrazine in the Permit have been deleted and the Permittee will be prohibited from treating 1,2-dimethylhydrazine. The code U098 has been attached to 1,1-dimethylhydrazine. | Yes |
| 30 | II-5 | Page 18, Lines 3 to 4 | Section II.C.1 | The commenter states that Permit Sections III.B and IV.B should be referenced instead of Permit Sections III.A and IV.A. | The references to Sections III.A and IV.A in this section have been changed to Sections III.B and IV.B respectively. | Yes |
| 31 | II-6 | Page 18, Lines 25 to 30 | Section II.C.2 | The Draft Permit identifies three methods of characterization acceptable upon prior approval by NMED. The commenter recommends that the three methods of characterization specified in Permit Section II.C.2 should be acceptable without prior approval by NMED. | To prevent the Permittee from potential citations for Permit violations in the future, NMED must approve all characterization methods. It is NMED's opinion that this requirement protects the Permittee from citations upon NMED inspections. | Yes |
| 32 | II-7 | Page 19, Lines 21 to 24 | Section II.C.2.a | The Draft Permit requires analytical laboratories enter in contracts which specify that they will operate under the waste analysis conditions set forth in the Permit. The commenter | The Permit has been modified to delete the reference to the laboratory contracts in Permit Section II.C.2.a, paragraph 5. | Yes |

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| | | | | proposes Permit text changes to state that NASA will include the applicable Permit requirements within the Statements of Work (SOWs) generated for prospective analytical contractors. | | |
| 33 | II-8 | Page 21, Line 29 | Section II.C.3 | The commenter states that the referenced Section II.D.2.a is misidentified and instead should read Permit Section II.C.2.a | NMED has changed the reference in Permit Section II.C.3 to II.C.2.a | Yes |
| 34 | II-9 | Page 22, Lines 4 to 5 | Section II.C.3.a | Section II.C.3.a of the Draft Permit requires traceable identification numbers for acceptable knowledge documentation. The commenter states that this requirement is not required by the regulations and NASA maintains an effective system that ties acceptable knowledge documentation to the WIWPS. This system may or may not use traceable identification numbers. The commenter proposes to delete this requirement. | NMED understands that each WIWPS number is an assigned number therefore, it is assumed to be traceable. If each WIWPS number is not an assigned number, NASA must assign a traceable identification number. | No |
| 35 | II-10 | Page 23, Lines 15 to 16 | Section II.C.5 | The commenter indicates that the correct citation should be 40 CFR 264, Subpart BB instead of 40 CFR 264, Subpart B. | NMED has changed the reference in Permit Section II.C.5 to 40 CFR 264 Subpart BB. | Yes |
| 36 | II-11 | Page 23, Lines 23 to 25 | Section II.C.5 | Section II.C.5 of the Draft Permit mandates characterization of all hazardous and non-hazardous wastes to verify if the waste contains more than 500 ppm by weight of VOCs. The commenter proposes that this requirement be limited only to hazardous wastes and not non-hazardous wastes. | The hazardous waste streams inventory for the ETU (originally included in Attachment 5) does not attach a waste code to every waste listed. Attachment 5 was subsequently deleted and placed in reserved status. Many of the wastes that were listed in Permit Application Attachment 5 including non-hazardous wastes | No |

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| | | | | | contain volatile organics at various concentrations. The prohibition not to exceed 500 ppm by weight of volatile organics specified in 40 CFR 264.1082 applies. | |
| 37 | II-12 | Page 23, Lines 32 to 33 | Section II.C.5 | The commenter indicates that the correct citation should be 40 CFR 264, Subpart BB instead of 40 CFR 264, Subpart B. | NMED has changed the reference in Permit Section II.C.5 to 40 CFR 264 Subpart BB. | Yes |
| 38 | II-13 | Page 23, Lines 36 to 39 | Section II.C.5 | The Commenter states that the permit should indicate that the FTU manages wastes with <u>volatile</u> organic concentrations greater than 10%. The current Draft Permit indicates that the FTU manages wastes with organic concentrations greater than 10%. | NASA Permit Application Section 6.2.3.3.2 states that "Subpart BB is applicable to the FTU since the unit handles waste with organic concentrations greater than 10% by weight pursuant to §264.1050(b)(1)". | No |
| 39 | II-14 | Page 25, Lines 8 to 11 | Section II.D | Section II.D of the Draft Permit references 40 CFR 264.75(i) with respect to the annual certification statement regarding waste minimization. The commenter indicates that this reference is linked to the Biennial Report and therefore should be deleted. | NMED has deleted the reference to 40 CFR 264.75(i) in Section II.D. | Yes |
| 40 | II-15 | Page 25, Line 33 | Section II.D | Section II.D of the Draft Permit requires a copy of the certified plan for waste minimization be included in the operating record. The commenter proposes language that a copy of the annual certified statement be included in the operating record, in lieu of the certified plan. | In Permit Section II.D, text has been modified to state that "The Permittee shall include a copy of the Waste Minimization Plan". | Yes |

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| 41 | II-16 | Page 26, Lines 16 to 18 | Section II.G | The commenter mentions that the referenced Permit Condition II.J.2 does not appear to be appropriate. | NMED has changed the reference in this section to II.J.3 | Yes |
| 42 | II-17 | Page 26, Lines 24 to 26 | Section II.H | Section II.H of the Draft Permit requires employee numbers be maintained in the training records. The commenter indicates that according to 40 CFR 264.16(d)(1), employee numbers are not required to be maintained in the records and proposes deletion of this requirement. | In Permit Section II.H, the requirement to maintain employee number in the training records has been deleted. | Yes |
| 43 | II-18 | Page 26, Lines 33 to 35 | Section II.H | Section II.H of the Draft Permit mandates that records regarding completed personnel training be searchable by employee numbers. The commenter indicates that according to 40 CFR 264.16(d)(1), employee numbers are not required to be maintained in the records and proposes deletion of this requirement. | In Permit Section II.H, Lines 35, the text "employee number" has been deleted. Employee numbers need not be maintained by the Permittee. | Yes |
| 44 | II-19 | Page 28, Lines 2 to 12 | Section II.J.5 | The commenter recommends deletion of Permit language that requires copies of emergency coordination agreements (provided in Permit Attachment 10) be maintained in the Facility Operating Record. | NMED has changed the text in Permit Section II.J.5 to state that "the Permittee shall maintain emergency coordination arrangements to familiarize the nearest fire department in Doña Ana County or other local agencies". The Permittee must be able to demonstrate upon request, that the contact information and arrangements are current and accurate. | Yes |
| 45 | II-20 | Page 30, Lines 1 to 4 | Section II.L.1 | The commenter mentions that the referenced citation 40 CFR 264.56(j) in Section II.L.1 of the Draft Permit | NMED has edited the reference which is now 40 CFR 264.56(i). | Yes |

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| | | | | does not exist. | | |
| 46 | II-21 | Page 30, Lines 19 to 20 | Section II.L.2 | Section II.L.2 of the Draft Permit states that all documents must be made available to NMED within four hours of request. The commenter states that the requirement which mandates that all documents must be made available to NMED within four hours of request has no regulatory basis and, dependent upon the nature and magnitude of the request, it may not be reasonable. | 40 CFR 264.74(a) states that the Permittee must make all records available at all reasonable times for inspection. NMED removed the reference to "four hours" from the text. | Yes |
| 47 | II-22 | Page 31, Lines 6 to 10 | Section II.N.4 | The commenter states that language in Permit Section II.N.4 could be construed to indicate that all closure activities would need to be completed within 90 days after receipt of the final volume of waste. The commenter proposes to clarify this language. The Permittee also proposes to include, in Permit Section II.N.4, extension request language in accordance with 40 CFR 264.113(a). | NMED requires that all closure activities be completed within 90 days after receipt of the final volume of waste. However, Permit Section I.M provides for extensions of time. | No |
| 48 | III-1 | Page 32, Lines 2 to 4 | Section III | Section III of the Draft Permit authorizes treatment for only waste streams identified in Permit Attachment 5 and the Permit Application Part A. The commenter recommends that the restrictions be linked only to specific codes contained in the Permit Application Part A. | See response to comment 27. The reference to Permit Attachment 5 was deleted. | Yes |

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| 49 | III-2 | Page 32, Lines 29 to 37 | Section III.A | The commenter proposes revised text in this section to provide a more detailed description of ETU operations | NMED has added a specific reference to Permit Attachment 21 in the Permit Section III.A. | Yes |
| 50 | III-3 | Page 33, Lines 3 to 4 | Section III.B.1 | The commenter recommends that the restriction of wastes treated in the ETU should only be for waste codes identified in the Part A Application (Permit Attachment 2) and not restricted to the hazardous wastes listed in the Hazardous Waste Stream Inventory (Permit Attachment 5). | See response to comment 27. | Yes |
| 51 | III-4 | Page 33, Lines 6 to 7 | Section III.B.2 | The commenter recommends that the restriction of wastes treated in the ETU should only be for waste codes identified in the Part A Application (Permit Attachment 2) and not restricted to the hazardous wastes listed in the Hazardous Waste Stream Inventory (Permit Attachment 5). | See response to comment 27. | Yes |
| 52 | III-5 | Page 33, Lines 7 to 10 | Section III.B.2 | Section III.B.2 of the Draft Permit prohibits the Permittee from storing and treating in the ETU, the hazardous wastes that are not identified in Permit Application (Table 6.2) or those that come in contact with 200 Area floor drains. The commenter states that Table 6 of the Permit Application is not included in the Permit and the only prohibition should be for waste codes not identified in the Part A Application. The Permittee also states that there is no regulatory basis for the prohibition of floor drain | NMED removed the floor drain prohibition. Also see response to comment 27. | Yes |

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| | | | | use. | | |
| 53 | III-6 | Page 33, Lines 12 to 16 | Section III.B.3 | Section III.B.3 of the Draft Permit requires the Permittee to apply for a permit modification if the Permittee intends to store or treat in the ETU any hazardous waste not listed in the Hazardous Waste Inventory (Permit Attachment 5). The commenter recommends that the restriction of wastes treated in the ETU should only be for waste codes identified in the Part A Application (Permit Attachment 2) and not the hazardous wastes listed in the Hazardous Waste Stream Inventory (Permit Attachment 5). | See response to comment 27. | Yes |
| 54 | III-7 | Page 33, Lines 18 to 25 | Section III.B.4 | The commenter proposes to change the restriction on volume of hazardous waste that can be treated in the ETU tanks (307,780 gallons). The Permittee proposes that the volume restrictions apply to volumes of hazardous wastes with specific waste codes contained in Permit Application Part A. | The Permittee discusses ETU capacity but the limits in the Permit are based on the annual volume of generated waste proposed to be treated in the ETU. The Permit now references the waste quantities provided in Permit Attachment 2 (Part A Permit Application). The Permittee may submit a revised Part A after the Permit is issued that includes different waste stream volumes than the current Part A. However, such volumes must be based on estimates that will reflect actual volumes of | Yes |

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| | | | | | waste generated. Also see response to comment 27. | |
| 55 | III-8 | Page 34, Lines 1 to 24 | Section III.C.2 | The Draft Permit requires that a work plan for the installation of angled wells beneath the ETU is required within 30 days of the effective date of the Permit. The commenter states that this requirement has no regulatory or technical basis. The commenter proposes integrity and fitness service testing for the ETU in lieu of the installation and monitoring of the angled wells. | The Permittee is required to demonstrate to the satisfaction of NMED that the tank system does not leak and has not leaked in the past. The construction of ETU tanks containment is such that it is impossible to observe the liners and the tanks themselves while the tanks contain waste. The manufacturer specified the life of both the primary and secondary liners as 10 years. The Permittee asserted that the effective life of each liner could be extended an additional 10 years based on samples of the liners that were suspended in the fluids in the ETU. These samples were not subject to the same conditions as the portions of the liners that are in contact with other materials in the tank or, in the case of the tanks themselves, the underlying ground surface. The suspended liner samples may not be representative of the materials located at the bottom the tank. In addition, a small leak at the base of the tank system may not be detected by the sight glasses if the steel tank containment | Yes |

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| | | | | | <p>fails allowing liquid to migrate to the soils beneath the tank. The installation and monitoring of the required angled borings will allow the Permittee to rely on the present system until it is determined that the tank and liner system has failed unless the subsurface explorations detect evidence that a release has already occurred. If an adequate detection system is not in place at the ETU, the Permittee must replace the liners, since the liners remain in the tanks beyond their effective life as specified by the manufacturer. If the liners are replaced, the Permittee will be required to conduct an evaluation of the entire tank system and make renovations to allow for visual inspection of the tank bottom and the space between the primary and secondary liners. The Permit was subsequently modified to provide the option to either close the ETU or to install two angled monitoring wells beneath each tank.</p> | |
| 56 | III-9 | Page 34, Lines 26 to 32 | Section III.C.3 | Section III.C.3 of the Draft Permit requires that the Permittee submit a Work Plan within 30 days of the effective date of the Permit for the ETU that includes the use of angled wells beneath the ETU. The | See response to comment 55. | No |

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| | | | | commenter indicates that the requirement to install and monitor angled monitoring wells beneath the ETU to be inappropriate. The Commenter also cites that the Inspection Schedule contained in Permit Attachment 7 to be an appropriate requirement. | | |
| 57 | III-10 | Page 35, Lines 14 to 15 | Section III.D.3 | Section III.D.3 of the Draft Permit mandates that all hazardous waste shall be removed from the ETU every five years. The commenter states that there is no regulatory or technical basis for this requirement and proposes replacement of this requirement with sampling requirement to determine the concentrations of metals in the tanks. The commenter mentions that if any constituents exceed Universal Treatment Standards, then appropriate measures will be taken including submittal of a work plan for NMED approval that describes how the waste will be removed or how the inorganic constituents will be reduced to below Universal Treatment Standards. | See response to comment 27. | Yes |
| 58 | III-11 | Page 36, Lines 6 to 8 | Section III.E.1 | As per Section III.E.1 of the Draft Permit, discharges to the ETU tank system will cease immediately to determine the cause of potential leaks in the system. The commenter proposes to modify Permit Section III.E.1 to state that this will only be applied to affected | The requirements of 40 CFR 264.196 reference response to leaks and spills that pertain to the entire tank system. No provision is made for portions of the tank system. Once the cause and the source of the leak are identified, then it may be | Yes |

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| | | | | portions of the ETU system. | appropriate to resume use of the portion of the system that is unaffected by the leak. Otherwise discharges to the ETU tank system must cease immediately in accordance with the requirements of 40 CFR 264.196(a). | |
| 59 | III-12 | Page 37, Lines 14 to 16 | Section III.E.7 | Section III.E.7 of the Draft Permit requires the Permittee to obtain a certification by an independent, qualified, professional engineer registered in the State of New Mexico for all major repairs to eliminate leaks or to restore the integrity of the ETU before returning the ETU system to service. The commenter recommends that additional detail be provided to Permit Section III.E.7 that defines the types of actions considered "major repairs". The commenter also states that since the regulations do not require the Professional Engineer to be independent, "independent" should be deleted from the text of Permit Section III.E.7. | 40 CFR 264.196 (f) requires the Permittee to obtain certification by an independent, qualified, registered, professional engineer. NMED shall determine what is considered as a major repair on a case by case basis. 40 CFR 264.196(f) also provides examples of major repairs. NMED will make a determination as to whether a repair should be considered a major repair on a case-by-case basis. NMED considers the term independent to include NASA contract employees but excludes NASA civil service employees. | Yes |
| 60 | III-13 | Page 38, Lines 15 to 17 | Section III.G.1 | Section III.G.1 of the Draft Permit refers to the Work Plan submittal for the angled monitoring wells beneath the ETU and inspections of the ETU tank systems. The commenter proposes to remove the requirement of installing two angled borings beneath the ETU tank and submitting the Plan required under | See response to comment 55. | No |

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| | | | | Permit Section III.C.3. | | |
| 61 | III-14 | Page 38, Line 23 | Section III.G.3 | Section III.G.3 of the Draft Permit requires inspection of ETU tank systems performed once each operating day. The commenter proposes to inspect the tank system components weekly instead of once each operating day as per 40 CFR 264.195(d). | 40 CFR 264.195 (d) refers to 40 CFR 264.195 (a) through (c) which require the owner or operator to inspect the aboveground components of the tank system daily. Also in the inspection schedule provided in Section 8 of the Permit Application, the Permittee proposes to inspect the tank system components each operating day. According to information provided by the Permittee on May 10, 2009 (WSTF IB 788), NASA contractor employees work on a compressed work schedule consisting of 80 hours performed over a period of nine days with every other Friday off and inspections would not occur on off Fridays or federal holidays. | Yes |
| 62 | III-15 | Page 40, Lines 11 to 12 | Section III.I.1 | The commenter indicates that the reference made to Permit Attachment 10 is inappropriate and the appropriate reference should be Permit Attachment 11. | In Permit Section III.I.1 the reference to Attachment 10 has been changed to reference Attachment 11. | Yes |
| 63 | IV-1 | Page 42, Lines 9 to 13 | Section IV.A | The commenter states that 1,2-dimethylhydrazine is not currently used at WSTF and that reference to this compound should be deleted from the Draft Permit. | NMED has deleted reference to 1,2-dimethylhydrazine in Permit Section IV.A. | Yes |

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| 64 | IV-2 | Page 42, Lines 17 to 18 | Section IV.A | The commenter suggests including text to clarify that FTU wastes cannot be stored over one year, in addition to the volume requirement (maximum of 3,600 gallons). | Text has been added to the Permit Section IV.A to indicate that the FTU wastes cannot be stored over one year in addition to the volume requirement. | Yes |
| 65 | IV-3 | Page 42, Line 19 | Section IV.A | The commenter proposes to add language to indicate that sources of FTU wastes <u>may</u> change with time. | If the sources of FTU wastes change in the future, the Permittee shall apply for a permit modification to incorporate additional fuel waste sources. | No |
| 66 | IV-4 | Page 42, Lines 21 to 25 | Section IV.A | The commenter proposes to add permit language in Permit Section IV.A to reflect that fuel operations also occur in the 500 and 700 Areas. | NMED has revised the text in Permit Section IV.A to indicate "Residual fuel that remains in fuel supply lines and test equipment in the 200, 300, 400, 500, 700, and 800 Areas". | Yes |
| 67 | IV-5 | Page 43, Line 9 | Section IV.B.1 | The commenter proposes to add text to clarify that the Permittee is allowed to treat specific waste codes rather than specific waste at the FTU. | See response to comment 27. | Yes |
| 67(a) | IV-6 | Page 47, Lines 23 to 24 | Section IV.G.3 | Comment IV-6-----citation given but no comment provided by the commenter. | NMED has changed the reference in Permit Section V from Attachment 13 to reference Attachment 14. See also, response to Comment 61. | Yes |
| 68 | V-1 | Page 51, Lines 11 to 13 | Section V | The commenter indicates that the reference made to Permit Attachment 13 is inappropriate and the appropriate reference should be Permit Attachment 14. | NMED has changed the reference in Permit Section V from Attachment 13 to reference Attachment 14. | Yes |
| 69 | V-2 | Page 53, Lines 17 to 19 | Section V.B.4 | The commenter proposes to add language to clarify that the units must comply with the post-closure requirements for landfills because not all contaminated soils could be | Language has been added to Section V.A.1 indicating the units were closed without complete removal of hazardous wastes or hazardous waste | Yes |

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| | | | | practicably removed from the units. | constituents. | |
| 70 | V-3 | Pages 54 to 64, General Comment | Section V.B.6 | Section V.B.6 of the Draft Permit requires the Permittee to submit investigation work plans for the 200, 300, 400 and 600 Areas. The commenter believes that these requirements have been developed with limited or selective technical information concerning each of the areas and do not need to be part of the Permit. The commenter recommends that Permit Section V.B.6 (Corrective Action) be removed from the Permit and requests that the entire section be revised to provide more general requirements. | NMED requires the Permittee to investigate the sources of groundwater contamination at the Facility. The Permit Section V.B.6 has been modified to address proposed modifications to the work required for the 200, 300, 400, and 600 areas. The Permittee shall include the following elements listed in V.B.6.a through V.B.6.d unless alternate investigation activities are proposed in a work plan approved by NMED in accordance with Permit Section I.L. | Yes |
| 71 | V-4 | Page 55, Lines 1 to 8 and Lines 11 to 16 | Section V.B.6 | Section V.B.6 Draft Permit provides detailed requirements for work plans for the 200 Area closures, which the commenter believes to have been developed with limited or selective technical information concerning the area. The commenter proposes to delete the requirement to submit detailed plans from the Permit and proposes to have general requirements within the body of the Permit that allow NASA to develop work plans that are subsequently reviewed and approved by NMED. | See response to Comment 70. | No |

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| 72 | V-5 | Page 55, Lines 23 to 29 | Section V.B.6.a.ii | The commenter proposes to alter soil sampling requirements for the 200 Area closure units in Permit Section V.B.6.a.ii to state that samples will be attempted to be collected at the prescribed depths instead of making a specific sample a requirement of the Permit. The commenter also requests that the specific analytes required in the Draft Permit be replaced with language that indicates the analyte list will be developed and included within the individual work plans for the individual areas. | See response to Comment 70. | No |
| 73 | V-6 | Page 56, Lines 17 to 33 | Section V.B.6.a.iv | The commenter states that for the 200 Area closure units, the Permit requirement # 2 to use the method listed for soil vapor sampling as the sole acceptable method appears contrary to the language used in Permit Attachment 17 (Page 1 paragraph 2) which reads "....The methods for conduction investigations, corrective actions, and monitoring at the Facility must be determined based on the conditions and contaminants that exist at each site or unit." The commenter requests that the permit language be written to allow NASA flexibility in specifying what equipment can be specified in the Work Plan to be submitted to NMED for approval. The commenter also requests that the packer method prescribed by NMED be withdrawn. | See response to Comment 70. | No |

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| 74 | V-7 | Page 57, Lines 2 to 5 | Section V.B.6.a.v | Section V.B.6.a.v of the Draft Permit requires that if groundwater is encountered or if geophysical or other evidence suggests the presence of groundwater during the subsurface investigations of the 200 Area, NMED may require a work plan for the installation of groundwater monitoring wells(s) and required groundwater monitoring in accordance with 40 CFR 264.90 through 40 CFR 264.100. The commenter mentions that there is significant evidence that suggests the presence of groundwater beneath all of the closures and there are groundwater wells proximal to all of the closures and that these wells are sampled through the Post-Closure Care Permit currently in effect. The commenter also mentions that the intent of this requirement is unclear and requests that this text be eliminated. | See response to comments 70. | No |
| 75 | V-8 | Pages 57 to 59 | Section V.B.6.b | The commenter requests the 200 Area comments V-4 to V-7 (71-74 of this table) be applied to Section V.B.6.b of the Draft Permit since these comments are also applicable to the 300 Area portion of the Draft Permit. | See response to comments 70 which will be applicable to corresponding sections V.B.6.b.ii through V.B.6.b.V. | No |
| 76 | V-9 | Pages 59 to 61 | Section V.B.6.c | The commenter requests the 200 Area comments V-4 to V-7 (71-74 of this table) be applied to Section V.B.6.c of the Draft Permit since these comments are also applicable to the 400 Area portion of the Draft | See response to comments 70 which will be applicable to corresponding sections V.B.6.c.ii through V.B.6.c.V. | No |

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| | | | | Permit. | | |
| 77 | V-10 | Pages 62 to 64 | Section V.B.6.d | The commenter requests the 200 Area comments V-4 to V-7 (71-74 of this table) be applied to Section V.B.6.d of the Draft Permit since these comments are also applicable to the 600 Area portion of the Draft Permit. | See response to comments 70 which will be applicable to corresponding sections V.B.6.d.ii through V.B.6.d.V. | No |
| 78 | V-11 | Page 64, Lines 18 to 20 | Section V.B.7 | Draft Permit Attachment 14 is referenced as the Post-Closure Plan that NASA must implement. The commenter mentions that this attachment is inadequate for this purpose and recommends that NMED utilize the Post-Closure Care Module originally provided by NASA in the Permit Application. | NMED removed Permit Attachment 14 to eliminate any redundancy. Groundwater monitoring requirements are covered in the Draft Permit Section VI. | Yes |
| 79 | V-12 | Page 64, Lines 30 to 33 | Section V.D.1 | Section V.D.1 of the Draft Permit mandates filing with the local zoning authority, a record of the type, location and quantity of hazardous waste disposed of in each unit. The commenter mentions that this activity was performed in 1993 and is no longer applicable to the closed units and recommends deleting this requirement. | The requirement remains applicable to comply with 40 CFR 264.119(a). The Permittee is already in compliance with this requirement. | No |
| 80 | V1-1 | Page 67, Line 1 | Section VI | The commenter states that the title of Permit Section VI is inappropriate and recommends "Groundwater Monitoring" instead of "Groundwater Detection Monitoring" | NMED agrees. The title of Section VI has been changed to "Ground Water Monitoring." | Yes |

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| 81 | V1-2 | Page 67, Lines 6 to 7 | Section VI.A | The commenter believes that NMED intended to reference 40 CFR 264 Subpart F instead of 40 CFR Subpart F. The commenter states that the Permit Section VI.A must be modified to indicate that the Permittee will not be performing detection, compliance, corrective action, and RFI monitoring concurrently at all monitoring wells. | <p>NMED agrees with the first portion of the comment and 264 have been added to the citation in Section VI.A.</p> <p>NMED is not requiring the Permittee to perform detection, compliance, corrective action, and RCRA Facility Investigation (RFI) ground water monitoring concurrently at all ground water monitoring wells at the facility. However, all these ground water monitoring programs may be required to occur contemporaneously at the facility and some monitoring wells may serve more than one purpose at any given time. The monitoring requirements for each well will be based on location relative to source areas, hydrology and contaminant types regardless of the monitoring classification.</p> <p>See also, response to Comment 70.</p> | Yes |
| 82 | V1-3 | Page 67, Lines 10 to 20 | Section VI.B | The commenter proposes to use the requirements in Draft Permit Section VI.B.2 in conjunction with the developmental instructions for groundwater monitoring plans and sampling and analysis plans provided in the RCRA Permit Renewal Application, which provides for the development of a more | NMED agrees that Permit Section VI.B.1 should reference Permit Section 20.2 and not Permit Section 19. 2 of Attachment 20. Permit Section VI.B.1 has been changed to reference Permit Section 20.2 of Attachment 20. | Yes |

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| | | | | <p>thorough program for routine groundwater monitoring at WSTF than the referenced section of Draft Permit Attachment 20. The commenter also mentions that the reference to Section 19.2 should be Section 20.2.</p> | <p>The requirements outlined in Section 20.2 of Permit Attachment 20 are designed to provide the general requirements for work plans. Section 20.1 of the Draft Permit acknowledges that the document formats provided in the Draft Permit Attachment 20 do not cover the formats for all types of documents to be submitted under this permit. NMED will review the specific proposed activities for the required Ground Water Monitoring Plan when it is submitted by the Permittee. The Permittee must use Permit Attachment 20 Section 20.2 as general guidance in preparing the plan. As required by Permit Attachment Section 20.1 paragraph 2, the Permittee must submit variations of the general report format in outline form for NMED approval prior to submittal of a plan.</p> | |

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| 83 | V1-4 | Page 68, Lines 9 to 13 | Section VI.B.3 | Draft Permit Section VI.B.3 requires the submittal of a revised Groundwater Monitoring Plan by April 1st of each year after the second and each subsequent anniversary date of this Permit. However, in Draft Permit Attachment 16 (Investigation Work Plan Submittal Schedule), NMED specifies the submittal of annual updates 90 days after the anniversary of the effective date of this Permit. The commenter indicates that the two dates may not be the same. The commenter requests clarification as to which submittal date for the annual revision of the Groundwater Monitoring Plan should be complied with. Additionally, the commenter proposes to delete reference to the off-site well monitoring and suggests that this would be outlined in the appropriate interim measures work plan. | Permit Attachment 16 was edited to match Permit Section VI.B.3 and it now states that the Groundwater Monitoring Plan update submittal is due no later than April 1st of each year after the effective date of the Permit. The reference to off-site monitoring is used as an example in section VI.B.3, not as a requirement. | Yes |
| 84 | V1-5 | Page 68, Lines 15 to 17 | Section VI.C | The commenter provides clarification to indicate that not all groundwater monitoring wells have to comply with 40 CFR 264.97. The commenter proposes new permit language that states the Permittee shall install and maintain a groundwater monitoring system, in accordance with 40 CFR 264.97 or the Groundwater Monitoring Plan. | The Permittee must comply with both the requirements of 40 CFR 264.97 for the regulated units and with 40 CFR 264.101 for corrective action. The Groundwater Monitoring Plan must satisfy the requirements for monitoring for both regulated units and for corrective action. | Yes |

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| 85 | V1-6 | Page 69, Lines 5 to 12 | Section VI.D.2 | Section VI.D.2 of the Draft Permit directs NASA to perform detection monitoring. The commenter indicates that, per the 40 CFR 264 Subpart F regulations, this is a discrete phase of groundwater monitoring and NASA is not currently performing detection monitoring. The commenter also proposes text "When required by the regulations" to be added to Permit Section VI.D.2. | Detection monitoring as specified in 40 CFR 264.98 is appropriate for specific ground water monitoring wells that have not yet detected hazardous constituents in the ground water. Detection monitoring is also appropriate for the ground water monitoring wells where specific constituents of concern have not yet been detected, but other hazardous constituents have already been detected. NMED modified Permit Section VI.D.2 to reference 40 CFR 264.101 as well as 40 CFR 264.98. | Yes |
| 86 | V1-7 | Page 69, Lines 13 to 15 | Section VI.D.3 | Permit Section VI.D.3 requires the Permittee to conduct compliance monitoring in accordance with the NMED approved Groundwater Monitoring Plan to monitor the progress of cleanup of contaminants in groundwater. The commenter states that, per the 40 CFR 264 Subpart F regulations, this is a discrete phase of groundwater monitoring. The commenter also indicates that this requirement is inconsistent with 40 CFR 264.99 and 40 CFR 264.100. 40 CFR 264.100 (d) highlights the distinction between compliance and corrective action monitoring for regulated units. The commenter proposes alternate language to reflect the requirements of 40 CFR 264 Subpart F. | No reference to 40 CFR 264.99 or 40 CFR 264.100 is made in the Draft Permit Section VI.D.3. Only the groundwater monitoring plan is referenced. In addition, this permit condition is not inconsistent with the requirements of 40 CFR 264.99 and 40 CFR 264.100(d) because 40 CFR 264.100(d) specifies that the Permittee must establish a ground water monitoring program to demonstrate the effectiveness of a corrective action program and that the ground water monitoring program <u>may</u> be based on the requirements of a compliance monitoring program under 40 CFR 264.99. The ground water contaminant plume at the facility | No |

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| NMED COMMENT NUMBER | NASA REFERENCE COMMENT NUMBER | COMMENT LOCATION | TOPIC AREA OR PERMIT SECTION | COMMENT SUMMARY | NMED RESPONSE TO COMMENT | CHANGE MADE TO PERMIT Yes/No |
|---------------------|-------------------------------|-------------------------|------------------------------|--|--|------------------------------|
| | | | | | is made up of release from both regulated units and solid waste management units. | |
| 87 | V1-8 | Page 69 Lines 24 to 26 | Section VI.D.4 | The commenter mentions that Draft Permit Section 19.5 should be referenced instead of Section 18.5. | NMED agrees. The reference to Section 18.5 of Attachment 19 has been changed to Section 19.5 of Attachment 19. | yes |
| 88 | V1-9 | Page 69, Lines 34 to 35 | Section VI.E.1 | The commenter mentions that Draft Permit Section 20.4 should be referenced instead of Section 19.4. | NMED agrees. The reference to Section 19.4 of Attachment 20 has been changed to Section 20.4 of Attachment 20 | yes |
| 89 | V1-10 | Page 70, Lines 2 to 5 | Section VI.E.2 | Section VI.E.2 of the Draft Permit requires the Permittee to maintain all monitoring data, including sampling procedures, records of field measurements, laboratory analytical data, quality assurance/quality control documents, chain-of-custody records, well completion reports and periodic monitoring reports in the Facility operating record. The commenter requests to revise Section VI.E.2 to indicate that these documents will be included in the Facility operating record in electronic format. | No reference was made specifying the format of record keeping in the Draft Permit Section VI.E.2. | Yes |

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| 90 | V1-11 | Page 70, Lines 8 to 17 | Section VI.F.1 | Section VI.F.1 of the Draft Permit requires NASA to submit a Revised Plume Front Remediation System Monitoring Plan to NMED within 180 days of the effective date of the Permit. The commenter indicates that NASA received approval of the Groundwater Plume Front Treatment System Project Plan on May 14, 2007 and the plan includes groundwater monitoring requirements. The commenter states that it is not appropriate to require another document for this purpose. The commenter recommends to review the developmental instructions for groundwater monitoring plans and sampling and analysis plans included in the Permit Application (submitted on June 3, 2003) that are more applicable to the development of a comprehensive Remediation System Monitoring Plan. The commenter also mentions that Section 20.2 should be referenced instead of Section 19.2. | <p>NMED agrees. The reference to Section 19.2 of Permit Attachment 20 has been changed to Section 20.2 of Permit Attachment 20.</p> <p>See response to comment 82 regarding the requirements outlined in Section 20.2 of Permit Attachment 20.</p> <p>Since the remediation system is currently not working as anticipated, changes and adjustments to the current plume front treatment system will likely be necessary after the system has operated continuously for a period of time at full capacity. NMED requires that NASA submit a revised plan to adjust monitoring if necessary based on the results of monitoring wells after approximately six months of continuous system operation.</p> | Yes |
| 91 | V1-12 | Page 70, Lines 22 to 25 | Section VI.F.3 | Section VI.F.3 of the Draft Permit states that NMED may determine through reports of frequent malfunction of the plume front remediation system that replacement of the system or some of its components is necessary. The commenter indicates that NMED approved the Plume Front Treatment System Project Plan on | 40 CFR 264.100 & 101-----the Permittee must implement corrective actions to remediate groundwater contamination to meet cleanup levels established in Draft Permit Attachment 15 both beyond the facility boundary and beneath the facility if hazardous waste constituents exceed the ground | Yes |

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|---------------------|-------------------------------|-------------------------|------------------------------|--|---|------------------------------|
| | | | | May 14, 2007 which should form the basis for operation of the system. The commenter recommends deletion of Permit Section VI.F.3. | water protection standard or where necessary to protect human health and environment. The Permittee has yet to remedy the current problems with the plume front treatment system. Section VI.F.3 was deleted from the draft permit and a new Section VI. G was added to clarify how system effectiveness will be evaluated and how system modifications will be made if needed. | |
| 92 | VII-1 | Page 71, Lines 2 to 4 | Section VII | The commenter proposes revising the text in Permit Section VII to indicate corrective action will be taken as necessary to protect human health and the environment, to be consistent with 40 CFR 264.101. | Regardless of the perceived threat to human health or the environment, the Permittee must address all releases of hazardous waste or hazardous constituents. NMED will determine the necessary steps. | Yes |
| 93 | VII-2 | Page 71, Lines 6 to 8 | Section VII.A | The commenter proposes to revise text in Permit Section VII.A to indicate that corrective action will be performed in accordance with 40 CFR 264.101(the Draft Permit cites 40 CFR 264.100 and 264.101). | The Permit has been revised to state that corrective action at SWMUs and AOCs will be in accordance with 40 CFR 264.101. | Yes |
| 94 | VII-3 | Page 71, Lines 33 to 36 | Section VII.D | The commenter proposes language to be added to indicate that Permit Attachment 16 (Investigative Work Plan Submittal Schedule) will be modified if a newly discovered SWMU or AOC requires a Work Plan. | The Permit has been changed to indicate that NMED will establish a submittal date for any required work plans if NMED determines that an Investigation Work Plan is required for a newly discovered SWMU or AOC. | Yes |
| 95 | VII-4 | Page 72, Lines 22 to 24 | Section VII.F.1 | The commenter states that an inappropriate regulatory citation [40 CFR 270.14(b)(19)] has been cited | NMED has changed the citation in the Draft Permit Section VII.F.1 to 270.14(d)(1) and | Yes |

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| | | | | for topographical map submittals to be provided with Release Assessment Reports and recommends deleting this citation. | 270.14(d)(2). | |
| 96 | VII-5 | Page 73, Lines 15 to 29 | Section VII.G.2 | <p>The Draft Permit mandates that the Permittee develop an interim measures work plan, including sampling of off-site wells located within the area three miles to the west and three miles to the south of the WSTF facility boundary for corrective action purposes. The commenter states that NASA has an effective groundwater monitoring network and does not need to perform this additional sampling. The commenter also recommends deleting this requirement as there is no regulatory or technical basis for this requirement.</p> | <p>The Permittee has already detected groundwater contamination downgradient of the plume-front treatment system and south of the facility.</p> <p>Pumping effects on regional groundwater flow direction and velocity by off-site water supply wells and facility operations is not well understood and, therefore, all contaminant transport pathways may not be currently characterized. It is possible that the Permittee's ground water monitoring well network is not able to detect all contaminated ground water traveling off-site. The ground water contaminant plume originating from WSTF has already migrated a significant distance, so off-site contamination is possible and must be characterized to evaluate if remedial action is necessary to protect groundwater between the facility and Las Cruces.</p> <p>Contamination found in supply wells indicates that endangerment to human health</p> | No |

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| | | | | | <p>and the environment exists, regardless of whether the detected concentrations are above “applicable MCLs”. Off-site water supply well sampling can ensure that neighboring communities and families are not being subject to contamination in the ground water released by WSTF.</p> <p>The Permittee must implement investigation and cleanup beyond the facility property boundary if releases from a solid waste management unit pose a hazard to human health or the environment (40 CFR 264.101(c)).</p> <p>Even though water supply wells are not constructed in accordance to 40 CFR 264.97(c), the water from these wells can be sampled to assess if contaminants specific to WSTF (not attributed to well construction materials, agricultural activities, or domestic sources) have impacted water wells.</p> | |
| 97 | VII-6 | Page 73, Lines 30 to 34 | Section VII.G.3 | The commenter proposes that 90 days be allowed between the submittal of a permit-initiated interim measure and implementation of the measure. The Draft Permit indicates a period of 60 days. | It is important that interim measures be implemented as soon as technically feasible at WSTF. The Permittee may request an extension in accordance with Permit Section | No |

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| | | | | | I.M. | |
| 98 | VII-7 | Page 75, Lines 8 to 9 | Section VII.H.1.a | The commenter recommends additional language to indicate that NASA can combine the investigations of two or more SWMUs or AOCs if they are contiguous or if significant similarities exist between the SWMUs or AOCs (the Draft Permit states "if the units are co-located"). | Contiguous units mean units that touch along a boundary or point, whereas co-located units means units that are simply close together. "Significant similarities" in units (SWMUs and AOCs) is not defined by the Permittee. | Yes |
| 99 | VII-8 | Page 75, Lines 24 to 26 | Section VII.H.1.c | The commenter recommends altering Permit Section VII.H.1.c to indicate that NASA will use the best available copies of historical materials and relevant supporting documentation instead of submitting all associated legible copies of information source cites, tables, attachments, enclosures and appendices. | All copies of documents submitted to NMED must be legible. | No |
| 100 | VII-9 | Page 75, Lines 29 to 30 | Section VII.H.2 | The permit language contained in Permit Section VII.H.1 would require NASA to notify NMED of any field activity related to corrective action, including routine ground water sampling. To clarify the intent of this citation, the commenter proposes the following revised text "... The Permittee shall notify NMED at least 30 days prior to initiation of corrective action-related field activity (e.g., drilling, sampling) related to an Investigation Work Plan." | The intent of this permit language is to have the Permittee notify NMED prior to any field and/or sampling activities so that NMED has the option to inspect and/or witness these activities or split samples, whether it be a one-time event or routine sampling. NMED assumes that the Permittee prepares a schedule for routine groundwater monitoring more than 30 days prior to implementation. Such a schedule would comply with the | Yes |

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| | | | | | requirements of section VII.H.2 if submitted to NMED 30 days in advance of the routine sampling event. | |
| 101 | VII-10 | Page 76, Lines 4 to 7 | Section VII.H.3.b and Section VII.I | The commenter recommends revision of Permit Sections VII.H.3.b and VII.I to indicate that Action Levels rather than Cleanup Levels will be provided in Attachment 15 and also proposes that these levels will not be directly derived from EPA Region 6 Media Specific Screening Levels. The commenter also states that Section 14.6 is referenced in Section VII.I instead of Section 15.6. | NMED requires that the Permittee use the cleanup levels outlined in Permit Attachment 15. The reference to the Permittee's option to request a variance has been corrected to reference Attachment 15 Section 15.7. Permit Attachment 15 of the Order describes cleanup levels that are based on carcinogenic risk of 10 ⁻⁵ and a hazard index of 1. The methods for obtaining a risk-based variance from these goals are also described in Attachment 15. The <i>EPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites</i> are referenced in the event that a constituent is not included and either NMED's soil screening guidance, EPA MCLs or NM WQCC regulations. Action Levels are different from clean-up levels in that clean-up is not necessarily required if a constituent concentration exceeds the action level. NMED requires clean-up to the risk based levels cited above. | Yes |

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| | | | | | | |
| 102 | VII-11 | Page 75, Lines 25 to 26 | Section VII.J.2 | The commenter mentions that Section 20.6 should be referenced instead of Section 19.6. | NMED agrees that Section VII.J.2 should reference Section 20.6 and not Section 19.6 of Attachment 20. Section VII.J.2 was changed to reference Section 20.6 of Permit Attachment 20. | Yes |
| 103 | VII-12 | Page 76, Line 29 to Page 77, Line 7 | Section VII.J.2 | The commenter proposes minor language modifications to Permit Section VII.J.2 to ensure the requirements for the Corrective Measures Evaluation format are clear. A minor change to Bullet 6 to reflect that NASA will provide the identification and description of "all known" rather than "all" sources of contaminants and a minor change to Bullet 11 to indicate that remedial alternative pilot or bench scale test results will be provided when available. | NMED disagrees with the first part of the comment because site investigation activities should identify all sources of contamination. Therefore, that the source "all known" is implied. Bullet number 11 in Permit Section VII.J.4.a was changed to state at the end of the sentence "if conducted." | Yes |
| 104 | VII-13 | Page 77, Lines 13 to 16 | Section VII.J.3 | The commenter mentions, as discussed in Comment VII-11 (102), Attachment 15 should be titled "Action Levels" and provide NMED guidance on Action Levels. Cleanup Levels should be proposed by the Facility in the CME Report and provide both regulatory and risk-based levels, where appropriate. | See Comment Response 101. | No |

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| 105 | VII-14 | Page 80, Lines 21 to 26 | Section VII.K.4 | This section of the Draft Permit states "...The Permittee shall provide NMED with the most recent version of their Community Relations Plan within 90 days of the effective date of this Permit..." and Section I.K.14 of the Draft Permit states "...If required by NMED, the Permittee shall prepare and implement a Community Relations Plan...". The commenter requests NMED to word these two sections in a manner that is clear to NASA what its responsibilities are with respect to a Community Relations Plan. | See Comment Response 24. | No |
| 106 | VII-15 | Page 80, Line 29 to Page 81, Line 6 | Section VII.K.5 | The commenter states that for complicated and complex corrective actions, the amounts of sampling and analysis data generated during the reporting period may be massive. The commenter proposes to eliminate the generation and submittal of huge progress reports to requests that data be provided in electronic databases and tabular data presentations. The commenter also states that with all other waste streams at WSTF, NASA maintains records of waste stream management in the facility record and recommends that waste disposal records not be included in the progress reports. | NMED has modified Draft Permit Section VII.K.5 to state "If required by NMED, the Permittee shall submit.....". | Yes |
| 107 | PA1-1 | Page 1, Paragraph 1 | Section 1.1 | The commenter states that there is no Figure 1 contained in the Draft Permit which is referenced in this section. The commenter requests | NMED has included Figure 1 (WSTF location map) in Attachment 1. | Yes |

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| | | | | that all referenced materials in the Draft Permit be provided in the Draft Permit. | | |
| 108 | PA1-2 | Page 1, Paragraph 4 | Section 1.2 | The commenter states that there is no Figure 2 of Attachment 2 contained in the Draft Permit which is referenced in this section. The commenter requests that all referenced materials in the Draft Permit be provided in the Draft Permit. | NMED has included Figure 2 and has changed that text to state "depicted in Figure 2 of Attachment 1." | Yes |
| 109 | PA1-3 | Page 1, Paragraph 4 | Section 1.2 | The commenter indicates that WSTF maintains multiple less than 90 day storage areas and proposes to change the text to indicate multiple areas instead of one. | NMED has changed Attachment 1 to state that the Permittee has multiple less than 90-day storage areas. | Yes |
| 110 | PA1-4 | Page | Section 1.2.3 | The commenter states that the 200 Area underground storage tanks were cited to be four instead of two and recommends changing the text to state there are two tanks and not four at the 200 Area. | As stated in WSTF's RCRA Facility Investigation (RFI) Work Plan (page 31, Revised September 1992, Geoscience Consultants, LTD), The Clean Room Tanks consisted of two steel underground storage tanks and the Chemistry Lab tanks consisted of one steel underground storage tank and one below-grade concrete pit. The closed units in the 200 Area consisted of four tanks. | No |
| 111 | PA2-1 | Page 2, Paragraphs 1 to 3 | Section 2.1 | The commenter proposes deletion of the following permit text"...However, pursuant to NMED direction, waste streams carrying any of these waste codes will be managed at the ETU if analytical results are ND (non-detectable) for all the waste codes" to classify | The referenced text was taken directly from the Permit Application. NASA has not provided a revised Permit Application nor is it appropriate for the Permittee to revise their Permit Application at this time. | No |

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| | | | | waste in accordance with 40 CFR 261 Subpart D. | | |
| 112 | PA2-2 | Page 4 | Section 2.3 | The commenter proposes revision to the text of Section 2.3 of Permit Attachment 2 to clarify that hazardous waste streams that contain listed fuels will not be managed in the 200 Area Evaporation Tank Units (in accordance with 40 CFR 261 Subpart D). | The prohibition on wastes allowed in the ETU is addressed in Permit Sections II.B.2 and III.D.1. Permit Attachment 2 now contains just the updated December 2008 Part A and associated figures. | Yes |
| 113 | PA2-3 | Pages 5 to 14 | Appendix 2-A, Part A Application | The commenter states that an updated Part A Application Form was submitted to NMED on November 30, 2005 to incorporate additional discharge of F001 and F002 wastes codes that occurred under the current operating permit. The commenter requests that the November 30, 2005 updated Part A application replace the outdated application included in the draft permit and the current operating permit. | NMED does not have a Part A Permit Application dated November 30, 2005 in its administrative record. The Part A previously included in Permit Attachment 2 was copied from NASA's Permit Application. Permit Attachment 2 now contains just the updated December 2008 Part A and associated figures. | Yes |

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| 114 | PA2-4 | Pages 30 to 39 | Permit Attachment 2, Tables | <p>The commenter states that information provided to NMED in the ETU and FTU hazardous waste tables was provided for informational purposes only and tables provided are a one-time snapshot of active waste streams at the time of the permit submittal. Since the permit (application) submittal, additional WIWPS have been added, some WIWPS have become inactive, and others have changed. This represents the nature of a typical research and development facility. The commenter indicates that 40 CFR Part 270.13 does not require the information provided in these tables. Inclusion of these tables and the Draft Permit's requirement to limit waste streams to those listed in Attachment 5 (Hazardous Waste Stream Inventory) is not required. The commenter proposes that the ETU and FTU Hazardous Waste Tables be deleted from the Draft Permit.</p> | <p>The Permittee shall add new compounds to the tables included in Permit Attachment 2 when new compounds are added to the facility waste streams. Permit Attachment 2 now contains just the updated December 2008 Part A and associated figures.</p> | Yes |
| 115 | PA3-1 | Pages 75 to 77 | Permit Attachment 3 | <p>NASA provided an updated copy of WSP 25-0009 (WSTF Emergency Preparedness Plan) along with the Draft Permit Comments. The commenter indicates that this WSP serves as the Contingency Plan for WSTF. The commenter proposes that pages 75 through 77 (Section 10) of the draft permit remain within Permit Attachment 3, but that the</p> | <p>NMED will replace Permit Attachment 10 with the updated WSTF Emergency Preparedness Plan submitted with NASA's comments. The Permit Attachment 3 cover page will be modified to reference Permit Attachment 10.</p> | Yes |

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| | | | | WSP 25-0009 be moved from Permit Attachment 10 and placed in Permit Attachment 3. | | |
| 116 | PA4-1 | Page 9 (second page of the text), Row 7 | Permit Attachment 4 | The commenter requests that text in Permit Attachment 4 be modified to more accurately reflect the intent of waste characterization information required for LDR status determinations in accordance with 40 CFR 268.2(i). | Draft Permit Attachment 4 page 9 row 7 column 2 has been modified to reference 40 CFR 268.2(i). | Yes |
| 117 | PA4-2 | Page 9 (second page of the text), Last two notes at bottom of Table | Permit Attachment 4 | The commenter indicates that the reference to Permit Condition II.D.6 in Permit Attachment 4 needs to be revised to reference Permit Section II.C.6. The footnotes below the table in Permit Attachment 4 states that the table is referenced in Permit Section II.D.3.a. The commenter states that Permit Section II.C.3.a should be referenced. | The Draft Permit has been modified to reference the correct Permit Sections. | Yes |
| 118 | PA5-1 | General Comment | Permit Attachment 5 | The commenter suggests deleting Permit Attachment 5 and recommends that the limitations of treatment be based on the waste codes provided in the Part A Application. | The tables in Permit Attachment 5 included compounds that have been placed in the ETU and FTU. NMED considers information on the wastes placed in these units to be essential in the event that a release to the environment occurs. Permit Attachment 5 has been placed in reserved status. See also response to comment 114. | Yes |

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| 119 | PA6-1 | Page 12, Lines 7 and 8 | Section 6.1 | The commenter proposes deleting the text "...In addition, a posted buffer zone of approximately two miles wide is maintained around the active portion of the facility." The commenter states that there is no official two mile buffer zone around the facility and only signs are posted around the facility identifying the property at NASA. | This language is directly from Section 7 of the Permittee's permit application. It is incumbent on the Permittee to change the language regarding the security measures at the facility. The Permittee will have to request a permit modification once the permit is finalized. | Yes |
| 120 | PA7-1 | General Comment, Pages 69 to 71, | Tables 8.1, 8.2, and 8.3 | The commenter proposes that all inspection frequencies provided in Tables 8.1, 8.2, and 8.3 should be changed from "every working day" to "weekly" as required by 40 CFR 264.195 (d). | The inspection frequencies in Table 8.1, 8.2, and 8.3 were taken directly from Section 8.0 of the Permittees' permit application. In addition 40 CFR 264. 195 (b) requires daily inspection of the tank system. The working day definition has been modified in Permit Section I.J. | Yes |
| 121 | PA7-2 | Page 72, Table 8.5, Row 3 | Permit Attachment 7 | The third row of Table 8.5 of Attachment 7 indicates that the general work area is inspected for potential hazards and product and waste leaks every eight hours. The commenter indicates that the general work areas only undergo security inspections every eight hours and therefore requests that Table 8.5 be revised to reflect this. | This table was copied directly from NASA's Permit Application. | Yes |

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| 122 | PA9-1 | Section 9.1, Last Paragraph | Permit Attachment 9 | The commenter refers to an approval letter from NMED (September 11, 2006) extending the useful life of the ETU secondary containment, the condition of the ETU primary containment membranes and the secondary containment membranes to be further evaluated after the issuance of the new WSTF Hazardous Waste Operating Permit or at the end of the membrane's warranty period, which ever comes first. The commenter recommends deleting the last portion of the third paragraph in Section 9.1 of Permit Attachment 9 which requires annual liner evaluations. | NMED's September 11, 2006 letter states that NMED believes that the life of the secondary containment can be extended through the duration of the current 1993 Operating Permit or through the extended use period for the tank unit's primary containment membranes. The extended use period for both membranes for the East and West Tanks are up in 2008. This letter does not state that annual inspections of the liners should be discontinued. Also see response to comment 27. | Yes |
| 123 | PA10-1 | General Comment | Permit Attachment 10 | The commenter recommends deleting Permit Attachment 10 and that copies of the emergency coordination agreements be maintained in the site's Operating Record, not within the Permit. | Permit Attachment 10 was placed in reserved status. Also see response to comments 44 and 115. | Yes |
| 124 | PA10-2 | General Comment | Permit Attachment 10 | NASA provided an updated copy of WSP 25-0009 (WSTF Emergency Preparedness Plan) as Appendix A along with the Draft Permit Comments. The commenter indicates that this should be moved to Permit Attachment 3 and the Permit Attachment 10 should be deleted. | Permit Attachment 10 was placed in reserved. See also, Comment Response 44 and 115. | Yes |
| 125 | PA11-1 | General Comment | Permit Attachment 11 | The commenter notes that all Sections numbers in Permit Attachment 11 are labeled as Section 15 and proposes that the | Attachment 11 now includes Closure Plans for the ETU and FTU. | Yes |

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| NMED COMMENT NUMBER | NASA REFERENCE COMMENT NUMBER | COMMENT LOCATION | TOPIC AREA OR PERMIT SECTION | COMMENT SUMMARY | NMED RESPONSE TO COMMENT | CHANGE MADE TO PERMIT Yes/No |
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| | | | | numbers for all Sections be revised to ensure subsequent users of the Permit do not become confused by the inconsistency. | | |
| 126 | PA11-2 | Page 108, Section 15.1.1, Last Sentence | Permit Attachment 11 | The commenter mentions that Attachment 2 should be referenced instead of Section 2. | See Response to Comment 125. | Yes |
| 127 | PA11-3 | Page 109, Section 15.2.1, first three sentences | Permit Attachment 11 | The maximum annual inventory of FTU hazardous waste is referenced as 830,000 gallons. The commenter indicates that this value should be the estimated inventory of hazardous waste received during the life of the unit. | See Response to Comment 125. | Yes |
| 128 | PA11-4 | Page 109, Section 15.2.1, mid page | Permit Attachment 11 | The commenter mentions that NASA does not manage 1,2-symmetrical dimethylhydrazine at the FTU and proposes deleting the constituent from Section 15.2.1 of Attachment 11. | See Response to Comment 125. | Yes |
| 129 | PA11-5 | Page 109, Section 15.2.3, first paragraph, first sentence | Permit Attachment 11 | The commenter notes that in Section 15.2.3 of Attachment 11, a reference is made regarding transferring fuel waste to the ETU. The commenter recommends revising of text of Section 15.2.3 to indicate transfer to the FTU | See Response to Comment 125. | Yes |
| 130 | PA12-1 | General Comment | Permit Attachment 12 | The commenter states that Appendix 6-E, which is a critical component of the Waste Analysis Plan, is not included within the Draft Permit and proposes that Appendix 6-E be included in the Permit. | The Permittees' Appendix 6-E from their Permit Application is included in the Permit Attachment 12. | Yes |

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| 131 | PA12-2 | Section 3.0 of Appendix 6-E | Permit Attachment 12 | The commenter proposes deleting "...which has the potential to contain trace levels of hydrazine constituents (low ppm to ppb concentrations)" and replacing it with "...that has been determined not to be a listed waste Per 40 CFR Part 261 Subpart D." (Hydrazine specific language is being proposed for deletion). | Permit Application Section 6-E was an attachment in its original form. The proposed modification would be redundant since it is already stated in slightly different form in the first sentence of the same section (3.0). | Yes |
| 132 | PA13-1 | Page 21, Sections 13.1 and 13.2 | Permit Attachment 13 | The commenter states that Attachment 8 (Training Plan) should be referenced instead of Attachment 10. | The two references to Permit Attachment 10 have been changed to Permit Attachment 8. | Yes |
| 133 | PA14-1 | General Comments, Pages 232 to 243, Section 24 of the original NASA Permit Renewal Package | Permit Attachment 14 | The commenter states that it is inappropriate to consider Attachment 14 (Permit Application Section 24) the Post-Closure Plan and the text contained in Attachment 14 is incongruous with language contained in Permit Section V. The commenter mentions that Permit Section V is unclear as to what is considered the points of compliance for the HWMUs, is confusing as to what type of 40 CFR Subpart F sampling is required at any point of time, does not provide concentration limits as specified by 40 CFR 264.94, and does not identify any types of statistical evaluations that may be required for specific phases of sampling. The commenter strongly recommends that NMED re-examine the Post-Closure Care elements contained in the NASA Permit Renewal and utilize the | NMED agrees with the Permittee that it is inappropriate to consider Permit Attachment 14 (Section 24 of the Permit Application) the Post-Closure Plan. The Permit has been modified to delete the contents of Permit Attachment 14. In addition, Permit Section V has been modified to require the Permittee to submit post-closure care plans for the 200, 300,400, and 600 areas after the required site investigation has been completed. | Yes |

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| | | | | previously submitted language to provide for a more understandable and regulatory-based Post-Closure Care Module. | | |
| 134 | PA15-1 | Page 24, Title through Section 15.1 | Permit Attachment 15 | Cleanup Levels are provided in Draft Permit Attachment 15. The commenter states that the inclusion of Action Levels in the Draft Permit is appropriate, but Cleanup Levels should be proposed for NMED approval in unit-specific corrective measures evaluations. The Draft Permit also mandates that cleanup levels are established by direct use of the EPA Region 6 Media-Specific Screening Levels (MSSLs). The commenter proposes that Action Levels are established in the Draft Permit rather than Cleanup Levels and the direct use of enforceable regulatory limits as Action Levels is appropriate, but the direct use of MSSLs is not appropriate. The commenter also mentions that the MSSLs have not undergone technical/public review and comment and as recommended by EPA Region 6, they should not be used to establish regulatory | NMED requires that all cleanup levels meet risk levels of 10-5 for carcinogenic compounds and a hazard index of 1 for non-carcinogenic compounds. These are cleanup levels not action levels. The term "action levels" implies that these established cleanup levels are not required to be met. NMED requires that all environmental cleanup actions meet these risk levels except as provided in Permit Attachment 15, Section 15.7 (variance from cleanup levels). All risk assessments conducted under this permit must also meet the cleanup levels established in Permit Attachment 15. The commenter references EPA secondary drinking water MCLs. The secondary drinking water MCLs only apply in cases where the MCL coincides with the WQCC | Yes |

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| | | | | standards. The commenter proposes changing Attachment 15 to reflect Action Levels rather than Cleanup Levels. | standard included in 20.6.2.3103 NMAC, in which case it is the WQCC standard that is the cleanup standard for the constituent. Portions of Attachment 15 were reformatted and edited concerning appropriate media cleanup levels including NMED's criteria hierarchy for groundwater cleanup levels. | |
| 135 | PA15-2 | Last Paragraph of Page 24 to Third Paragraph of Page 25, Section 15.2 | Permit Attachment 15 | The commenter mentions that this Section should set Action Levels rather than Cleanup Levels as all three of the sources of standards provided by NMED in Permit Attachment 15 are from guidance documents or position papers which have not undergone the scrutiny required to directly establish cleanup levels. The commenter argues that if levels are to be adopted, they should be legal enforceable documents. | The cleanup levels included in Permit Attachment 15 will be part of the NASA Permit which will be an enforceable document. NMED has established policies that incorporate the cleanup levels in Permit Attachment 15 and these cleanup levels are included in all recent NMED Permits and Orders which are also enforceable documents. See also response to Comment 134. | No |
| 136 | PA15-3 | Page 25, Section 15.3 | Permit Attachment 15 | The commenter proposes that Permit Attachment 15 address Action Levels rather than Cleanup Levels. The commenter suggests substituting "cleanup" levels with "action" levels in Section 15.3 of Permit Attachment 15. | See Comment Response 134. | No |

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| 137 | PA15-4 | Pages 25 and 26, Section 15.5 | Permit Attachment 15 | The commenter proposes that Permit Attachment 15 address Action Levels rather than Cleanup Levels. The commenter suggests substituting "cleanup" levels with "action" levels in Section 15.5 of Permit Attachment 15. | See Comment Response 134. | No |
| 138 | PA16-1 | Page 27, Row 1 | Permit Attachment 16 | The Investigation Work Plan Submittal Schedule includes a due date for the submission of a Work Plan for ETU leak detection wells. The commenter indicates that there is no regulatory or technical basis for the installation of these wells. The commenter recommends that Row 1 of Permit Attachment 16 be deleted from the Draft Permit. | ETU leak detection wells are part of a leak detection system that is required under 40 CFR 264.193(C)(3) because the liners at the ETU cannot be inspected due to the presence of water and sludge in the tanks. The leak detection wells are an acceptable alternative to replacement of the primary and secondary liners and complete inspection of the ETU tank. The Permit was subsequently modified to provide the option to require either closure of the ETU or to install angled wells below each tank. See also response to Comment 55. | Yes |
| 139 | PA16-2 | General Comment, Pages 27 to 29 | Permit Attachment 16 | The commenter states that the Investigation Work Plan Schedule contains numerous units, which are active, and in many cases, which are regulated by the Ground Water Quality Bureau. The commenter mentions that many of the listed active units have specific due dates for submission of investigation work plans where numerous others indicate that the work plans are due either 60 or 90 days. The | The units that do not have an associated specific work plan submittal date are still in operation. Therefore the submittal dates for the work plans are deferred until such time that the operation of the units will be discontinued. The other units listed are either inactive, are actively discharging liquids to the subsurface or are potential sources of | Yes |

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| | | | | commenter recommends that since each of the areas listed above are active, that each of the areas listed above designate a due date of 60 days before closure. | groundwater contamination that have not been investigated. Some items in Attachment 16 were edited to reflect current SWMU or AOC numbering designations. | |
| 140 | PA16-3 | Page 29, SWMU 52 and AOC 51 | Permit Attachment 16 | SWMU 52 (Second TDRSS UST) and AOC 51 (Second TDRSS Sewage Lagoons) are listed with a December 31, 2012 due date for investigation work plans. The commenter states that both sites are located on the White Sands Complex (WSC) which is not part of White Sands Test Facility. WSTF is managed through NASA Johnson Space Center and WSC is managed through NASA Goddard. WSC maintains a separate EPA ID Number. The commenter requests that both be deleted from Permit Attachment 16. | Figure 5.4 (WSTF Monitoring Wells) of the NASA Permit Application indicates that the Second TDRSS where AOCs 51 and 52 are located, is on the NASA WSTF boundary. Also, Figure 20.1 and Section 20.27 of the Permit Application indicate that the Second TDRSS is part of NASA WSTF and hence the Permittee is responsible for investigation at these sites associated with the Second TDRSS. Work plans will be submitted 60 days prior to closure of AOCs 51 and 52. | Yes |
| 141 | PA16-4 | General Comment, Pages 27 to 29 | Permit Attachment 16 | The commenter proposes that Permit Attachment 16 be revised to indicate that work plans for operable units will be submitted 60 days before closure of the units and delete the work plan submittal for ETU leak detection wells. The commenter also proposes several revised submission dates for other work plans with careful consideration of long-term funding for environmental restoration | See Comment Response 138 The requirement to submit a work plan for the installation of ETU detection ground water monitoring wells will not be waived. Some submittal dates have been modified on the table included in Permit Attachment 16. | Yes |

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| | | | | projects from NASA Headquarters | | |
| 142 | PA17-1 | Page 30, Paragraph 1, Section 17.1 | Permit Attachment 17 | Section 17.1 of Permit Attachment 17 requires that NASA include a brief description of investigation, sampling and analysis methods and procedures in documents submitted to NMED. The commenter states that Section 17.1 of Draft Permit Attachment 17 is not clear regarding what documents should include procedural documentation. The commenter requests that NMED indicate more clearly which types of documents should include procedural documentation. | The Permittee is required to provide descriptions of the methods and procedures to be used in all corrective actions where investigation or remediation activities are conducted. | No |
| 143 | PA17-2 | Page 31, Paragraph 1, Section 17.2.2 | Permit Attachment 17 | The commenter states that Section 17.2.2 of Draft Permit Attachment 17 is inconsistent with the Systematic Planning Processes, as is the current practice for site investigations. It is the commenter's recommendation that site specific work plans be developed by NASA for NMED approval to ensure that generated data are scientifically valid, defensible, and of known and acceptable quality. Data that are obtained during the investigation should be used to make decisions about what subsequent activities will best resolve remaining data and decision uncertainties. | The requirements in Permit Section 17.2.2 (Field Exploration Activities) refer to standard industry accepted practices for environmental site investigations that involve subsurface drilling explorations. The methods and procedures addressed in Permit Section 17.2 may in some cases apply to other types of subsurface investigations. Permit Section 17.2.2 has been modified to reference that the methods described in Permit Section 17.2 apply in some circumstances to other types of subsurface investigation. | Yes |

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| 144 | PA17-3 | Page 32, Paragraph 4, Section 17.2.2.b.i | Permit Attachment 17 | Attachment 17 of the Draft Permit specifies boring depths for site characterization. The commenter states that these set boring depth requirements do not address site specific data needs or uncertainties nor do these requirements allow for the systematic planning processes and on-site decision making process. The commenter recommends deleting Section 17.2.2.b.i of Permit Attachment 17, stating that in order to generate data that are scientifically valid, defensible, and of known and acceptable quality, requirements for soil borings, groundwater monitoring wells, etc. need to be defined in site specific work plans in consideration of specific data quality objectives, the conceptual site model, and actual field conditions. The commenter recommends that NASA develop site specific work plans for NMED approval. | NMED agrees that items 4 and 5 listed under paragraph 4 of Section 17.2.2.b.i do not apply to the Facility. These items have been deleted from Permit Attachment 17 Section 17.2.2.b.i. The other requirements do apply. However, the Permittee has the option to propose alternate drilling depths in the site specific work plans required by this Permit. | Yes |
| 145 | PA17-4 | Page 32, Paragraph 6, Section 17.2.2.b.i | Permit Attachment 17 | Section 17.2.2.b.i of Draft Permit Attachment 17 requires that all drilling and sampling be accomplished under the direction of a qualified engineer or geologist. The commenter states that NMED does not specify how or by whom these qualifications are determined and Section 17.2.2.b.i does not allow for scientists to provide oversight for sampling. The commenter states that in many | Section 17.2.2.b.i references drilling exploratory drilling activities which NMED requires to be conducted under the supervision of qualified personnel. It is standard industry practice for such activities to be overseen by engineers or geologists whether or not these personnel are physically onsite or not. | No |

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| | | | | cases, it is scientists, not engineers or geologists that direct sampling activities during or after an investigation such as a drilling event. | | |
| 146 | PA17-5 | Page 33, Paragraph 3, Section 17.2.2.b.ii | Permit Attachment 17 | The commenter states that Section 17.2.2.b.ii of Draft Permit Attachment 17 could be interpreted to require the collection of samples in containers supplied by the contracted laboratory. The commenter proposes revisions to this section to indicate that the sample containers will be appropriately cleaned and prepared. | The Permittee's suggested language change does not change the meaning of the requirement. It is common that contract laboratories supply sample containers to their clients. If NASA proposes to use an alternate approach, such approaches must be proposed in the associated project work plan and approved by NMED. | No |
| 147 | PA17-6 | Page 34, Paragraph 5, Section 17.2.2.b.ii | Permit Attachment 17 | Written approval is required by Section 17.2.2.b.ii of Draft Permit Attachment 17 for any modifications to a Work Plan. The commenter has proposed modification to Section 17.2.2.b.ii to allow verbal notification and approval within three working days of any modification made in the field due to site-specific conditions. | NMED understands that decisions must be made in the field during investigation activities to adjust to the conditions encountered. The text in Section 17.2.2b.ii refers to modifications to approved work plans not responses to actions related to unanticipated field conditions. NMED requires that NASA keep NMED informed of changes in the planned work during field investigations in order to try to avoid the need to return to complete or supplement investigation work, where possible. | Yes |

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| 148 | PA17-7 | Page 34, Paragraph 1, Section 17.2.2.b.ii | Permit Attachment 17 | The commenter proposes clarification to indicate that the sample containers will be appropriately cleaned and prepared instead of using pr-cleaned laboratory prepared containers. | See Comment Response 146. | No |
| 149 | PA17-8 | Page 34, Paragraph 1, Section 17.2.2 | Permit Attachment 17 | Section 17.2.2(c) of Draft Permit Attachment 17 that detailed logs of each boring shall be completed in the field by a qualified engineer or geologist. The commenter states that NMED does not specify how or by whom these qualifications are determined and proposes revised text to indicate that drilling and sampling will be accomplished under the direction of properly trained professional staff. | See Comment Response 145. | No |
| 150 | PA17-9 | Page 36, Paragraph 1, Section 17.2.2.e | Permit Attachment 17 | Section 17.2.2.e of Draft Permit Attachment 17 requires that NASA collect equipment blanks from all sampling apparatus at the frequency of ten percent for chemical analysis and that the equipment blanks shall be collected at a frequency of one per day if disposable sampling equipment is used. The commenter states that according to EPA RCRA Waste Sampling Draft Technical Guidance (EPA530-D-02-002, August 2002), the purpose of equipment blanks is "to evaluate the effectiveness of equipment decontamination or to detect sample cross contamination." Because single-use disposable equipment is not reused, collecting routine | Section 17.2.2.e of Draft Permit Attachment 17 states equipment blanks shall be collected at a frequency of one per day if disposable sampling equipment is used. The commenter appears to make the assumption that disposable equipment can never be contaminated during manufacture/transport/use under any conditions. NMED does not agree that there is no possibility that disposable equipment can be contaminated before use in the field. In cases where neither dedicated nor disposable equipment is needed for sample collection, equipment | No |

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| | | | | equipment blanks from new, clean, disposable equipment is not required. The commenter proposes revised text stating, when non-dedicated reusable equipment is utilized during sampling operations, the investigation work plan will specify that equipment blanks will be collected at a frequency of ten percent. | blanks are not required. | |
| 151 | PA17-10 | Page 36, Paragraph 1, Section 17.2.2.f | Permit Attachment 17 | The commenter states that they are unaware of any regulatory requirement to have wells and other site features surveyed by a New Mexico professional land surveyor. In addition, the commenter states that there is no requirement to have a New Mexico professional land surveyor certify site maps. The commenter requests removal of these requirements. | It is NMED policy that facilities in the State of New Mexico comply with NMSA 47-1-49 through 56 which includes the requirement that certified land surveyors conduct land surveys for the purposes of preparing maps for inclusion in reports. Surveys shall be conducted in accordance with Sections 500.1 through 500.12 of the Regulations and Rules of the Board of Registration for Professional Engineers and Surveyors Minimum Standards for Surveying in New Mexico. The GPS methods used by NASA may not achieve the accuracy required by NMED as listed in Section 17.2.2.f of Permit Attachment 17. The Permittee may propose alternate surveying methods in site specific work plans submitted to NMED for approval | No |

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| | | | | | under this Permit. | |
| 152 | PA17-11 | General Comment, Entire Section, Page 38, Section 17.2.2.h | Permit Attachment 17 | The commenter is uncertain if Section 17.2.2.h of Permit Attachment 17 applies to groundwater monitoring or to the installation of boreholes and requests clarification. | Section 17.2.2.h of Permit Attachment is titled "Groundwater Monitoring" and contains requirements pertaining to all groundwater sampling. | No |
| 153 | PA17-12 | Page 38, Paragraph 1, Section 17.2.2.h.i | Permit Attachment 17 | The commenter requests to revise text in Section 17.2.2.h.i to indicate that NASA measure depths to the nearest 0.01 meters instead of 0.01 feet. | All facilities are required to measure ground water depths to the nearest 0.01 feet. If NASA wants to continue to utilize the metric system, then NASA must measure groundwater depths to the same accuracy and measure to the nearest 0.003 meters. | No |
| 154 | PA17-13 | Page 38, Paragraph 1, Section 17.2.2.i | Permit Attachment 17 | Section 17.2.2.i of Draft Permit Attachment 17 requires that the groundwater monitoring and sampling for the newly installed monitoring wells shall be conducted at an interval approved by NMED after the initial sampling event. The commenter requests to revise text to indicate that sampling frequencies for newly installed monitoring wells shall be provided in the Facility-Wide Monitoring Plan. | All requirements for ground water sampling will eventually be contained in the Facility-Wide Monitoring Plan. | No |

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| 155 | PA17-14 | Page 38, Paragraph 1, Section 17.2.2.i | Permit Attachment 17 | Section 17.2.2.i of Draft Permit Attachment 17 states that all requests for variances from the groundwater sampling schedule shall be submitted to NMED in writing, no less than 30 days prior to the start of scheduled monitoring and sampling events. The commenter believes that a strict interpretation of this Permit Attachment condition significantly impacts NASA's ability to efficiently and effectively operate its extensive groundwater monitoring network and requests differentiation between the sampling schedule established for routine operations and the sampling frequency of each monitoring well established in the groundwater monitoring plan. | NMED does not consider this requirement to be burdensome since it does not include changes resulting from unanticipated conditions that are not controlled by the facility. | Yes |
| 156 | PA17-15 | Page 39, Paragraph 4, Section 17.2.2.i | Permit Attachment 17 | The commenter states that language in Section 17.2.2.i of Draft Permit Attachment 17 provides no specificity as to what general chemistry parameters are to be collected and also the rationale for their collection. The commenter requests that either clarification be provided by NMED or that this text be deleted. | This language is set forth in paragraph 2 of Section 17.2.2.i. The specific general chemistry parameters to be sampled for and the frequency of general chemistry collection and analysis will be specified in the Facility-Wide Monitoring Plan. | No |
| 157 | PA17-16 | Page 39, Paragraph 1, Section 17.2.2.i.i | Permit Attachment 17 | Section 17.2.2.ii of Draft Permit Attachment 17 requires a variety of specific measurements, procedures, and equipment for purging groundwater monitoring wells. It also refers to NMED's Position Paper "Use of Low-Flow and other Non- | NMED requires that all purging and sampling methods be proposed in the appropriate work plans and that the facility-wide groundwater monitoring plan will be updated as new wells are installed and new | No |

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| | | | | Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring" (October 30, 2001, or as updated). The commenter proposes to delete the language in Section 17.2.2.i.i and replace it with language specifying the use of the NMED low-flow guidance document to ensure the collection of representative samples from low-flow wells. | information is acquired that may change monitoring requirements. However, NMED does not expect that non-traditional sampling methods will be exclusively used at the Facility. Including these general requirements will not negatively impact NASA's ability to effectively and efficiently implement their groundwater monitoring program. It is both necessary and appropriate to include the requirements specified in Section 17.2.2.i.i of Permit Attachment 17. | |
| 158 | PA17-17 | Page 39, Paragraph 1, Section 17.2.2.i.ii | Permit Attachment 17 | The commenter indicates that appropriately cleaned and prepared sample containers shall be used for sampling instead of laboratory-prepared containers. | See Comment Response 146. | No |
| 159 | PA17-18 | Page 39, Paragraph 2, Section 17.2.2.i.ii | Permit Attachment 17 | Section 17.2.2.i.ii of Draft Permit Attachment 17 requires NMED approval for methods of disposal of purge or decontamination water. The commenter indicates that all purged groundwater and decontamination water will be managed as described in Section 17.2.5 and recommends deleting this Section 17.2.2.i.ii. | Permit Attachment 17 Section 17.2.5 addresses all types of investigation derived waste (IDW). Section 17.2.2.i.ii paragraph 2 is specific to IDW waste water generated during groundwater sampling activities. | No |
| 160 | PA17-19 | Page 39, Paragraph 1, Section 17.2.2.i.iii | Permit Attachment 17 | The commenter indicates that appropriately cleaned and prepared sample containers shall be used for sampling instead of laboratory-prepared containers. | See Comment Response 146. | |

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| 161 | PA17-20 | Page 40, Section 17.2.2.i.iv | Permit Attachment 17 | Section 17.2.2.i.iv of Draft Permit Attachment 17 states " ...At a minimum, one duplicate sample per sampling event shall always be obtained." The commenter states that this Permit condition is very unclear and open to a variety of interpretations and requests clarification. The commenter proposes alternate text that meets the requirements of applicable EPA and NMED guidance and is much clearer in intent and application: "At a minimum, a duplicate sample of each significant analytical type shall be obtained for sampling activities associated with small monitoring plans or work plans where fewer than 10 total samples of each significant analytical type are collected. The investigation work plan or monitoring plan applicable to the activity shall include the collection requirements for quality control samples." | The commenter does not define "significant analytical type" or "activity" in their proposed language. The requirements for field duplicate sampling included in paragraph 2 of Section 17.2.2.i.iv are clear and consistent with EPA guidance. | No |
| 162 | PA17-21 | Page 40, Paragraph 3, Section 17.2.2.i.iv | Permit Attachment 17 | Section 17.2.2.i.iv of Draft Permit Attachment 17 states " ...Field blanks shall be obtained at a frequency of no less than one per day per site or unit". The commenter states that this Permit condition is unclear and open to a variety of interpretations and requests clarification. The commenter proposes alternate text that meets the requirements of applicable EPA and NMED | See response to comment 161 with regard to the first sentence of paragraph 3 of Section 17.2.2.i.iv. | No |

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| NMED COMMENT NUMBER | NASA REFERENCE COMMENT NUMBER | COMMENT LOCATION | TOPIC AREA OR PERMIT SECTION | COMMENT SUMMARY | NMED RESPONSE TO COMMENT | CHANGE MADE TO PERMIT Yes/No |
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| | | | | guidance and is much clearer in intent and application: "Field blanks for significant analytical types shall be obtained at a frequency of no less than one per sampling day per project unless otherwise specified in investigation work plan or monitoring plan in effect. The investigation work plan or monitoring plan applicable to the activity shall include the collection requirements for quality control samples." | | |
| 163 | PA17-22 | Page 40, Paragraph 4, Section 17.2.2.i.iv | Permit Attachment 17 | Section 17.2.2.i.iv of Draft Permit Attachment 17 states "...Equipment rinseate blanks shall be obtained for chemical analysis at the rate five percent but no fewer than one rinseate blank per sampling day." The commenter states that this Permit condition is very unclear and open to a variety of interpretations and requests clarification. The commenter proposes alternate text that meets the requirements of applicable EPA and NMED guidance and is much clearer in intent and application: "Equipment rinseate blanks for significant analytical types shall be obtained for chemical analysis at the rate five percent but no fewer than one rinseate blank per sampling day unless otherwise specified in investigation work plan or monitoring plan in effect. The investigation work plan or monitoring plan applicable to the activity shall include the | See response to comment 161 with regard to paragraph 4 of Section 17.2.2.i.iv. | No |

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| | | | | collection requirements for quality control samples." | | |
| 164 | PA17-23 | Page 40, Paragraph 4, Section 17.2.2.i.iv | Permit Attachment 17 | Section 17.2.2.i.iv of Draft Permit Attachment 17 states "...Equipment rinseate blanks shall be collected at a rate of one per sampling day if disposable sampling apparatus is used". The commenter states, according to EPA RCRA Waste Sampling Draft Technical Guidance (EPA530-D-02-002, August 2002), the purpose of equipment blanks is to evaluate the effectiveness of equipment decontamination or to detect sample cross contamination and because single-use disposable equipment is not reused, it is not subject to cross contamination. The commenter also states that collecting routine equipment blanks from new, clean, disposable equipment is not required and when nondedicated reusable equipment is utilized during sampling operations, the investigation work plan will specify that equipment blanks will be | See Comment Response 150. | No |

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| | | | | collected at a frequency of ten percent. | | |
| 165 | PA17-24 | Page 40, Paragraph 6, Section 17.2.2.i.iv | Permit Attachment 17 | Section 17.2.2.i.iv of Draft Permit Attachment 17 specifies that trip blanks will be sent with each VOC shipping container sent off-site for analysis. The commenter recommends revising Permit Attachment 17 to state that trip blanks will be collected at a frequency of five percent. | The industry standard for preparation and use of trip blanks is one per shipping container of samples. | No |
| 166 | PA17-25 | Page 40, Paragraph 1, Section 17.2.2.j | Permit Attachment 17 | Section 17.2.2.j of Draft Permit Attachment 17 requires that new nitrile gloves be used for each sample collected. The commenter states that there is no technical or regulatory basis for this requirement and proposes revised text that requires new gloves for each new sample site or sample media. | The commenter appears to be confusing sample collection with filling specific containers for different types of analyses. For example, NMED considers a "sample" collected from a particular well screen to be one individual sample even though several containers may be filled to allow for various chemical analyses. | No |
| 167 | PA17-26 | Page 40, Paragraph 1, Section 17.2.2.j | Permit Attachment 17 | The commenter recommends that appropriately cleaned and prepared sample containers shall be used for sampling instead of laboratory-prepared containers. | See Comment Response 146. | No |

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| 168 | PA17-27 | Page 41, Paragraph 1, Section 17.2.2.j | Permit Attachment 17 | Section 17.2.2.j of Draft Permit Attachment 17 requires that all samples be submitted to the analytical laboratory within 48 hours of collection. The commenter indicates that the EPA's RCRA Ground-Water Monitoring: Draft Technical Guidance and Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) only require that the sample arrive at and be analyzed by the analytical laboratory within the specified holding time and recommends to revise the text accordingly. | It is NMED's intent to avoid missed holding times which reduces the defensibility of data which potentially necessitates resampling. Resampling is unnecessarily costly and time consuming. | Yes |
| 169 | PA17-28 | Page 41, Paragraph 2, Section 17.2.2.j | Permit Attachment 17 | Section 17.2.2.j of Draft Permit Attachment 17 requires that all sample shipments include a temperature blank. The commenter indicates that the EPA's RCRA Ground-Water Monitoring: Draft Technical Guidance and Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) only require that the samples arrive at the analytical laboratory within the temperature requirements established for the analytical method and that the laboratory verify the temperature and record the measured temperature appropriately. The commenter recommends revising the text by deleting the requirement of using temperature blanks with each shipping container. | Temperature blanks are a more accurate method to measure the temperature of the samples when they arrive at the laboratory than other methods some of which cannot be used (e.g., measuring the temperature of soil samples). Laboratories typically provide unopened sample containers of deionized water which can be used as temperature blanks for various sample media types placed in a given cooler. | No |

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| 170 | PA17-29 | Page 41, Paragraph 2, Section 17.2.2.j | Permit Attachment 17 | Section 17.2.2.j of Draft Permit Attachment 17 requires that all sample shipments be delivered directly to the contracted analytical laboratory. The commenter recommends that the text be revised to indicate that coolers will be delivered using the most practicable commercial service available as direct delivery to the analytical laboratory is not practicable. | The reference to "direct delivery" means that the samples must not be stored off-site in route to the laboratory. Use of standard commercial delivery services is an acceptable practice provided samples are submitted soon enough to ensure analytical method holding times are met. | No |
| 171 | PA17-30 | Page 41, Paragraph 2, Section 17.2.2.j | Permit Attachment 17 | Section 17.2.2.j of Draft Permit Attachment 17 requires that a sample request form be included with sample shipments. The commenter indicates that there is no regulatory basis for inclusion of a separate sample request form and proposes to clarify the language in Section 17.2.2.j by stating the chain-of-custody form and sample request form (if the COC form does not provide sufficient information) shall be shipped inside the sealed storage container to be delivered to the laboratory. | Permit Attachment 17, Section 17.2.2.j was modified to remove the reference to sample request forms and instead require that all necessary information be included on the chain-of-custody form shipped with the samples. | Yes |
| 172 | PA17-31 | Page 43, Paragraph 1, Section 17.2.6.a | Permit Attachment 17 | Section 17.2.6.a of Draft Permit Attachment 17 requires that all field records be maintained in hard copy format. The commenter proposes to include revised text to state that completed field records shall be maintained such that they can be easily referenced for other field activities and cannot be modified following permanent archival storage. The commenter also | Permit Attachment 17, Section 17.2.6.a has been modified to reference storage of field activity logs as scanned copies after all project field work has been completed. | Yes |

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| | | | | proposes to use indelible ink or an appropriate electronic application to record all field activities. | | |
| 173 | PA17-32 | Page 44, Paragraph 1, Section 17.2.6.b | Permit Attachment 17 | Section 17.2.6.b of Draft Permit Attachment 17 requires the completion of COC forms at the end of each sampling day. The commenter proposes revision to the text that indicates chain of-custody forms be completed prior to the transfer of samples off site (rather than each sampling day). | Permit Attachment 17, Section 17.2.6.b has been modified to remove the requirement to complete chain-of-custody forms on a daily basis. | Yes |
| 174 | PA17-33 | Page 44, Paragraph 2 Section 17.3 | Permit Attachment 17 | Draft Permit Attachment 17, Section 17.3 requires that high concentration data be omitted from statistical analyses conducted as part of the investigation. The commenter proposes to clarify the language: "...Except where detection limits are elevated due to high analyte concentrations, analyses conducted with detection limits that are greater than applicable background, screening, and regulatory cleanup levels shall be considered data quality exceptions and the reasons for the elevated detection limits shall be reported to NMED. These data cannot be used for statistical analyses." | Permit Attachment 17, Section 17.3 has been modified to clarify that analytes with elevated detection limits that are reported as non-detects cannot be used for statistical analyses. | Yes |

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| 175 | PA17-34 | Page 44, Paragraph 2 Section 17.3 | Permit Attachment 17 | The submittal of analytical data is mandated in MS Excel format with data qualifiers as attached from the analytical laboratory. The commenter indicates that many analytical data submissions are far too large for Excel format and recommends revising the text to indicate that the electronic copy of the investigation report be submitted in an applicable format with qualifiers attached appropriately (laboratory attached qualifiers are replaced with WSTF specific data qualifiers to maintain continuity with historic data qualification). | Permit Attachment 17, Section 17.3 has been modified to allow laboratory analytical data to be submitted in Microsoft Excel or other format approved by NMED. | Yes |
| 176 | PA17-35 | Page 44, Paragraph 2 Section 17.3 | Permit Attachment 17 | The commenter states that Draft Permit Attachment 17, indicates that analytical detections are based on data qualifiers and is not accurate. The commenter proposes to clarify this requirement. | Permit Attachment 17, Section 17.3 has been modified to clarify that the summary tables shall include detects based on data qualifiers. | Yes |
| 177 | PA17-36 | Page 45, Paragraph 1, Section 17.3.1.c | Permit Attachment 17 | Section 17.3.1.c of Draft Permit Attachment 17 requires that the laboratory perform more stringent quality control on non-EPA methods and that there is no regulatory basis for this requirement. The commenter also states that other sections of the Draft Permit require compliance with EPA's laboratory certification procedures and require that laboratories are accredited. The commenter recommends deleting these additional quality requirements. | NMED does not consider the requirement of using 10 percent laboratory QA/QC samples for non-EPA test methods to be unreasonable in particular since some methods (e.g., hydrazine analysis) that are used by the Permittee are experimental or have seen limited use due to the uncommon contaminant type. | No |

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| 178 | PA17-37 | Page 45, Paragraph 1, Section 17.3.1.c | Permit Attachment 17 | Section 17.3.1.c of Draft Permit Attachment 17 requires that the laboratory perform additional QA/QC on a project-specific level. The commenter indicates that there is no regulatory basis for this requirement and recommends deleting the language stating that laboratory batch QA/QC samples shall be specific to the project. | Regardless of whether the analytical procedures used are standard analyses or unique to a project, the QA/QC procedures must be project specific and not tied to unassociated batch analyses. | No |
| 179 | PA17-38 | Page 45, Paragraph 1, Section 17.3.1.d | Permit Attachment 17 | Section 17.3.1.d of Draft Permit Attachment 17 requires EPA Level III or IV data quality packages for all analytical data. The commenter states that this requirement is not appropriate for routine groundwater samples and low risk projects. The commenter proposes revisions to the text: "...The laboratory analytical data package shall be prepared based on individual project requirements and data quality objectives. Data package requirements shall be included in the monitoring plans and investigation work plans. For projects reported at less than Level III, the contracted analytical laboratory shall retain in their records, for at least one year following the analysis of samples, data sufficient to regenerate any analytical report in accordance with Level III at the request of the Permittee. The following would be included in the data package for a project requiring Level III or Level IV | The Second to last paragraph in Permit Attachment 17, Section 17.3.1.d states that the Permittee shall provide level II QA/QC results to NMED. Accredited analytical laboratories maintain level III or IV QA/QC results in their records even if their clients request laboratory reports that only include level II QA/QC data. NMED reserves the right to request level III or IV QA/QC results if the need arises. | No |

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| | | | | data submissions:". | | |
| 180 | PA17-39 | Page 48, Paragraph 2, Section 17.3.1.d | Permit Attachment 17 | Section 17.3.1.d of Draft Permit Attachment 17 requires NASA to retain a large amount of laboratory information that is retained by the contracted laboratory. The commenter proposes revised text to state that raw analytical data from routine monitoring be maintained by the contracted laboratory for at least one year following sample analysis and that any of these data be available to NMED upon request at any time within the year following sample analysis. | NASA maintains large amounts of data in electronic databases. The Permittee has the option to store laboratory reports in the electronic form. However, such data must be made available to NMED upon request. Regardless, a one year period is inadequate for data storage since environmental projects at NASA WSTF have historically lasted significantly longer than one year. The Permit was modified to clarify that data records must be retained by the contract laboratory and be available upon request for the life of the project. It is NMED's experience that corrective action projects conducted under RCRA frequently longer than 3 years. | Yes |

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| 181 | PA17-40 | Page 48, Paragraph 1, Section 17.3.2 | Permit Attachment 17 | Section 17.3.2 of Draft Permit Attachment 17 requires comparison of analytical data to DQOs. The commenter states that the DQOs are not mentioned in the Draft Permit and are only mentioned in the analytical reporting sections of some Draft Permit Attachments. The commenter recommends that, in order to clarify this requirement, DQOs should be addressed in the applicable portions of the Draft Permit or Attachments. The commenter recommends that DQOs be established in the monitoring or work plan for each project. | All environmental projects have data quality objectives in one form or another depending on the type and complexity of the project. The requirement in Permit Attachment 17, Section 17.3.2 requires that the Permittee evaluate acquired data with respect to standard data validation practices. | No |
| 182 | PA17-41 | Page 48, Paragraph 1, Section 17.3.2 | Permit Attachment 17 | NASA is required to notify NMED within one business day of any data received that contains data quality exceptions. The commenter states that this requirement would be very time-consuming to both NMED and WSTF personnel. The commenters also states that discussions between NASA, NMED and the laboratory can be valuable for small, high risk projects but believes that this requirement should not be applied to an environmental program on the scale of that at WSTF. The commenter recommends revising Attachment 17 to state that for certain projects, the Permittee shall require the laboratory to notify the facility project manager of data exceptions within one business day and this will be communicated to | Permit Attachment 17, Section 17.3.2, paragraph 2 specifies that the facility project manager contact NMED within one business day of receipt of notification when a data quality exception occurs, that may affect the Permittee's ability to meet the objectives established for a given project. Given the potential expense to the facility, if project objectives are not met, NMED does not consider this requirement to be unduly burdensome. | Yes |

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| | | | | NMED in a timely manner. | | |
| 183 | PA19-1 | General Comment | Permit Attachment 19 | The commenter states that the specificity contained in Permit Attachment 19 is not appropriate and the level of specificity should be contained in unit-specific work plans which are generated by NASA and provided to NMED for review. The commenter proposes that Permit Attachment 19 be deleted. | If a specific drilling procedure is not relevant or practicable, NASA may propose alternate drilling and well installation methods in the site specific work plan submitted in accordance with Permit Sections I.L and VII.H.1. | No |
| 184 | PA19-2 | Page 58, Section 19.2 | Permit Attachment 19 | Section 19.2 of Draft Permit Attachment 19 states that the groundwater monitoring wells and piezometers must be designed and constructed in a manner that will yield high quality samples, ensure that the well will last the duration of the project, and ensure that the well will not serve as a conduit for contaminants to migrate between different stratigraphic units or aquifers. The commenter proposes revision to this text to indicate that groundwater wells and piezometers will be designed to meet project-specific data quality objectives. | NMED requires that monitoring well and piezometers must be designed and constructed in a manner that will yield high quality, representative samples, ensure that the well will last the duration of the project, and ensure that the well will not serve as a conduit for contaminants to migrate between different stratigraphic units or aquifers. NMED requires site specific DQOs meet the same standard. NMED will not approve proposed site specific DQOs that meet a less stringent standards. | No |

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| 185 | PA19-3 | Page 59, Section 19.2.1 | Permit Attachment 19 | Section 19.2.1 of Draft Permit Attachment 19 states that a hollow stem auger drilling method is the best suited for drilling shallow overburden wells. The commenter provides limitations of the method and recommends modified language: "...The hollow-stem auger method is an appropriate method for drilling shallow overburden wells in sediments that do not contain cobbles (clasts >2.5 inches diameter) or boulders (clasts > 10 inches diameter). Furthermore, the heat generated by the auger drilling of coarse-grained overburden can also cause the volatilization of soil gas VOCs in the subsurface formation, compromising data quality." | See response to comment 183. | No |
| 186 | PA19-4 | Page 59, Section 19.2.2 | Permit Attachment 19 | Section 19.2.2 of Draft Permit Attachment 19 states "... These factors may prevent the well from yielding groundwater samples that are representative of in-situ conditions." The commenters states that the Draft Permit does not adequately address actual site conditions and appropriate selection of investigatory techniques and tools. The commenter states (as an example) that, these drilling techniques, although cause an initial disruption of the subsurface conditions, are effective methods for construction monitoring methods. The commenter proposes revised | See response to comment 183. | No |

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| | | | | text: "...These factors may prevent the well from initially yielding groundwater samples that are representative of in-situ conditions. Groundwater samples are more likely to represent insitu conditions once well development activities are completed." | | |
| 187 | PA19-5 | Page 61, Section 19.3.1 | Permit Attachment 19 | Section 19.3.1 of Draft Permit Attachment 19 provides significant limits of use of well construction materials for sampling specific contaminants. The commenter states that these limits are not consistent with available technical guidance and provides a summary of available technical information. The commenter requests deletion of this section. | See response to comment 183. The Permittee cites guidance without providing the reference for such guidance. | No |
| 188 | PA19-6 | Page 62, Section 19.3.2 | Permit Attachment 19 | Section 19.3.2 of Draft Permit Attachment 19 restricts the material of construction for O-rings to Teflon, if the well is sampled for organic compounds. The commenter requests the use of O-rings constructed of Teflon or an equivalent and/or appropriate material. | See response to comment 183. | No |
| 189 | PA19-7 | Page 65, Section 19.3.3 | Permit Attachment 19 | Section 19.3.3 of Draft Permit Attachment 19 indicates that Westbay wells must be installed under the supervision of an authorized vendor. The commenter states that WSTF has unique knowledge and experience with Westbay multiport well monitoring systems and requests the Draft | NMED recognizes that the Permittee has installed Westbay™ wells at the facility. NMED is evaluating historical data to determine whether Westbay™ wells are appropriate for use at NASA WSTF. The Permittee must provide documentation that | No |

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| | | | | Permit be revised by deleting this requirement. | demonstrates that Westbay representatives do not need to be present during Westbay well installation. | |
| 190 | PA19-8 | Page 66, Section 19.3.5 | Permit Attachment 19 | Section 19.3.5 of Draft Permit Attachment 19 directs NASA to perform well development 48 hours after the surface casing and outer protective casing is installed. The commenter proposes that this will not be performed until the well is completed. | NMED does not consider it to be unreasonable to conduct well development no more than 48 hours after the outer protective casing and surface pad are installed since that is a clear indication that well construction is complete and that all materials used to construct the wells are in place. It is standard industry practice to develop wells after construction is complete. | No |
| 191 | PA19-9 | Page 67, Section 19.3.6 | Permit Attachment 19 | Section 19.3.6 of Draft Permit Attachment 19 the installation of a three-foot wide, four-inch thick concrete surface pad for above-ground monitoring well completions. The commenter indicates that the standard surface completion for monitoring wells at WSTF is a four-foot pad and recommends revising the Draft Permit language to state "...a minimum three-feet wide..." instead of "...a three-feet wide...". | See response to comment 183. | Yes |
| 192 | PA19-10 | Page 68, Section 19.4 | Permit Attachment 19 | Section 19.4 of Draft Permit Attachment 19 states that wells with small diameter casing shall be abandoned by overdrilling the well with a large diameter hollow-stem auger. The commenter states that the Draft Permit does not adequately address actual site | See response to comment 183. | No |

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| | | | | conditions and appropriate selection of techniques and tools. The commenter recommends that the selected method must also be acceptable to the State Engineer Office and the Ground Water Quality Bureau. | | |
| 193 | PA20-1 | Page 70, Paragraph 1, Section 20.1 | Permit Attachment 20 | Section 20.1 of Draft Permit Attachment 20 requires that NASA obtain technical and regulatory input from NMED when preparing plans and reports. The commenter requests that NMED clarify the manner in which input should be obtained and utilized in plan and report preparation. The Draft Permit also requires submission of all work plans and reports to NMED in the form of one electronic copy and two paper copies. The commenter proposes that all work plans and reports be submitted to NMED in accordance with the September 22, 2000 signed Project XL Reinvention Agreement between EPA Region 6, NMED, and NASA. | Technical and regulatory input can be in many forms, including the information and requirements included in this Permit and the corrective action document review process included in Permit Section I.L. See also comment response 8. | No |
| 194 | PA20-2 | Page 70, Paragraph 1, Section 20.1 | Permit Attachment 20 | Section 20.1 of Draft Permit Attachment 20 requires two hard copies of all reports and plans be submitted. The commenter requests deletion of this requirement and proposes that all work plans and reports be submitted to NMED in accordance with the September 22, 2000 signed Project XL Reinvention Agreement between EPA Region 6, NMED, and NASA. | See Comment Response 8. Language was modified to allow submittals in format(s) acceptable to NMED. | Yes |

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| 195 | PA20-3 | General Comment | Permit Attachment 20 | A specific format is provided in Draft Permit Attachment 20 for developing investigation work plans. The commenter recommends that site specific work plans be developed (in accordance with the Systematic Planning Process) to ensure that generated data are scientifically valid, defensible, and of known and acceptable quality for NMED approval which include the necessary elements. The commenter also requests NMED add a Section 20.7 to include specific format for an Interim Measures Work Plan. | NMED does not understand how the format provided in this attachment effects the data validity, defensibility and quality. As stated in Permit Attachment 20 Section 20.1, Permit Attachment 20 does not include all formats for corrective action documents that may be generated under this Permit. Paragraph 2 of Section 20.1 states that format for documents not listed in Attachment 20 must be submitted in outline form to NMED for approval prior to submittal of the document. | No |
| 196 | PA20-4 | Page 70, Paragraph 1, Section 20.2 | Permit Attachment 20 | A specific format is provided in Draft Permit Attachment 20, Section 20.1 for developing investigation work plans. The commenter recommends that site specific work plans be developed consistently with the Systematic Planning Process and the Triad approach to ensure that generated data are scientifically valid, defensible, and of known and acceptable quality. | See response to comment 195. | No |
| 197 | PA20-5 | Page 71, Paragraph 1, Section 20.2.3 | Permit Attachment 20 | Section 20.2.3 of Draft Permit Attachment 20 requires that page numbers be included for every section in a work plan. The commenter indicates that for some large documents submitted by NASA, sequential page numbers are difficult to provide and unwieldy to use for readers. The commenter suggests clarifying this requirement | Table of Contents typically include references to page numbers. In certain cases for large report-type documents and large work plan documents, use of electronic bookmarks and hyperlinks would be appropriate but are not specified in Attachment 20. | No |

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| | | | | to utilize electronic bookmarks and hyperlinks, etc. in some reporting formats if page numbers cannot be provided. | | |
| 198 | PA20-6 | Page 71, Paragraph 2, Section 20.2.5 | Permit Attachment 20 | Section 20.2.5 of Draft Permit Attachment 20 requires the submittal of historical data in tabular format. The commenter indicates that for some investigations, the amount of historical data may be too great to include in a work plan in simple tables and proposes to modify the language of Section 20.2.5 to allow for more flexibility in providing the information required by NMED in investigation work plans. | NMED expects the Permittee to be able to discern relevant data to include in investigation work plans. More detailed data presentations should be included in historical information summaries as required by Permit Section VII.H.1.c for sites where extensive data has been collected. | No |
| 199 | PA20-7 | Page 73, Paragraph 1(5), Section 20.2.11 | Permit Attachment 20 | Section 20.2.11 of Draft Permit Attachment 20 requires the inclusion of the time that depths to water were measured. The commenter states that there is no regulatory basis for this requirement and proposes deletion of this requirement. | NMED requires that the dates and times that water levels are measured be recorded in the field when measurements are obtained. The Permit Attachment 20 Section 20.2.11 item 5 has been modified to remove the requirement to report the time measurements were obtained. | Yes |
| 200 | PA20-8 | Page 73, Paragraph 1, Section 20.2.12 | Permit Attachment 20 | Section 20.2.12 of Draft Permit Attachment 20 indicates that all the listed figures "shall" be included. The commenter indicates that this requirement differs from Section 20.2.11, which states that the listed tables "may" be included. Because some of the figures listed in Section 20.2.12 of Permit Attachment 20 | Text has been changed in Draft Permit Attachment Section 20.2.11 to indicate that all summary tables shall be included in the Investigation Work Plans. In Draft Permit Attachment Section 20.2.12 text has been changed to indicate that all applicable figures shall | Yes |

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION WHITE SANDS TEST FACILITY, RESOURCE CONSERVATION AND RECOVERY ACT
PERMIT, NASA COMMENTS SUMMARY AND RESPONSES**

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| | | | | may not be applicable to all work plans or investigation projects at WSTF. The commenter proposes to modify this section to be consistent with Section 20.2.11. | be included with each Investigation work plan. | |
| 201 | PA20-9 | Page 78, Paragraph 1, Section 20.3.9 | Permit Attachment 20 | Section 20.3.9 of Draft Permit Attachment 20 requires that NASA obtain NMED approval on the format of data tables. The commenter indicates that the format of tables will vary with different reports and recommends deletion of this requirement. The commenter also mentions that if NMED should accept NASA's recommendation to implement the Systematic Planning Process, NMED will have the opportunity to develop the intended use of the resultant data. | NMED approved formats for data tables will generally be appropriate for all types of document submittals. | No |
| 202 | PA20-10 | Page 83, Paragraph 1, Section 20.3.14.c | Permit Attachment 20 | Section 20.3.14.c of Draft Permit Attachment 20 requires the creation of an appendix that summarizes data quality objectives (DQOs) for investigations. The commenter states that DQOs cannot be summarized if they are not established early in the project planning phase. The commenter proposes that DQOs be addressed in the applicable portions of the Draft Permit or Attachments. | Permit Attachment 20 Section 20.3.14.c references data quality objectives for analytical laboratories. | No |

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| 203 | PA20-11 | Page 85, Paragraph 1, Section 20.4.7 | Permit Attachment 20 | Section 20.4.7 of Draft Permit Attachment 20 states: "A section shall provide a summary of the results of monitoring conducted at the site. This section shall include the dates and times that monitoring was conducted, the measured depths to groundwater, directions of groundwater flow, field air and water quality measurements, contaminant surveys, static pressures, field measurements, and a comparison to previous monitoring results". The commenter states that several of these required items cannot be evaluated at the site and proposes replacing this requirement with: "A section shall provide a summary of the results of monitoring conducted at the site. This section shall include the location at which monitoring was conducted, the dates that monitoring was conducted, the measured depths to groundwater, or other indicator of groundwater elevation, summary of field air and water quality measurements that were obtained, contaminant surveys, and a comparison to previous monitoring results". | For the past two years, the Permittee has been submitting quarterly monitoring reports in the format included in Permit Attachment 20.4. These submittals were acceptable to NMED. Some measurements may not apply or be obtained at particular monitoring locations. Obviously if measurements are not obtained at a particular monitoring location, those measurements would not be included in the report. | No |
| 204 | PA20-12 | Page 86, Paragraph 1(2), Section 20.4.11 | Permit Attachment 20 | Section 20.4.11 of Draft Permit Attachment 20 requires the inclusion of the time that depths to water were measured. The commenter states that there is no regulatory basis for this requirement and proposes deletion of this requirement. | See response to comment 199. | Yes |

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| 205 | PA22-1 | Pages 106 to 107, Section 22.1 | Permit Attachment 22 | Section 22.1 of Draft Permit Attachment 22 identifies SWMUs and AOCs for which corrective action is required. Since investigations have not been performed for these units, the commenter indicates that it is premature to determine that corrective action is required. The commenter proposes removal of Permit Attachment 22. | Corrective action includes not only cleanup but also site investigation, monitoring and document preparation. | No |
| 206 | FS-1 | Page 1, Paragraph 1 | Fact Sheet | The Fact Sheet indicates that there are four closed units. The commenter indicates that WSTF has five closed post-closure care units and requests NMED to revise this text. | Fact Sheet is not part of the Permit; therefore, it will not be modified. | No |
| 207 | FS-2 | Page 7, Paragraph 2 | Fact Sheet | The Fact Sheet indicates that there are four closed units. The commenter indicates that WSTF has five closed post-closure care units and requests NMED to revise this text. | See response to comment 206. | No |
| 208 | FS-3 | Page 7, Paragraph 4 | Fact Sheet | The Fact Sheet states "...This Permit Part describes contamination beyond the facility boundary ...". The commenter indicates that this description could be confusing and disruptive to the general public as WSTF's contamination is within the facility boundary, as defined for the purposes of corrective action. The commenter proposes to clarify or eliminate this text. | See response to comment 206. | No |
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