

**Annual Change Report
2004/2005**



November 10, 2005

**United States Department of Energy
Waste Isolation Pilot Plant**

**Carlsbad Field Office
Carlsbad, New Mexico**

Table of Contents

Introduction	1
Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)	3
Table 2: Procedure Revision Table	13
Table 3: Waste Emplacement Summary Report	17
Table 4: Performance Assessment Software and Hardware Changes	19
Summary	21
References	21

Introduction

As part of continuing compliance, the U.S. Environmental Protection Agency (EPA) requires the U.S. Department of Energy (DOE) to provide, on an annual basis, certain information regarding changes in conditions or activities pertaining to the Waste Isolation Pilot Plant (WIPP) waste disposal system. This requirement is identified in Title 40 Code of Federal Regulations (CFR), Section 194.4(b)(4), which states:

“No later than six months after the administrator issues a certification, and at least annually thereafter, the Department shall report to the Administrator, in writing, any changes in conditions or activities pertaining to the disposal system that were not required to be reported by paragraph (b)(3) of this section and that differ from information contained in the most recent compliance application.”

In meeting the requirement, the DOE provides an annual report of all changes applicable under the above requirement each November. This annual report informs the EPA of changes to information in the most recent compliance application, i.e., the 1996 Compliance Certification Application (CCA). Significant planned changes must be reported to the EPA prior to implementation by the DOE. In addition, 40 CFR 194.4(b)(3) requires that significant unplanned changes be reported to the EPA within 24 hours or ten days, depending on the severity of the activity or condition. To date, there have been no significant unplanned changes to the certification basis. Planned changes have been submitted on an individual basis. All other changes are reported annually.

This Waste Isolation Pilot Plant (WIPP) Annual Change Report 2004/2005 includes changes that occurred between July 1, 2004, and June 30, 2005.

Changes in activities or conditions are reviewed to determine if reporting pursuant to 40 CFR 194.4(b)(3) is necessary. As indicated above, no significant unplanned changes were identified for the period covered by this report. The enclosed tables list those items identified for reporting under 40 CFR 194.4(b)(4). The majority of the changes described in this report are associated with modifications to written plans and procedures for WIPP operations.

This report captures the summary of each change within four tables:

1. Table 1: *Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)*
2. Table 2: *Procedure Revision Table* documents changes to relevant plans and procedures during the reporting period

3. Table 3: *Waste Emplacement Summary Report* documents the TRU waste inventory for the waste parameters with minimum and maximum limits identified in Table 4-10 of the CCA. The summary provides the total emplaced inventory in the repository as of June 30, 2005 and the inventory that was emplaced during the reporting period (July 1, 2004 to June 30, 2005)
4. Table 4: *Performance Assessment Software and Hardware Changes* documents the changes to relevant codes, software and hardware that have occurred during the current reporting period

In accordance with the EPA's requests and feedback in past years, this report incorporates suggestions and guidance for capturing the appropriate level of detail and the layout of information. This report does not include all administrative changes to procedures. Examples of administrative changes to procedures that are not included are editorial changes, reformatting, correcting the title of references, and other changes that do not change the substance or intent of the document.

Also requested was the identification of any references previously entered into the EPA Docket system. This information is set forth in Table 1. The EPA Docket Item Number for the specific information is noted (where available) and a general sentence identifies the change.

**Table 1: Changes in WIPP Conditions or Activities
Reportable under Title 40 CFR 194.4(b)(4)**

July 1, 2004 through June 30, 2005

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.14(b) Design of the disposal system	Status of experiments in the WIPP underground	<p><u>SEGA and MEGA</u> Collaborating scientists continued to install equipment inside their building in the Room-Q Alcove. Actual operation of the experiment is projected to start later in 2005.</p> <p><u>EXO</u> Module preparation continues off-site (Stanford University). On February 3, 2005, EPA approved DOE's plan to relocate EXO from the former core storage alcove to the North Experimental Area (NExA). The modules are projected to arrive at WIPP in the summer of 2006.</p> <p><u>NExA</u> The NExA, consisting of the former E-300 shop between N-1100 and N-1400, was refurbished to make beneficial occupancy by science experiments, e.g., EXO, possible. The project scope included rib trimming, floor grading, removal of loose muck, ground support, and restoration of basic lighting and mine communications. The project was completed March 4, 2005.</p>
194.14(b) Design of the disposal system	Panel Closure	The DOE notified EPA that DOE is considering a change in the size of the concrete blocks used in construction of the explosion isolation wall of the WIPP Panel Closure System. DOE letter dated August 18, 2004.
194.14(b) Design of the disposal system	Panel 3	The DOE notified EPA that DOE will begin emplacement in Panel 3 beginning on April 27, 2005. DOE letter dated April 26, 2005.
194.14(b) Design of the disposal system	Installation of new RADOS Continuous Air Monitors	The planned physical alteration consists of an excavation of a 24 foot by 10 foot section from the southeast rib at the intersection of E-300 and S-3310 drifts to provide for the installation of new RADOS Continuous Air Monitors in the exhaust drift.

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.21 Inspections	Inspection of Washington TRU Solutions (WTS) Quality Assurance Program	Docket A-98-49, II-A1-63. The EPA conducted an audit from August 3-5, 2004, of the Washington TRU Solutions Quality Assurance (QA) program. The audit showed that WTS has properly maintained its QA program since the last audit. EPA letter dated September 18, 2004.
194.21 Inspections	Inspection of the Quality Assurance (QA) Program at the DOE Carlsbad Field Office (CBFO)	Docket A-98-49, II-A1-66. EPA conducted an audit of the QA organization at CBFO November 16-17, 2004. The purpose was to confirm the continued compliance of the CBFO QA program with the Organization element of the Nuclear Quality Assurance (NQA) standards. One finding was identified. DOE took corrective measures. EPA letter dated December 21, 2004.
194.21 Inspections	Inspection of the QA Program at CBFO, Sandia National Laboratories (SNL), and WTS	Docket A-98-49, II-A1-70. EPA conducted a limited audit of CBFO, SNL, and WTS to confirm compliance with the organization element of Nuclear Quality Assurance (NQA) standards. These audits were conducted February 8-9, 2005, and identified one finding of non-conformance for CBFO. EPA letter dated April 15, 2005.
194.21 Inspections	Inspection of Waste Emplacement	Docket A-98-49, II-B3-71. EPA inspection for EPA-WIPP-6.04-28a (waste management and storage; Subpart A), EPA-WIPP-6.04-28b (waste emplacement), and EPA-WIPP-6.04-28c (certification monitoring parameters). These inspections were conducted the week of June 28, 2004. Waste emplacement and monitoring activities examined during the inspection were found to be consistent with the CCA as approved by EPA. EPA letter dated September 10, 2004.
194.21 Inspections	Inspection of Waste Emplacement	Docket A-98-49, II-B3-81. EPA inspection number EPA-WIPP-05021, Emplacement Inspection, was conducted the week of May 17-19, 2005. EPA letter dated July 8, 2005.
194.22(a) Quality Assurance	Table 2: Procedure Revision Table	Changes to SNL program documents and WTS plans and procedures are listed in Table 2. Documentation captures minor changes and improvements to the program during this reporting period.

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.22(a) Quality Assurance	CBFO Management Procedures	<p>EPA comments on changes to CBFO Management Procedures, (MP) 10.3, Audits, and MP 3.1, Corrective Action Reports. EPA letter dated March 3, 2005.</p> <p>MP 10.3, Audits, was revised effective April 25, 2005. It is now Revision 4. MP 3.1, Corrective Action Reports, was revised effective March 22, 2005. It is now Revision 7. Interim Change #1 to Management Procedure 3.1, Rev. 7, Corrective Action Reports, became effective May 20, 2005.</p>
194.22(a) Quality Assurance	CBFO Quality Assurance Program Document (QAPD) Rev. 6	<p>The QAPD was updated effective October 1, 2004, to reflect the new Carlsbad Field Office organization, including:</p> <ul style="list-style-type: none"> • CBFO Organization, Responsibilities, and Interfaces • CBFO Quality Assurance Manager Responsibilities • TRU Waste Characterization and Certification Organizational and Individual Responsibilities
194.22(a) Quality Assurance	Waste Generator Site - Los Alamos National Laboratory (LANL)	<p>Docket A-98-49, II-A1-62. EPA audit number A-04-05 of the CCP Quality Assurance program for WIPP at LANL was conducted April 27-29, 2004, and determined that LANL CCP's QA program complies with the requisite QA requirements for a TRU waste site. EPA letter dated November 5, 2004.</p>
194.22(a) Quality Assurance	Inspection of the QA Program at Idaho National Laboratory (INL)	<p>Docket A-98-49, II-A1-64. EPA inspected the QA program of INL's Advanced Mixed Waste Treatment Plant (AMWTP) August 17-19, 2004, and determined that the AMWTP QA program continues to be properly established and implemented. EPA letter dated November 15, 2004.</p>

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.22(a) Quality Assurance	Inspection of the QA Program of the CCP at the Los Alamos National Laboratory (LANL)	Docket A-98-49, II-A1-70. EPA inspected the Quality Assurance (QA) Program of the Central characterization Project (CCP) at the LANL April 12-15, 2005. EPA determined that the LANL CCP's QA program has been properly maintained. EPA letter dated June 28, 2005.
194.22(a) Quality Assurance	Inspection of the QA Program of the CCP at the Lawrence Livermore National Laboratory (LLNL)	Docket A-98-49, II-A1-61. EPA inspected the Quality Assurance (QA) Program of the Central Characterization Project (CCP) at the LLNL May 5-7, 2004. EPA determined that LLNL CCP's QA program complies with the requisite QA requirements. EPA letter dated July 21, 2004.
194.22(a) Quality Assurance	Inspection of QA Program of the CCP at the Nevada Test Site (NTS)	Docket A-98-49, II-A1-65. EPA inspected the Quality Assurance (QA) Program of the CCP at the NTS October 5-8, 2004. EPA determined that the NTS CCP QA program continues to be properly executed. EPA letter dated December 13, 2004.
194.22(a) Quality Assurance	Inspection of the QA Program of the CCP at Savannah River Site (SRS)	Docket A-98-49, II-A1-67. EPA audited the Quality Assurance (QA) Program of the CCP at the SRS October 26-28, 2004. EPA determined that the SRS CCP QA program continues to be properly executed. EPA letter dated December 23, 2004.
194.23 Models and computer codes	Table 4: Performance Assessment (PA) Software and Hardware Changes	The changes to PA software and hardware have been compiled and are located in Table 4. There were minor changes and improvements to the program during this reporting period.

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.24(c) Waste characterization and Appendix A to Part 194, conditions 2 and 3	Waste Generator Site - Hanford Site	DOE letter to EPA regarding the audits of debris and homogeneous solids at the Hanford Site. DOE letter dated October 18, 2004. EPA letter responding to DOE. EPA letter outlined changes required to ensure proper coordination on waste characterization programs at WIPP waste generator sites. EPA letter dated November 12, 2004.
194.24(c) Waste characterization and Appendix A to Part 194, conditions 2 and 3	Waste Generator Site – Nevada Test Site (NTS)	DOE letter to EPA notifying EPA of DOE’s intent to dispose of RFETS Classified TRU Waste stored at NTS. DOE letter dated 5/3/2005.
194.24(c) Waste characterization and Appendix A to Part 194, conditions 2 and 3	Waste Generator Site - Rocky Flats Environmental Technology Site (RFETS)	DOE requested approval for the proposed path forward for 21 compressed drums at RFETS. DOE letter dated December 14, 2004. EPA approved the DOE’s request to disposal of 21 compressed debris waste drums from RFETS. EPA letter dated March 9, 2005.
194.24(c) Waste characterization and Appendix A to Part 194, conditions 2 and 3	Waste Generator Site Waste Characterization Inspections	EPA Inspection number EPA-Hanford CCP-09.03-8 and Tier 1 Designation [Docket A-98-49, II-A4-51] EPA Inspection number EPA-CCP-SRS-09.04-24 [Docket A-98-49, II-A4-50] EPA Inspection number EPA-CCP-SRS-10.04-8 [Docket A-98-49, II-A4-49] EPA Inspection number EPA-INL-AMWTP-03.05-08 [Docket A-98-49, II-A4-53] EPA Inspection number EPA-INEEL-AMWTP-08.04-24 [Docket A-98-49, II-A4-47] EPA Inspection number EPA-LANL-CCP-OSRP-04.05-08 [Docket A-98-49, II-A4-55] EPA Inspection number EPA-Hanford-12.04-8 [Docket A-98-49, II-A4-54]

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.24(c) Waste characterization and Appendix A to Part 194, conditions 2 and 3	Waste Generator Sites Approved to Ship as of June 30, 2005	Hanford (RL) INL/AMWTP INL TWCP Labs LANL/CCP LLNL/CCP NTS/CCP RFETS SRS/CCP
194.42 Monitoring	Monitoring Wells	<p>The following new Culebra Member monitoring wells were drilled: SNL-13 SNL-14 SNL-15 SNL-8</p> <p>The following monitoring wells were plugged and abandoned: AEC-8 H-2a H-2c H-7b2 WIPP-29 H-3b3 H-6a H-11b1 WIPP-21 H-5a WIPP-22</p>

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.42 Monitoring	Monitoring Wells	<p>The following multiple completion monitoring wells were reconfigured to the Magenta Member:</p> <ul style="list-style-type: none"> H-2b1 H-14 H-18 H-4c H-3b1 H-6c H-11b2 WIPP-18 H-5c <p>The following monitoring wells were transferred to BLM:</p> <ul style="list-style-type: none"> H-7c H-8c <p>H-3d was reconfigured as a Dewey Lake/Santa Rosa Well. H-2b2 was evaluated and kept.</p>
194.42 Monitoring	Table 3: Waste Emplacement Summary Report	A summary of the TRU waste inventory that has been emplaced in the repository is presented in Table 3 of this report. The inventory description provides emplaced waste container volume and activity (curie content) in the repository as of June 30, 2005.
194.42 Monitoring	Delaware Basin Monitoring Annual Report DOE/WIPP-99-2308	DOE/WIPP-99-2308, Rev. 5, issued in September 2004. The time period for which this report is developed is September 1, 2003 through August 31, 2004.

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.42 Monitoring	WIPP Site Environmental Report Calendar Year 2003 DOE/WIPP 04-2225	DOE/WIPP 04-2225, WIPP CY2003 Site Environmental Report, September 2004. This report provides information and data on groundwater and meteorological monitoring.
194.42 Monitoring	WIPP Subsidence Monument Leveling Survey DOE/WIPP-05-2293	DOE/WIPP-05-2293, WIPP Subsidence Monument Leveling Survey, was issued in December 2004. Subsidence information obtained from surveys conducted August through November 2004, is included in the report.
194.42 Monitoring	Geotechnical Analysis Report for July 2003 – June 2004 DOE/WIPP 05-3177	DOE WIPP 05-3177, Geotechnical Analysis Report for July 2003 – June 2004, was issued in March 2005. A copy of this report is included with this report.
194.43 Passive Institutional Controls	Passive Institutional Controls	DOE/WIPP 04-2301, Passive Institutional Controls Implementation Plan, was issued August 19, 2004.
194.43 Passive Institutional Controls	Permanent Markers	DOE/WIPP 04-3302, Permanent Markers Implementation Plan, was issued August 19, 2004.

**Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR 194.4(b)(4)
July 1, 2004 through June 30, 2005**

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
194.44 Engineered Barriers	MgO	<p>DOE letter to EPA responding to request for an emplacement plan for MgO. DOE letter dated October 20, 2004.</p> <p>EPA letter responding to DOE. EPA required additional detail on MgO emplacement and declined to approve compressed waste until resolution of emplacement issues. EPA letter dated February 3, 2005.</p> <p>DOE letter responding to EPA with information on WWIS tracking, excess MgO calculation, and sack rupture/release capability. DOE letter dated March 8, 2005.</p> <p>EPA letter to DOE stated that the inspection of May17-19, 2005, fulfilled the conditions related to MgO outlined in the letter dated February 3, 2005, and EPA approved the emplacement of supercompacted waste. EPA letter dated May 19, 2005.</p> <p>On June 2, 2005, began disposal of supercompacted waste in Panel 2, Room 1. No disposal rooms with supercompacted waste were closed during this reporting period.</p>

Table 2: Procedure Revision Table
July 1, 2004 through June 30, 2005

Table 2: Procedure Revision Table

Procedure	Rev. & Effective Date	Description of Changes from 07/01/04 through 6/30/2005
Sandia National Laboratories (SNL) NP 12-1, Control of Measuring and Test Equipment (M&TE)	Rev. 5, 06/22/05	NP 12-1 was revised as follows: <ul style="list-style-type: none"> • Added section 2.1.5 to document maintenance activities of M&TE. • Added clarification to section 2.2.3 to the recording of the use of M&TE. • Minor editorial changes.
Sandia National Laboratories (SNL) NP 16-1, Corrective Action	Rev. 5, 06/28/05	NP 16-1 was revised as follows: <ul style="list-style-type: none"> • Added direction that any personnel may contact QA on a suspected or potential deviation so that QA may perform an investigation. • Added limits on the completion of corrective actions. Imposed a 1 year limit for completion of corrective actions with a maximum of 3 extension requests within that 1 year time frame. CARs/CAPs exceeding these limits will be elevated to a SCAQ with possible Stoppage of Work implications.
Sandia National Laboratories (SNL) NP 19-1, Software Requirements	Rev. 11, 08/09/04	The change was driven by an EPA finding (#4 March 2004), which called for a change to the requirements phase to allow the Verification and Validation Plan to be approved at the same time as the Requirements. Other changes include: <ul style="list-style-type: none"> • Allowing the Software QA Plan (SQAP) to be used as the baseline evaluation for acquired software. • A change to the Change Control (CC) and Software Problem Reporting (SPR) process to close SPRs on the CC form. • A change to the SPR form to combine the major and minor evaluations. • The addition of a continuation sheet for the CC and SPR form.
Sandia National Laboratories (SNL) NP 6-1, Document Review Process	Rev. 11, 10/07/04	Changes included: <ul style="list-style-type: none"> • Added language to clarify reviews of NPs, SPs, and scientific notebooks. • Removed reference section (Section 2.6). • Made minor editorial changes.
Sandia National Laboratories (SNL) SP 19-1, Regression Testing for Software Modifications or Platform Changes for the VMS Alpha Cluster	Rev. 0, 04/13/05	SP 19-1 is a new procedure that prescribes the process of performing “regression tests” that are required to be conducted after changes are made to Sandia National Laboratories (SNL) Waste Isolation Pilot Plant (WIPP) Production Software or after performing modifications or upgrades to the platform for running the Production Software or Operating System.

Table 2: Procedure Revision Table

Procedure	Rev. & Effective Date	Description of Changes from 07/01/04 through 6/30/2005
Sandia National Laboratories (SNL) SP 9-4, Performing FEPs Baseline Impact Assessments for Planned or Unplanned Changes	Rev. 0, 04/19/05	SP 9-4 is a new procedure that prescribes the method for assessing impacts to the FEPs baseline caused by planned or unplanned changes.
Sandia National Laboratories (SNL) SP 12-4, WIPP Hydrology DAS Calibration and Maintenance	Rev. 0, 05/10/05	SP 12-4 is a new procedure that details the calibration steps for the Data Acquisition System (DAS).
Washington TRU Solutions (WTS) D-0101, Specification for Prepackaging MgO Backfill	Rev. 6, 12/16/04	This procedure was changed to add the weight of the supersack to the label at the time of filling and added a requirement to provide calibration information for the scale that provided the weight every calibration period.
	Rev. 7, 05/12/05	This procedure was changed to specify that the super sack will be shipped on a support sheet and racks, provided by the purchaser, added ASTM specification for particle size, and added a range to the bulk density. It incorporated changes from ECO 11280.
Washington TRU Solutions (WTS) WP 02-PC.02, Delaware Basin Drilling Surveillance Plan	Rev. 1, 07/01/04	This procedure was revised to describe where, when and how the Delaware Basin information is obtained.
Washington TRU Solutions (WTS) WP 08-NT3020, TRU Waste Receipt	Rev. 10, 10/01/04	This revision added information on handling of Controlled Shipments (special process waste from sites other than LANL).
Washington TRU Solutions (WTS) WP 05-WH1011, CH Waste Processing	Rev. 20, 01/26/04	This revision updated the procedure to reference WP 08-NT3020 for controlled shipments and to add the MgO emplacement information.
	Rev. 21, 04/21/05	This revision added the MgO emplacement form and instructions and added information on handling of Controlled Shipments.
	Rev. 22, 05/12/05	This revision included only minor clarifications to MgO emplacement.

Table 2: Procedure Revision Table

Procedure	Rev. & Effective Date	Description of Changes from 07/01/04 through 6/30/2005
Washington TRU Solutions (WTS) 08-NT.01, WIPP Waste Information System Program and Data Management Plan	Rev. 11, 03/31/05 Rev. 12, 05/05/05	This revision updated the procedure to add MgO information and responses to requests from the public. This revision included only minor editorial changes.
Washington TRU Solutions (WTS) 08-NT.04, WIPP Waste Information System Configuration Management and Software Quality Assurance Program	Rev. 7, 01/27/05 Rev. 8, 02/07/05	This revision updated the procedure to provide additional direction on testing of changes to the WWIS. This revision updated the procedure to describe major and minor changes and processes for each.
Washington TRU Solutions (WTS) 08-NT.05, WIPP Waste Information System Software Verification and Validation Plan	Rev 3., 03/31/05	This revision added information of a software SQA and document sign-off sheet to be completed prior to moving changes into production.
Washington TRU Solutions (WTS) WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description	Rev. 25, 06/16/05	This revision added a definition for who is required to have training, information on suspect/counterfeit items, and information on acceptance of services.

Table 3: Waste Emplacement Summary Report

July 1, 2004 through June 30, 2005

Table 3: Waste Emplacement Summary Report

Emplaced TRU Waste Inventory				
	Reporting Period¹ Emplaced Container Volume (m³)		Cumulative Emplaced Container Volume (m³)	
CH TRU	7,982		29,628	
Waste Components Inventory				
	Reporting Period¹ Emplaced Mass (kg)	Cumulative Emplaced Mass (kg)	Maximum Emplacement Limiting Value² (kg)	Percent of Limiting Value² Emplaced
Cellulose, Plastic, Rubber Materials³	681,338	2,531,611	20,000,000	12.66%
	Reporting Period¹ Emplaced Mass (kg)	Cumulative Emplaced Mass (kg)	Minimum Emplacement Limiting Value² (kg)	Percent of Limiting Value² Emplaced
Fe-Metals⁴	2,023,400	8,428,750	20,000,000	42.14%
Non-Fe Metals	46,330	189,474	2,000	9473.70%
Residual Liquids	Liquid waste is prohibited at WIPP. The total residual liquid in any payload container shall not exceed one percent by volume of that payload container.			

Emplaced Radiological Activity Inventory (curies)			
Radionuclide	Cumulative Activity in FY 2004 Annual Change Report⁵	Reporting Period Activity⁵	Total Activity as of June 30, 2005⁵
²⁴¹ Am	1.40E+05	1.40E+04	1.54E+05
²³⁸ Pu	1.05E+04	1.82E+04	2.87E+04
²³⁹ Pu	2.06E+05	2.90E+04	2.35E+05
²⁴⁰ Pu	4.89E+04	6.80E+03	5.57E+04
²⁴² Pu	6.77E+00	7.90E-01	7.56E+00
²³³ U	4.99E-01	3.06E-01	8.05E-01
²³⁴ U	3.73E+00	3.83E+00	7.56E+00
²³⁸ U	8.67E+00	1.21E+00	9.88E+00
¹³⁷ Cs	1.22E+00	6.00E-02	1.28E+00
⁹⁰ Sr	1.39E+00	7.00E-02	1.46E+00
Total	4.05E+05	6.80E+04	4.73E+05

- | |
|--|
| 1. Reporting Period includes emplacement that occurred between 07/01/2004 and 6/30/2005. |
| 2. Limiting Value--Values from Docket A-93-02, II-B-2, CARD 24 These values are based on inventory assumptions and are not limited by the Land Withdrawal Act. These values are expected to change as inventory destined for WIPP changes and the PA is updated. |
| 3. Cellulose, Plastic, Rubber Materials (CPR) includes CPR within the waste, container materials and emplacement materials. |
| 4. Fe-Metals include both materials in the waste and containers in total. |
| 5. There is no decay correction for the listed isotope activities. |

**Table 4: Performance Assessment Software and
Hardware Changes**

July 1, 2004 through June 30, 2005

Table 4: Performance Assessment Software and Hardware Changes

WIPP Use Codes/Software and Code Version	Version Date	Description of Changes from 7/1/04 through 6/30/2005
CCDFGF Version 5.01	06/28/04	Added feature from PRECCDFGF (released for use 7/28/04).
CCDFGF Version 5.01A	08/02/04	Increase number of digits in output format.
PANEL Version 4.03	05/05/05	Removed a hardwired value.
POSTLHS Version 4.07A	05/02/05	Modified code so that output file names correspond to naming convention in other codes.
PRECCDFGF Version 1.00D	06/25/04	Removed the waste correction factor for RH waste from the calculation of spallings releases. (released for use 9/13/04).
NUMBERS Version 1.19	06/24/04	New baseline (released for use 7/30/04).
TWBID Version 3.13	08/25/04	Added new reports and corrected data.
CCDFGF Version 5.02	12/13/04	Modified "IF" statement and recompiled.
LHS Version 2.42	03/03/05	Modified sampling process.
CUTTINGS_S Version 6.00	03/17/05	Unnecessary functionality was removed and extensive modifications were made to make the code easier to read and maintain.
CUTTINGS_S Version 6.01	04/28/05	Modified Spallings Model 4 input to CUTTINGS_S.
CUTTINGS_S Version 6.02	06/16/05	Modified IF statement to correct physically unrealistic case.

Summary

The DOE believes the changes reported in WIPP Annual Change Report do not represent significant changes pertaining to the disposal system.

References

Delaware Basin Monitoring Annual Report, DOE/WIPP 99-2308, Revision 5, September 2004.

Geotechnical Analysis Report for July 2003 – June 2004, DOE/WIPP 05-3177, March 2005.

Passive Institutional Controls Implementation Plan, DOE/WIPP 04-2301, August 19, 2004.

Permanent Markers Implementation Plan, DOE/WIPP 04-3302, August 19, 2004.

Waste Isolation Pilot Plant 2003 Site Environmental Report, DOE/WIPP 04-2225, September 2004.

WIPP Subsidence Monument Leveling Survey, DOE/WIPP 05-2293, December 2004.