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COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND
ENVIRONMENTAL PROTECTION CABINET Office of Administrative Hearings
FILE NOS. DWM-31434-042 (includes DWM-00062, DWM-02162 and DWM-02163) DAQ-31740-030 and DOW-26141-042

NATURAL RESOURCES AND
ENVIRONMENTAL PROTECTION CABINET

PETITIONER

VS.

AGREED ORDER

UNITED STATES DEPARTMENT OF ENERGY

RESPONDENT

I. STATEMENT OF FACTS

1. The Natural Resources and Environmental Protection Cabinet (hereinafter the "Cabinet") is charged with the statutory duty of enforcing the statutes and administrative regulations of the Commonwealth of Kentucky relating to waste management as provided for under Kentucky Revised Statutes (KRS) Chapter 224 and the regulations promulgated thereunder.

2. The Respondent is the United States Department of Energy (hereinafter "DOE"). DOE is the owner of the Paducah Gaseous Diffusion Plant (hereinafter "PGDP"), a uranium enrichment facility, located near Paducah, Kentucky in McCracken County. PGDP is a "facility" as that term is defined in 401 KAR 32:005, Section 1(93); 401 KAR 34:005, Section 1(93); and 401 KAR 38:005, Section 1(93).

3. DOE is registered as a large-quantity hazardous-waste generator with EPA ID No. KY8 890 008 982.

4. DOE is a “person” as that term is defined by KRS 224.01-010(17); 401 KAR 32:005, Section 1(203); 401 KAR 34:005, Section 1(203); and 401 KAR 38:005, Section 1(203); 401 KAR 50:010 Section 1(98); and 401 KAR 63:001 Section 1(88).

5. DOE is an “owner or operator” as that term is defined by 401 KAR 50:010, Section 1(94) and 401 KAR 63:001 Section 1(84).

6. PGDP was an “affected facility” as that term is defined by 401 KAR 63:010, Section 2(1).

7. DOE was operating “air pollution control equipment” as that term is defined by 401 KAR 50:010, Section 1(5) at PGDP.

8. In 1981, DOE was issued a solid waste disposal permit for the C-746-S facility. DOE operated the facility until 1995, when it was closed.

9. In the early 1980s, DOE was issued a solid waste disposal permit for the C-746-T facility. DOE operated the facility until 1992, when it was closed.

10. On July 16, 1991, the Cabinet issued a Hazardous Waste Permit for the PGDP for the operation of treatment and storage units and post-closure care for a disposal unit and for conducting corrective action at all Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at the facility.

11. On September 10, 1995, the Secretary of the Cabinet entered a final Agreed Order to resolve DOE’s violation of KRS 224.46-520 and 401 KAR 37:050 with respect to mixed waste. The Agreed Order incorporated an approved Site Treatment Plan (STP) which outlined schedules for the treatment of mixed waste stored in violation of KRS 224.46-520 and 401 KAR 37:050.

12. In 1996, DOE was issued a solid waste disposal permit for the C-746-U facility. DOE is currently operating this contained landfill.

13. On April 1, 1998, the Cabinet issued a Kentucky Pollution Discharge Elimination System (KPDES) permit to DOE.

14. In 1998, DOE, the Cabinet and U.S. Environmental Protection Agency (USEPA) entered into a Federal Facility Agreement (FFA) pursuant to 42 U.S.C.A. Section 9620 that directs the comprehensive remediation of the PGDP.

15. In August 2003, DOE and the Commonwealth entered into a Letter of Intent (LOI), as set forth in Attachment A to this Agreed Order. The terms of the LOI, are incorporated into this section of the Agreed Order as if fully set forth herein.

A. ALLEGED LISTED HAZARDOUS WASTE VIOLATIONS

16. On May 3, 2002, DOE notified the Cabinet that certain drums of solid waste disposed of in Phases one (1) and two (2) of the C-746-U landfill may contain listed hazardous wastes (F001, F002, U228). Since that date, DOE has not placed any additional waste in those phases of the landfill.

17. On July 9, 2002, DOE notified the Cabinet that certain wastes disposed of in the C-746-S and C-746-T landfills may have been listed hazardous wastes (F001, F002, U228).

18. On November 13, 2002, the Cabinet issued Notices of Violation to DOE associated with the alleged disposal of listed hazardous waste in the C-746-S, C-746-T and C-746-U solid waste landfills. The following statutes and regulations were alleged as being violated: KRS 224.46-520(2) and 401 KAR 32:010(2); KRS 224.46-520(1) and

401 KAR 38:010(4); 401 KAR 47:040 3(3); 401 KAR 48:090, section 5. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to this matter.

19. On January 24, 2003, DOE notified the Cabinet that "an unknown, but potentially significant portion" of approximately 33,000 containers of waste currently being managed as low-level radioactive waste and/or Toxic Substances Control Act (hereinafter "TSCA") waste at the facility may contain listed hazardous wastes (F001, U228 and possibly F002). The potential listed wastes originated from trichloroethene (TCE) and 1,1,1-trichloroethane (TCA) from historic operations at PGDP. DOE's notice also set forth an analysis and proposal of appropriate site-specific health-based levels for TCE and TCA in waste for the Cabinet's approval. The Cabinet will review and approve health-based levels which will be used to make "contained-in" determinations for various investigation and remediation waste streams at the PGDP.

20. DOE categorized the 33,000 containers of waste currently being managed as low-level radioactive waste and/or TSCA waste into high, medium, and low probability of containing suspect listed hazardous waste.

21. DOE completed a review of the 33,000 containers of waste, consisting of an iterative process knowledge and data review procedure. This review has determined that the containers identified in Attachment B to this Agreed Order are suspected to contain listed hazardous waste. These suspect wastes were identified because they (a) originated from areas known to be contaminated with TCE listed hazardous waste; (b) came from areas that were likely to have been contaminated with TCE listed hazardous

waste; or (c) were derived from handling any of the wastes described in subsection (a) or (b) of this paragraph.

22. The containers listed in Attachment B consist of containers of environmental media and debris. The containers of environmental media store soils, drill cuttings, sediments, groundwater, purge/well development water, and sample residuals. The debris containers store personal protective equipment (PPE), plastic, materials related to a monitoring well abandonment (grout, concrete, well casing and riser pipe), and other miscellaneous materials. Attachment B to this Agreed Order identifies which containers hold environmental media and which containers contain environmental debris.

23. All of the containers identified in Attachment B, currently are stored in areas that DOE has previously identified as SWMUs in its Part B Hazardous Waste Permit application. Attachment C sets forth a list of the SWMUs where such containers are stored.

24. Although the Cabinet has not yet issued a notice of violation with respect to DOE's January 24, 2003 submission, the Cabinet believes that there are statutory and regulatory violations and potential violations of KRS 224.46-510 and 401 KAR 32:010 (requirement to make a hazardous waste determination), KRS 224.46-520 and 401 KAR 38:010 (unpermitted storage of hazardous waste), 401 KAR 32:030 (pre-transport requirements), 401 KAR Chapter 37 (land disposal restrictions), 401 KAR 34:010-34:070 and 34:180, other provisions of KRS 224 Subchapter 46, other provisions of 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit with respect to these containers.

25. On or about April 9, 2003, DOE notified the Cabinet that it has transported containers of suspect listed hazardous wastes to certain off-site locations, as

non-hazardous waste. Although the Cabinet has not yet issued a notice of violation with respect to DOE's April 9, 2003, submission, the Cabinet believes that there are statutory and regulatory violations and potential violations of KRS 224.46-510 and 401 KAR 32:010 (requirement to make a hazardous waste determination), 401 KAR 32:030 (pre-transport requirements), other provisions of KRS 224 Subchapter 46, other provisions of 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit. The Cabinet also believes that such violations and potential violations also would exist if other incidents of transport of suspect listed waste (F001, F002, U228) containers to off-site locations are discovered.

B. ALLEGED DOE MATERIAL STORAGE AREA VIOLATIONS

26. The United States Enrichment Corporation ("USEC") has, since July 1, 1993, leased, and operated portions of the PGDP, subject to the lease provisions between DOE and USEC.

27. On or about December 31, 1996, the lease with USEC was modified deleting certain areas from those previously leased by USEC. DOE refers to the areas deleted from the USEC lease as DOE Material Storage Areas (DMSAs). As of December 7, 2000, DOE has identified approximately one hundred sixty (160) DMSAs.

28. On or about April 4, 2000, pursuant to 42 U.S.C.A. Section 6907, the USEPA issued a request for information to DOE with respect to the DMSAs.

29. On or about May 17, 2000, DOE submitted a response to EPA's request for information. Beginning on June 12, 2000, the Cabinet conducted a series of inspections of the DMSAs.

30. On September 5, 2000, the Cabinet issued a Notice of Violation (NOV) to DOE. The Cabinet alleged that DOE violated KRS 224.46-510 and 401 KAR 32:010 by failing to conduct a waste determination for wastes generated at the facility and managed in the DMSAs; violated Part IV. B. of the Hazardous Waste Permit and 401 KAR 34:060 by failing to notify the Cabinet of newly discovered SWMUs and AOCs; and violated KRS 224.46-520; 401KAR 38:010; 401 KAR 32:030, Section 5; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the C-400-04 DMSA. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

31. On December 4, 2000, DOE submitted a Characterization/Remediation Plan for the DMSAs. The Cabinet reviewed the plan and provided comments.

32. On April 16, 2001, DOE submitted a revised DMSA Characterization/Remediation Plan.

33. Although the Cabinet had not approved the Plan, the Cabinet informed DOE that it would place no restriction on DOE's performance of characterization activities prior to approval of the Plan.

34. On July 31, 2001, the Cabinet issued a NOV to DOE alleging violations of KRS 224.46-520; 401 KAR 38:010; 401 KAR 32:030, Section 5; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the C-331-10 DMSA. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

35. On October 9, 2001, the Cabinet issued a NOV to DOE alleging violations of KRS 224.46-520; 401 KAR 38:010; 401 KAR 32:030, Section 5; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the C-335-05, C-331-15 and C-333-31 DMSAs. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

36. On January 18, 2002, the Cabinet issued a NOV to DOE. The Cabinet alleged that DOE violated KRS 224.46-510 and 401 KAR 32:010 by failing to conduct a waste determination for wastes generated at the facility and managed in SWMUs 206 (C-753-A), 464 (C-746-A) and 159 (C-746-H3 pad), and violated KRS 224.46-520; 401 KAR 38:010, Section 4; 401 KAR 32:030, Section 5; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the following Solid Waste Management Units: 206 (C-753-A), 159 (C-746-H3 pad), 214 (DMSA OS-3), 216 (DMSA OS-5), 220 (DMSA OS-9), 222 (DMSA OS-11), 223 (DMSA OS-12), 249 (DMSA C-331-15), 287 (DMSA C-333-31), 351 (DMSA C-400-05), 354 (DMSA C-409-01), 355 (DMSA C-409-02) and 464 (C-746-A). The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

37. On or about February 28, 2002, the Cabinet issued a NOV to DOE. The Cabinet alleged that DOE violated KRS 224.46-510 and 401 KAR 32:010 by failing to conduct a waste determination for wastes generated at the facility and managed in SWMUs 248 (DMSA C-331-14), 287 (DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02), and violated KRS 224.46-520; 401KAR 38:010, Section 4; 401

KAR 32:030, Section 5; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the following SWMUs: 248 (DMSA C-331-14), 287 (DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02). The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

38. On or about March 11, 2002, the Cabinet issued a NOV to DOE. The Cabinet alleged that DOE violated KRS 224.46-510 and 401 KAR 32:010 by failing to conduct a waste determination for wastes generated at the facility and managed in SWMUs 287 (DMSA C-333-31), and 355 (DMSA C-409-02), and violated KRS 224.46-520; 401 KAR 38:010, Section 4; 401 KAR 32:030, Section 5; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the following SWMUs: 287 (DMSA C-333-31), and 355 (DMSA C-409-02). The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

39. On or about November 6, 2002, the Cabinet issued a NOV to DOE. The Cabinet alleged that DOE violated KRS 224.46-510 and 401 KAR 32:010 by failing to conduct a waste determination for wastes generated at the facility and managed in SWMUs 287 (DMSA C-333-31), 351 (DMSA C-400-05), 219 (DMSA OS-8), 277 (DMSA C-333-21), 276 (DMSA 333-20), 240 (DMSA C-331-06), 239 (DMSA 331-05), 231 (DMSA C-310-02), 250 (DMSA C-331-16) and 464 (C-746-A West End Smelter), and violated KRS 224.46-520; 401 KAR Chapter 32; 401 KAR Chapter 34; 401 KAR 38:010, Section 4; 401 KAR 32:030, Section 5; 401 KAR 38:030, Section 1; and Part II of the permit with respect to hazardous and/or mixed wastes stored in the following Solid

Waste Management Units: 287 (DMSA C-333-31), 351 (DMSA C-400-05), 219 (DMSA OS-8), 277 (DMSA C-333-21), 276 (DMSA C-333-20), 240 (DMSA C-331-06), 239 (DMSA C-331-05), 231 (DMSA C-310-02), 250 (DMSA C-331-16) and 464 (C-746-A West End Smelter). The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

40. As DOE has continued to characterize the DMSAs, the Cabinet alleges that additional violations of KRS 224 Subchapter 46 and 401 KAR Chapters 30-40 have been discovered. Further, as DOE continues to characterize the DMSAs, the Cabinet believes that additional violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit will be discovered in the DMSAs.

C. OTHER ALLEGED HAZARDOUS WASTE VIOLATIONS

41. On September 28, 1999, the Cabinet issued a NOV to DOE alleging violations of certain conditions of DOE's Hazardous Waste Permit (failure to report planned changes in SWMU 194). DOE completed the required remedial measures on or about October 1, 1999. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to this matter.

42. On January 14, 2000, the Cabinet issued a NOV to DOE alleging violation of DOE's Hazardous Waste Permit (failure to maintain systems of treatment and control and failure to take reasonable steps to minimize releases on the northern boundary of SWMUs 12, 14, and 15). DOE completed the required remedial measures on or about

March 21, 2000. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

43. On May 23, 2000, the Cabinet issued a NOV to DOE alleging violation for failing to analyze and sample groundwater from the C-404 landfill for all parameters required pursuant to the conditions of DOE's Hazardous Waste Permit. DOE completed the required remedial measures on or about July 7, 2000.

44. On August 8, 2000, the Cabinet issued a NOV alleging a violation of 401 KAR 34:180, Section 8 in the C-752-A storage facility. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to this matter.

45. On or about December 2001, through March 2002, DOE conducted sampling in Sections 1 and 2 of the North/South Diversion Ditch (SWMU No. 59) without notifying the Cabinet of the work in this SWMU. Although the Cabinet has not issued a Notice of Violation with respect to this failure, the Cabinet believes that DOE violated Condition III.E.10 of its Hazardous Waste Permit and that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and other provisions of DOE's Hazardous Waste Permit may have occurred with respect to this matter.

46. Beginning on May 6, 2002, the Cabinet conducted a series of inspections of DOE's hazardous waste facility.

47. On November 4, 2002, the Cabinet issued a NOV to DOE for various alleged violations of Kentucky's hazardous waste regulations observed during the May 2002 inspections. The following violations were alleged: 401 KAR 32:040, sections 1 and 2; 401 KAR 34:020, section 7; 401 KAR 37:010, section 7; 401 KAR 34:050, section 6; 401 KAR 32:030, section 5(1)(b); and 401 KAR 35:180, section 5. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to these matters.

48. On or about January 3, 2003, DOE began the C-415 waste sorting project. During the waste sorting, DOE discovered the presence of hazardous waste in some of the containers. Although the Cabinet has not issued a NOV, the Cabinet believes that there are statutory and regulatory violations and potential violations of KRS 224.46-510 and 401 KAR 32:010 (failure to make a waste determination); KRS 224.46-520 and 401 KAR 38:010 (unpermitted storage of hazardous waste); 401 KAR 32:030 (pre-transport requirements); 401 KAR Chapter 37 (land disposal restrictions); and 401 KAR 34:010-070 and 34:180; other provisions of KRS 224 Subchapter 46, other provisions of 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit with respect to this matter.

49. On or about March 5, 2003, DOE began the sorting and repackaging of 280 m³ of PCB/Radioactive waste currently located at the C-753-A building. During the waste sorting and repackaging, DOE discovered the presence of hazardous waste in some of the containers. Although the Cabinet has not issued a NOV, the Cabinet believes that there are statutory and regulatory violations and potential violations of KRS 224.46-510 and 401 KAR 32:010 (failure to make a waste determination); KRS 224.46-520 and 401

KAR 38:010 (unpermitted storage of hazardous waste); 401 KAR 32:030 (pre-transport requirements); 401 KAR Chapter 37 (land disposal restrictions); 401 KAR 34:010-070 and 34:180; other provisions of KRS 224 Subchapter 46, other provisions of 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit with respect to this matter.

50. On or about February 28, 2003, DOE notified the Cabinet that it had failed to conduct the annual external inspection of storage tanks at C-733 for fiscal year 2002. Although the Cabinet has not issued a NOV with respect to this notification, the Cabinet believes that DOE violated or potentially violated 401 KAR 34:190, KRS 224 Subchapter 46, other provisions of 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit by failing to conduct this inspection.

51. On or about February 28, 2003, DOE notified the Cabinet that it had exceeded the ninety (90) day accumulation time for hazardous waste at the T-746-S-01 accumulation area by one (1) day. Although the Cabinet has not issued a NOV with respect to this notification, the Cabinet believes that DOE violated 401 KAR 32:030. The Cabinet also believes that other violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to this matter.

52. On March 4, 2003, the Cabinet notified DOE of the need to comply with Condition IV.B.3 (notification of new SWMUs) of its Hazardous Waste Permit with respect to the leachate transfer pipeline from the C-404 sump to the North/South Diversion Ditch. Although the Cabinet has not issued a NOV with respect to this issue, the Cabinet believes that DOE violated or potentially violated its Hazardous Waste

Permit, KRS 224 Subchapter 46, and 401 KAR Chapters 30-40 with respect to this matter.

53. On August 25, 2003, the Cabinet was notified that excavation in SWMU 84 had occurred without prior notice to the Cabinet. The event occurred when approved excavation work in SWMU 526 (to repair a water line) extended beyond that SWMU into SWMU 84. Although the Cabinet has not issued a NOV with respect to this failure, the Cabinet believes that DOE violated or potentially violated its Hazardous Waste Permit, KRS 224 Subchapter 46, and 401 KAR Chapters 30-40 with respect to this matter.

54. On or about July 30, 2001, the Cabinet issued a NOV to DOE alleging that DOE had failed to provide an abandonment and replacement workplan for C-404 landfill monitoring well MW-87. The Cabinet believes that violations and potential violations of KRS 224 Subchapter 46, 401 KAR Chapters 30-40, and DOE's Hazardous Waste Permit may have occurred with respect to this matter.

D. ALLEGED AIR QUALITY VIOLATIONS

55. The Cabinet conducted inspections at PGDP on August 7, 1997 and July 13, 2000.

56. On or about July 24, 2000, the Cabinet issued a NOV with an accompanying Inspection Report to DOE for allegedly violating KRS 224; 401 KAR 63:010 (for DOE's alleged failure to prevent particulate matter from becoming airborne); and 401 KAR 50:055, Section 2(5) (for DOE's alleged failure to maintain and operate air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions). An inspection on August 3, 2000, revealed that DOE had subsequently taken reasonable precautions to prevent the alleged fugitive

emissions reported in the July 13, 2000, Inspection Report. The Cabinet also believes that other violations and potential violations of KRS Subchapter 20, 401 KAR Chapters 50-63, and the applicable air permit may have occurred with respect to this matter.

57. During September 2003, the Cabinet conducted an in-office file review to determine DOE's compliance with the alleged requirement to submit an Annual Compliance Certification. The file review indicated that DOE allegedly has failed to submit a required Annual Compliance Certification for 2002. On September 11, 2003, the Cabinet issued a NOV alleging a violation of 401 KAR 52:020, Section 21. The Cabinet also believes that other violations and potential violations of KRS Subchapter 20, 401 KAR Chapters 50-63, and the applicable air permit may have occurred with respect to this matter.

58. On September 4, 2003, the Cabinet issued a letter to DOE alleging that a Site Inspection had found that certain recommended actions specified by the Kentucky Division Air Quality for the 6 Phase Project had not been met. Although the Cabinet has not issued a NOV with respect to this matter, the Cabinet also believes that violations and potential violations of KRS Subchapter 20, 401 KAR Chapters 50-63, and the applicable air permit may have occurred with respect to this matter.

E. ALLEGED WATER QUALITY VIOLATIONS

59. On or about March 17, 2003, the Cabinet issued a NOV to DOE for an alleged violation of 401 KAR 5:065 1(1) with respect to Outfall 001. The Cabinet also believes that other violations and potential violations of KRS Subchapter 70, 401 KAR Chapter 5, and the applicable water permit may have occurred with respect to this matter.

60. On March 20, 2003, DOE submitted a Toxicity Reduction Evaluation Plan in response to the NOV.

61. On or about November 23, 1999, the Cabinet issued a NOV to DOE for alleged permit violations of Whole Effluent Toxicity Limits at Outfall 001. The Cabinet also believes that other violations and potential violations of KRS Subchapter 70, 401 KAR Chapter 5, and the applicable water permit may have occurred with respect to this matter.

62. On or about February 28, 2001, the Cabinet issued a NOV to DOE for alleged failure to submit a Discharge Monitoring Report (DMR) for Outfall 017-X. The Cabinet believes that violations and potential violations of KRS Subchapter 70, 401 KAR Chapter 5, and the applicable water permit may have occurred with respect to this matter.

NOW THEREFORE, in the interest of settling all civil claims and controversies with respect to the above-referenced violations and potential violations addressed herein, the parties hereby consent to the entry of this Agreed Order and agree as follows:

II. REMEDIAL MEASURES

A. CONTAINED IN DETERMINATIONS AT THE PGDP

63. In the event that DOE intends to obtain a contained-in determination for environmental media or a determination that debris is no longer contaminated with listed hazardous waste, DOE and the Cabinet shall follow the protocols outlined in Attachment D. The specific requirements for characterization and sampling to support contained-in determinations will be approved by the Cabinet on a project-specific basis, consistent with Attachment D. The site-specific health-based levels for determining whether

contaminated media/debris still contains or is no longer contaminated with listed hazardous waste (TCE and 1,1,1 TCA) are as follows: TCE-39.2 ppm for solids and 1,1,1 TCA-2080 ppm for solids. The site-specific health-based levels for determining whether contaminated groundwater destined for on-site treatment and discharge through KPDES permitted outfalls (e.g., groundwater resulting from well-purging, well development, and well sampling) still contains listed hazardous waste (TCE and 1,1,1 TCA) are as follows: .081 ppm TCE. Groundwater that meets the health-based level for TCE shall also be deemed to no longer contain 1,1,1 TCA.

64. Solids that are determined to be below the levels set forth in paragraph 63 and that are not characteristically hazardous but that cannot be disposed in the C-746-U landfill shall be deemed to no longer contain or to no longer be contaminated with listed hazardous waste (F001, F002, U228) and may be managed in accordance with applicable low-level waste and TSCA requirements until dispositioned to an appropriate off-site facility. The Cabinet agrees to consult with DOE and the State where the off-site facility is located to reach agreement on the appropriate health-based standard for making contained-in determinations for wastes that are to be shipped to such facility. In making contained-in determinations pursuant to paragraph 63, the Cabinet is not making any determination regarding the nature or characteristic of the suspect listed waste at any time prior to the date of the contained-in determination.

B. CHARACTERIZATION OF DMSAs

65. As of the date of entry of this Agreed Order by the Secretary, the Cabinet has approved the Characterization/Sampling and Analysis Plan for the waste stored in the approximately one hundred sixty (160) DMSAs, as set forth in Attachment E.

66. DOE shall complete the enforceable requirements of the Characterization/Sampling and Analysis Plan as set forth in Attachment E according to the following schedule:

- A. All Priority A DMSAs by **September 30, 2004.**
- B. All Priority B DMSAs by **September 30, 2006.**
- C. All Priority C DMSAs by **September 30, 2009.**
- D. The C-400-05 DMSA by **September 30, 2004.**

The Priority A, Priority B, and Priority C DMSAs are identified in Attachment F. If any of the containers identified in Attachment B are located in Priority C DMSAs, DOE shall comply with the requirements of the Container Sampling and Analysis Plan, Attachment G with respect to such containers by September 30, 2007.

67. Within sixty (60) days of receipt of final validated data for entry into the OREIS database for each DMSA, DOE shall submit a characterization report (following the format of the model characterization report in Attachment H which outlines the work completed pursuant to the approved Characterization/Sampling and Analysis Plan. For purposes of this Agreed Order "final validated data" means data that has gone through validation/evaluation including independent evaluation of laboratory adherence to analytical method requirements; data quality checks; integration and evaluation of all information associated with a data result; evaluation of data authenticity, data integrity, data usability, outliers, and other precision, accuracy, representativeness, completeness, and comparability parameters. The Cabinet will review DOE's characterization report and either approve the report or issue a written Notice of Deficiency delineating the specific deficiencies and the changes that DOE needs to make to correct the identified

deficiencies. DOE shall respond to the deficiencies and resubmit the report within thirty (30) days of receipt of written notice from the Cabinet. The Cabinet will review the revised report and either approve the revised report or issue a second Notice of Deficiency. Upon receipt of the second Notice of Deficiency, DOE shall comply with the requirements in Paragraphs 118-126.

68. On an annual basis until January 1, 2010, DOE shall submit revisions to its Part A Hazardous Waste Permit to include identification of additional DMSAs identified as storing (for a period of time exceeding the limits set forth in 401 KAR 32:030) characteristic hazardous waste or listed hazardous waste in excess of contained-in levels without a permit during characterization of DMSAs. This paragraph shall not apply to waste identified as newly generated waste during implementation of the DMSA Characterization/Sampling and Analysis Plan. For the purposes of this Agreed Order, newly generated waste shall include fluids drained from equipment located in inside DMSAs.

69. On an annual basis until January 1, 2010, DOE shall submit revised SWMU Assessment Reports as required in its Hazardous Waste Permit for each of the DMSAs where DOE has identified newly discovered characteristic or listed waste above contained-in levels that has been stored without a permit in excess of the time limits set forth in 401 KAR 32:030.

70. Within twenty (20) days of receipt of final validated data for entry into the OREIS database, where such final data establishes the presence of any newly discovered characteristic hazardous waste or listed hazardous waste in excess of contained-in levels being stored in a DMSA in excess of the time limits set forth in 401 KAR 32:030 without

a hazardous waste permit, DOE shall properly label such wastes per 401 KAR 32:030 and 401 KAR 34:180 and move the wastes to RCRA compliant storage areas (e.g., permitted storage, Satellite Accumulation Areas) and provide notification to the Cabinet identifying the type of waste, the DMSA it had been stored in, and the date the hazardous or mixed waste was moved to RCRA compliant storage, and, where appropriate, the anticipated permitted storage location to which such waste will be sent. This notification shall supercede the 24 hour additional generator notification requirement outlined in the Cabinet's August 29, 2001 letter.

71. Based on final validated data that has been received for entry into the OREIS database, DOE shall include all newly discovered mixed waste in the annual update for the STP in accordance with the September 10, 1997 Agreed Order (File No. DWM-30039-042).

C. CHARACTERIZATION OF CONTAINERS THAT MAY CONTAIN LISTED HAZARDOUS WASTE

72. Within thirty (30) days of the entry of this Agreed Order by the Secretary, DOE shall begin implementation of the Container Management Plan set forth in Attachment I. Within one hundred twenty (120) days of the entry of this Agreed Order by the Secretary, DOE shall manage the containers identified in Attachment B that are being stored in unpermitted storage units in accordance with the Container Management Plan set forth in Attachment B. The requirements of this paragraph shall terminate with respect to (a) any container that holds hazardous waste, once the container has been moved to RCRA compliant storage (e.g., permitted storage, Satellite Accumulation Areas) or (b) any container that has been characterized pursuant to the Container

Sampling and Analysis Plan and determined to no longer contain hazardous waste or contaminated debris.

73. DOE shall implement the Container Sampling and Analysis Plan set forth in Attachment G of this Agreed Order for the containers listed in Attachment B of this Agreed Order. The containers identified in Attachment B as being “previously characterized” have been sufficiently characterized for purposes of making a contained-in determination, and no further characterization or sampling for those containers is required under this Agreed Order. Based on the review of the characterization data, the Cabinet hereby grants DOE’s January 24, 2003 contained-in request that the wastes in the containers no longer contain listed hazardous waste. In making this determination, the Cabinet makes no determination regarding the nature or characteristics of the wastes in the containers at any time prior to January 24, 2003. Based on this determination, the wastes in the containers and the containers themselves do not require management as hazardous wastes, and no further action is required under this Agreed Order for the containers.

74. DOE shall complete implementation of the Container Sampling and Analysis Plan, set forth in Attachment G by September 30, 2007. During implementation of the Container Sampling and Analysis Plan, DOE may request a revision of the sampling protocols. The Cabinet will review DOE’s requested revision and either approve the revision or issue a Notice of Deficiencies identifying the specific deficiencies and include an explanation of the Cabinet’s position. DOE shall respond to the deficiencies and resubmit the sampling protocol within thirty (30) days of receipt of written notice from the Cabinet. The Cabinet will review the revised protocol and either approve the revised protocol or issue a second Notice of Deficiencies. Upon receipt of

the second Notice of Deficiencies, DOE may either invoke the consultation process of this Agreed Order, revise the protocol as requested by the Cabinet, or withdraw the proposed revision.

75. Within sixty (60) days of receipt of final validated data for entry into the OREIS database for each distinct storage area designated in Attachment J, DOE shall submit its contained-in determination and all supporting analytical data to the Cabinet. The Cabinet will review DOE's determination and supporting analytical data and provide DOE with notification of any concerns the Cabinet has within thirty (30) days. The site-specific health-based levels for determining whether contaminated media/debris still contains or is no longer contaminated with hazardous waste are as follows: TCE-39.2 ppm for solids; and 1,1,1 TCA-2080 ppm for solids. The site-specific health-based levels for determining whether contaminated groundwater destined for on-site treatment and discharge through KPDES permitted outfalls (e.g., groundwater resulting from well-purging, well development, and well sampling) still contains listed hazardous waste (TCE and 1,1,1 TCA) are as follows: .081 ppm TCE. Groundwater that meets the health-based level for TCE shall also be deemed to no longer contain 1,1,1 TCA.

76. Solids that are determined to be below the levels set forth in paragraph 75 and that are not characteristically hazardous but that cannot be disposed in the C-746-U landfill shall be deemed to no longer contain or to no longer be contaminated with listed hazardous waste (F001, F002, U228) and may be managed in accordance with applicable low-level waste and TSCA requirements until dispositioned to an appropriate off-site facility. The Cabinet agrees to consult with DOE and the State where the off-site facility is located to reach agreement on the appropriate health-based

standard for making contained-in determinations for wastes that are to be shipped to such facility.

77. Environmental media and debris addressed pursuant to the site-wide contained-in protocol set forth in Attachment D, and established to contain concentrations of TCE and TCA below the health-based contained-in levels set forth therein, shall be deemed not to contain or not to be contaminated with listed hazardous wastes. Containers holding contaminated media/debris that no longer contain or are not contaminated with a listed hazardous waste (and are not otherwise hazardous by characteristic) do not need to be managed as hazardous waste. No further actions shall be required for such waste containers under this Agreed Order. Determinations under this paragraph shall be based upon the results from the Container Sampling and Analysis Plan. In making contained-in determinations pursuant to paragraphs 75-77, the Cabinet is not making any determination regarding the nature or characteristic of the suspect listed waste at any time prior to the date of the contained-in determination.

78. On an annual basis until January 1, 2008, DOE shall submit revisions to its Part A Hazardous Waste Permit to include identification of additional non-DMSA SWMUs storing characteristic hazardous waste or listed hazardous waste in excess of contained-in levels without a permit during characterization of non-DMSA SWMUs. For all the containers in a given SWMU, where DOE has identified newly discovered characteristic hazardous wastes or listed hazardous wastes above contained-in levels, DOE shall prepare and submit a revised SWMU Assessment Report in accordance with condition IV.B.3 of its Hazardous Waste Permit on an annual basis until January 1, 2008. This paragraph shall not apply to newly generated waste.

79. Within twenty (20) days of receipt of final validated data for entry into the OREIS database for the waste in individual containers, DOE shall, in accordance with 401 KAR 32:030 and 401 KAR 34:180, properly label all hazardous waste or mixed waste identified and move the wastes to available RCRA compliant storage areas (e.g., permitted storage, Satellite Accumulation Areas).

80. For each SWMU, within twenty (20) days of DOE's receipt of final validated data for entry into the OREIS database from the Container Sampling and Analysis Plan, DOE shall notify the Cabinet of the type of any hazardous waste discovered, the SWMU it had been stored in, the date the hazardous or mixed waste was moved to available RCRA compliant storage areas (e.g., permitted storage, Satellite Accumulation Areas), and, where appropriate, the permitted storage unit to which it was, or is anticipated to be, moved.

81. In the annual update for the STP, DOE shall include all newly discovered mixed waste identified during the implementation of the Container Sampling and Analysis Plan for the previous year in accordance with the terms and conditions of the September 10, 1997, Agreed Order and approved STP for mixed waste.

82. Based on the Cabinet's review of DOE's screening process referred to in Paragraph 21, the balance of the approximately 33,000 containers referenced in paragraph 19 of this Agreed Order (generated prior to February 5, 2002) and not listed in Attachment B of this Agreed Order do not require any further characterization for F001, F002, and/or U228 listed wastes. No further action will be required for these containers under this Agreed Order. This determination is based on the Cabinet's review of DOE's screening process, a site visit by Cabinet personnel to conduct a record review of

information pertaining to the screening process, and discussions with site personnel involved in conducting the screening process. The Cabinet reserves the right to require additional characterization of the containers based on additional information.

D. CLOSURE REQUIREMENTS FOR UNPERMITTED HAZARDOUS

WASTE STORAGE UNITS

1. Closure, Post-Closure, and Corrective Action for Groundwater for All

Units

83. For DMSA and non-DMSA SWMUs requiring closure under this Agreed Order, DOE has the option to (a) conduct final closure, (b) conduct partial closure (excluding subsurface soils and groundwater), with final closure (including subsurface soils and groundwater) to be deferred to response actions selected and implemented under the FFA, or (c) solely for inside units, defer any closure activity to response activities to be selected and implemented under the FFA.

84. If any activities for final closure for a unit are deferred to response actions selected and implemented under the FFA, any necessary post-closure or groundwater corrective action for such unit shall also be deferred to response actions selected and implemented under the FFA. Pursuant to CERCLA Section 121 (e)(1), modification of DOE's Part B Hazardous Waste Permit to include closure, post-closure care or groundwater corrective action requirements is not required for closure, post-closure and groundwater corrective action deferred to the FFA under this Agreed Order. DOE will submit appropriate permit documentation for units not deferred to the FFA.

85. Corrective action for groundwater shall not be required for any unit under this Agreed Order that is, or may be deemed in the future to be, a hazardous waste management unit, including DMSAs, non-DMSAs, and the C-746-U, -S, and -T landfills, unless substantial evidence affirmatively establishes that a contaminant of concern in groundwater is a result of a release of hazardous waste or hazardous constituents from that unit. Corrective action for groundwater so linked to a unit shall be deferred to response actions to be selected and implemented under the FFA. The groundwater remediation decision process will consider Alternative Contaminant Levels, alternative points of compliance, natural attenuation, cost-effectiveness (as required by CERCLA) and technical practicability.

86. For all inside and outside units being deferred to response actions selected and implemented under the FFA, the closure, post-closure and groundwater protection standards will be considered, and selected (or waived) as appropriate, as Applicable, Relevant and Appropriate Requirements (ARARs) in accordance with the Comprehensive Environmental Compensation and Liability Act (CERCLA) and FFA processes and standards. Such units will be treated as SWMUs under the FFA. The CERCLA requirements, including the CERCLA nine criteria for selecting remedial actions (as well as ARARs), will guide selection of a response action for such units. Schedules for selecting and implementing a response action for all such units will be established by FFA procedures. For the purposes of making ARARs determinations under the FFA, the Cabinet agrees that its groundwater corrective action requirements should not be considered to be ARARs for the purposes of making groundwater remediation decisions for a unit unless there is substantial evidence that affirmatively

establishes that a contaminant of concern in the groundwater is a result of a release of a hazardous waste or hazardous constituent from such unit. For purposes of making ARARs determinations under the FFA, the Cabinet agrees that its closure/post-closure requirements should only be considered to be ARARs for such a unit where hazardous waste is discovered which has been stored in excess of the time frames established in the KAR, and, with respect to potentially listed hazardous waste, where the contained-in levels in Attachment D have been exceeded

87. Unless otherwise specifically provided in this Agreed Order, for all units addressed under this Agreed Order, including DMSAs, non-DMSAs, and the C-746-U, -S, and -T landfills: (a) closure and post-closure requirements shall only apply for units where hazardous waste is discovered which has been stored in excess of the time frames established in the KAR, and, with respect to potentially listed hazardous waste, where the contained-in levels in Attachment D have been exceeded; and (b) groundwater corrective action requirements shall not apply unless substantial evidence affirmatively establishes that a contaminant of concern in groundwater is a result of a release of a hazardous waste or a hazardous constituent from the unit in question.

88. For all units addressed under this Agreed Order, including DMSAs, non-DMSAs, and the C-746-U, -S, and -T landfills, closure and post-closure requirements of this Agreed Order (including the final ("clean") closure and partial-closure standards referenced below), shall not apply to contamination within or from a unit unless the contamination is a result of a release of hazardous waste from such unit.

2. DMSAs and Non-DMSA SWMUs

89. Within one-hundred twenty (120) days of completion of characterization of a DMSA or non-DMSA SWMU and receipt of final validated data for entry into the OREIS database, where the data or process knowledge demonstrates that characteristic hazardous waste or listed hazardous waste in excess of contained-in levels has been stored in unpermitted areas, DOE shall either submit a closure plan for the DMSA or non-DMSA SWMU identified as an unpermitted hazardous waste storage unit at PGDP, or if the unit is an inside DMSA or inside non-DMSA SWMU, submit a notification to the Cabinet that closure will be deferred to response actions selected and implemented under the FFA pursuant to paragraphs 83-88. Closure plans for final closure shall comply with 401 KAR 34:070. Within ninety (90) days of entry of this Agreed Order, DOE may withdraw previously submitted closure plans and resubmit them consistent with the provisions of this paragraph.

90. The closure plan may propose final and/or partial closure of the units. Final closure ("clean closure") requires removal or decontamination of hazardous waste and hazardous constituents from the unit, including subsurface soils and groundwater without use of institutional or engineering controls. It is the Cabinet's position that the final closure ("clean closure") standard equates to an excess cancer risk of 1×10^{-6} and a hazard index of 1. If DOE elects to meet the Cabinet's asserted final closure standard using engineering or institutional controls, the unit will be subject to post-closure requirements of 401 KAR 34:070. Partial closure requires removal or decontamination of hazardous waste and hazardous constituents from the unit to achieve the partial closure standard, which equates to an excess cancer risk of 1×10^{-4} and a hazard index of 3,

exclusive of groundwater and subsurface soils (for purposes of this Agreed Order subsurface soils mean soils one foot or more below the surface), using the appropriate exposure assumptions contained in "Methods for Conduction Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant (DOE/OR/07-1506-December 2000)." DOE shall attempt to meet the partial closure standard for outside units by the physical removal or decontamination of the hazardous waste and hazardous constituents rather than controlling exposure by institutional or engineering controls. Provided, however, that for outside units, DOE shall not be required to remove subsurface soils to achieve the 1×10^{-4} and hazard index of 3 standard. Where DOE has removed the surface soils (i.e., one foot of soil) and such removal is not sufficient to achieve the 1×10^{-4} and hazard index of 3 standard without institutional or engineering controls, DOE may implement such institutional or engineering controls as are necessary to achieve the 1×10^{-4} and hazard index of 3 standard. The partial closure plan shall discuss which type(s) of institutional or engineering controls would be utilized if necessary to achieve the 1×10^{-4} and hazard index of 3 standard and shall also discuss how any such controls would be maintained. For inside units, DOE shall meet the partial closure standard by either the physical removal and/or decontamination of the hazardous waste and hazardous constituents. The closure plan shall either provide that closure (either final or partial) must be completed within one hundred and eighty (180) days of approval of the closure plan or propose another time for completion for the Cabinet's approval.

91. If DOE elects to conduct partial closure activities, the closure plan shall describe that final closure of the units, including groundwater and subsurface soils, will be deferred to response actions taken under the FFA. Upon deferral, final closure, and

any necessary post-closure and groundwater corrective action will be addressed pursuant to paragraphs 83-88 of this Agreed Order.

92. The Cabinet will review DOE's closure plan within forty-five (45) days of receipt and either approve the closure plan or issue a Notice of Deficiency identifying the specific deficiencies and include an explanation of the Cabinet's position. DOE shall respond to the deficiencies and resubmit the plan(s) within thirty (30) days of receipt of written notice from the Cabinet. The Cabinet will review the revised plan within thirty (30) days of receipt and either approve the revised plan or issue a second Notice of Deficiency. Upon receipt of the second Notice of Deficiency, DOE shall comply with the provisions of Paragraphs 118-126.

93. DOE shall follow the requirements set out in paragraphs 94-100 for final closure and paragraphs 101-108 for partial closure activities.

a. FINAL CLOSURE

94. Within sixty (60) days of closure of each unpermitted hazardous waste storage unit according to the approved closure plan for final closure, DOE shall submit a final closure report which demonstrates whether closure was accomplished in accordance with the requirements of the plan.

95. The Cabinet will review DOE's closure report within thirty (30) days of receipt for each unpermitted hazardous waste storage unit and either approve the closure report or issue a Notice of Deficiency identifying the specific deficiencies and include an explanation of the Cabinet's position. DOE shall respond to the deficiencies and resubmit the report within thirty (30) days of receipt of written notice from the Cabinet.

The Cabinet will review the revised report within thirty (30) days of receipt and either approve the revised report or issue a second Notice of Deficiency. Upon receipt of the second Notice of Deficiency, DOE shall comply with the provisions of Paragraphs 118-126.

96. If the closure report fails to demonstrate closure in accordance with 401 KAR 34:070, DOE may (a) implement additional closure activities by submitting a supplemental closure plan and report which shall be reviewed and implemented in accordance with the provisions of paragraphs 92-93; or (b) pursue partial closure for the unit (in accordance with paragraphs 89-93); or (c) if the unit is an inside unit, defer the final closure to response actions under the FFA (in accordance with paragraphs 83-88). DOE shall either invoke the consultation process set forth in paragraphs 118-126 or notify the Cabinet within thirty (30) days of receipt of notice that it has failed to meet the final closure standard of which option DOE intends to pursue, and thirty (30) days thereafter shall submit the appropriate plan/notice for the option it has chosen to pursue.

97. If DOE is unable to demonstrate closure by removal or decontamination of hazardous waste and hazardous constituents from the unpermitted hazardous waste storage unit in accordance with 401 KAR 34:070 (i.e., "clean close"), and DOE fails to either invoke the consultation process set forth in paragraphs 118-126 or notify the Cabinet that it intends to pursue the options in paragraph 96 above, the Cabinet will notify DOE that DOE must submit an amended closure plan for closure of the unit in accordance with 401 KAR 34:230, and a post-closure plan for conducting post-closure care in accordance with KRS 224.46-520 and 401 KAR 34:070.

98. Within ninety (90) days of receipt of written notification specified in paragraph 97, DOE shall submit an amended closure and post-closure plan for closure of the unpermitted hazardous waste storage unit pursuant to 401 KAR 34:070 and 401 KAR 34:230. The Cabinet will review DOE's amended closure/post-closure plan within thirty (30) days of receipt and either approve the amended closure/post-closure plan or issue a Notice of Deficiency identifying the specific deficiencies and include an explanation of the Cabinet's position. DOE shall respond to the deficiencies and resubmit the plan within thirty (30) days of receipt of written notice from the Cabinet. The Cabinet will review the amended plan within thirty (30) days of receipt and either approve the amended plan or issue a second Notice of Deficiency. Upon receipt of the second Notice of Deficiency, DOE shall comply with the provisions of Paragraphs 118-126.

99. Within fifteen (15) days of notice of approval of the closure/post-closure plan, DOE shall begin implementation of the closure/post closure plan and complete closure according to the approved schedule contained therein. Upon completion of closure activities, DOE shall conduct post-closure care for the unit pursuant to the approved post-closure care plan.

100. Pursuant to CERCLA Section 121(e)(1), modification of DOE's Part B Hazardous Waste Permit to include post-closure care procedures for the unpermitted hazardous waste storage unit is not required for units deferred to the FFA. However, with respect to such units, DOE must comply with all the substantive requirements of KRS 224.46-520 and 401 KAR 34:070, sections 8-11 that are determined to be ARARs (and are not waived) as discussed in paragraph 86. DOE will submit appropriate permit documentation for units not deferred to the FFA.

b. PARTIAL CLOSURE

101. Within sixty (60) days of partial closure of each unpermitted hazardous waste storage unit, DOE shall submit a partial closure report which demonstrates whether partial closure was accomplished in accordance with the requirements of the plan and the partial closure standard outlined in paragraph 90.

102. The Cabinet will review DOE's partial closure report for each unpermitted hazardous waste storage unit within thirty (30) days of receipt and either approve the partial closure report or issue a Notice of Deficiency identifying the specific deficiencies and include an explanation of the Cabinet's position. DOE shall respond to the deficiencies and resubmit the report within thirty (30) days of receipt of written notice from the Cabinet. The Cabinet will review the revised report within thirty (30) days of receipt and either approve the revised report or issue a second Notice of Deficiency. Upon receipt of the second Notice of Deficiency, DOE shall comply with the provisions of Paragraphs 118-126.

103. If the partial closure report fails to demonstrate closure in accordance with the plan and partial closure standard, DOE may (a) implement additional partial closure activities by submitting a supplemental partial closure plan and report which shall be reviewed and implemented in accordance with the provisions of paragraphs 92-93; or (b) submit a final closure plan which shall be reviewed and implemented in accordance with the provisions of paragraphs 92-93; or (c) if the unit is an inside unit, defer the final closure to response actions under the FFA (in accordance with paragraphs 83-88). DOE shall either invoke the consultation process set forth in paragraphs 118-126 or notify the

Cabinet within thirty (30) days of receipt of notice that it has failed to meet the partial closure standard of which option DOE intends to pursue, and thirty (30) days thereafter shall submit the appropriate plan/notice for the option DOE has chosen to pursue.

104. If DOE is unable to demonstrate partial closure by meeting the partial closure standard referenced herein, and DOE fails to either invoke the consultation process set forth in paragraphs 118-126 or notify the Cabinet that it intends to pursue the options in paragraph 103 above, the Cabinet will notify DOE that it must proceed to post-closure.

105. Within thirty (30) days of receipt of written notification specified in paragraph 104, DOE shall submit a revised closure and post-closure plan for closure of the unpermitted hazardous waste storage unit pursuant to 401 KAR 34:070 and 401 KAR 34:230. The Cabinet will review DOE's revised closure/post-closure plan within thirty (30) days of receipt and either approve the revised closure/post-closure plan or issue a Notice of Deficiency identifying the specific deficiencies and include an explanation of the Cabinet's position. DOE shall respond to the deficiencies and resubmit the plan within thirty (30) days of receipt of written notice from the Cabinet. The Cabinet will review the revised plan within thirty (30) days of receipt and either approve the revised plan or issue a second Notice of Deficiency. Upon receipt of the second Notice of Deficiency, DOE shall comply with the provisions of Paragraphs 118-126.

106. Within fifteen (15) days of notice of approval of the closure/post-closure plan, DOE shall begin implementation of the closure/post closure plan according to the approved schedule contained therein.

107. Pursuant to CERCLA Section 121(e)(1), modification of DOE's Part B Hazardous Waste Permit to include post-closure care procedures for the unpermitted hazardous waste storage unit is not required for units deferred to the FFA. However, with respect to such units, DOE must comply with all the substantive requirements of KRS 224.46-520 and 401 KAR 34:070, sections 8-11 that are determined to be ARARs (and are not waived) as discussed in paragraph 86. DOE will submit appropriate permit documentation for units not deferred to the FFA.

108. If the Cabinet approves DOE's partial closure report, then final closure/post-closure will be deferred to response actions selected and implemented under the FFA in accordance with paragraphs 83-88.

E. CONTAINED-IN DETERMINATION FOR THE C-746-U SOLID

WASTE LANDFILL

109. On February 21, 2003, the Cabinet approved a Sampling and Analysis Plan for the suspect hazardous waste disposed in Phases 1 and 2 of the C-746-U landfill designed to allow DOE to make a hazardous waste determination with respect to the suspect waste placed in the C-746-U landfill.

110. DOE implemented the approved Sampling and Analysis Plan in accordance with the schedule contained therein. In addition to DOE's sampling, the Cabinet took split samples in order to verify DOE's sampling data.

111. On July 23, 2003, DOE submitted a request for a contained-in determination to the Division of Waste Management for review. The Cabinet has reviewed DOE's data, as well as the data from the split samples, to determine whether the contaminated media

in the landfill still contains listed hazardous waste. For the purposes of this Agreed Order, the site-specific health-based levels for determining whether the contaminated media in the landfill still contains hazardous waste are as follows: TCE-39.2 ppm and 1,1,1 TCA-2,080 ppm for solids.

112. Based on the review of the sampling data, the Cabinet hereby grants DOE's July 23, 2003, contained-in request that the identified suspect contaminated media no longer contains listed hazardous waste. In making this determination, the Cabinet makes no determination regarding the nature or characteristics of the suspect waste placed in the C-746-U landfill at any time prior to July 23, 2003. Based on this determination, the wastes do not require management as hazardous wastes and the C-746-U landfill does not require closure, post-closure or corrective action under the Cabinet's hazardous waste management program and no further action is required under this Agreed Order for the C-746-U-Landfill. DOE may resume disposal of solid waste in the C-746-U landfill in accordance with its solid waste disposal permit.

F. CLOSURE/POST-CLOSURE OF THE C-746-S AND C-746-T SOLID WASTE LANDFILLS

113. The Cabinet agrees that the C-746-S solid waste landfill shall be addressed by any necessary response actions selected and implemented under the FFA for the Groundwater and Burial Grounds Operable Units in lieu of any otherwise required hazardous waste closure/post-closure or regulated unit corrective action requirements of KRS 224 subchapter 60 and the regulations promulgated pursuant thereto. Further, the Cabinet agrees that within 10 days of finalization of any CERCLA decision document selecting a response action that addresses potential releases from the C-746-S solid waste

landfill to groundwater, that the Cabinet will modify DOE's existing C-746-S solid waste permit to reflect that any necessary groundwater corrective action will be addressed by the response actions selected and implemented under the FFA. The Cabinet also agrees that, for the purposes of making ARARs determinations under the FFA, the Cabinet's groundwater corrective action requirements shall only be considered to be ARARs for the purposes of making groundwater remediation decisions for the C-746-S landfill where there is substantial evidence that affirmatively establishes that a contaminant of concern in the groundwater is a result of a release of a hazardous waste or hazardous constituent from the C-746-S landfill. The Cabinet further agrees that, for purposes of making ARARs determinations under the FFA, the Cabinet's closure/post-closure requirements shall only be considered to be ARARs where hazardous waste is discovered which has been stored in excess of the time frames established in the KAR, and, with respect to potentially listed hazardous waste, where the contained-in levels in Attachment D have been exceeded.

114. No later than September 30, 2003, DOE shall submit a site investigation scoping plan for the C-746-S and C-746-T landfills to the Cabinet and EPA designed to evaluate whether the landfills are sources of groundwater contamination. The scope of the site evaluation includes a field investigation to determine whether the landfills are a source of the TCE groundwater contamination in the area or whether the groundwater contamination in the groundwater at the C-746-S and C-746-T landfills is migrating from upgradient source areas. The field investigation will include the installation of approximately 10 subsurface borings to collect groundwater samples from both upgradient and downgradient locations.

115. Based on the Cabinet's review of DOE's recently developed information (described in Attachment K), the Cabinet has determined that it cannot conclude that F001, F002, or U228 listed waste (TCE, 1,1,1, TCA) was disposed in the C-746-T landfill. Based on this determination, the C-746-T landfill does not require management as a hazardous waste management unit and does not require closure, or post-closure, or corrective action under the Cabinet's hazardous waste management program and, except as provided in the preceding paragraph, no further action is required under this Agreed Order for the C-746-T landfill. This determination is based exclusively on DOE's recently developed information. The Cabinet is not precluded from making a different determination based on additional information consisting of credible analytical data or other substantial evidence affirmatively demonstrating that listed waste was actually disposed in the C-746-T landfill. Corrective action for groundwater shall not be required unless substantial evidence affirmatively establishes that a contaminant of concern in the groundwater is a result of a release of a hazardous waste or hazardous constituent from the C-746-T landfill.

G. DIVISION OF WATER REMEDIAL MEASURES

116. DOE shall comply with the provisions of the Toxicity Reduction Evaluation (TRE) Plan submitted on March 20, 2003, to determine the source(s) of the toxicity within two hundred seventy (270) days of entry of this Agreed Order. (a) Within ninety (90) days of determining the source(s) of the toxicity, DOE shall submit a revised TRE Plan for Cabinet review and approval that includes appropriate measures and an implementation schedule to meet the toxicity limits of its KPDES permit. (b) In the event

DOE is unable to determine the source(s) of the toxicity within two hundred seventy (270) days, DOE shall, within ninety (90) days, following the expiration of the two hundred seventy (270) day period, submit a revised TRE Plan for the Cabinet's review and approval that includes appropriate measures to address the toxicity (e.g., treatment approach, additional sampling to determine toxicity, etc.) and an implementation schedule to meet the toxicity limits of its KPDES permit. The timeframes set forth in this paragraph shall be subject to the extension provisions set forth in paragraphs 148-149.

117. The Cabinet agrees to apply the wastewater concentrations of 1ppm TCE and 25 ppm 1,1,1 TCA, as promulgated in 401 KAR Chapter 31:010, Section 3(1)(b)4. a. and b., to well purge water, well sampling water, and well development water that is generated by DOE during any sampling and investigation efforts associated with the PGDP facility, provided the water is destined for treatment at an onsite wastewater treatment facility and discharged through a PGDP KPDES permitted outfall. The Cabinet considers well purge water, well sampling water, and well development water that meet the above-stated concentrations and regulatory provisions to be excluded from the definition of hazardous waste.

III. CONSULTATION PROCESS

118. Except as otherwise specifically provided for in this Agreed Order, DOE may utilize the procedures outlined below either upon receipt of a Second Notice of Deficiencies issued by the Cabinet on a plan/report required by this Agreed Order or for any other dispute which arises concerning this Agreed Order, including attachments thereto.

119 DOE and the Cabinet shall first attempt to resolve expeditiously and informally all disputes at the project manager level. This informal consultation shall be limited to a period of ten (10) days from the occurrence of the event giving rise to the dispute.

120. In the event that any dispute is not resolved through informal means, within fifteen (15) days after the end of the informal consultation period, DOE shall give written notice to the Cabinet of its intent to invoke the formal consultation process. In the event DOE fails to submit the written notice required by this paragraph, DOE shall be deemed to have waived its right to the formal consultation process.

121. DOE's written notice of its intent to invoke the formal consultation process shall include a written statement of the issue in dispute, the relevant facts upon which the dispute is based, the factual data, analysis or opinion supporting its position, and supporting documentation on which DOE relies along with an explanation of what work is or will be affected by the dispute, including any impacts on compliance dates. The DOE project manager shall develop DOE's written notice of intent to invoke the formal consultation process in concert with the Cabinet's project manager and shall include with DOE's written notice any written positions and supporting documentation

provided to DOE by the Cabinet's project manager within the fifteen (15) day period. The Cabinet shall submit a written response to DOE within fifteen (15) days of receipt of DOE's notification. Within fifteen (15) days of DOE's receipt of the Cabinet's response to DOE, DOE's Manager of the Portsmouth/Paducah Project Office and the Cabinet's Director of the Division of Waste Management (Director) shall engage in meetings or conference calls.

122. Within ten (10) days of the meeting/conference call referenced in paragraph 121, the Director of the Division of Waste Management will notify DOE in writing of the Cabinet's determination of whether deficiencies still exist (if the dispute involves deficiencies in a plan/report) or otherwise issue a resolution of the dispute. If DOE disagrees with the Director's determination, DOE may, within ten (10) days of receipt of the Director's determination, request a consultation meeting with the Commissioner of the Department of Environmental Protection. If DOE requests a meeting/consultation, then the requested meeting/conference call shall take place within fifteen (15) days of the Cabinet's receipt of the request. Within ten (10) days of the meeting/conference call, the Commissioner will notify DOE in writing of the Cabinet's determination of whether deficiencies still exist or otherwise issue a final resolution of the dispute.

123. If the Cabinet determines that a deficiency still exists, DOE shall have thirty (30) days from receipt of the Cabinet's written determination to submit a revised plan/report to respond to the deficiencies or, if the dispute does not involve deficiencies in a plan/report, otherwise comply with the Cabinet's determination. The Cabinet will review the revised report/plan and issue its final determination to DOE. If the Cabinet

disapproves the plan/report, this shall constitute the Cabinet's determination that DOE has violated the Agreed Order and shall be deemed to be a final determination by the Cabinet. The Cabinet's disapproval of a plan/report or other final determination shall be subject to judicial or administrative review in accordance with applicable law. It is the Cabinet's position that DOE must exhaust its administrative remedies before the Cabinet prior to seeking judicial review of any final determinations by the Cabinet.

124. The pendency of any dispute under these procedures shall not affect DOE's responsibility for timely performance of the work required by this Agreed Order, except that the time period for completion of work affected by such dispute shall be extended for a period of time at least equaling the actual time taken to resolve any dispute in accordance with the procedures specified herein. All elements of the work required by this Agreed Order that are not affected by the dispute shall continue and be completed in accordance with the applicable schedule.

125. In any proceeding under this Section, the parties may by written agreement modify the procedures of paragraphs 118-124 above, including but not limited to an extension or shortening of the times therein or the waiver of any provision set forth in such paragraphs.

126. The Parties shall exhaust the Consultation Process (through the Cabinet's issuance of its final determination to DOE) prior to initiating administrative or judicial action with respect to any Second Notice of Deficiencies issued by the Cabinet on a plan/report required by this Agreed Order or for any other dispute which arises concerning this Agreed Order.

IV. BUDGET REQUIREMENTS

127. It is the Cabinet's position that it is DOE's obligation to obtain the funding necessary to comply with all the requirements in this Agreed Order.

128. It is DOE's position that any requirement for the payment or obligation of funds by DOE established by the terms of the Agreed Order is subject to the availability of appropriated funds, and that the Agreed Order shall not be interpreted to require the obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

129. If appropriated funds are not available to fulfill DOE's obligations under the Agreed Order, DOE shall nevertheless make a good faith effort to comply with the requirements of this Agreed Order. If DOE's good faith efforts fail, DOE shall meet promptly with the Cabinet to discuss whether the parties can reach an accommodation on adjustments to deadlines that require the payment or obligation of such funds. If no agreement can be reached, then the Cabinet and DOE agree that the Cabinet may initiate an action to enforce any provision of the Agreed Order, and DOE may raise as a defense that its delay was caused by the unavailability of appropriated funds. The Cabinet disagrees that the lack of appropriations or funding is a valid defense. It is the Cabinet's position that the federal Anti-Deficiency Act, 31 U.S.C. Section 1341, does not apply to any obligation set forth under this Agreed Order. However, the Cabinet and DOE agree and stipulate that it is premature at this time to raise and adjudicate the existence of such a defense.

V. PENALTIES

130. DOE shall pay a civil penalty of one million dollars (**\$1,000,000**) in four installments of two hundred and fifty thousand dollars (**\$250,000.00**). The first installment is due and payable within thirty (30) days of entry of this Agreed Order by the Secretary. Subsequent payments are due and payable ninety (90) days, one hundred eighty (180) days, and two hundred seventy (270) days from the date the initial payment is due. Payment shall be made by cashier's check, certified check or money order made payable to the Kentucky State Treasurer and sent to the attention of Manager, Enforcement Branch, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky, 40601, or by electronic funds transfer.

131. DOE shall expend \$200,000 on an environmental project(s). Such environmental project(s) must be mutually acceptable to both DOE and the Cabinet and shall not require amendment or modification to this Agreed Order to identify such project(s). Within ninety (90) days of entry of this Agreed Order, the parties will meet to identify the environmental project(s).

132. DOE may be assessed a stipulated penalty of up to five thousand dollars (\$5,000.00) for the first week (or part thereof) and up to ten thousand dollars (\$10,000.00) for each additional week (or part thereof) for failure to comply with any of the terms of this Agreed Order, including timely submission of any plans, or reports required by this Agreed Order and for failure to complete any requirement contained in an approved plan, or report. The stipulated penalties are in lieu of any other statutory penalty that may be assessed. Failure to pay stipulated penalties shall not be cause for the assessment of additional stipulated penalties.

133. If the Cabinet determines a stipulated penalty is due, the Cabinet will send DOE written notice, including the amount of the stipulated penalty. If DOE disagrees with the required payment or otherwise believes a request for payment is erroneous or contrary to law, it may invoke the consultation process set forth in paragraphs 118-126. If DOE invokes the consultation process set forth in Section III of this Agreed Order, no assessment of a stipulated penalty shall be final, and DOE shall have no obligation to pay until the conclusion of the consultation procedures, including any administrative or judicial review, related to the assessment of the stipulated penalty. DOE's invocation of the consultation process shall toll the obligation to pay the assessed penalty, but, shall not toll the accrual of stipulated penalties for such time as the alleged failure upon which the penalty was based continues. If the stipulated penalty is upheld on appeal, DOE shall submit the stipulated penalty amount within thirty (30) days of receipt of the final appellate decision.

VI. FORCE MAJEURE

134. A force majeure event is defined as an event arising from causes not reasonably foreseeable and beyond the control of DOE or their consultants or engineers or contractors, which could not be overcome by DOE's due diligence and which delays or prevents performance as required by this Agreed Order, or as any event which the parties mutually agree to be a force majeure event

135. Force majeure events do not include unanticipated or increased costs of performance, changed economic or financial circumstances, normal precipitation events,

or failure of a contractor to perform or failure of a supplier to deliver unless such failure is, itself, the result of force majeure.

136. DOE shall notify the Manager of the Enforcement Branch, Division of Waste Management by telephone (502-564-6716) within seventy-two (72) hours and in writing within ten (10) days business days after it becomes aware of events which it knows may constitute a force majeure. DOE's written notice shall provide an estimate of the anticipated length of delay, including any necessary period of time for demobilization and remobilization of contractors or equipment; a description of the cause of delay; a description of measures taken or to be taken by DOE to minimize delay, including a timetable for implementing these measures. Failure to comply with the notice provisions shall be grounds for the Cabinet to deny granting an extension of time to DOE. However, the Cabinet may in its sole discretion grant a request for extension for force majeure where DOE has failed to comply with the notice provisions.

137. If DOE successfully demonstrates to the Cabinet that the delay has been or will be caused by a force majeure event, the Cabinet will grant an extension of the time. In such cases, DOE will be granted a period of time at least equal to the length of delay.

138. All force majeure extensions shall be accomplished through a written amendment of this Agreed Order, unless the parties agree otherwise.

139. Any dispute arising over the application of the force majeure provisions of paragraphs 134-139 or the occurrence or impact of a force majeure event shall be subject to the consultation process described in paragraphs 118-126.

MISCELLANEOUS PROVISIONS

140. All submittals required of DOE by this Agreed Order shall be to the Manager, Enforcement Branch, Division of Waste Management, Department of Environmental Protection, 14 Reilly Road, Frankfort, Kentucky 40601. The Cabinet shall submit comments/notifications required by this Agreed Order to the DOE Paducah Site Manager, Post Office Box 1410, Paducah, Kentucky 42001-1410. Unless otherwise specified, any submittal or notice provided pursuant to this Agreed Order shall be sent by certified mail, return receipt requested, or similar method (including electronic transmission) which provides a written record of the sending and receiving date. Unless otherwise specified or requested, all routine correspondence other than a document or submittal may be sent as described above, or may be sent via regular mail or electronically transmitted to the above persons. Any party may change the individual designated to receive submittals and notifications required under this Agreed Order by providing written notice to the other party.

141. This Agreed Order addresses only those matters specifically set out or referred to above. The Cabinet enters into this Agreed Order, in part, based upon information supplied by DOE. Except as provided in this Agreed Order, nothing contained herein shall be construed to waive or limit any remedy or cause of action by the Cabinet based on statutes or regulations under its jurisdiction and DOE reserves its rights and defenses thereto. For matters not addressed in this Agreed Order, the Cabinet reserves its right at any time to issue administrative orders or to take any other action it deems necessary, including the right to order all necessary remedial measures, assess

penalties for violations or recover any response costs that may be incurred, and DOE reserves its rights and defenses thereto.

142. Except as otherwise provided herein, this Agreed Order shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit to DOE, and DOE shall not use this Agreed Order as a defense to those permit actions.

143. The Cabinet agrees to allow the performance of the above-listed remedial measures, payment of civil penalties and implementation of environmental projects by DOE, to satisfy the obligations of DOE, its past or present officers, directors, officials, or employees to the Cabinet, with respect to the violations and potential violations addressed in this Agreed Order, including, (a) the notices of violation described above and attached hereto (Attachment L), (b) the not yet cited violations and potential violations referenced in paragraphs 16-62, (c) violations and potential violations of KRS 224 Subchapter 46 and 401 KAR Chapters 30-40 that have been discovered to date and that may be discovered through implementation of the Characterization/Sampling and Analysis Plan for the DMSAs, (d) violations and potential violations of KRS 224 Subchapter 46 and 401 KAR Chapters 30-40 that have been discovered to date and that may be discovered through implementation of the Container Sampling and Analysis Plan for the suspect listed hazardous waste containers referenced in Attachment B, and (e) all violations and potential violations alleged in NREPC v. DOE, file numbers DWM-31434-042 and DOW-26141-042, and DAQ-31740-30 . Except as otherwise provided herein, this Agreed Order shall stand in lieu of any administrative, legal, or other equitable actions that the Cabinet may bring against DOE, its past or present officers,

directors, officials, or employees, for the matters addressed herein. Nothing contained in this Agreed Order, including the Consultation Process, shall be construed to prevent the Cabinet from seeking administrative, legal or equitable relief to enforce the terms of this Agreed Order or from taking other administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against DOE, for noncompliance with this Agreed Order. With respect to matters not addressed by this Agreed Order, nothing contained herein shall be construed to prevent the Cabinet from exercising its lawful authority to require DOE to perform additional activities at the facility, pursuant to KRS 224 and the regulations promulgated thereto, or other applicable law in the future and DOE reserves its defenses to such actions.

144. Consistent with the FFA, the Cabinet reserves its rights to maintain that the closure/post-closure/corrective action requirements in KRS 224 Subchapter 46 and 401 KAR Chapters 30-40 apply independently of the requirements in the FFA. DOE reserves its rights to maintain that the closure/post-closure/corrective action requirements in KRS 224 Subchapter 46 and 401 KAR Chapters 30-40 do not apply independently of the requirements in the FFA. Further, the Cabinet specifically reserves its rights to pursue administrative and/or judicial enforcement actions, including the right to order all necessary remedial measures, assess civil penalties for violations pursuant to KRS 224.99-010 and recover all incurred response costs as defined pursuant to KRS 224.01-400 against DOE's contractors (i.e. Martin Marietta Corporation, Lockheed Martin Corporation, Martin Marietta Energy Systems, Lockheed Martin Energy Systems and Bechtel Jacobs) for any violations relating to their operation of the PGDP, including the violations outlined in this Agreed Order. The Cabinet also specifically reserves its rights

to pursue administrative and/or judicial enforcement actions, including the right to order all necessary remedial measures, assess civil penalties for violations pursuant to KRS 224.99-010 and recover all incurred response costs as defined pursuant to KRS 224.01-400 against USEC, Inc. and its contractors Martin Marietta Utility Services and Lockheed Martin Utility Services for any violations relating to their activities at the PGDP, including the violations outlined in this Agreed Order. This Agreed Order is not intended, and nothing in this Agreed Order shall be construed, to release or limit the liability of any other person other than DOE, its past or present officers, directors, officials, or employees, for any violations of state or federal law, including the violations outlined in this Agreed Order.

145. DOE waives its rights to any hearing on the matters addressed herein, except where expressly provided for in this Agreed Order. DOE expressly reserves its right to administrative and judicial review of final determinations of the Cabinet relating to this Agreed Order in accordance with applicable law. It is the Cabinet's position that DOE must exhaust its administrative remedies before the Cabinet prior to seeking judicial review of any final determinations by the Cabinet. Failure by DOE to comply with the terms of this Agreed Order shall be grounds for the Cabinet to seek enforcement of this Agreed Order in accordance with applicable law and to pursue any other administrative or judicial action under KRS Chapter 224 that it deems appropriate and DOE reserves its rights and defenses thereto. Provided, however, that prior to seeking administrative or judicial review or seeking enforcement of this Agreed Order, the parties shall comply with paragraphs 118-126 (through the Cabinet's issuance of its final determination to DOE).

146. Each separate provision, condition or duty contained in this Agreed Order may be the basis for an enforcement action for a separate violation and penalty pursuant to KRS Chapter 224, upon the failure to comply with such provision, condition, or duty of this Agreed Order.

147. Except as otherwise provided herein, this Agreed Order or any of its provisions, conditions or dates contained herein may be amended, modified or deleted only upon a written request stating the reasons therefore, and by the approval and written Order of the Secretary or his designee. Any such amendment, modification, deletion, or extension shall not affect any other provision, condition or date within the Agreed Order unless specifically and expressly so provided by the written Order.

148. Upon receipt of a written request, the Cabinet will grant DOE an extension of time reasonably needed for DOE to complete its performance under the terms of this Agreed Order when good cause exists for the requested extension. Good cause exists in the following circumstances: (a) in the event of force majeure; (b) if a delay is caused by the Cabinet's failure to meet a requirement of this Agreed Order; (c) if a delay is caused by a good faith use of the Consultation Process of paragraphs 118-126; (d) a delay caused by the good faith initiation of administrative or judicial action; (e) a delay caused, or which is likely to be caused, by the grant of an extension in regard to another schedule; or (f) any other event or series of events mutually agreed to by DOE and the Cabinet as constituting good cause. Good cause does not exist if a delay is caused by DOE's failure to coordinate its activities with USEC. Such extension request must be made in writing (or made orally, followed within ten (10) days by a written request) and must be tendered prior to the time performance is due and include the length of extension sought, the good

cause for the extension, and any related deadline that would be affected if the extension was granted.

149. For extension requests, the following procedures shall apply: (a) Within twenty-one (21) days of receipt of a written request for an extension of a schedule, the Cabinet shall advise DOE in writing of the Cabinet's position on the request. If the Cabinet fails to respond to DOE's request within the twenty (21) day period, then, beginning on the 22nd day, DOE shall have a day for day extension until such time as the Cabinet either concurs with the extension request or issues a statement of nonconcurrence. If the Cabinet does not concur with the requested extension, it shall provide a written statement of nonconcurrence setting forth the basis for its position. (b) If the Cabinet concurs in the extension request, then the Cabinet shall extend the schedule accordingly. (c) If the Cabinet does not concur in the extension request, the schedule shall not be extended, except as otherwise provided in the consultation process set forth in Section III of this Agreed Order. (d) Within fifteen (15) days of receipt of a statement of the Cabinet's nonconcurrence with the requested extension, DOE may invoke the consultation process set forth in Section III. If DOE does not invoke the consultation process within fifteen (15) days of receipt of a statement of nonconcurrence, then DOE shall be deemed to have accepted the Cabinet's position and the existing schedule. (e) A timely and good faith request for an extension shall suspend any assessment of stipulated penalties or application for enforcement of the affected schedule until a decision is reached on whether the requested extension will be approved. (f) Following the grant of an extension, an assessment of stipulated penalties or an application for enforcement may be sought only to compel compliance with the schedule as most recently extended.

150. The Cabinet does not, by its consent to the entry of this Agreed Order, warrant or aver in any manner that DOE's complete compliance with this Agreed Order will necessarily result in compliance with the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto.

151 The provisions of this Agreed Order shall apply to and be binding upon DOE. The acts or omissions of its agents and employees shall not excuse DOE's performance of any provision of this Agreed Order. DOE shall give notice of this Agreed Order to any successors in interest prior to the transfer of ownership and/or operation of any part of the now existing facility and shall follow all statutory and regulatory requirements for such a transfer. After such a transfer, DOE shall notify the Cabinet that the required notice was given to any successor in interest prior to the transfer of ownership and/or operation. Regardless of whether or not any transfer takes place, DOE shall remain fully responsible for the performance of all Remedial Measures to the extent consistent with applicable law.

152 The Cabinet and the DOE acknowledge and agree that the terms and conditions of this Agreed Order are facility-specific and are designed specifically for the unique characteristics of this facility and the factual circumstances of this enforcement case. This Agreed Order is therefore expressly inapplicable to any other site or facility in the Commonwealth of Kentucky.

153. DOE enters into this Agreed Order, without admission of any alleged violation or issue of fact or law, in order to expeditiously resolve disputed matters and to avoid delays and costs associated with litigation. DOE reserves all rights and defenses to

administrative and judicial review of actions of the Cabinet taken pursuant to this Agreed Order.

154. This Agreed Order shall be of no force and effect unless and until it is entered by the Secretary of the Cabinet or his designee as evidenced by his signature thereon.

155. The Cabinet has determined that, with respect to violations and potential violations addressed herein, DOE, by entering into this Agreed Order, has either corrected or is in the process of correcting all alleged violations of laws, rules, or regulations pertaining to environmental protection to the satisfaction of the Commonwealth of Kentucky within the meaning of KRS 224.40-330(3).

156. The parties recognize the value of the C-746-U landfill to ongoing DOE operations, including its value as a disposal facility for cleanup wastes meeting the landfill's waste acceptance criteria (WAC) and derived from response/corrective actions undertaken pursuant to state and federal authorities. The parties will, consistent with applicable requirements, expedite final action on the pending permit modification requests to use the C-746-U landfill to dispose of cleanup wastes, scrap metal, and other materials meeting the C-746-U landfill permit requirements and WAC.

157. The universe of waste that may be accepted at the U-landfill will be determined by the U-landfill permit, as modified, and applicable laws and regulations, and will not be limited to the original information included in DOE's Notice of Intent to Apply, dated December 31, 1992.

158. The parties agree that all environmental sampling at the site will be in accordance with U.S. Environmental Protection Agency's sampling and analysis protocol set forth in SW-846, unless the parties agree otherwise in writing.

159. Nothing in this Agreed Order shall be construed as a waiver of or limitation on DOE's jurisdiction over source, by-product, or special nuclear materials under the Atomic Energy Act of 1954, as amended, 42 U.S.C. Section 2201, et seq.

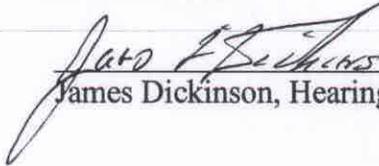
160. Any submittal or written statement of dispute that, under the terms of this Agreed Order, would be due on a Saturday, Sunday, or holiday shall be due on the following business day.

AGREED TO BY:


United States Department of Energy

9/30/03
Date

HAVE SEEN:


James Dickinson, Hearing Officer

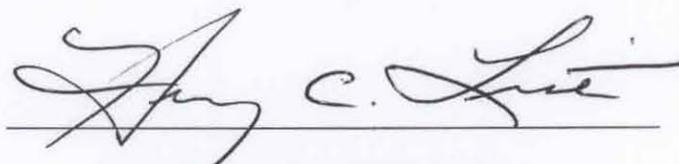
9/29/03
Date

FILE NOS. DWM-31434-042 (includes DWM-00062, DWM-02162, and DWM-02163) DAQ-31740-030 and DOW-26141-042

ORDER

Upon agreement of the parties and being otherwise sufficiently informed, the foregoing AGREED ORDER is hereby executed as a final Order of the Natural Resources and Environmental Protection Cabinet this the 29th day of September 2003,

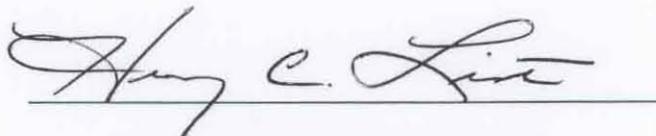
NATURAL RESOURCES AND
ENVIRONMENTAL PROTECTION CABINET

A handwritten signature in cursive script, appearing to read "Henry C. List", written over a horizontal line.

HENRY C. LIST, SECRETARY

AND THIS AGREED ORDER, HAVING BEEN SIGNED BY BOTH PARTIES, IS ENTERED AS A FINAL ORDER ON THIS THE 2nd DAY OF October 2003.

NATURAL RESOURCES AND
ENVIRONMENTAL PROTECTION CABINET

A handwritten signature in cursive script, appearing to read "Henry C. List", written over a horizontal line.

HENRY C. LIST, SECRETARY

CERTIFICATE OF SERVICE

I hereby certify that on the 6th day of October, 2003, a true and accurate copy of the foregoing **AGREED ORDER** was mailed, postage pre-paid, to the following:

Rachel Blumenfeld
Office of Chief Counsel
Department of Energy
P. O. Box 2001
Oak Ridge, TN 37831

And Ray Miskelley
GC-51/Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20565

and hand-delivered to:

Hon. Randall G. McDowell
Office of Legal Services
Fifth Floor, Capital Plaza Tower
Frankfort, Kentucky 40601

and by messenger mail to:

DWM Enforcement Branch

Sue Steiner
DOCKET COORDINATOR

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G.Dm

Attachment A

Letter of Intent between the Department of Energy and the Commonwealth of Kentucky

Purpose

This Letter of Intent documents the commitment by the Commonwealth of Kentucky and the U.S. Department of Energy (DOE) to promote accelerated cleanup at the Paducah Gaseous Diffusion Plant (PGDP), develop integrated planning and funding requests, meet commitments under the Paducah Federal Facility Agreement (FFA), and settle all identified outstanding enforcement and compliance issues through an Agreed Order(s).

- The parties agree to accelerate risk reduction and complete cleanup in accordance with agreed upon scope and enforceable deadlines for completion of operable units. This approach establishes a bias for action and continuous improvement, recognizes and describes post completion activities and commitments until the final closure of the Plant, and settles all identified outstanding enforcement and compliance issues.
- This Letter of Intent is intended to be an integrated agreement between the parties addressing major issues at the PGDP under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the FFA, the Resource Conservation and Recovery Act (RCRA), and other federal and state environmental laws and regulations.

Understanding

The following statements document the commitments and agreements between the parties:

1. The parties share a desire to move forward and fundamentally transform the project. The parties share a vision to accomplish the agreed-upon scope by a mutually acceptable date, with a goal to achieve accelerated completion. Additionally, accelerated cleanup will be accomplished in a manner that is safe, protective of human health and the environment, and compliant with applicable Kentucky and Federal environmental laws.
2. DOE and its contractors bear the greatest responsibility to transform their business practices to accelerate cleanup. DOE and its contractors agree to take all necessary steps to accelerate risk reduction and to apply as large a percentage as possible of the Paducah site's budget to accelerated cleanup as a continuing and ongoing process.

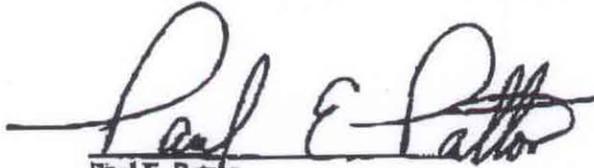
3. The parties will be accountable for meeting their commitments. To this end, the parties agree that accelerated cleanup and meeting commitments are made more attainable with sufficient, stable, and predictable funding, good regulatory relationships, broad stakeholder support, and best management practices.
4. The parties agree to consider "risk reduction" as an important factor in setting priorities and cleanup strategies, and acknowledge a preference for cleanup strategies that reduce site-wide long-term stewardship requirements and costs, recognizing there are other factors that need to be considered including balancing risk to workers, the public, and the environment. In this regard, the parties agree to aggressively evaluate and implement where appropriate the targets of opportunity for accelerated risk reduction, including implementing a streamlined and focused decision process, as well as actions identified by the Top-to-Bottom Review. This includes the use of onsite disposal to maximize the use of resources available for cleanup.
5. The parties agree to focus resources on the following Operable Unit Strategic Initiatives, based on the assumptions described in Attachment 1 to this Letter of Intent:
 - D & D Operable Unit Strategic Initiative; completion date, 2017
 - Groundwater Operable Unit Strategic Initiative; completion date, 2010
 - Burial Grounds Operable Unit Strategic Initiative; completion date, 2019
 - Surface Water Operable Unit Strategic Initiative; completion date, 2017
 - Soils Operable Unit Strategic Initiative; completion date, 2015
6. The parties will enter into an Agreed Order(s) to settle all outstanding enforcement and compliance issues at the PGDP. The Agreed Order(s) will address outstanding compliance issues associated with F-listed waste, DOE Material Storage Areas (DMSAs), management of DUF6, and various other unresolved compliance issues at the site. The parties have set forth their agreement on the scope of the Agreed Order(s) and specific provisions that will be incorporated into such Order(s), in Attachment 2 to this Letter of Intent (hereinafter Attachment 2). The parties will execute the final Agreed Order(s) settling all outstanding enforcement and compliance issues at the site, by September 15, 2003.
7. The parties recognize the value of the U-landfill to ongoing DOE operations, including its value as a disposal facility for cleanup wastes meeting the landfill's waste acceptance criteria (WAC) and derived from response/corrective actions undertaken pursuant to state and federal authorities. The parties will expedite final action on the pending permit modification requests to use the U-landfill to dispose of cleanup wastes, scrap metal, and other materials meeting the U-landfill permit requirements and WAC.

8. The parties agree that the universe of waste that may be accepted at the U-landfill will be determined by the U-landfill permit, as modified, and applicable laws and regulations, and will not be limited to the original information included in DOE's Notice of Intent to Apply, dated December 31, 1992.
9. The parties recognize that CERCLA Section 121(e)(1) may be used to expedite fieldwork and minimize procedural delay in implementing CERCLA response actions. The parties agree to seek and evaluate opportunities for use of CERCLA Section 121(e)(1). The parties agree that the substantive provisions that would be included in the permit (or permit modification) to support any given response action will be incorporated into the appropriate decision document for such response action.
10. By September 15, 2003, the Agreed Order(s) referenced in paragraph 6 will provide that the sampling and analysis protocol for conducting all environmental sampling at the site will be in accordance with USEPA's sampling and analysis protocol set forth in SW-846.
11. By September 15, 2003, the Agreed Order(s) referenced in paragraph 6 will contain Kentucky approved site-wide procedures and health-based levels for "contained-in" determinations with respect to all environmental media at the site. Those levels and procedures shall be consistent with the levels and procedures referenced in Attachment 2, under the heading "F-listed Waste-Specific Requirements." The parties agree that requirements for characterization and sampling to support "contained-in" determinations will be approved by Kentucky on a project specific basis.
12. The parties recognize that the agreement and cooperation of the USEPA is necessary to implement the approaches described in this Letter of Intent involving response actions under the FFA. The parties agree to seek USEPA's agreement and cooperation with respect to implementing all of these approaches, and modifying the FFA as necessary. If USEPA disagrees with one or more provisions of this Letter of Intent involving response actions under the FFA, any such provision(s) shall be considered null and void; however, the parties agree to carry out all other understandings and agreements set forth in any other provisions of this Letter of Intent.
13. By entering into this Letter of Intent and upon entry of an Agreed Order(s), the parties agree that DOE is in the process of correcting all alleged violations of laws, rules, or regulations

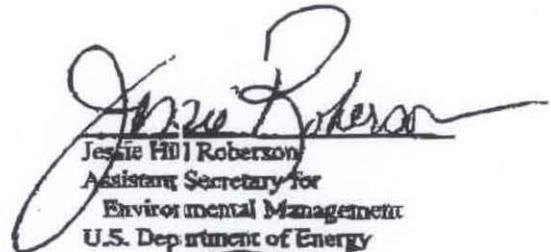
pertaining to environmental protection to the satisfaction of the Commonwealth of Kentucky within the meaning of KRS 224.40-330(3).

14. The parties will continue to meet regularly to ensure progress, solve problems, identify new initiatives, and to expedite and elevate issues so as to avoid undue delay. The parties also agree that the authority to make policy decisions and commitments resides with Senior Management.
15. DOE agrees that upon signature of the Letter of Intent, and upon entry of an Agreed Order(s), it will inform the appropriate budget committees of Congress in writing that the PGDP should be considered eligible for additional funding identified by Congress as contingent upon an Accelerated Cleanup Agreement.
16. Unless the parties agree otherwise in writing, this Letter of Intent will expire on October 1, 2003.

We the undersigned are committed to work together, to seek additional opportunities to accelerate and improve cleanup, and to find practical solutions that overcome barriers to success.

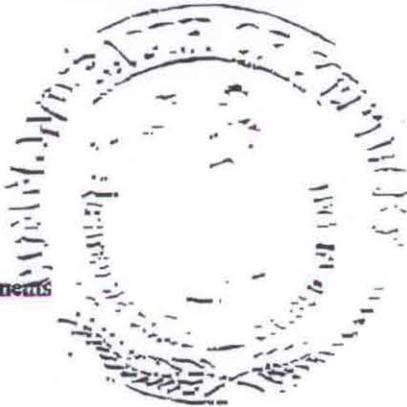


Paul E. Patton
Governor
Commonwealth of Kentucky



Jessie Hill Robertson
Assistant Secretary for
Environmental Management
U.S. Department of Energy

Attachments



ATTACHMENT 1
TO LETTER OF INTENT BETWEEN THE DEPARTMENT OF ENERGY AND THE
COMMONWEALTH OF KENTUCKY

OPERABLE UNIT STRATEGIC INITIATIVES

D&D Operable Unit

The scope of this project includes D&D of the C-410 and C-340 Facilities as well as the other 15 inactive DOE facilities, assuming the use of CERCLA removal actions implemented in accordance with the Federal Facility Agreement. The D&D strategy includes implementation of a phased approach, sequenced as follows: 1) stabilization, removal, and disposition of the infrastructure at C-410 (e.g., process piping, equipment, stored material); 2) stabilization, removal, and disposition of the infrastructure at C-340; 3) demolition and disposition of the C-410 and C-340 structures to grade/building slab; and 4) D&D of the remaining 15 inactive DOE facilities will be scheduled as needed to balance resources. This strategy is intended to take advantage of maintaining a trained work-force during infrastructure removal as well as maximize opportunities for achieving cost-efficiencies and economies of scale through coordination of structure demolition at C-410 and C-340. The goal of this strategy is to accelerate this project, assuming a combination of both on- and off-site disposal options are available. The building slabs and any potential underlying contamination will be investigated and remediated as necessary as part of final D&D of the operating Gaseous Diffusion Plant once it ceases operation.

Groundwater Operable Unit

The scope of the groundwater operable unit is the identification, investigation, evaluation of risk and remedial alternatives, and selection and implementation of actions necessary to achieve protection of human health from exposure to groundwater contamination. The strategy includes a phased approach consisting of the following steps: 1) prevent human exposure, 2) reduce, control, or minimize groundwater source areas contributing to off-site contamination; and 3) evaluate and select long-term solutions for the off-site dissolved phase groundwater plumes for protection of human health and the environment. Early actions have already been implemented to prevent exposure and reduce further off-site migration of contaminant plumes including implementation of the water policy and construction and on-going operation of the northwest and northeast groundwater treatment systems. The current focus of the strategy has shifted to actions necessary to reduce, control, or minimize source areas with emphasis on accelerated early action at the C-400 area - the largest DNAPL source contributing to off-site contamination. The schedule for the C-400 early action is defined by the April 15 SMP Dispute Agreement, which requires submittal of a Proposed Plan (D1) to the regulators by January 30, 2004. Concurrent with the C-400 early action, additional investigation will be conducted to identify and evaluate the source area(s) contributing to the southwest plume, which has a sampling and analysis plan scheduled for submittal on October 30, 2003. The short-term goal is to accelerate completion of early actions at the major DNAPL sources areas [i.e., C-400, Southwest Plume Source(s)] contributing to off-site contamination by 2010, assuming successful deployment of the 6-Phase treatment technology. Subsequently, any remaining ground water contaminant sources and long-term solutions for off-

site dissolved phase ground water plumes will be evaluated and remedies implemented, as necessary, to complete actions under this Operable Unit.

Burial Grounds Operable Unit

The scope of this project includes a remedial investigation, baseline risk assessment, evaluation of remedial alternatives/feasibility study, remedy selection, and implementation of actions as necessary for protection of human health and the environment, for the following burial grounds: 1) C-749 (SWMU 2); 2) C-404 (SWMU 3); 3) C-747 (SWMU 4); C-746-F (SWMU 5); C-747-B (SWMU 6); C-747-A (SWMUs 7&30); and, SWMU 145, which includes both the residential/inert borrow area and old north-south ditch disposal trench. The strategy for this project includes a phased approach with the initial phase focused on: 1) acceleration of investigation and actions at burial grounds with potential sources that pose a current off-site groundwater risk; and, 2) implementation of mitigating actions necessary for protection of plant workers during the continued operation of the Gaseous Diffusion Plant. Investigation, risk evaluation, and potential implementation of removal/remedial actions for groundwater contamination located in the vicinity of the C-747 Burial Ground (SWMU4) is being proposed for acceleration by inclusion of that scope into the Southwest Plume/Sources Project, which has a sampling and analysis plan (D1) due by October 30, 2003. The proposed schedule for initiating the investigation for the remaining burial grounds is defined by the April 15 SMP Dispute Agreement, which requires submittal of a remedial investigation work plan (D1) to the regulators by June 30, 2005. The actual scope of the action and schedule for implementation/completion associated with the remaining burial grounds will be defined upon completion of the remedial investigation/feasibility study and documented in the record of decision and remedial action work plan. The goal of the proposed strategy is to accelerate completion of this project, based upon DOE's assumption of in-situ covers supplemented by a groundwater performance monitoring system. The second phase of the strategy, which will be implemented as part of D&D of the operating Gaseous Diffusion Plant, will include evaluation of the long-term effectiveness of the existing remedies, supplemented by additional actions as necessary to achieve protectiveness consistent with the future end-state objectives associated with post-plant shutdown conditions.

Surface Water Operable Unit

The scope of this project includes investigation, baseline risk assessment, evaluation of cleanup alternatives, remedy selection, and implementation of removal/remedial actions as necessary. The strategy includes a phased approach consisting of the following steps: 1) Prevent human exposure; 2) Prevent or minimize further off-site migration; 3) Reduce, control, or minimize surface water sources contributing to off-site contamination; and 4) Evaluate and select long-term solutions for off-site surface water contamination to protect human health and the environment. Off-site surface water areas have already undergone initial characterization as part of the CERCLA Administrative Consent Order and DOE's on-going environmental monitoring program. In addition, a series of early actions associated with the strategic objectives to prevent exposure, prevent/minimize further off-site migration, and reduce/control or minimize source releases have either been completed or are currently underway. Early actions include controls to prevent access to contaminated areas of Big and Little Bayou Creeks; fish advisories; actions to reduce off-site migration, including re-routing surface water discharges and installation of storm water basins at North South Diversion Ditch (NSDD) and Outfall Ditch 001; previous PCB hot spot removals associated with Waste Area Group 23, Outfall Ditch 011, and the C-333-A and C-

337-A vaporizers; removal of drum mountain; as well as on-going actions to remove approximately 54,000 tons of scrap metal and excavation/removal of source material associated with the NSDD (Sections 1 & 2). In conjunction with these early actions, additional investigation will be conducted as part of the Surface Water Phase I Assessment to identify hot spot areas associated with the internal plant ditches, outfalls, and Sections 3, 4, and 5 of the NSDD that may warrant early action, as well as an evaluation of whether additional sediment controls are necessary. In accordance with the April 15, 2003 SMP Dispute Agreement, a sampling and analysis plan (D1) is due to the regulators on April 30, 2004. The goal of this strategy is to accelerate completion of any necessary actions associated with the internal ditches, storm sewers (not affecting plant operations), Outfalls, and Big and Little Bayou Creeks.

Soils Operable Unit

The scope of this project includes investigation, baseline risk assessment, evaluation of cleanup alternatives, remedy selection, and implementation of removal/remedial actions as necessary. The strategy includes a phased approach consisting of two initial removal actions implemented during plant operations and a final remedial action implemented as part of the final D&D of the Gaseous Diffusion Plant once it ceases operation. The first early removal action will be implemented immediately following completion of the scrap metal project and outside DMSAs, addressing the potentially contaminated underlying surface soils. The second removal action will focus on the identification and mitigation of additional soil hot spots associated with radionuclide and PCB contamination from the remaining plant areas that are accessible and not impacted by plant operations. The objective of these initial removal actions is to ensure protection of plant workers within industrial areas during the continued operation of the Gaseous Diffusion Plant. The goal of this strategy is to accelerate this project, assuming a target cleanup level of 10^{-4} risk for interim and removal actions conducted within industrial areas inside the security fence. The final remedial action will be implemented as part of the final D&D of the Gaseous Diffusion Plant once it ceases operation, focusing on achieving protectiveness of human health and the environment consistent with the future end-state objectives associated with post-plant shutdown conditions, as well as other contaminants of concern and areas that were not readily accessible during plant operations.

Comprehensive Site Operable Unit

The site cleanup strategy consists of a two-phased approach, including a series of actions implemented during plant operations and a second series of actions implemented after the plant ceases operations. The primary objective of the first phase, which includes actions associated with the five operable units, is intended to prevent both on-site and off-site human exposure, actions necessary to ensure safe environmental conditions for industrial workers during on-going plant operations, and actions that provide the greatest opportunity for risk reduction. The second phase of site cleanup will be implemented when the Plant ceases operation and will include D&D of the operating Gaseous Diffusion Plant, as well as other actions necessary for achieving protectiveness of human health and the environment consistent with the future end-state objectives associated with post-plant shutdown conditions. Six months prior to plant shutdown, the parties will initiate negotiations to reach agreement on enforceable completion dates for the second phase of site cleanup.

ATTACHMENT 2
TO LETTER OF INTENT BETWEEN THE DEPARTMENT OF ENERGY AND THE
COMMONWEALTH OF KENTUCKY

SETTLEMENT PROVISIONS FOR AN AGREED ORDER(S)
RESOLVING ALL OUTSTANDING COMPLIANCE ISSUES AT THE SITE

Closure and post-closure activities for units where F-listed hazardous waste is or may be discovered (U, S, T, landfills, DMSAs, and other areas where the approximately 5,100 containers are stored) and for all DMSAs where hazardous waste is or may be discovered.

-Closure and post-closure only required for units where hazardous waste discovered and which has been stored in excess of the time frames established in the KAR; and closure/post-closure only required where contained-in levels (see below) exceeded.

-Inside units. Agreed Order will defer closure/post-closure directly to response actions to be selected and implemented under the FFA.

-Outside units. Agreed Order will establish an option for DOE to (1) conduct final closure in the near term (1×10^{-6} ; HI 1) or (2) conduct partial closure (1×10^{-4} ; HI 3), excluding groundwater and subsurface soils, and defer final closure/post-closure and groundwater and subsurface soils directly to response actions to be selected under the FFA.

-For all units. Corrective action for groundwater will not be required for any unit under the Agreed Order, unless substantial evidence affirmatively establishes that a COC in groundwater is a result of a release of hazardous waste or hazardous constituents from that unit. Corrective action for groundwater so linked to a unit will be deferred to response actions to be selected and implemented under the FFA. The Agreed Order will clarify the standard for "clean closure" for units where there is no substantial evidence establishing a release to groundwater. Such standard will not require cleanup to non-detect/background levels. Part B permits and post-closure permits will not be required in accordance with CERCLA 121(e)(1).

-For all units deferred to the FFA. Closure, post-closure, and groundwater protection standards will be considered, and selected (or waived) as appropriate, as ARARs in accordance with CERCLA and FFA processes and standards. Units will be treated as SWMUs under the FFA. The CERCLA requirements, including the CERCLA nine criteria for selecting remedial actions (as well as ARARs), will guide selection of a response action for the units. Schedules for selecting and implementing a response action for all units will be established by FFA procedures.

-The Parties agree that the groundwater remediation decision process will consider Alternative Contaminant Levels, alternative points of compliance, natural attenuation, cost-effectiveness (as required by CERCLA) and technical practicability. Kentucky agrees that entry of an Agreed Order(s) resolving hazardous waste violations will not preclude consideration of Alternative Contaminant Levels, alternative points of compliance, natural attenuation, cost-effectiveness (as required by CERCLA) and technical practicability with respect to groundwater remediation decisions.

F-listed Waste-Specific Requirements

-A Characterization Plan for the estimated 5,100 containers that may contain listed hazardous waste will be submitted, approved, and implemented pursuant to the Agreed Order. DOE is in the process of completing its screening of existing container information to determine the exact number of containers that may contain listed hazardous waste and thus require characterization. The final number of containers will be determined by September 15, 2003, will be subject to approval by Kentucky, and will be identified in an appendix to the Agreed Order. Compliance activities under the Agreed Order will include completion of characterization by September 30, 2007, but will not include treatment/disposal of the estimated 5,100 containers. Management requirements applicable to

containers during characterization activities will be risk-based. Any hazardous waste discovered above established contained-in levels in any of the estimated 5,100 containers through implementing the Characterization Plan will be removed to available permitted storage within 10 days of a hazardous waste determination.

-The Agreed Order will contain a definitive determination that no listed wastes exceeding established contained-in levels were disposed in the U-landfill, and accordingly, no closure, post-closure, or groundwater corrective action or remediation is required for the landfill under Subtitle C with respect to potential disposal of listed waste in the landfill. (Note: This position is based on recent sampling results from the U-landfill. DOE provided the sampling results to the Cabinet by letter dated July 23, 2003.)

-As part of the negotiations for an Agreed Order, Kentucky will consider recently developed information indicating that listed waste was not disposed in the T-landfill. The Agreed Order will not address closure/post-closure of the T-landfill as a hazardous waste unit, unless there is credible analytical data or other substantial evidence affirmatively demonstrating that listed waste was actually disposed in the landfill. DOE proposes that the Kentucky Consortium for Energy and Environment, whose principal partner is the University of Kentucky, conduct sampling of the landfill to validate DOE's information.

-As part of negotiations for an Agreed Order, the parties will address any closure/post-closure requirements that might apply to the S-landfill.

-Contained-in levels for groundwater destined for treatment and discharge at on-site KPDES permitted treatment units (e.g., groundwater resulting from well-purging, well development, and well sampling) and for solids will be established in the Agreed Order. The contained-in level for such groundwater will be a health-based level for TCE that is approved by Kentucky. The contained-in level for solids will be 39.2 ppm for TCE. These levels are consistent with levels currently being discussed with the Cabinet. Only waste exhibiting TCE in excess of the above referenced contained-in levels will trigger closure/post-closure requirements for the unit (excluding groundwater) containing such waste. A characterization protocol for solids, the above-referenced groundwater, media, and debris will be established and appended to the Agreed Order. The protocol will set forth general agreements on issues such as sampling frequency, the use of SW-846, and acceptable methods for applying contained-in levels to debris. Requirements for characterization and sampling to support "contained-in" determinations will be approved by Kentucky on a project specific basis.

DMSA-Specific Requirements

-Characterization Schedule for DMSAs. Priority A - September 30, 2004. Priority B- September 30, 2006, Priority C - September 30, 2009, C-400-05 - September 30, 2004.

-Permitted Storage. Any hazardous waste discovered in any of the DMSAs must be removed to available on-site permitted storage within 10 days of a hazardous waste determination.

Penalty

-Base Penalty amount will be \$1,000,000 to be paid in installments, plus \$200,000 for environmental projects.

-The stipulated penalty provisions of the Agreed Order will reflect a stipulated penalty of up to \$5,000 for the first week (or part thereof) and up to \$10,000 for each additional week (or part thereof). Stipulated penalties will be in lieu of statutory penalties. No stipulated penalties will be assessed for failure to pay stipulated penalties. The assessment of stipulated penalties will be subject to the consultation process of the Agreed Order. Stipulated penalties will not be payable until any appeals relevant to the assessment of the penalties have been completed.

Release

-Release will cover DOE for violations known to exist in the DOE Material Storage Areas and that have been or may be found in the DMSAs through the implementation of the Characterization Plan (exact language to be worked out in an Agreed Order). Release will include known violations associated with F-listed waste and those that have been or may be found through implementation of the F-listed waste Characterization Plan for the estimated 5,100 containers. DOE understands "release" to mean complete relief from further enforcement action by the Commonwealth, administrative (including permitting actions) and judicial, with respect to both the aforementioned alleged violations and the activities necessary to "come into compliance" (referred to in the Commonwealth's previous DMSA draft Agreed Order as "remedial measures"). The scope of the release will also include other identified alleged violations that are the subject of pending administrative complaints and any and all violations alleged in outstanding NOV's at the PGDP.

Miscellaneous Provisions

-Consultation. The consultation process in the Agreed Order will apply to any and all disputes that may arise under the Agreed Order. Final determinations arising from the consultation process will be subject to administrative and/or judicial review according to applicable law. A time frame for the state actions (e.g., final determinations) under the consultation process will be established. (DOE would like to explore with the state alternative and creative methods for expeditiously resolving technical disputes.)

-Extensions. The Agreed Order will require the approval of an extension request, when good cause exists for the requested extension. Denial of an extension request will be subject to the consultation process of the Agreed Order, and upon completion of the consultation process, administrative and/or judicial review. The Agreed Order will articulate what constitutes good cause.

-Force Majeure. Force Majeure provisions will allow for "consultation" for disagreements relating to implementation of the Force Majeure provisions and will not require notice of "anticipated" events which may cause a delay in compliance with the Agreed Order.

-Transfer. DOE's responsibility under the Agreed Order in event of a transfer of ownership and/or operation will be clarified, relevant to the scope of the Agreed Order, and consistent with limits on DOE's authority.

-Reservation. Agreed Order will not require DOE to acknowledge independent applicability of closure/post-closure/corrective action requirements under state law and the Agreed Order. The Commonwealth may reserve its arguments in this regard.

-Budget. Budget provisions will omit reference to E.O. 12088 and the pre-budget briefing/information requirements.

-Other provisions. Provisions of the Agreed Order will build on provisions of the Commonwealth's last F-listed waste proposal and agreements reached in F-listed waste negotiations. DOE assumes that the provisions of those previous proposals with which DOE has voiced its affirmative agreement will be incorporated into the Agreed Order. All other matters would need to be discussed and finally resolved.

Resolving Issues Associated with DUF6

-Resolution of this issue will be consistent with DUF6 agreements DOE has already entered into with Tennessee and Ohio, and will take into consideration site-specific circumstances and updated information and procedures.

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| 36430-01 | DISPLACED WATER/ABSORBENT | C-746-H3 | Yes |
| CASX-15717 | DISPOSED SOLID SAMPLES | C-746-H3 | No |
| CAS-15711 | DISPOSED SOLID SAMPLES | C-753-A | No |
| CAS-00805 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00815 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00847 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00855 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00858 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00859 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00860 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00870 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00871 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00872 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00881 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00882 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00884 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00885 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00886 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00901 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00902 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00904 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00906 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00907 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00914 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00915 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00918 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00974 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00981 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00982 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00983 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00984 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00985 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00986 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00987 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00988 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00993 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00996 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01001 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01002 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01003 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01009 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01010 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01011 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01012 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01017 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01018 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01019 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01020 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01021 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01022 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01023 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01024 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01025 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01026 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01027 | DITCH SEDIMENTS | C-337 | Yes |

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|------------|---------------------------------|----------|-----|
| SI-0181 | DECON TRAILER PPE | C-746-H3 | No |
| SI-1300 | DECON WATER | C-746-B | Yes |
| 102431-01 | DECON WATER | C-746-H3 | Yes |
| 45666-01 | DECON WATER | C-746-H3 | Yes |
| 103806-01 | DECON WATER | C-752-A | Yes |
| 103813-01 | DECON WATER | C-752-A | Yes |
| 53754-01 | DECON WATER | C-752-A | Yes |
| 6954A | DECON WATER SLUDGE | C-746-A | No |
| 49670-03A | DECON WATER SLUDGE | C-753-A | Yes |
| 104315-01 | DET. PCB LAB SAMPLES FROM AW-49 | C-752-A | No |
| 55415-01 | DIESEL/WATER MIX | C-752-A | Yes |
| 20415-02 | DIRT | C-333 | Yes |
| CAS-16592 | DIRT | C-746-A | Yes |
| CAS-16593 | DIRT | C-746-A | Yes |
| CASX-14616 | DIRT | C-746-A | Yes |
| CASX-14617 | DIRT | C-746-A | Yes |
| CASX-14618 | DIRT | C-746-A | Yes |
| 54608-01 | DIRT | C-746-B | Yes |
| 54608-02 | DIRT | C-746-B | Yes |
| 54608-03 | DIRT | C-746-B | Yes |
| CAS-11193 | DIRT | C-746-B | Yes |
| CAS-16586 | DIRT | C-746-B | Yes |
| CAS-16587 | DIRT | C-746-B | Yes |
| CAS-16588 | DIRT | C-746-B | Yes |
| CAS-16589 | DIRT | C-746-B | Yes |
| CAS-16590 | DIRT | C-746-B | Yes |
| CAS-16594 | DIRT | C-746-B | Yes |
| CAS-17342 | DIRT | C-746-B | Yes |
| CAS-17343 | DIRT | C-746-B | Yes |
| CAS-17344 | DIRT | C-746-B | Yes |
| CAS-17345 | DIRT | C-746-B | Yes |
| CAS-17346 | DIRT | C-746-B | Yes |
| CAS-17347 | DIRT | C-746-B | Yes |
| CAS-17348 | DIRT | C-746-B | Yes |
| CAS-17349 | DIRT | C-746-B | Yes |
| CAS-17350 | DIRT | C-746-B | Yes |
| CAS-17351 | DIRT | C-746-B | Yes |
| CAS-17352 | DIRT | C-746-B | Yes |
| CAS-17353 | DIRT | C-746-B | Yes |
| CAS-17354 | DIRT | C-746-B | Yes |
| CAS-17355 | DIRT | C-746-B | Yes |
| CAS-17356 | DIRT | C-746-B | Yes |
| 11064-002 | DIRT | C-746-H3 | Yes |
| 13901-017 | DIRT | C-746-H3 | Yes |
| HC-0405 | DIRT | C-746-H3 | Yes |
| HC-0407 | DIRT | C-746-H3 | Yes |
| HC-0408 | DIRT | C-746-H3 | Yes |
| 20415-01 | DIRT | C-752-A | Yes |
| CAS-16591 | DIRT | C-753-A | Yes |
| CAS-16595 | DIRT | C-753-A | Yes |
| CAS-16596 | DIRT | C-753-A | Yes |
| CAS-17311 | DIRT | C-753-A | Yes |
| CAS-17312 | DIRT | C-753-A | Yes |
| CAS-17314 | DIRT | C-753-A | Yes |
| CAS-17336 | DIRT | C-753-A | Yes |

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|-----------|----------------------------------|----------|-----|
| CAS-12863 | CONCRETE & SOIL/TEMP PROJECT | C-337 | Yes |
| CAS-12864 | CONCRETE & SOIL/TEMP PROJECT | C-337 | Yes |
| CAS-12866 | CONCRETE & SOIL/TEMP PROJECT | C-337 | Yes |
| CAS-12867 | CONCRETE & SOIL/TEMP PROJECT | C-337 | Yes |
| CAS-12845 | CONCRETE & SOIL/TEMP PROJECT | C-753-A | Yes |
| CAS-12846 | CONCRETE & SOIL/TEMP PROJECT | C-753-A | Yes |
| CAS-12847 | CONCRETE & SOIL/TEMP PROJECT | C-753-A | Yes |
| 34776-01 | CONCRETE CHIPS | C-746-H3 | No |
| 34776-02 | CONCRETE CHIPS | C-746-H3 | No |
| 06441-09 | CONT. TRASH/PPE/PAPER/FLOORSWEEP | C-746-B | No |
| 32531-01 | CONTAMINATED WATER | C-746-B | Yes |
| 44862-13 | CUTTINGS | C-746-B | Yes |
| 42713-01 | CUTTINGS | C-752-A | Yes |
| 42713-02 | CUTTINGS | C-752-A | Yes |
| 42713-03 | CUTTINGS | C-752-A | Yes |
| 42713-04 | CUTTINGS | C-752-A | Yes |
| 42713-05 | CUTTINGS | C-752-A | Yes |
| 42713-06 | CUTTINGS | C-752-A | Yes |
| 42713-07 | CUTTINGS | C-752-A | Yes |
| 42713-08 | CUTTINGS | C-752-A | Yes |
| 42713-09 | CUTTINGS | C-752-A | Yes |
| 42713-10 | CUTTINGS | C-752-A | Yes |
| 42713-11 | CUTTINGS | C-752-A | Yes |
| 42713-12 | CUTTINGS | C-752-A | Yes |
| 42713-13 | CUTTINGS | C-752-A | Yes |
| 42718-01 | CUTTINGS | C-752-A | Yes |
| 42718-02 | CUTTINGS | C-752-A | Yes |
| 42718-03 | CUTTINGS | C-752-A | Yes |
| 42718-04 | CUTTINGS | C-752-A | Yes |
| 42718-05 | CUTTINGS | C-752-A | Yes |
| 42718-06 | CUTTINGS | C-752-A | Yes |
| 42718-07 | CUTTINGS | C-752-A | Yes |
| 42718-08 | CUTTINGS | C-752-A | Yes |
| 42718-09 | CUTTINGS | C-752-A | Yes |
| 42718-10 | CUTTINGS | C-752-A | Yes |
| 42718-11 | CUTTINGS | C-752-A | Yes |
| 42718-12 | CUTTINGS | C-752-A | Yes |
| 42718-13 | CUTTINGS | C-752-A | Yes |
| 42718-14 | CUTTINGS | C-752-A | Yes |
| 42718-15 | CUTTINGS | C-752-A | Yes |
| 42718-16 | CUTTINGS | C-752-A | Yes |
| 42718-17 | CUTTINGS | C-752-A | Yes |
| 42719-01 | CUTTINGS | C-752-A | Yes |
| 42719-02 | CUTTINGS | C-752-A | Yes |
| 42719-03 | CUTTINGS | C-752-A | Yes |
| 42719-04 | CUTTINGS | C-752-A | Yes |
| 42719-05 | CUTTINGS | C-752-A | Yes |
| 42719-06 | CUTTINGS | C-752-A | Yes |
| 42719-07 | CUTTINGS | C-752-A | Yes |
| 42719-08 | CUTTINGS | C-752-A | Yes |
| 42719-09 | CUTTINGS | C-752-A | Yes |
| 42719-10 | CUTTINGS | C-752-A | Yes |
| 42719-11 | CUTTINGS | C-752-A | Yes |
| 42719-12 | CUTTINGS | C-752-A | Yes |
| 42719-13 | CUTTINGS | C-752-A | Yes |

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| 32831-01 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-02 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-03 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-04 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-05 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-06 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-07 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-08 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-10 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-11 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-12 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32831-13 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32847-01 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32847-02 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32847-03 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32847-04 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32847-05 | AUGER CUTTINGS | C-746-H3 | Yes |
| 32847-09 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36436-01 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36691-01 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36691-02 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36691-03 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36691-04 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-01 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-02 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-03 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-04 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-05 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-06 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-07 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36699-08 | AUGER CUTTINGS | C-746-H3 | Yes |
| 36802-11 | AUGER CUTTINGS | C-746-H3 | Yes |
| 44574-62 | AUGER CUTTINGS | C-746-H3 | Yes |
| 44574-79 | AUGER CUTTINGS | C-746-H3 | Yes |
| 46139-27 | AUGER CUTTINGS | C-746-H3 | Yes |
| 46139-59 | AUGER CUTTINGS | C-746-H3 | Yes |
| 46159-01 | AUGER CUTTINGS | C-746-H3 | Yes |
| 46159-02 | AUGER CUTTINGS | C-746-H3 | Yes |
| 31175-04 | AUGER CUTTINGS | C-752-A | Yes |
| 31198-12 | AUGER CUTTINGS | C-752-A | Yes |
| 32831-09 | AUGER CUTTINGS | C-752-A | Yes |
| 32847-10 | AUGER CUTTINGS | C-752-A | Yes |
| 36699-09 | AUGER CUTTINGS | C-752-A | Yes |
| 39096-07 | AUGER CUTTINGS | C-752-A | Yes |
| 44861-07 | AUGER CUTTINGS | C-752-A | Yes |
| 44862-10 | AUGER CUTTINGS | C-752-A | Yes |
| SI-1337B | AUGER CUTTINGS | C-746-B | Yes |
| 31102-02 | AUGER CUTTINGS AND BENTONITE | C-746-H3 | Yes |
| 31153-01 | AUGER CUTTINGS AND BENTONITE | C-746-H3 | Yes |
| 31102-01 | AUGER CUTTINGS AND BENTONITE | C-752-A | Yes |
| 51405-01 | AUGER CUTTINGS TREATABILITY | C-746-Q | Yes |
| 51396-01 | AUGER CUTTINGS TREATABILITY STUDY | C-746-Q | Yes |
| 51888-01 | AUGER CUTTINGS/SODIUM ORTHOSILICATE | C-746-Q | Yes |
| 51888-02 | AUGER CUTTINGS/SODIUM ORTHOSILICATE | C-746-Q | Yes |
| SI-0249 | BENTONITE | C-746-B | No |

| | | | | |
|------------|---|--|----------|------------------------|
| 106101-38 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106101-39 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106101-40 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106101-41 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106101-42 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106176-01 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106176-06 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 106176-07 | * | 750 M3 REPACKAGING PROJECT | C-746-V | Mixed media and debris |
| 105335-01 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-H3 | Mixed media and debris |
| 105335-02 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-H3 | Mixed media and debris |
| 105335-03 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-H3 | Mixed media and debris |
| 105335-18 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-H3 | Mixed media and debris |
| 105335-25 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-H3 | Mixed media and debris |
| 105335-04 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-05 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-06 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-07 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-08 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-09 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-10 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-11 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-12 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-13 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-14 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-15 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-16 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-17 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-19 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-20 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-21 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-22 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-23 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-24 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| 105335-26 | * | 750 M3 REPACKAGING PROJECT. FROM PHASE 4 | C-746-V | Mixed media and debris |
| CAS-16299 | | ABSORBENT PADS/PLASTIC | C-753-A | No |
| CASX-15619 | | ABSORBENT PADS/PPE/RAGS/PLASTIC | C-746-A | No |
| CAS-14329 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14330 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14331 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14332 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14333 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14334 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14335 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14336 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14337 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14338 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14339 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-746-A | Yes |
| CAS-14327 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-753-A | Yes |
| CAS-14328 | | ABSORBENT RAGS/PLASTIC/GRAVEL | C-753-A | Yes |
| SI-1402 | | AC | C-746-B | No |
| SI-1408 | | AC | C-746-B | No |
| SI-3331 | | AC, 00-40 | C-746-B | No |
| SI-3337 | | AC, 00-40 | C-746-B | No |
| SI-3359 | | AC, 00-40 | C-746-B | No |
| SI-3322 | | AC, 00-40 | C-746-H3 | No |

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|------------|---------------------------|----------|-----|
| 36430-01 | DISPLACED WATER/ABSORBENT | C-746-H3 | Yes |
| CASX-15717 | DISPOSED SOLID SAMPLES | C-746-H3 | No |
| CAS-15711 | DISPOSED SOLID SAMPLES | C-753-A | No |
| CAS-00805 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00815 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00847 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00855 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00858 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00859 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00860 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00870 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00871 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00872 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00881 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00882 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00884 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00885 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00886 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00901 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00902 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00904 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00906 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00907 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00914 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00915 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00918 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00974 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00981 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00982 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00983 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00984 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00985 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00986 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00987 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00988 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00993 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00996 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01001 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01002 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01003 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01009 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01010 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01011 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01012 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01017 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01018 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01019 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01020 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01021 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01022 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01023 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01024 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01025 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01026 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01027 | DITCH SEDIMENTS | C-337 | Yes |

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|-----------|-----------------|-------|-----|
| CAS-01028 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01029 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01030 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01031 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01032 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01062 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01093 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01094 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01095 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01096 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01118 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01139 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01145 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01146 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01147 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01148 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01149 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01153 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01154 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01155 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01156 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01165 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01166 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01167 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01211 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01225 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01226 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01228 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01229 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01230 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01231 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01232 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01234 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01237 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01238 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01239 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01245 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01257 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01259 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01260 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01283 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01298 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01343 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01396 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01425 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01451 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01465 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01466 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01468 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01473 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01474 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01475 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01476 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01509 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01524 | DITCH SEDIMENTS | C-337 | Yes |

| | | | |
|-----------|-----------------|---------|-----|
| CAS-01553 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01561 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01582 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01615 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01618 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01674 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01770 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01785 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01856 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01901 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01955 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01976 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-01994 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-02105 | DITCH SEDIMENTS | C-337 | Yes |
| CAS-00806 | DITCH SEDIMENTS | C-752-A | Yes |
| CAS-00807 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00808 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00809 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00810 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00811 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00812 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00813 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00814 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00816 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00817 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00818 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00819 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00821 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00822 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00823 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00824 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00825 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00826 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00827 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00828 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00829 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00830 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00831 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00833 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00834 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00835 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00836 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00837 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00838 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00839 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00840 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00841 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00842 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00843 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00846 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00848 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00849 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00850 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00851 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00852 | DITCH SEDIMENTS | C-746-B | Yes |

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|-----------|-----------------|---------|-----|
| CAS-01202 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01203 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01204 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01205 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01207 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01208 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01209 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01212 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01214 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01215 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01216 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01217 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01218 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01219 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01220 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01221 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01222 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01223 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01224 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01233 | DITCH SEDIMENTS | C-752-A | Yes |
| CAS-01235 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01241 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01242 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01243 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01244 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01246 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01247 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01249 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01250 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01251 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01252 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01253 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01254 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01255 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01256 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01261 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01262 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01263 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01264 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01265 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01266 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01267 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01269 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01270 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01271 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01272 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01273 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01274 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01276 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01277 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01278 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01279 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01280 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01281 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01282 | DITCH SEDIMENTS | C-746-B | Yes |

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| CAS-01779 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01780 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01781 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01782 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01783 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01784 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01786 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01787 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01788 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01789 | DITCH SEDIMENTS | C-752-A | Yes |
| CAS-01790 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01791 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01792 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01793 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01794 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01795 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01797 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01798 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01799 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01800 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01801 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01802 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01803 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01804 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01805 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01806 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01807 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01808 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01809 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01810 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01811 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01812 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01813 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01814 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01815 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01816 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01817 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01818 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01819 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01820 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01821 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01823 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01825 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01826 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01827 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01828 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01829 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01830 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01831 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01832 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01834 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01835 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01836 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-01837 | DITCH SEDIMENTS | C-752-A | Yes |
| CAS-01838 | DITCH SEDIMENTS | C-746-B | Yes |

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|-----------|-----------------|---------|-----|
| CAS-02015 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02017 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02018 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02019 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02020 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02021 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02022 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02023 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02024 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02026 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02027 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02028 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02029 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02030 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02031 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02032 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02033 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02034 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02035 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02036 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02038 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02039 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02040 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02041 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02042 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02043 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02044 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02045 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02046 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02048 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02049 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02050 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02051 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02052 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02053 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02054 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02055 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02056 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02057 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02058 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02059 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02060 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02061 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02062 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02063 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02064 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02065 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02066 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02067 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02068 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02069 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02070 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02071 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02072 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02073 | DITCH SEDIMENTS | C-752-A | Yes |

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|-----------|-----------------|---------|-----|
| CAS-02074 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02075 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02076 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02077 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02078 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02079 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02080 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02081 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02082 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02083 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02084 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02085 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02086 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02087 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02088 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02089 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02090 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02091 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02092 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02093 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02094 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02095 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02096 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02097 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02098 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02099 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02100 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02101 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02102 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02103 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02104 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02106 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02107 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02108 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02109 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02110 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02111 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-02112 | DITCH SEDIMENTS | C-746-B | Yes |
| CAS-00820 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00832 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00844 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00845 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00857 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00866 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00874 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00876 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00877 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00893 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00894 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00896 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00908 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00910 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00916 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00922 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00948 | DITCH SEDIMENTS | C-753-A | Yes |

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|-----------|-----------------|---------|-----|
| CAS-00959 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00962 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00967 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00970 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00977 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00980 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00994 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-00999 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01006 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01036 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01044 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01048 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01049 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01053 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01055 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01056 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01073 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01075 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01078 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01087 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01089 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01092 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01098 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01106 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01129 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01143 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01150 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01157 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01158 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01161 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01164 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01169 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01174 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01177 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01179 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01180 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01184 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01185 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01189 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01192 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01194 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01196 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01197 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01206 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01210 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01213 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01227 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01236 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01240 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01248 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01258 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01268 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01275 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01287 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01324 | DITCH SEDIMENTS | C-753-A | Yes |

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| CAS-01330 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01335 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01359 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01363 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01371 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01384 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01422 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01446 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01458 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01463 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01467 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01469 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01511 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01531 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01544 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01557 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01558 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01559 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01567 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01620 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01622 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01633 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01650 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01659 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01671 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01684 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01686 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01687 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01715 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01735 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01741 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01745 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01796 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01822 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01824 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01833 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01859 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01863 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01925 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01967 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-01975 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-02000 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-02016 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-02025 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-02037 | DITCH SEDIMENTS | C-753-A | Yes |
| CAS-02047 | DITCH SEDIMENTS | C-753-A | Yes |
| 22821-008 | DRILL CUTTINGS | C-746-B | Yes |
| SI-0271 | DRILL CUTTINGS | C-746-B | Yes |
| 46101-01 | DRILL CUTTINGS | C-746-H3 | Yes |
| 103188-01 | SITE IN | C-752-A | Yes |
| 103188-02 | SITE IN | C-752-A | Yes |
| 103188-03 | SITE IN | C-752-A | Yes |
| 103188-04 | SITE IN | C-752-A | Yes |
| 103188-05 | SITE IN | C-752-A | Yes |
| 103185-01 | OPERATIONS AT | C-752-A | Yes |

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|------------|--------------------------|----------|-----|
| 103185-02 | OPERATIONS AT | C-752-A | Yes |
| 103185-03 | OPERATIONS AT | C-752-A | Yes |
| 103185-04 | OPERATIONS AT | C-752-A | Yes |
| 103171-03 | OPERATIONS -BO | C-752-A | Yes |
| 103171-04 | OPERATIONS -BO | C-752-A | Yes |
| 22821-004 | DRILL FLUID | C-746-B | Yes |
| SI-0111 | DRILL FLUID | C-746-B | Yes |
| SI-0112 | DRILL FLUID | C-746-B | Yes |
| SI-0113 | DRILL FLUID | C-746-B | Yes |
| SI-0119 | DRILL FLUID | C-746-B | Yes |
| SI-0346 | DRILL FLUID | C-746-B | Yes |
| SI-1148 | DRILL FLUID | C-746-B | Yes |
| 22816-007 | DRILL FLUID | C-746-H3 | Yes |
| 22821-005 | DRILL FLUID | C-746-H3 | Yes |
| 22821-006 | DRILL FLUID | C-746-H3 | Yes |
| SI-0117 | DRILL FLUID | C-746-H3 | Yes |
| 22575-013 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22601-010 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22601-012 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22601-026 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22601-027 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22601-028 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22604-019 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22604-148 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22608-040 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22609-016 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22609-044 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22610-017 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22610-018 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22610-049 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22611-015 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22611-043 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22613-001 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| 22613-007 | DRILL FLUID & CUTTINGS | C-746-B | Yes |
| SI-0435 | DRILL FLUID (DRILL MUD?) | C-746-B | Yes |
| SI-0439 | DRILL FLUID (DRILL MUD?) | C-746-B | Yes |
| SI-0720 | DRILL FLUID, DRILL MUD | C-746-B | Yes |
| SI-1202 | DRILL FLUID, GROUT | C-746-B | Yes |
| 22812-003 | DRILL MUD | C-746-B | Yes |
| 22816-002B | DRILL MUD | C-746-B | Yes |
| 22816-008 | DRILL MUD | C-746-B | Yes |
| 22816-009 | DRILL MUD | C-746-B | Yes |
| 22816-010 | DRILL MUD | C-746-B | Yes |
| 22821-001 | DRILL MUD | C-746-B | Yes |
| 22821-002 | DRILL MUD | C-746-B | Yes |
| 22821-003 | DRILL MUD | C-746-B | Yes |
| 22821-007 | DRILL MUD | C-746-B | Yes |
| SI-0098 | DRILL MUD | C-746-B | Yes |
| SI-0103 | DRILL MUD | C-746-B | Yes |
| SI-0114 | DRILL MUD | C-746-B | Yes |
| SI-0115 | DRILL MUD | C-746-B | Yes |
| SI-0116 | DRILL MUD | C-746-B | Yes |
| SI-0118 | DRILL MUD | C-746-B | Yes |
| SI-0130 | DRILL MUD | C-746-B | Yes |
| SI-0133 | DRILL MUD | C-746-B | Yes |

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| SI-0137 | DRILL MUD | C-746-B | Yes |
| SI-0140 | DRILL MUD | C-746-B | Yes |
| SI-0153 | DRILL MUD | C-746-B | Yes |
| SI-0157 | DRILL MUD | C-746-B | Yes |
| SI-0167 | DRILL MUD | C-746-B | Yes |
| SI-0184 | DRILL MUD | C-746-B | Yes |
| SI-0217 | DRILL MUD | C-746-B | Yes |
| SI-0224 | DRILL MUD | C-746-B | Yes |
| SI-0240 | DRILL MUD | C-746-B | Yes |
| SI-0243 | DRILL MUD | C-746-B | Yes |
| SI-0254 | DRILL MUD | C-746-B | Yes |
| SI-0258 | DRILL MUD | C-746-B | Yes |
| SI-0269 | DRILL MUD | C-746-B | Yes |
| SI-0273 | DRILL MUD | C-746-B | Yes |
| SI-0327 | DRILL MUD | C-746-B | Yes |
| SI-0338 | DRILL MUD | C-746-B | Yes |
| SI-0357 | DRILL MUD | C-746-B | Yes |
| SI-0371 | DRILL MUD | C-746-B | Yes |
| SI-0373 | DRILL MUD | C-746-B | Yes |
| SI-0374 | DRILL MUD | C-746-B | Yes |
| SI-0378 | DRILL MUD | C-746-B | Yes |
| SI-0381 | DRILL MUD | C-746-B | Yes |
| SI-0453 | DRILL MUD | C-746-B | Yes |
| SI-0482 | DRILL MUD | C-746-B | Yes |
| SI-0583 | DRILL MUD | C-746-B | Yes |
| SI-0584 | DRILL MUD | C-746-B | Yes |
| SI-0608 | DRILL MUD | C-746-B | Yes |
| SI-0620 | DRILL MUD | C-746-B | Yes |
| SI-0647 | DRILL MUD | C-746-B | Yes |
| SI-0649 | DRILL MUD | C-746-B | Yes |
| SI-0711 | DRILL MUD | C-746-B | Yes |
| SI-0728 | DRILL MUD | C-746-B | Yes |
| SI-0731 | DRILL MUD | C-746-B | Yes |
| SI-0863 | DRILL MUD | C-746-B | Yes |
| SI-0907 | DRILL MUD | C-746-B | Yes |
| SI-1004 | DRILL MUD | C-746-B | Yes |
| SI-1147 | DRILL MUD | C-746-B | Yes |
| RC-11320 | DRILL MUD | C-746-H3 | Yes |
| SI-0231 | DRILL MUD | C-746-H3 | Yes |
| SI-0232 | DRILL MUD | C-746-H3 | Yes |
| SI-0319 | DRILL MUD | C-746-H3 | Yes |
| SI-0375 | DRILL MUD | C-746-H3 | Yes |
| SI-0659 | DRILL MUD | C-746-H3 | Yes |
| SI-0925 | DRILL MUD | C-746-H3 | Yes |
| 22816-002 | DRILL MUD | C-746-B | Yes |
| SI-0079 | DRILL MUD | C-746-B | Yes |
| SI-0110 | DRILL MUD | C-746-B | Yes |
| SI-0131 | DRILL MUD | C-746-B | Yes |
| SI-0186 | DRILL MUD | C-746-B | Yes |
| SI-0212 | DRILL MUD | C-746-B | Yes |
| SI-0317 | DRILL MUD | C-746-B | Yes |
| SI-0320 | DRILL MUD | C-746-B | Yes |
| SI-0321 | DRILL MUD | C-746-B | Yes |
| SI-0325 | DRILL MUD | C-746-B | Yes |
| SI-0347 | DRILL MUD | C-746-B | Yes |

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| SI-0379 | DRILL MUD | C-746-B | Yes |
| SI-0395 | DRILL MUD | C-746-B | Yes |
| SI-0401 | DRILL MUD | C-746-B | Yes |
| SI-0404 | DRILL MUD | C-746-B | Yes |
| SI-0858 | DRILL MUD | C-746-B | Yes |
| SI-1043 | DRILL MUD (BENTONITE SLURRY) | C-746-Q | Yes |
| SI-0230 | DRILL MUD (PPE?) | C-746-B | Yes |
| SI-0165 | DRILL MUD, WATER | C-746-B | Yes |
| SI-0592 | DRILL MUD, WATER | C-746-B | Yes |
| SI-1431 | DRILL MUD, WATER | C-746-H3 | Yes |
| SI-0154 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-0291 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-0343 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-0531 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-0535 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-0644 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-0906 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-1082 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-1084 | DRILL MUD/GROUT | C-746-Q | Yes |
| SI-1095 | DRILL MUD/GROUT | C-746-B | Yes |
| SI-0149 | DRILL MUD/GROUT | C-746-B | Yes |
| SI-1014 | DRILL MUD/GROUT | C-746-B | Yes |
| 08994-09 | DRILL TAILINGS | C-746-B | Yes |
| 08994-11 | DRILL TAILINGS | C-746-H3 | Yes |
| 04200-01 | DRILL TAILINGS | C-752-A | Yes |
| 04200-02 | DRILL TAILINGS | C-752-A | Yes |
| 04200-03 | DRILL TAILINGS | C-752-A | Yes |
| 04200-04 | DRILL TAILINGS | C-752-A | Yes |
| 22812-002 | DRILL WATER | C-746-B | Yes |
| 53778-01 | DRILLING GROUT | C-752-A | No |
| 13943-02 | DRUM SOIL (WET FROM TEST) | C-746-H3 | Yes |
| 13943-01 | DRUM SOIL (WET FROM TEST) | C-746-V | Yes |
| 51493-01 | EMPTY GLASS/PLASTIC/BOTTLES | C-746-A | No |
| 51493-02 | EMPTY GLASS/PLASTIC/BOTTLES | C-746-A | No |
| 53834-01 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 53834-02 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 53834-03 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 53834-04 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 53834-05 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 53834-06 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 53834-07 | EPOXY RESIN FROM CEMENT PAD | C-746-A | No |
| 17649-01 | ER DRILLINGS | C-746-V | Yes |
| CAS-11401 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11402 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11403 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11404 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11405 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11406 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11407 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11408 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11409 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11410 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11411 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11412 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |
| CAS-11413 | EXCAVATED SOIL/AUTOSAMPLER | C-337 | Yes |

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| CAS-12149 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12150 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12198 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12199 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12200 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12201 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12256 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12257 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12258 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12259 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12260 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12261 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12262 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12263 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12264 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12265 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12266 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12267 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12268 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12269 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12270 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12271 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12272 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12273 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12274 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12275 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12276 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12277 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12278 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12279 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12296 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12297 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12298 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12299 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12353 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12354 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12355 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12356 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12357 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12358 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12359 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12360 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12361 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CAS-12367 | EXCAVATED SOIL/AUTOSAMPLER | C-753-A | Yes |
| CASX-17358 | EXCAVATION DIRT | C-746-B | Yes |
| CASX-17359 | EXCAVATION DIRT | C-746-B | Yes |
| CASX-17360 | EXCAVATION DIRT | C-746-B | Yes |
| CASX-17361 | EXCAVATION DIRT | C-746-B | Yes |
| CASX-17362 | EXCAVATION DIRT | C-746-B | Yes |
| CASX-17357 | EXCAVATION DIRT | C-746-H3 | Yes |
| 104653-01 | FILTER BAGS/WOOD/RUBBER/PLASTIC/METAL | C-752-A | No |
| 58457-01 | FILTER CAKE | C-752-A | No |
| 53182-01 | FILTER CAKE FROM FILTER PRESS | C-752-A | No |
| 104676-01 | FILTERS FROM WASTE WATER TREATMENT | C-752-A | No |
| 11115-01 | FILTERS/RUGS/FLOOR MATS/PLASTIC/METAL | C-333 | No |

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| 11115-02 | FILTERS/RUGS/FLOOR MATS/PLASTIC/METAL | C-333 | No |
| 06441-06 | FLOORSWEEP/RAGS/WOOD/LEATHER GLOVES | C-746-B | No |
| CAS-14961 | FLUME SLUDGE | C-753-A | Yes |
| CAS-14962 | FLUME SLUDGE | C-753-A | Yes |
| CAS-14963 | FLUME SLUDGE | C-753-A | Yes |
| CAS-14964 | FLUME SLUDGE | C-753-A | Yes |
| CAS-14965 | FLUME SLUDGE | C-753-A | Yes |
| CASX-18117 | FLUME SLUDGE--10 INCHES WATER | C-746-A | Yes |
| 59808-02 | GABION FABRIC FROM N/S DITCH | C-746-B | No |
| SI-2175 | GASKETS; SOIL HAY | C-746-B | Yes |
| 44824-01 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44824-02 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44824-03 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44824-04 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44824-05 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-01 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-02 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-03 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-04 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-05 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-06 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-07 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 44825-08 | GEOTEXTILE/PLASTIC | C-746-B | No |
| 53199-01 | GLASS | C-746-H3 | No |
| 6229 | GLASS AND PLASTIC BOTTLES | C-752-A | No |
| 36823-01 | GLASS BOTTLES | C-746-H3 | No |
| 07249-01 | GLASS JARS/SAMPLES/FILTERS/ALKALI SLUDGE | C-746-B | No |
| CAS-10909 | GLASS, PAPER & PLASTIC | C-753-A | No |
| CAS-10911 | GLASS, PAPER, & PLASTIC | C-753-A | No |
| CAS-10910 | GLASS, PAPER, PLASTIC | C-753-A | No |
| CAS-12517 | GLASS, PLASTICS, PAPER, SAMPLES | C-753-A | No |
| 53185-01 | GLASS/BOTTLEWARE | C-746-H3 | No |
| CAS-14064 | GLASS/PAPER/PLASTIC | C-337 | No |
| CAS-14277 | GLASS/PAPER/PLASTIC | C-337 | No |
| 13848-01 | GLASS/TYVEK/PAPER/GLOVES | C-746-V | No |
| 13848-02 | GLASS/TYVEK/PAPER/GLOVES | C-746-V | No |
| 22808-001 | GLOVES | C-746-B | Yes |
| 22808-002 | GLOVES | C-746-H3 | Yes |
| CASX-15478 | GLOVES, RAGS, PANS, PADS, PLASTI | C-746-A | No |
| 18429-02 | GLOVES/FILTERS/RAGS/PADS/SWEEPINGS/DIRT | C-333 | Yes |
| 44937-01 | GLOVES/KIMWIPES/RAGS/PAPER/DEBRIS | C-746-Q | No |
| 51819-02 | GLOVES/PLASTIC/PPE | C-746-V | No |
| CAS-16294 | GRAVEL | C-752-A | Yes |
| CAS-16295 | GRAVEL | C-753-A | Yes |
| CAS-16296 | GRAVEL | C-753-A | Yes |
| CAS-16298 | GRAVEL | C-753-A | Yes |
| CAS-16301 | GRAVEL | C-753-A | Yes |
| CAS-16302 | GRAVEL | C-753-A | Yes |
| CAS-14686 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14733 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14734 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14735 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14736 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14737 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14738 | GRAVEL/DEBRIS | C-753-A | Yes |

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| CAS-14739 | GRAVEL/DEBRIS | C-753-A | Yes |
| CAS-14740 | GRAVEL/DEBRIS | C-753-A | Yes |
| CASX-17363 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17364 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17365 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17366 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17367 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17368 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17369 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17370 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17371 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17372 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17373 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17374 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17375 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17376 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17377 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17378 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17379 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17380 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17381 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17382 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17383 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17384 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17385 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17386 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17387 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17388 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17389 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17390 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17391 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17392 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17393 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CASX-17394 | GRAVEL/SOIL DEBRIS | C-746-B | Yes |
| CAS-15236 | GRAVEL/TYVEKS/PLASTIC | C-746-B | Yes |
| CAS-15394 | GRAVEL/UNDERLAYMENT | C-753-A | Yes |
| CAS-17520 | GROUNDING VAULT SLUDGE | C-746-A | No |
| CASX-18015 | GROUNDING VAULT SLUDGE | C-752-A | No |
| SI-0663 | GROUT | C-746-B | No |
| SI-1350 | GROUT | C-746-B | No |
| SI-1352 | GROUT | C-746-B | No |
| SI-0107 | GROUT | C-746-B | No |
| SI-0580 | GROUT | C-746-B | No |
| SI-0630 | GROUT | C-746-B | No |
| SI-1351 | GROUT | C-746-B | No |
| SI-0013 | GROUT, WATER | C-746-Q | Yes |
| SI-0525 | HOSES, TUBING | C-746-B | No |
| 44937-02 | HOSES/PADS/GLOVES/KIMWIPES | C-746-Q | No |
| 13374-01 | HYPALON | C-746-B | No |
| 13374-02 | HYPALON | C-746-B | No |
| 13374-03 | HYPALON | C-746-B | No |
| 43841-01 | HYPALON | C-746-V | No |
| 52737-01 | HYPALON | C-752-A | No |
| 52737-02 | HYPALON | C-752-A | No |
| CAS-16001 | HYPALON | C-753-A | No |

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| 53222-01 | HYPALON/PPE/LAB WASTE | C-753-A | No |
| CASX-18116 | HYPALON/RAGS/GRASS FROM OUTFALL | C-746-B | Yes |
| 103180-01 | 26 & 27 | C-752-A | Yes |
| 103626-01 | INVESTIGATIONS | C-752-A | Yes |
| 103153-03 | IDW SOIL FROM BORING 4-24 | C-752-A | Yes |
| 103153-04 | IDW SOIL FROM BORING 4-24 | C-752-A | Yes |
| 103181-03 | IDW SOIL FROM WAG 3, SWMU 4 | C-752-A | Yes |
| 103181-04 | IDW SOIL FROM WAG 3, SWMU 4 | C-752-A | Yes |
| 103181-05 | IDW SOIL FROM WAG 3, SWMU 4 | C-752-A | Yes |
| 101586-01 | LAB AQUEOUS WASTE | C-746-B | Yes |
| 51322-03 | LAB PACK LIQUID SAMPLES & | C-746-B | Yes |
| 52752-01 | LAB PACK SOIL TREATABILITY SAMPL | C-746-B | Yes |
| 104316-01 | LAB PACKED SAMPLES | C-752-A | No |
| 52777-01 | LAB RESIDUALS | C-746-V | No |
| 52777-02 | LAB RESIDUALS | C-746-V | No |
| 52777-03 | LAB RESIDUALS | C-746-V | No |
| 52777-04 | LAB RESIDUALS | C-746-V | No |
| 38167-01 | LAB RESIDUALS (VARIOUS ER PROJECTS) | C-746-H3 | Yes |
| 38167-02 | LAB RESIDUALS (VARIOUS ER PROJECTS) | C-746-H3 | Yes |
| 38167-03 | LAB RESIDUALS (VARIOUS ER PROJECTS) | C-746-H3 | Yes |
| 104307-01 | LAB SAMPLES | C-752-A | No |
| 102590-01 | LAB SAMPLING WASTE | C-746-A | No |
| 102587-01 | LAB SAMPLING WASTE | C-746-Q | No |
| 102587-02 | LAB SAMPLING WASTE | C-746-Q | No |
| 101584-01 | LAB SOLIDS | C-746-A | No |
| SI-2086 | LAB WASTE | C-746-H3 | No |
| SI-2088 | LAB WASTE | C-746-H3 | No |
| SI-3098 | LAB WASTE | C-746-H3 | No |
| SI-3099 | LAB WASTE | C-746-H3 | No |
| SI-3520 | LAB WASTE | C-746-H3 | No |
| CAS-15850 | LAB WASTE | C-753-A | No |
| CAS-16679 | LAB WASTE | C-753-A | No |
| SI-2085 | LAB WASTE | C-746-H3 | Yes |
| CAS-09734 | LAB WASTE - BOTTLES AND WIPES | C-746-B | No |
| CAS-11233 | LAB WASTE - GLOVES, TYVEKS, PAPER | C-753-A | No |
| CAS-11234 | LAB WASTE - GLOVES, TYVEKS, PAPER | C-753-A | No |
| CAS-11236 | LAB WASTE - GLOVES, TYVEKS, PAPER | C-753-A | No |
| 55704-01 | LAB WASTE PCB/LOW LEVEL SOLIDS | C-746-A | No |
| CAS-10140 | LAB WASTE/PAPER/PLASTIC | C-746-B | No |
| CASX-18008 | LAB WASTE-SOLID SAMPLES | C-746-H3 | No |
| HC-1710 | LEACHATE LIQUID/SOLID RESIDUE | C-746-H3 | Yes |
| HC-1711 | LEACHATE LIQUID/SOLID RESIDUE | C-746-H3 | Yes |
| HC-1712 | LEACHATE LIQUID/SOLID RESIDUE | C-746-H3 | Yes |
| CAS-03703 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03704 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03705 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03706 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03707 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03708 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03709 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03710 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| CAS-03711 | LEACHATE PIT SLUDGE | C-753-A | Yes |
| 50226-01 | LEACHATE SAMPLES FROM CONCRETE | C-746-H3 | Yes |
| CASX-18078 | LIFT STATION SUMP SEDIMENT | C-746-A | Yes |
| CASX-18079 | LIFT STATION SUMP SEDIMENT | C-746-A | Yes |

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| CASX-18080 | LIFT STATION SUMP SEDIMENT | C-746-A | Yes |
| 37185-01 | LIFTSTATION SLUDGE | C-746-B | Yes |
| 37185-02 | LIFTSTATION SLUDGE | C-746-B | Yes |
| 37185-03 | LIFTSTATION SLUDGE | C-746-B | Yes |
| 104778-01 | LIME | C-752-A | No |
| CASX-15491 | LIMESTONE ROCK | C-746-B | Yes |
| 29261-01 | LIQUID SLUDGE/LIQUID RESIN | C-746-B | No |
| 46281-01 | CUT UP | C-746-H3 | Yes |
| 102755 | MEGA WAG | C-752-C | No |
| 102868 | MEGA WAG | C-752-C | No |
| 103630 | MEGA WAG | C-752-C | No |
| 102194 | MEGA WAG | C-752-C | Yes |
| 102643 | MEGA WAG | C-752-C | Yes |
| 102647 | MEGA WAG | C-752-C | Yes |
| 102759 | MEGA WAG | C-752-C | Yes |
| 102870 | MEGA WAG | C-752-C | Yes |
| 102905 | MEGA WAG | C-752-C | Yes |
| 103033 | MEGA WAG | C-752-C | Yes |
| 103173 | MEGA WAG | C-752-C | Yes |
| 103174 | MEGA WAG | C-752-C | Yes |
| 103175 | MEGA WAG | C-752-C | Yes |
| 103183 | MEGA WAG | C-752-C | Yes |
| 103192 | MEGA WAG | C-752-C | Yes |
| 12528-01 | MISC PAPER/PLASTIC/ION EXCHANGE RESINS | C-333 | No |
| CAS-08487 | MISC. SOILD PCB/U-CONTAMINATED | C-746-B | No |
| 62161-01 | MISC. SOLID SAMPLES | C-746-H3 | No |
| 44962-45 | MUD | C-746-A | No |
| SI-0095 | MUD | C-746-B | Yes |
| SI-0104 | MUD | C-746-B | Yes |
| SI-0141 | MUD | C-746-B | Yes |
| SI-0143 | MUD | C-746-B | Yes |
| SI-0218? | MUD | C-746-B | Yes |
| SI-0318 | MUD | C-746-B | Yes |
| SI-0598 | MUD | C-746-B | Yes |
| SI-0632 | MUD | C-746-B | Yes |
| SI-0743 | MUD | C-746-B | Yes |
| SI-0754 | MUD | C-746-B | Yes |
| SI-0802 | MUD | C-746-B | Yes |
| 44962-13 | MUD | C-746-H3 | No |
| 44962-15 | MUD | C-746-H3 | No |
| 44962-16 | MUD | C-746-H3 | No |
| 44962-17 | MUD | C-746-H3 | No |
| 44962-20 | MUD | C-746-H3 | No |
| 44962-21 | MUD | C-746-H3 | No |
| 44962-22 | MUD | C-746-H3 | No |
| 44962-23 | MUD | C-746-H3 | No |
| 44962-47 | MUD | C-746-H3 | No |
| 44962-64 | MUD | C-746-H3 | No |
| 44962-68 | MUD | C-746-H3 | No |
| 44962-69 | MUD | C-746-H3 | No |
| 44962-81 | MUD | C-746-H3 | No |
| 44962-83 | MUD | C-746-H3 | No |
| 44962-84 | MUD | C-746-H3 | No |
| 44962-86 | MUD | C-746-H3 | No |
| 44962-90 | MUD | C-746-H3 | No |

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| 44965-01 | MUD | C-746-H3 | No |
| 44965-02 | MUD | C-746-H3 | No |
| 44965-03 | MUD | C-746-H3 | No |
| 44965-04 | MUD | C-746-H3 | No |
| 44965-05 | MUD | C-746-H3 | No |
| 44965-06 | MUD | C-746-H3 | No |
| 44965-07 | MUD | C-746-H3 | No |
| 44965-08 | MUD | C-746-H3 | No |
| 44965-09 | MUD | C-746-H3 | No |
| 44965-10 | MUD | C-746-H3 | No |
| SI-0358 | MUD | C-746-H3 | Yes |
| SI-0423 | MUD | C-746-H3 | Yes |
| 35594-01 | MUD - SLUDGE | C-746-H3 | Yes |
| 35594-06 | MUD - SLUDGE | C-746-H3 | Yes |
| 35594-07 | MUD - SLUDGE | C-746-H3 | Yes |
| 35594-03 | MUD - SLUDGE | C-746-V | Yes |
| 35594-04 | MUD - SLUDGE | C-746-V | Yes |
| 35594-05 | MUD - SLUDGE | C-746-V | Yes |
| 35594-08 | MUD - SLUDGE | C-746-V | Yes |
| 35594-09 | MUD - SLUDGE | C-746-V | Yes |
| 35594-11 | MUD - SLUDGE | C-746-V | Yes |
| SI-0087 | MUD (SOIL) | C-746-H3 | Yes |
| 33244-01 | MUD FROM LIFT STATION SUMP | C-752-A | Yes |
| SI-0744 | MUD FROM SUMP CLEANOUT | C-746-B | Yes |
| SI-0753 | MUD FROM SUMP CLEANOUT | C-746-B | Yes |
| SI-0626 | MUD/PLASTIC | C-746-B | Yes |
| SI-0627 | MUD/PLASTIC | C-746-B | Yes |
| SI-0521 | MUD/RADSORB | C-746-H3 | Yes |
| SI-0613 | MUD/ROPE/GLOVES | C-746-B | Yes |
| SI-0534 | MUD; PLASTIC | C-752-A | Yes |
| SI-0738 | MUDDY PLASTIC | C-746-B | Yes |
| 59778-01 | N/A | C-746-V | N/A |
| 61947-01 | NONINCINERABLE SAMPLING DEBRIS | C-753-A | No |
| 62572-01 | NONINCINERABLE SAMPLING DEBRIS | C-753-A | No |
| 62136-01 | NONINCINERABLE SOLID SAMPLES | C-746-A | No |
| 61899-01 | NONINCINERABLE SOLID SAMPLES | C-753-A | No |
| SI-0499 | OFS SOIL (LAB RESIDUALS) | C-746-B | Yes |
| SI-1206 | OFS SOLID, SOIL, LAB RESIDUAL | C-746-B | Yes |
| SI-0071 | OFS SOLIDS (LAB RESIDUALS) | C-746-B | Yes |
| 105109-01 | OIL & WATER FROM UST 17 | C-752-A | Yes |
| 15498-01 | OIL CONTAMINATED PLASTIC/GRAVEL | C-746-V | Yes |
| 51897-01 | OIL CONTAMINATED SOIL FROM UST RELEASE | C-752-A | Yes |
| 51897-02 | OIL CONTAMINATED SOIL FROM UST RELEASE | C-752-A | Yes |
| 51897-03 | OIL CONTAMINATED SOIL FROM UST RELEASE | C-752-A | Yes |
| CAS-14729 | OIL HOSE/RAGS/GLOVES-SPILL CLNUP | C-753-A | No |
| 48169-01 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-02 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-03 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-04 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-05 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-06 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-07 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-08 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-09 | OIL LADDEN SOIL | C-746-H3 | Yes |
| 48169-10 | OIL LADDEN SOIL | C-746-H3 | Yes |

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| 53184-01 | OIL SOAKED RAGS/ABSORBENT PADS | C-746-H3 | No |
| 101469-01 | OILY RAGS, GLOVES, ABSORBENTS | C-753-A | No |
| 101468-01 | OILY RAGS,GLOVES,ETC | C-753-A | No |
| CASX-16131 | OILY RAGS,GLOVES,PADS,ABSORBANTS | C-746-A | No |
| CASX-16132 | OILY RAGS,GLOVES,PADS,ABSORBANTS | C-746-A | No |
| CASX-15758 | OILY RAGS/FILTERS/GLOVES | C-746-A | No |
| 6903 | OILY RAGS/GLOVES/ABSORBENTS | C-746-A | No |
| CASX-15751 | OILY RAGS/GLOVES/FILTERS | C-746-A | No |
| CASX-15759 | OILY RAGS/GLOVES/FILTERS | C-746-A | No |
| CASX-16610 | OILY RAGS/GLOVES/FILTERS/ABSORB | C-746-A | No |
| 35125-01 | OILY RAGS/GLOVES/PIGS/ABSORBENTS | C-753-A | No |
| CAS-18094 | OILY RAGS/PPE/PIGS/ABSORBENTS | C-746-B | No |
| CASX-15741 | OILY RAGS-GLOVES/ABSORBENTS | C-746-A | No |
| CASX-15742 | OILY RAGS-GLOVES-ABSORBENTS | C-746-A | No |
| CASX-15744 | OILY RAGS-GLOVES-ABSORBENTS | C-746-A | No |
| CASX-15745 | OILY RAGS-GLOVES-ABSORBENTS | C-746-A | No |
| CASX-16338 | OILY ROCKS | C-746-A | Yes |
| 46011-01 | OUTFALL 010 SUMP SLUDGE | C-746-Q | Yes |
| 46011-02 | OUTFALL 010 SUMP SLUDGE | C-746-Q | Yes |
| 48162-01 | OUTFALL 011 FLUME SLUDGE/DEBRIS | C-746-A | Yes |
| 14889-01 | OUTFALL SLUDGE | C-333 | Yes |
| 51329-01 | OUTFALL SLUDGE | C-746-B | Yes |
| 37184-01 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-02 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-03 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-04 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-05 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-06 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-07 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| 37184-08 | OUTFALL SUMP SLUDGE | C-746-B | Yes |
| SI-2038 | PAD SUMP CO #1 | C-746-A | No |
| SI-2039 | PAD SUMP CO #1 | C-746-A | No |
| SI-2040 | PAD SUMP CO #1 | C-746-A | No |
| SI-2041 | PAD SUMP CO #1 | C-746-A | No |
| SI-2020 | PAD SUMP CO #2 | C-746-A | No |
| SI-2021 | PAD SUMP CO #2 | C-746-A | No |
| SI-2022 | PAD SUMP CO #2 | C-746-A | No |
| SI-2044 | PAD SUMP CO #3 | C-746-A | No |
| SI-2045 | PAD SUMP CO #3 | C-746-A | No |
| SI-2046 | PAD SUMP CO #3 | C-746-A | No |
| SI-2047 | PAD SUMP CO #3 | C-746-A | No |
| SI-2058 | PAD SUMP CO #3 | C-746-A | No |
| SI-2059 | PAD SUMP CO #3 | C-746-A | No |
| SI-2060 | PAD SUMP CO #5 | C-746-A | Yes |
| SI-3001 | PAD SUMP CO #5 | C-746-A | Yes |
| SI-3002 | PAD SUMP CO #5 | C-746-A | Yes |
| SI-2061 | PAD SUMP CO #5 | C-746-M | Yes |
| SI-2066 | PAD SUMP CO #5 | C-746-M | Yes |
| SI-2067 | PAD SUMP CO #5 | C-746-M | Yes |
| SI-3000 | PAD SUMP CO #5 | C-746-Q | Yes |
| SI-3003 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3031 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3032 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3033 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3034 | PAD SUMP CO #6 | C-746-A | Yes |

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| SI-3035 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3036 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3045 | PAD SUMP CO #6 | C-746-A | Yes |
| SI-3083 | PAD SUMP CO #7 | C-746-Q | Yes |
| SI-3085 | PAD SUMP CO #7 | C-746-Q | Yes |
| SI-3086 | PAD SUMP CO #7 | C-746-M | Yes |
| SI-3087 | PAD SUMP CO #7 | C-746-Q | Yes |
| SI-3082 | PAD SUMP CO #7 | C-746-H3 | Yes |
| SI-3084 | PAD SUMP CO #7 | C-746-H3 | Yes |
| SI-3088 | PAD SUMP CO #7 | C-746-H3 | Yes |
| SI-3534 | PAD SUMP CO #9 | C-746-A | Yes |
| SI-3535 | PAD SUMP CO #9 | C-746-A | Yes |
| SI-3536 | PAD SUMP CO #9 | C-746-A | Yes |
| SI-3537 | PAD SUMP CO #9 | C-746-A | Yes |
| SI-3538 | PAD SUMP CO #9 | C-746-A | Yes |
| SI-3539 | PAD SUMP CO #9 | C-746-A | Yes |
| CASX-15458 | PADS, PANS, PLASTIC, RAGS | C-746-H3 | No |
| CAS-14453 | PADS/PIGS/RUBBER/PLASTIC | C-753-A | No |
| CAS-15404 | PADS/PLASTIC (SPILL PCB-291) | C-753-A | No |
| 101454-01 | PADS/PLASTIC/PPE | C-746-A | No |
| 103203-01 | PAPER & PLASTIC | C-746-A | No |
| CAS-09731 | PAPER & PLASTIC | C-746-B | No |
| CAS-11312 | PAPER & PLASTIC | C-753-A | No |
| 32827-01 | PAPER TOWELS | C-746-H3 | No |
| CAS-12514 | PAPER, PLASTIC | C-753-A | No |
| CAS-16032 | PAPER, PLASTIC | C-753-A | No |
| CAS-12516 | PAPER, PLASTIC, GLASS | C-753-A | No |
| 13681-01 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-02 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-03 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-04 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-05 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-06 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-07 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-08 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| 13681-09 | PAPER/CARDBOARD/PLASTIC | C-333 | No |
| CAS-14452 | PAPER/MISC SAMPLES/PLASTIC/GLASS | C-337 | No |
| 45312-01 | PAPER/PLASTIC | C-753-A | No |
| CAS-12637 | PAPER/PLASTIC | C-753-A | No |
| 20292-01 | PAPER/PLASTIC/DIRT | C-333 | Yes |
| 45246-01 | PAPER/PLASTIC/DIRT/GLASS/RUBBER | C-753-A | Yes |
| 20309-01 | PAPER/PLASTIC/DIRT/ROPE/TAPE | C-333 | Yes |
| 20309-03 | PAPER/PLASTIC/DIRT/ROPE/TAPE | C-333 | Yes |
| 20309-05 | PAPER/PLASTIC/DIRT/ROPE/TAPE | C-333 | Yes |
| 20309-06 | PAPER/PLASTIC/DIRT/ROPE/TAPE | C-333 | Yes |
| 20309-08 | PAPER/PLASTIC/DIRT/ROPE/TAPE | C-333 | Yes |
| 102591-01 | PAPER/PLASTIC/ETC | C-746-A | No |
| CAS-14065 | PAPER/PLASTIC/GLASS | C-337 | No |
| CAS-14273 | PAPER/PLASTIC/GLASS | C-337 | No |
| CAS-14724 | PAPER/PLASTIC/GLASS | C-337 | No |
| CAS-15060 | PAPER/PLASTIC/GLASS | C-337 | No |
| CAS-15074 | PAPER/PLASTIC/GLASS | C-337 | No |
| CAS-12635 | PAPER/PLASTIC/GLASS | C-753-A | No |
| CAS-15421 | PAPER/PLASTIC/GLASS | C-753-A | No |
| CAS-15486 | PAPER/PLASTIC/GLASS | C-753-A | No |

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| CAS-15584 | PAPER/PLASTIC/GLASS | C-753-A | No |
| CAS-15615 | PAPER/PLASTIC/GLASS | C-753-A | No |
| 47630-01 | PAPER/PLASTIC/GLASS VIALS/SOIL | C-753-A | Yes |
| CAS-14399 | PAPER/PLASTIC/GLASS/MISC | C-337 | No |
| CAS-14723 | PAPER/PLASTIC/GLASS/SAMPLE WASTE | C-337 | No |
| CAS-17532 | PAPER/PLASTIC/GLASS/SOIL | C-337 | Yes |
| 47641-01 | PAPER/PLASTIC/GLASS/SOIL | C-746-A | Yes |
| 45234-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| 45243-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| 47606-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| 47607-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| 47629-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| 47647-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| 47703-01 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| CAS-17024 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| CAS-18085 | PAPER/PLASTIC/GLASS/SOIL | C-753-A | Yes |
| CAS-12891 | PAPER/PLASTIC/GLASS/SOIL SAMPLES | C-337 | Yes |
| 47619-01 | PAPER/PLASTIC/GLASS/SOIL SAMPLES | C-753-A | Yes |
| 47627-01 | PAPER/PLASTIC/GLASS/SOIL/SOLID | C-753-A | Yes |
| CAS-12636 | PAPER/PLASTIC/GLASS/SOILS | C-753-A | Yes |
| 20306-01 | PAPER/PLASTIC/GLOVES/ROPE/TAPE/DIRT | C-333 | Yes |
| 20306-03 | PAPER/PLASTIC/GLOVES/ROPE/TAPE/DIRT | C-333 | Yes |
| 20306-04 | PAPER/PLASTIC/GLOVES/ROPE/TAPE/DIRT | C-333 | Yes |
| 47643-01 | PAPER/PLASTIC/GRASS/SOIL/RUBBER | C-746-A | Yes |
| 07244-01 | PAPER/PLASTIC/GREEN SALT | C-746-B | No |
| 06441-02 | PAPER/PLASTIC/METAL/GLASS | C-746-B | No |
| 12502-01 | PAPER/PLASTIC/PPE/PADS | C-746-B | No |
| 06441-11 | PAPER/PLASTIC/RAGS/METAL/FLOORSWEEP | C-746-B | No |
| 34938-14 | PAPER/PLASTIC/ROPE/CARDBOARD/DIRT | C-333 | Yes |
| 20209-02 | PAPER/PLASTIC/ROPE/DIRT | C-333 | Yes |
| 45244-01 | PAPER/PLASTIC/SOIL/GLASS | C-753-A | Yes |
| CAS-15061 | PAPER/PLASTIC/TRASH | C-337 | No |
| CAS-14580 | PAPER/PLASTIC/TRASH/GLASS | C-337 | No |
| 04587-03 | PAPER/RAGS/PLASTIC/GLASSWARE | C-746-Q | No |
| SI-0094 | PAPER; PLASTIC | C-746-B | No |
| CAS-09732 | PCB & U SAMPLES IN GLASS JARS | C-746-B | No |
| 102051-01 | PCB FLUSH WATER | C-752-A | Yes |
| CAS-17315 | PCB PAPER/PPE/GLASS | C-753-A | No |
| CAS-17125 | PCB SOLID SAMPLES | C-753-A | No |
| CAS-17408 | PCB/RAD SOLID SAMPLES | C-753-A | No |
| CAS-16498 | PCB/URANIUM/PAPER, PLASTIC | C-753-A | No |
| CAS-10052 | PEA GRAVEL (PADS/PLAS/CLEAN UP) | C-746-B | Yes |
| CAS-14249 | PEA GRAVEL/UNDERLAYMENT | C-753-A | Yes |
| 37955-01 | PETROLEUM ABSORBENT PADS | C-746-H3 | No |
| 37955-02 | PETROLEUM ABSORBENT PADS | C-746-H3 | No |
| 46158-01 | PETROLEUM PADS | C-746-H3 | No |
| SI-2951 | PH AC | C-746-A | No |
| 106189-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 106190-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 106191-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 106192-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 106193-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 106194-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 106195-01 | PHASE 1 SI SOILS | C-746-B | Yes |
| 104511 | Piezometer Abandonment | C-752-C | Yes |

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| 51816-01 | PIGMATS/PPE/PLASTIC/KIMWIPES | C-746-Q | No |
| 10962-001 | PLASTIC | C-746-B | No |
| 44819-02 | PLASTIC | C-746-B | No |
| 44820-03 | PLASTIC | C-746-B | No |
| 44829-01 | PLASTIC | C-746-B | No |
| 49617-01 | PLASTIC | C-746-B | No |
| 49620-01 | PLASTIC | C-746-B | No |
| 49621-01 | PLASTIC | C-746-B | No |
| 49621-02 | PLASTIC | C-746-B | No |
| SI-0287 | PLASTIC | C-746-B | No |
| SI-0391 | PLASTIC | C-746-B | No |
| SI-0393 | PLASTIC | C-746-B | No |
| 31007-001 | PLASTIC | C-746-H3 | No |
| 31007-002 | PLASTIC | C-746-H3 | No |
| 31007-003 | PLASTIC | C-746-H3 | No |
| 31178-08 | PLASTIC | C-746-H3 | No |
| 31178-09 | PLASTIC | C-746-H3 | No |
| 31178-11 | PLASTIC | C-746-H3 | No |
| 36401-02 | PLASTIC | C-746-H3 | No |
| 36431-01 | PLASTIC | C-746-H3 | No |
| 36431-02 | PLASTIC | C-746-H3 | No |
| 44561-01 | PLASTIC | C-746-H3 | No |
| 44561-02 | PLASTIC | C-746-H3 | No |
| 44561-03 | PLASTIC | C-746-H3 | No |
| 44561-04 | PLASTIC | C-746-H3 | No |
| 44561-05 | PLASTIC | C-746-H3 | No |
| 44561-06 | PLASTIC | C-746-H3 | No |
| 44561-07 | PLASTIC | C-746-H3 | No |
| 44561-08 | PLASTIC | C-746-H3 | No |
| 44561-09 | PLASTIC | C-746-H3 | No |
| 44561-11 | PLASTIC | C-746-H3 | No |
| 44561-12 | PLASTIC | C-746-H3 | No |
| 44561-13 | PLASTIC | C-746-H3 | No |
| 44561-14 | PLASTIC | C-746-H3 | No |
| 44855-01 | PLASTIC | C-746-H3 | No |
| 44855-02 | PLASTIC | C-746-H3 | No |
| 44855-03 | PLASTIC | C-746-H3 | No |
| 44855-04 | PLASTIC | C-746-H3 | No |
| 44855-05 | PLASTIC | C-746-H3 | No |
| 44855-06 | PLASTIC | C-746-H3 | No |
| 44855-07 | PLASTIC | C-746-H3 | No |
| 44855-08 | PLASTIC | C-746-H3 | No |
| 44855-09 | PLASTIC | C-746-H3 | No |
| 44855-10 | PLASTIC | C-746-H3 | No |
| 44855-11 | PLASTIC | C-746-H3 | No |
| 44855-12 | PLASTIC | C-746-H3 | No |
| 44855-13 | PLASTIC | C-746-H3 | No |
| 44855-14 | PLASTIC | C-746-H3 | No |
| 44855-15 | PLASTIC | C-746-H3 | No |
| 44855-16 | PLASTIC | C-746-H3 | No |
| 46145-01 | PLASTIC | C-746-H3 | No |
| 46145-02 | PLASTIC | C-746-H3 | No |
| 46145-03 | PLASTIC | C-746-H3 | No |
| 46145-04 | PLASTIC | C-746-H3 | No |
| 46145-05 | PLASTIC | C-746-H3 | No |

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| 46145-06 | PLASTIC | C-746-H3 | No |
| 46145-07 | PLASTIC | C-746-H3 | No |
| 46145-08 | PLASTIC | C-746-H3 | No |
| 46160-01 | PLASTIC | C-746-H3 | No |
| 46160-02 | PLASTIC | C-746-H3 | No |
| 53129-01 | PLASTIC | C-752-A | No |
| 36432-02 | PLASTIC GROUND COVER | C-746-H3 | No |
| SI-1424 | PLASTIC HOSE | C-746-B | No |
| SI-1457 | PLASTIC HOSE | C-746-B | No |
| SI-1475 | PLASTIC HOSE | C-746-B | No |
| SI-1471 | PLASTIC HOSE | C-746-B | No |
| CAS-14068 | PLASTIC LINERS/PADS/ROCKS | C-746-A | Yes |
| 38042-01 | PLASTIC LININGS | C-746-H3 | No |
| 38042-02 | PLASTIC LININGS | C-746-H3 | No |
| 38042-03 | PLASTIC LININGS | C-746-H3 | No |
| 38042-04 | PLASTIC LININGS | C-746-H3 | No |
| 38042-05 | PLASTIC LININGS | C-746-H3 | No |
| 38042-06 | PLASTIC LININGS | C-746-H3 | No |
| 38042-07 | PLASTIC LININGS | C-746-H3 | No |
| 38042-08 | PLASTIC LININGS | C-746-H3 | No |
| 101103-01 | PLASTIC SHEETING | C-752-A | No |
| 101103-02 | PLASTIC SHEETING | C-752-A | No |
| 102509-01 | PLASTIC SHEETING | C-752-A | No |
| 102509-02 | PLASTIC SHEETING | C-752-A | No |
| 46953-01 | PLASTIC SHEETING | C-752-A | No |
| 46953-02 | PLASTIC SHEETING | C-752-A | No |
| 58453-01 | PLASTIC SHEETING | C-752-A | No |
| 22813-001 | PLASTIC SHEETS | C-746-H3 | No |
| 22818-001 | PLASTIC SHEETS | C-746-H3 | No |
| SI-0707 | PLASTIC TUBING/RADSORB | C-746-H3 | No |
| SI-1124 | PLASTIC TUBING/RADSORB | C-746-H3 | No |
| 22605-001 | PLASTIC, GLOVES | C-746-H3 | No |
| 22605-002 | PLASTIC, GLOVES | C-746-H3 | No |
| 32482-01 | PLASTIC, PAPER, CLOTH | C-333 | No |
| 32482-02 | PLASTIC, PAPER, CLOTH | C-333 | No |
| 32482-03 | PLASTIC, PAPER, CLOTH | C-333 | No |
| 35931-01 | PLASTIC, PLASTIC TUBING, LATEX GLOVES, PPE | C-746-H3 | No |
| 46260-02 | PLASTIC/DEBRIS FROM NICKEL STRP | C-746-Q | No |
| 24577-01 | PLASTIC/DIRT/GRASS | C-333 | Yes |
| CAS-12638 | PLASTIC/GLASS/SOIL SAMPLES | C-753-A | Yes |
| 20490-01 | PLASTIC/GRAVEL | C-746-Q | Yes |
| 20490-02 | PLASTIC/GRAVEL | C-746-Q | Yes |
| CAS-18050 | PLASTIC/MASLIN | C-746-A | No |
| CAS-14855 | PLASTIC/METAL/GRAVEL | C-337 | Yes |
| CAS-15396 | PLASTIC/PADS (SPILL PCB-291) | C-753-A | No |
| CAS-15413 | PLASTIC/PADS (SPILL PCB-291) | C-753-A | No |
| SI-1476 | PLASTIC/PAINT CANS | C-746-B | No |
| 102354-01 | PLASTIC/PAPER | C-746-Q | No |
| 102354-02 | PLASTIC/PAPER | C-746-Q | No |
| 102354-03 | PLASTIC/PAPER | C-746-Q | No |
| 102354-04 | PLASTIC/PAPER | C-746-Q | No |
| 102354-05 | PLASTIC/PAPER | C-746-Q | No |
| 51378-01 | PLASTIC/PAPER | C-746-V | No |
| 51378-02 | PLASTIC/PAPER | C-746-V | No |
| 49614-01 | PLASTIC/PPE | C-746-B | No |

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| SI-1456 | PLASTIC/PPE | C-746-B | No |
| 42706-01 | PLASTIC/PPE | C-752-A | No |
| 42706-02 | PLASTIC/PPE | C-752-A | No |
| 42706-03 | PLASTIC/PPE | C-752-A | No |
| 42706-04 | PLASTIC/PPE | C-752-A | No |
| 42706-05 | PLASTIC/PPE | C-752-A | No |
| 42706-06 | PLASTIC/PPE | C-752-A | No |
| 42706-07 | PLASTIC/PPE | C-752-A | No |
| 42706-08 | PLASTIC/PPE | C-752-A | No |
| 42706-09 | PLASTIC/PPE | C-752-A | No |
| 42706-10 | PLASTIC/PPE | C-752-A | No |
| 42706-12 | PLASTIC/PPE | C-752-A | No |
| 42706-13 | PLASTIC/PPE | C-752-A | No |
| 42706-14 | PLASTIC/PPE | C-752-A | No |
| 42706-15 | PLASTIC/PPE | C-752-A | No |
| 42706-16 | PLASTIC/PPE | C-752-A | No |
| 42706-17 | PLASTIC/PPE | C-752-A | No |
| 42706-18 | PLASTIC/PPE | C-752-A | No |
| 31225-01 | PLASTIC/SAND/GRAVEL | C-746-H3 | Yes |
| 31225-02 | PLASTIC/SAND/GRAVEL | C-746-H3 | Yes |
| 31225-03 | PLASTIC/SAND/GRAVEL | C-746-H3 | Yes |
| 31225-04 | PLASTIC/SAND/GRAVEL | C-746-H3 | Yes |
| 103805-01 | PLASTING SHEETING | C-752-A | No |
| 103805-02 | PLASTING SHEETING | C-752-A | No |
| 103805-03 | PLASTING SHEETING | C-752-A | No |
| 103805-04 | PLASTING SHEETING | C-752-A | No |
| 103805-05 | PLASTING SHEETING | C-752-A | No |
| 22811-001 | PORTLAND CEMENT & WATER | C-746-M | Yes |
| 22822-001 | PORTLAND CEMENT & WATER | C-746-M | Yes |
| 22817-001 | PORTLAND CEMENT AND WATER | C-746-Q | Yes |
| 29291-01 | POSSIBLY METAL, WOOD, PAPER, PLASTIC | C-746-H3 | No |
| 29291-02 | POSSIBLY METAL, WOOD, PAPER, PLASTIC | C-746-H3 | No |
| 29291-03 | POSSIBLY METAL, WOOD, PAPER, PLASTIC | C-746-H3 | No |
| 29291-04 | POSSIBLY METAL, WOOD, PAPER, PLASTIC | C-746-H3 | No |
| 29291-05 | POSSIBLY METAL, WOOD, PAPER, PLASTIC | C-746-H3 | No |
| 29291-06 | POSSIBLY METAL, WOOD, PAPER, PLASTIC | C-746-H3 | No |
| HC-0367 | POTASSIUM DICHROMATE FILTER CAKE | C-746-A | No |
| CASX-14890 | PPE | C-746-A | No |
| 48161-01 | PPE | C-746-A | No |
| 08998-01 | PPE | C-746-B | No |
| 08998-02 | PPE | C-746-B | No |
| 10960-001 | PPE | C-746-B | No |
| 10960-002 | PPE | C-746-B | No |
| 10961-001 | PPE | C-746-B | No |
| 10962-002 | PPE | C-746-B | No |
| 10962-004 | PPE | C-746-B | No |
| 10962-005 | PPE | C-746-B | No |
| 13901-023 | PPE | C-746-B | No |
| 13901-024 | PPE | C-746-B | No |
| 13901-026 | PPE | C-746-B | No |
| 13901-027 | PPE | C-746-B | No |
| 13901-029 | PPE | C-746-B | No |
| 13901-033 | PPE | C-746-B | No |
| 13901-034 | PPE | C-746-B | No |
| 13901-036 | PPE | C-746-B | No |

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| 44805-01 | PPE | C-746-B | No |
| 44806-01 | PPE | C-746-B | No |
| 44807-01 | PPE | C-746-B | No |
| 44807-02 | PPE | C-746-B | No |
| 44807-03 | PPE | C-746-B | No |
| 44807-04 | PPE | C-746-B | No |
| 44807-05 | PPE | C-746-B | No |
| 44807-06 | PPE | C-746-B | No |
| 44810-01 | PPE | C-746-B | No |
| 44810-02 | PPE | C-746-B | No |
| 44810-03 | PPE | C-746-B | No |
| 44810-04 | PPE | C-746-B | No |
| 44810-05 | PPE | C-746-B | No |
| 44811-01 | PPE | C-746-B | No |
| 44811-02 | PPE | C-746-B | No |
| 44811-03 | PPE | C-746-B | No |
| 44812-01 | PPE | C-746-B | No |
| 44812-02 | PPE | C-746-B | No |
| 44812-03 | PPE | C-746-B | No |
| 44822-01 | PPE | C-746-B | No |
| 44822-02 | PPE | C-746-B | No |
| 44822-03 | PPE | C-746-B | No |
| 44822-04 | PPE | C-746-B | No |
| 44826-01 | PPE | C-746-B | No |
| 44826-02 | PPE | C-746-B | No |
| 44826-03 | PPE | C-746-B | No |
| 44826-04 | PPE | C-746-B | No |
| 44833-01 | PPE | C-746-B | No |
| 48755-01 | PPE | C-746-B | No |
| 49623-01 | PPE | C-746-B | No |
| 49624-01 | PPE | C-746-B | No |
| 49624-02 | PPE | C-746-B | No |
| 49624-03 | PPE | C-746-B | No |
| 53378-01 | PPE | C-746-B | No |
| 53378-02 | PPE | C-746-B | No |
| SI-0002 | PPE | C-746-B | No |
| SI-0018 | PPE | C-746-B | No |
| SI-0020 | PPE | C-746-B | No |
| SI-0038 | PPE | C-746-B | No |
| SI-0040 | PPE | C-746-B | No |
| SI-0044 | PPE | C-746-B | No |
| SI-0051 | PPE | C-746-B | No |
| SI-0069 | PPE | C-746-B | No |
| SI-0078 | PPE | C-746-B | No |
| SI-0082 | PPE | C-746-B | No |
| SI-0127 | PPE | C-746-B | No |
| SI-0128 | PPE | C-746-B | No |
| SI-0155 | PPE | C-746-B | No |
| SI-0178 | PPE | C-746-B | No |
| SI-0209 | PPE | C-746-B | No |
| SI-0210 | PPE | C-746-B | No |
| SI-0250 | PPE | C-746-B | No |
| SI-0293 | PPE | C-746-B | No |
| SI-0333 | PPE | C-746-B | No |
| SI-0334 | PPE | C-746-B | No |

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| SI-0344 | PPE | C-746-B | No |
| SI-0356 | PPE | C-746-B | No |
| SI-0460 | PPE | C-746-B | No |
| SI-0494 | PPE | C-746-B | No |
| SI-0502 | PPE | C-746-B | No |
| SI-0511 | PPE | C-746-B | No |
| SI-0521B | PPE | C-746-B | No |
| SI-0523 | PPE | C-746-B | No |
| SI-0565 | PPE | C-746-B | No |
| SI-0572 | PPE | C-746-B | No |
| SI-0574 | PPE | C-746-B | No |
| SI-0575 | PPE | C-746-B | No |
| SI-0603 | PPE | C-746-B | No |
| SI-0631 | PPE | C-746-B | No |
| SI-0648 | PPE | C-746-B | No |
| SI-0651 | PPE | C-746-B | No |
| SI-0665 | PPE | C-746-B | No |
| SI-0739 | PPE | C-746-B | No |
| SI-0751 | PPE | C-746-B | No |
| SI-0758 | PPE | C-746-B | No |
| SI-0781 | PPE | C-746-B | No |
| SI-0896 | PPE | C-746-B | No |
| SI-0913 | PPE | C-746-B | No |
| SI-0922 | PPE | C-746-B | No |
| SI-0924 | PPE | C-746-B | No |
| SI-0929 | PPE | C-746-B | No |
| SI-0935 | PPE | C-746-B | No |
| SI-0952 | PPE | C-746-B | No |
| SI-0953 | PPE | C-746-B | No |
| SI-0978 | PPE | C-746-B | No |
| SI-0985 | PPE | C-746-B | No |
| SI-1005 | PPE | C-746-B | No |
| SI-1019 | PPE | C-746-B | No |
| SI-1050 | PPE | C-746-B | No |
| SI-1053 | PPE | C-746-B | No |
| SI-1074 | PPE | C-746-B | No |
| SI-1076 | PPE | C-746-B | No |
| SI-1089 | PPE | C-746-B | No |
| SI-1090 | PPE | C-746-B | No |
| SI-1091 | PPE | C-746-B | No |
| SI-1093 | PPE | C-746-B | No |
| SI-1102 | PPE | C-746-B | No |
| SI-1103 | PPE | C-746-B | No |
| SI-1120 | PPE | C-746-B | No |
| SI-1141 | PPE | C-746-B | No |
| SI-1303 | PPE | C-746-B | No |
| SI-1432 | PPE | C-746-B | No |
| SI-1448 | PPE | C-746-B | No |
| 13901-018 | PPE | C-746-H3 | No |
| 13901-019 | PPE | C-746-H3 | No |
| 13901-020 | PPE | C-746-H3 | No |
| 13901-021 | PPE | C-746-H3 | No |
| 13901-022 | PPE | C-746-H3 | No |
| 13901-025 | PPE | C-746-H3 | No |
| 13901-028 | PPE | C-746-H3 | No |

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| 13901-032 | PPE | C-746-H3 | No |
| 13901-035 | PPE | C-746-H3 | No |
| 13901-046 | PPE | C-746-H3 | No |
| 13901-047 | PPE | C-746-H3 | No |
| 13901-049 | PPE | C-746-H3 | No |
| 31105-01 | PPE | C-746-H3 | No |
| 31124-01 | PPE | C-746-H3 | No |
| 31124-02 | PPE | C-746-H3 | No |
| 31124-03 | PPE | C-746-H3 | No |
| 31154-01 | PPE | C-746-H3 | No |
| 31176-01 | PPE | C-746-H3 | No |
| 31176-02 | PPE | C-746-H3 | No |
| 31176-03 | PPE | C-746-H3 | No |
| 31186-01 | PPE | C-746-H3 | No |
| 31191-01 | PPE | C-746-H3 | No |
| 31191-02 | PPE | C-746-H3 | No |
| 31199-01 | PPE | C-746-H3 | No |
| 31214-01 | PPE | C-746-H3 | No |
| 31214-02 | PPE | C-746-H3 | No |
| 32826-01 | PPE | C-746-H3 | No |
| 32832-01 | PPE | C-746-H3 | No |
| 35962-01 | PPE | C-746-H3 | No |
| 36407-01 | PPE | C-746-H3 | No |
| 36408-01 | PPE | C-746-H3 | No |
| 36413-01 | PPE | C-746-H3 | No |
| 36413-02 | PPE | C-746-H3 | No |
| 36449-01 | PPE | C-746-H3 | No |
| 36824-01 | PPE | C-746-H3 | No |
| 37941-01 | PPE | C-746-H3 | No |
| 39100-01 | PPE | C-746-H3 | No |
| 39100-02 | PPE | C-746-H3 | No |
| 44551-01 | PPE | C-746-H3 | No |
| 46102-01 | PPE | C-746-H3 | No |
| 46105-01 | PPE | C-746-H3 | No |
| 49669-01 | PPE | C-746-H3 | No |
| 53181-01 | PPE | C-746-H3 | No |
| SI-0558 | PPE | C-746-H3 | No |
| SI-0782 | PPE | C-746-H3 | No |
| SI-1439 | PPE | C-746-H3 | No |
| 46877-01 | PPE | C-746-H3 | No |
| 49651-01 | PPE | C-746-H3 | No |
| 49651-02 | PPE | C-746-H3 | No |
| 49651-03 | PPE | C-746-H3 | No |
| 46376-01 | PPE | C-746-V | No |
| 101102-01 | PPE | C-752-A | No |
| 46958-01 | PPE | C-752-A | No |
| 53781-01 | PPE | C-752-A | No |
| 58458-01 | PPE | C-752-A | No |
| 58502-01 | PPE | C-752-A | No |
| 58511-01 | PPE | C-752-A | No |
| CAS-16155 | PPE | C-753-A | No |
| SI-0099 | PPE | C-746-B | No |
| SI-0138 | PPE | C-746-B | No |
| SI-0146 | PPE | C-746-B | No |
| SI-0163 | PPE | C-746-B | No |

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| SI-0198 | PPE | C-746-B | No |
| SI-0204 | PPE | C-746-B | No |
| SI-0214 | PPE | C-746-B | No |
| SI-0263 | PPE | C-746-B | No |
| SI-0298 | PPE | C-746-B | No |
| SI-0323 | PPE | C-746-B | No |
| SI-0359 | PPE | C-746-B | No |
| SI-0397 | PPE | C-746-B | No |
| SI-0425 | PPE | C-746-B | No |
| SI-0765 | PPE | C-746-B | No |
| SI-0780 | PPE | C-746-B | No |
| SI-0795 | PPE | C-746-B | No |
| SI-0838 | PPE | C-746-B | No |
| SI-0847 | PPE | C-746-B | No |
| SI-0860 | PPE | C-746-B | No |
| SI-0872 | PPE | C-746-B | No |
| SI-0912 | PPE | C-746-B | No |
| SI-0983 | PPE | C-746-B | No |
| SI-1010 | PPE | C-746-B | No |
| SI-1023 | PPE | C-746-B | No |
| SI-1062 | PPE | C-746-B | No |
| SI-1138 | PPE | C-746-B | No |
| SI-1205 | PPE | C-746-B | No |
| SI-1434 | PPE | C-746-B | No |
| 13901-030 | PPE | C-746-H3 | Yes |
| 36416-02 | PPE & DIRTY PLASTIC | C-746-H3 | No |
| 36417-01 | PPE & DIRTY PLASTIC | C-746-H3 | No |
| 36412-01 | PPE & RADSORB | C-746-H3 | No |
| SI-1433 | PPE (HOSES) - WELL DEVELOPMENT | C-746-B | No |
| 10962-006 | PPE ? | C-746-B | No |
| 59808-01 | PPE FROM N/S DITCH | C-746-B | No |
| CAS-14792 | PPE FROM SPILL CLEAN UP | C-753-A | No |
| SI-0725 | PPE* | C-746-B | No |
| SI-0486 | PPE* | C-746-B | No |
| SI-0709 | PPE* | C-746-B | No |
| SI-0741 | PPE* | C-746-B | No |
| SI-3543 | PPE, PLASTIC | C-746-H3 | No |
| CAS-17106 | PPE, GLOVES, HOSE | C-753-A | No |
| 101230-01 | PPE, LAB TRASH, GLOVES | C-746-A | No |
| 101230-02 | PPE, LAB TRASH, GLOVES | C-746-A | No |
| 101230-03 | PPE, LAB TRASH, GLOVES | C-746-A | No |
| 101230-04 | PPE, LAB TRASH, GLOVES | C-746-A | No |
| CAS-14689 | PPE, PADS, BUCKETS, PLASTIC | C-753-A | No |
| CASX-15476 | PPE, PIGS, PADS, RAGS, PLASTIC | C-746-H3 | No |
| 10962-011 | PPE, PLASTIC | C-746-B | No |
| CASX-15456 | PPE, PLASTIC, PADS, PANS, RAGS | C-746-A | No |
| 102542-01 | PPE, PLASTIC, PADS,TEFLON BEAKER | C-746-Q | No |
| 105108-01 | PPE, PLASTIC FROM UST 17 PROJECT | C-752-A | No |
| 10962-008 | PPE, TUBING | C-746-B | No |
| 47334-01 | PPE/ASORBENT PADS | C-746-V | No |
| 10960-003 | PPE/CDM OUTFALL STUDY | C-746-B | No |
| 10960-004 | PPE/CDM OUTFALL STUDY | C-746-B | No |
| 62524-01 | PPE/EMPTY BOTTLES/PAPER/PLASTIC | C-746-Q | No |
| CASX-17514 | PPE/FILTERS | C-746-A | No |
| 51815-01 | PPE/GLOVES/KIMWIPES/ | C-746-V | No |

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| 51819-01 | PPE/GLOVES/PIGS/DEBRIS | C-746-V | No |
| CAS-15451 | PPE/GRAVEL/CLEANUP DEBRIS | C-753-A | No |
| CAS-15452 | PPE/GRAVEL/CLEANUP DEBRIS | C-753-A | No |
| CAS-15389 | PPE/HOSES/ABSORBENTS FROM TRANSF | C-753-A | No |
| CAS-16585 | PPE/HYPALON/RAGS | C-753-A | No |
| 62035-01 | PPE/KIMWIPES | C-746-A | No |
| 32251-01 | PPE/KIMWIPES/GLASS | C-746-Q | No |
| 54317-01 | PPE/KIMWIPES/SAMPLE RESIDUE | C-746-Q | No |
| 101702-01 | PPE/KIMWIPES/SAMPLE RESIDUE/pH STRIPS/ | C-746-A | No |
| 101702-02 | PPE/KIMWIPES/SAMPLE RESIDUE/pH STRIPS/ | C-746-A | No |
| 101702-03 | PPE/KIMWIPES/SAMPLE RESIDUE/pH STRIPS/ | C-746-A | No |
| 62584-01 | PPE/MASLIN | C-746-Q | No |
| 62584-02 | PPE/MASLIN | C-746-Q | No |
| 62584-03 | PPE/MASLIN | C-746-Q | No |
| 102376-01 | PPE/MASLIN/PLASTIC/MAG FLUORIDE PELLETS | C-746-Q | No |
| 102376-02 | PPE/MASLIN/PLASTIC/MAG FLUORIDE PELLETS | C-746-Q | No |
| 102376-03 | PPE/MASLIN/PLASTIC/MAG FLUORIDE PELLETS | C-746-Q | No |
| 102376-04 | PPE/MASLIN/PLASTIC/MAG FLUORIDE PELLETS | C-746-Q | No |
| CAS-15397 | PPE/PADS (SPILL PCB-291) | C-753-A | No |
| 53758-01 | PPE/PADS/PLASTIC SHEETING | C-752-A | No |
| CAS-14026 | PPE/PADS/PLASTIC/SHOES/ROCKS | C-753-A | Yes |
| CASX-15728 | PPE/PALLETS | C-746-H3 | No |
| CASX-15729 | PPE/PALLETS | C-746-H3 | No |
| 101577-01 | PPE/PAPER | C-746-A | No |
| 101577-02 | PPE/PAPER | C-746-A | No |
| 101577-03 | PPE/PAPER | C-746-A | No |
| 54292-01 | PPE/PAPER/GLASS/SAMPLES | C-746-A | No |
| 45863-01 | PPE/PAPER/GLOVES/PLASTIC/PIG MATS/WIPES | C-746-Q | No |
| 62508-01 | PPE/PAPER/PLASTIC | C-746-A | No |
| 101287-01 | PPE/PAPER/PLASTIC/ABSORBENT PADS/MASLIN | C-746-Q | No |
| 32492-01 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-02 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-03 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-04 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-05 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-06 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-07 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-08 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-09 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-10 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-11 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-12 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-13 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-14 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-15 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-16 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-17 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 32492-18 | PPE/PAPER/PLASTIC/TAPE | C-333 | No |
| 54312-01 | PPE/PAPER/SAMPLE RESIDUALS | C-746-A | No |
| 62049-01 | PPE/PAPER/SAMPLE RESIDUALS | C-746-A | No |
| 62030-01 | PPE/PAPER/SAMPLE RESIDUE | C-746-A | No |
| 54297-01 | PPE/PAPER/SAMPLE RESIDUE | C-746-B | No |
| 62044-01 | PPE/PAPER/SAMPLE RESIDUE | C-746-B | No |
| 54300-01 | PPE/PAPER/SAMPLE RESIDUES | C-746-A | No |
| 54290-01 | PPE/PAPER/SAMPLES | C-746-A | No |

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| 54295-01 | PPE/PAPER/SAMPLES | C-746-A | No |
| 101313-01 | PPE/PIGS/PADS/ETC. | C-746-Q | No |
| 101313-02 | PPE/PIGS/PADS/ETC. | C-746-Q | No |
| 101313-03 | PPE/PIGS/PADS/ETC. | C-746-Q | No |
| 10962-003 | PPE/PLASTIC | C-746-B | No |
| 44831-01 | PPE/PLASTIC | C-746-B | No |
| 44831-02 | PPE/PLASTIC | C-746-B | No |
| 44831-03 | PPE/PLASTIC | C-746-B | No |
| 44831-04 | PPE/PLASTIC | C-746-B | No |
| 49610-07 | PPE/PLASTIC | C-746-B | No |
| 49610-08 | PPE/PLASTIC | C-746-B | No |
| 49610-09 | PPE/PLASTIC | C-746-B | No |
| SI-0007 | PPE/PLASTIC | C-746-B | No |
| SI-0008 | PPE/PLASTIC | C-746-B | No |
| SI-0043 | PPE/PLASTIC | C-746-B | No |
| SI-0124 | PPE/PLASTIC | C-746-B | No |
| SI-0129 | PPE/PLASTIC | C-746-B | No |
| SI-0484 | PPE/PLASTIC | C-746-B | No |
| SI-0503 | PPE/PLASTIC | C-746-B | No |
| SI-0624 | PPE/PLASTIC | C-746-B | No |
| SI-0638 | PPE/PLASTIC | C-746-B | No |
| SI-0723 | PPE/PLASTIC | C-746-B | No |
| SI-0796 | PPE/PLASTIC | C-746-B | No |
| SI-1070 | PPE/PLASTIC | C-746-B | No |
| SI-1320 | PPE/PLASTIC | C-746-B | No |
| SI-1334 | PPE/PLASTIC | C-746-B | No |
| SI-1339 | PPE/PLASTIC | C-746-B | No |
| SI-1340 | PPE/PLASTIC | C-746-B | No |
| SI-1365 | PPE/PLASTIC | C-746-B | No |
| SI-1389 | PPE/PLASTIC | C-746-B | No |
| SI-1406 | PPE/PLASTIC | C-746-B | No |
| SI-1416 | PPE/PLASTIC | C-746-B | No |
| SI-1423 | PPE/PLASTIC | C-746-B | No |
| SI-1425 | PPE/PLASTIC | C-746-B | No |
| SI-1430 | PPE/PLASTIC | C-746-B | No |
| SI-1441 | PPE/PLASTIC | C-746-B | No |
| SI-1444 | PPE/PLASTIC | C-746-B | No |
| SI-1445 | PPE/PLASTIC | C-746-B | No |
| SI-1453 | PPE/PLASTIC | C-746-B | No |
| SI-1454 | PPE/PLASTIC | C-746-B | No |
| SI-1455 | PPE/PLASTIC | C-746-B | No |
| W-2557 | PPE/PLASTIC | C-746-B | No |
| W-2559 | PPE/PLASTIC | C-746-B | No |
| 53109-01 | PPE/PLASTIC | C-746-V | No |
| 101112-01 | PPE/PLASTIC | C-752-A | No |
| 101112-02 | PPE/PLASTIC | C-752-A | No |
| 22023-04 | PPE/PLASTIC | C-752-A | No |
| CAS-15604 | PPE/PLASTIC | C-753-A | No |
| CAS-15605 | PPE/PLASTIC | C-753-A | No |
| CAS-17041 | PPE/PLASTIC | C-753-A | No |
| SI-0076 | PPE/PLASTIC | C-746-B | No |
| SI-0239 | PPE/PLASTIC | C-746-B | No |
| SI-1384 | PPE/PLASTIC | C-746-B | No |
| SI-1395 | PPE/PLASTIC | C-746-B | No |
| CAS-14899 | PPE/PLASTIC | C-753-A | Yes |

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| 103155-03 | PPE/PLASTIC BAGS/GLOVES ETC. | C-752-A | No |
| 102471-01 | PPE/PLASTIC FROM DRUM #4318 | C-746-Q | No |
| 53728-01 | PPE/PLASTIC LINERS | C-752-A | No |
| 102848-03 | PPE/PLASTIC SHEETING | C-752-A | No |
| 102848-04 | PPE/PLASTIC SHEETING | C-752-A | No |
| 102848-06 | PPE/PLASTIC SHEETING | C-752-A | No |
| 103627-01 | PPE/PLASTIC SHEETING | C-752-A | No |
| 103172-01 | OPERATIO | C-752-A | No |
| 103172-02 | OPERATIO | C-752-A | No |
| 103172-03 | OPERATIO | C-752-A | No |
| 103172-04 | OPERATIO | C-752-A | No |
| 103172-05 | OPERATIO | C-752-A | No |
| 103189-01 | OPERATIO | C-752-A | No |
| 103189-02 | OPERATIO | C-752-A | No |
| 103189-03 | OPERATIO | C-752-A | No |
| 103189-04 | OPERATIO | C-752-A | No |
| 103189-05 | OPERATIO | C-752-A | No |
| 103189-06 | OPERATIO | C-752-A | No |
| 103154-01 | DRILLING AND | C-752-A | No |
| 103154-02 | DRILLING AND | C-752-A | No |
| 103182-01 | DRILLING OPER | C-752-A | No |
| 103182-02 | DRILLING OPER | C-752-A | No |
| 103182-03 | DRILLING OPER | C-752-A | No |
| 103182-04 | DRILLING OPER | C-752-A | No |
| 103182-05 | DRILLING OPER | C-752-A | No |
| 103182-06 | DRILLING OPER | C-752-A | No |
| 102912-01 | PPE/PLASTIC SHEETING/PVC TUBING | C-752-A | No |
| SI-0005 | PPE/PLASTIC* | C-746-B | No |
| SI-0625 | PPE/PLASTIC* | C-746-B | No |
| SI-0641 | PPE/PLASTIC* | C-746-B | No |
| CAS-15391 | PPE/PLASTIC/ABSORBENTS | C-753-A | No |
| 62510-01 | PPE/PLASTIC/BOTTLES/PADS/PLASTIC | C-746-Q | No |
| 100727-01 | PPE/PLASTIC/COTTEN LINERS/GLOVES/PAPER | C-746-Q | No |
| 62584-04 | PPE/PLASTIC/MASLIN | C-746-Q | No |
| SI-0028 | PPE/PLASTIC/PAPER | C-746-B | No |
| 52734-01 | PPE/PLASTIC/PAPER WIPES | C-752-A | No |
| 52734-02 | PPE/PLASTIC/PAPER WIPES | C-752-A | No |
| 52734-03 | PPE/PLASTIC/PAPER WIPES | C-752-A | No |
| 52734-04 | PPE/PLASTIC/PAPER WIPES | C-752-A | No |
| 52734-05 | PPE/PLASTIC/PAPER WIPES | C-752-A | No |
| 102010-01 | PPE/PLASTIC/PAPER/PADS | C-746-Q | No |
| 102923-05 | PPE/PLASTIC/PVC TUBING USED AT SOIL BORING 4 | C-752-A | Yes |
| 102923-06 | PPE/PLASTIC/PVC TUBING USED AT SOIL BORING 4 | C-752-A | Yes |
| CAS-18026 | PPE/PLASTIC/RUBBER SHOESCUFFS | C-746-B | No |
| CASX-17485 | PPE/RAGS | C-746-B | No |
| CASX-17486 | PPE/RAGS | C-746-B | No |
| CAS-15929 | PPE/RAGS/GLOVES | C-753-A | No |
| CASX-17513 | PPE/RAGS/GLOVES/ABSORBENTS | C-746-A | No |
| 46742-01 | PPE/RAGS/KIMWIPES | C-746-Q | No |
| CAS-16921 | PPE/RAGS/MASLIN/LINERS | C-753-A | No |
| CAS-17040 | PPE/RAGS/PLASTIC | C-753-A | No |
| CAS-14882 | PPE/ROCKS/ABSORBENT | C-753-A | Yes |
| CAS-14883 | PPE/ROCKS/ABSORBENT | C-753-A | Yes |
| 51498-01 | PPE/SAMPLE RESIDUALS | C-746-A | No |
| 54307-01 | PPE/SAMPLE RESIDUALS | C-746-A | No |

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| 62032-01 | PPE/SAMPLE RESIDUE | C-746-A | No |
| 62037-01 | PPE/SAMPLE RESIDUE | C-746-A | No |
| 62046-01 | PPE/SAMPLE RESIDUE | C-746-B | No |
| 62042-01 | PPE/SAMPLE RESIDUE/KIMWIPES | C-746-B | No |
| 54313-01 | PPE/SAMPLE RESIDUE/PAPER | C-746-A | No |
| 49630-01 | PPE/SAMPLING EQUIPMENT | C-746-H3 | No |
| CAS-17122 | PPE/SPILL CLEANUP | C-753-A | No |
| 51322-01 | PPE/TOWELS/PANS | C-746-B | No |
| NULL-2 | PPE/TUBING | C-746-B | No |
| 32247-01 | PPE/TYVEKS/GLOVES | C-746-V | No |
| 54288-01 | PPE/WIPES/RESIDUE | C-746-A | No |
| SI-2734 | PPE; G PLASTIC | C-746-B | No |
| SI-3526 | PPE; PLASTIC | C-746-A | No |
| SI-0080 | PPE; PLASTIC | C-746-B | No |
| SI-0540 | PPE; PLASTIC | C-746-B | No |
| SI-2034 | PPE; PLASTIC | C-746-B | No |
| SI-2521 | PPE; PLASTIC | C-746-H3 | No |
| SI-2817 | PPE; PLASTIC | C-746-H3 | No |
| SI-0416B | PPE? | C-746-B | No |
| SI-1025 | PPE? | C-746-B | No |
| SI-0602 | PPE/PLASTIC/PVC TUBING | C-746-B | No |
| 04315-06 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-07 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-08 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-21 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-22 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-23 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-24 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-25 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-37 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-38 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-39 | PRECIPITATE SLUDGE | C-746-Q | No |
| 04315-40 | PRECIPITATE SLUDGE | C-746-Q | No |
| 46377-01 | PROTECTIVE EQUIPMENT | C-746-V | No |
| 46377-02 | PROTECTIVE EQUIPMENT | C-746-V | No |
| 46377-03 | PROTECTIVE EQUIPMENT | C-746-V | No |
| 103785 | PTZ | C-752-C | No |
| 103787 | PTZ | C-752-C | Yes |
| 104402 | PTZ | C-752-C | Yes |
| 104499 | PTZ | C-752-C | Yes |
| 104506 | PTZ | C-752-C | Yes |
| 104508 | PTZ | C-752-C | Yes |
| 36071-01 | PURGE WATER, RADSORB | C-746-H3 | Yes |
| 102912-02 | PVC 1 IN. TUBING | C-752-A | No |
| 53780-01 | PVC PIPE/STAINLESS STEELE PIPE/PLASTIC | C-746-H3 | No |
| 102510-01 | RAD PPE | C-752-A | No |
| 103802-01 | RAD PPE | C-752-A | No |
| 103802-02 | RAD PPE | C-752-A | No |
| 103802-03 | RAD PPE | C-752-A | No |
| 103809-01 | RAD PPE | C-752-A | No |
| 103809-02 | RAD PPE | C-752-A | No |
| 103809-03 | RAD PPE | C-752-A | No |
| 103809-04 | RAD PPE | C-752-A | No |
| 103809-05 | RAD PPE | C-752-A | No |
| 103809-06 | RAD PPE | C-752-A | No |

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| 103811-01 | RAD PPE AND PLASTIC | C-752-A | No |
| 103811-02 | RAD PPE AND PLASTIC | C-752-A | No |
| 103807-01 | RAD PPE AND PLASTIC TUBING | C-752-A | No |
| 103812-01 | RAD PPE, PAPER, PLASTIC | C-752-A | No |
| 103812-02 | RAD PPE, PAPER, PLASTIC | C-752-A | No |
| CASX-15420 | RAGS, PIGS, PADS, PANS, PLASTIC | C-746-H3 | No |
| 104936-01 | RAGS, WIRE BRUSES AND PPE | C-746-A | No |
| CAS-17519 | RAGS/GLOVES | C-753-A | No |
| CASX-15494 | RAGS/GLOVES/ABSORBENTS | C-746-B | No |
| CASX-15737 | RAGS/GLOVES/ABSORBENTS/SMALL CAP | C-746-A | No |
| CAS-14728 | RAGS/PADS/GLOVES | C-746-A | No |
| 22883-01 | RAGS/PLASTIC/PAPER | C-333 | No |
| CASX-15489 | RAGS/PLASTIC/PPE/DIRT | C-746-A | No |
| 102415-01 | RECEIVER ASH / URANIUM PRECIPITATE | C-746-Q | No |
| 11059-05 | RED GRAVEL/WATER | C-746-A | Yes |
| 11059-01 | RED GRAVEL/WATER | C-746-V | Yes |
| 11059-02 | RED GRAVEL/WATER | C-746-V | Yes |
| 11059-03 | RED GRAVEL/WATER | C-746-V | Yes |
| 11059-04 | RED GRAVEL/WATER | C-746-V | Yes |
| 11059-06 | RED GRAVEL/WATER | C-746-V | Yes |
| 11059-07 | RED GRAVEL/WATER | C-746-V | Yes |
| 11059-08 | RED GRAVEL/WATER | C-746-V | Yes |
| 33778-01 | ROAD DEBRIS | C-746-H3 | Yes |
| 33778-02 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-03 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-04 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-05 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-06 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-07 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-08 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-09 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-10 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-11 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-12 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-13 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-14 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-15 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-16 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-17 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-18 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-19 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-20 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-21 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-22 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-23 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-24 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| 33778-25 | ROAD DEBRIS (SEE LOG SHEET) | C-746-H3 | Yes |
| CAS-14016 | ROCK | C-746-A | Yes |
| CAS-14017 | ROCK | C-746-A | Yes |
| 09464-01 | ROCK | C-752-A | Yes |
| CAS-14898 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14900 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14901 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14902 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14903 | ROCK AND SOIL | C-753-A | Yes |

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| CAS-14904 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14905 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14906 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14907 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14908 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14909 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14910 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14911 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14912 | ROCK AND SOIL | C-753-A | Yes |
| CAS-14913 | ROCK AND SOIL | C-753-A | Yes |
| 04738-04 | ROCK/DIRT | C-746-H3 | Yes |
| 04738-09 | ROCK/DIRT | C-746-H3 | Yes |
| 48788-01 | ROCK/GRAVEL/RUST | C-746-H3 | Yes |
| CASX-15460 | ROCKS | C-746-A | Yes |
| CASX-15461 | ROCKS | C-746-A | Yes |
| CASX-15462 | ROCKS | C-746-A | Yes |
| CASX-15459 | ROCKS | C-746-B | Yes |
| CAS-15398 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15399 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15400 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15401 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15405 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15406 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15407 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15408 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15409 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15410 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15411 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CAS-15412 | ROCKS (SPILL PCB-291) | C-753-A | Yes |
| CASX-14794 | ROCKS FROM SPILL CLEANUP | C-746-B | Yes |
| CASX-15071 | ROCKS, GLOVES, RAGS | C-746-A | Yes |
| CAS-15403 | ROCKS/DIRT (SPILL PCB-291) | C-753-A | Yes |
| CASX-15073 | ROCKS/GLOVES | C-746-A | Yes |
| CASX-15072 | ROCKS/PPE | C-746-A | Yes |
| CAS-17449 | RUBBER BOOTS/GLOVES | C-746-B | No |
| 06441-15 | RUBBER GASKETS/OILY SLUDGE/OILY RAGS | C-333 | No |
| 06441-13 | RUBBER GASKETS/PAPER/PLASTIC/PADS/RAGS | C-746-B | No |
| CAS-06377 | SAMPLE BOTTLES | C-746-B | No |
| CAS-16788 | SAMPLE BOTTLES/TAPE/KIMWIPES | C-753-A | No |
| 103205-01 | SAMPLE RESIDUALS | C-753-A | No |
| CAS-10907 | SAMPLE WASTE PAPER,PLSTIC DEBRIS | C-746-B | No |
| CAS-10939 | SAMPLE WASTE PAPER,PLSTIC DEBRIS | C-746-B | No |
| CAS-09733 | SAMPLES IN BOTTLES | C-746-B | No |
| 61943-01 | SAMPLING DEBRIS | C-746-H3 | No |
| 62530-01 | SAMPLING DEBRIS | C-746-H3 | No |
| 101423-01 | SAMPLING DEBRIS | C-746-Q | No |
| CAS-11313 | SAMPLING DEBRIS | C-753-A | No |
| 62509-01 | SAMPLING DEBRIS: GLASS COLIWASAS | C-753-A | No |
| CAS-17658 | SAMPLING DEBRIS: PPE/PAPER | C-753-A | No |
| CAS-17661 | SAMPLING DEBRIS:PPE/PAPER/GLASS | C-753-A | No |
| 36498-01 | SAMPLING SURVEY | C-746-B | No |
| CAS-12844 | SAMPLING WASTE-PAPER/PLSTC/GLASS | C-753-A | No |
| CAS-14051 | SAND/GRAVEL | C-753-A | Yes |
| CAS-14052 | SAND/GRAVEL | C-753-A | Yes |
| CAS-14053 | SAND/GRAVEL | C-753-A | Yes |

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| CAS-16000 | SAND/ZORBALL/PPE | C-753-A | No |
| CASX-17484 | SANDBAGS/HYPALON | C-746-B | Yes |
| 35889-05 | SARANEX/GLOVES/TAPE | C-746-H3 | No |
| 35889-01 | SARANEX/GLOVES/TAPE | C-746-V | No |
| 35889-02 | SARANEX/GLOVES/TAPE | C-746-V | No |
| 35889-03 | SARANEX/GLOVES/TAPE | C-746-V | No |
| 35889-04 | SARANEX/GLOVES/TAPE | C-746-V | No |
| CAS-16300 | SARANEX/RAGS/GLOVES | C-753-A | No |
| 102021-01 | SARANEX/TYVEK/NEOPRENE/VINYL/PLASTIC | C-746-Q | No |
| SI-3015 | SB HA | C-752-A | Yes |
| CAS-17310 | SEMI-SOLID SLUDGE/DIRT | C-753-A | Yes |
| CAS-15395 | SERENEX/GLOVES/RAGS/TRASH | C-753-A | No |
| CASX-17499 | SLUDGE | C-746-B | Yes |
| 37995-01 | SLUDGE | C-746-V | Yes |
| 37995-02 | SLUDGE | C-746-V | Yes |
| 37995-03 | SLUDGE | C-746-V | Yes |
| 37995-04 | SLUDGE | C-746-V | Yes |
| 37995-05 | SLUDGE | C-746-V | Yes |
| 37995-06 | SLUDGE | C-746-V | Yes |
| 37995-07 | SLUDGE | C-746-V | Yes |
| 101686-01A | SLUDGE FROM 101686-01 | C-752-A | No |
| 103201-01A | SLUDGE FROM 103201-01 | C-752-A | No |
| 37183-01 | SLUDGE FROM LIFT STATION | C-746-B | Yes |
| 37183-02 | SLUDGE FROM LIFT STATION | C-746-B | Yes |
| 46012-01 | SLUDGE FROM OUTFALL 002 SUMP | C-746-A | Yes |
| 46012-02 | SLUDGE FROM OUTFALL 002 SUMP | C-746-A | Yes |
| 46879-01A | SLUDGE OF DECON WATER | C-746-B | Yes |
| CALX-1177A | SLUDGE OF WASTE WATER | C-746-B | Yes |
| 35521-01A | SLUDGE OF WATER | C-746-B | Yes |
| 35521-03A | SLUDGE OF WATER | C-746-B | Yes |
| 47676-01 | SLUDGE TANK CLEANOUT | C-752-A | No |
| 47676-02 | SLUDGE TANK CLEANOUT | C-752-A | No |
| 47676-03 | SLUDGE TANK CLEANOUT | C-752-A | No |
| 47676-04 | SLUDGE TANK CLEANOUT | C-752-A | No |
| CAS-14349 | SLUDGE/PLASTIC/ZORBALL | C-753-A | No |
| 53377-01 | SLUDGE-011 LIFT STATION | C-746-B | Yes |
| 53377-02 | SLUDGE-011 LIFT STATION | C-746-B | Yes |
| 53377-03 | SLUDGE-011 LIFT STATION | C-746-B | Yes |
| 53379-01 | SLUDGE-012 FLUME | C-746-Q | Yes |
| 22615-007 | SOIL | C-746-A | Yes |
| 22615-010 | SOIL | C-746-A | Yes |
| 22615-012 | SOIL | C-746-A | Yes |
| 22615-022 | SOIL | C-746-A | Yes |
| 44779-01 | SOIL | C-746-A | Yes |
| 44827-01 | SOIL | C-746-A | Yes |
| 44827-13 | SOIL | C-746-A | Yes |
| 46258-01 | SOIL | C-746-A | Yes |
| 49612-01 | SOIL | C-746-A | Yes |
| 49612-02 | SOIL | C-746-A | Yes |
| 49616-01 | SOIL | C-746-A | Yes |
| 49616-02 | SOIL | C-746-A | Yes |
| 49616-03 | SOIL | C-746-A | Yes |
| 49616-04 | SOIL | C-746-A | Yes |
| 49616-05 | SOIL | C-746-A | Yes |
| 49616-06 | SOIL | C-746-A | Yes |

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| 05140-03 | SOIL | C-746-B | Yes |
| 05140-04 | SOIL | C-746-B | Yes |
| 22805-001 | SOIL | C-746-B | Yes |
| 44778-10 | SOIL | C-746-B | Yes |
| 44813-02 | SOIL | C-746-B | Yes |
| 45674-49 | SOIL | C-746-B | Yes |
| 46880-01 | SOIL | C-746-B | Yes |
| 49608-06 | SOIL | C-746-B | Yes |
| 49613-22 | SOIL | C-746-B | Yes |
| 49619-05 | SOIL | C-746-B | Yes |
| SI-0017 | SOIL | C-746-B | Yes |
| SI-0065 | SOIL | C-746-B | Yes |
| SI-0077 | SOIL | C-746-B | Yes |
| SI-0086 | SOIL | C-746-B | Yes |
| SI-0102 | SOIL | C-746-B | Yes |
| SI-0125 | SOIL | C-746-B | Yes |
| SI-0162 | SOIL | C-746-B | Yes |
| SI-0168 | SOIL | C-746-B | Yes |
| SI-0189 | SOIL | C-746-B | Yes |
| SI-0190 | SOIL | C-746-B | Yes |
| SI-0195 | SOIL | C-746-B | Yes |
| SI-0208 | SOIL | C-746-B | Yes |
| SI-0213 | SOIL | C-746-B | Yes |
| SI-0219 | SOIL | C-746-B | Yes |
| SI-0223 | SOIL | C-746-B | Yes |
| SI-0242 | SOIL | C-746-B | Yes |
| SI-0248 | SOIL | C-746-B | Yes |
| SI-0256 | SOIL | C-746-B | Yes |
| SI-0274 | SOIL | C-746-B | Yes |
| SI-0276 | SOIL | C-746-B | Yes |
| SI-0290 | SOIL | C-746-B | Yes |
| SI-0336 | SOIL | C-746-B | Yes |
| SI-0349 | SOIL | C-746-B | Yes |
| SI-0368 | SOIL | C-746-B | Yes |
| SI-0384 | SOIL | C-746-B | Yes |
| SI-0385 | SOIL | C-746-B | Yes |
| SI-0389 | SOIL | C-746-B | Yes |
| SI-0399 | SOIL | C-746-B | Yes |
| SI-0403 | SOIL | C-746-B | Yes |
| SI-0406 | SOIL | C-746-B | Yes |
| SI-0408 | SOIL | C-746-B | Yes |
| SI-0409 | SOIL | C-746-B | Yes |
| SI-0414 | SOIL | C-746-B | Yes |
| SI-0418 | SOIL | C-746-B | Yes |
| SI-0419 | SOIL | C-746-B | Yes |
| SI-0420 | SOIL | C-746-B | Yes |
| SI-0421 | SOIL | C-746-B | Yes |
| SI-0424 | SOIL | C-746-B | Yes |
| SI-0432 | SOIL | C-746-B | Yes |
| SI-0433 | SOIL | C-746-B | Yes |
| SI-0437 | SOIL | C-746-B | Yes |
| SI-0441 | SOIL | C-746-B | Yes |
| SI-0444 | SOIL | C-746-B | Yes |
| SI-0449 | SOIL | C-746-B | Yes |
| SI-0464 | SOIL | C-746-B | Yes |

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| SI-0501 | SOIL | C-746-B | Yes |
| SI-0539 | SOIL | C-746-B | Yes |
| SI-0541 | SOIL | C-746-B | Yes |
| SI-0573 | SOIL | C-746-B | Yes |
| SI-0599 | SOIL | C-746-B | Yes |
| SI-0600 | SOIL | C-746-B | Yes |
| SI-0604 | SOIL | C-746-B | Yes |
| SI-0606 | SOIL | C-746-B | Yes |
| SI-0662 | SOIL | C-746-B | Yes |
| SI-0712 | SOIL | C-746-B | Yes |
| SI-0851 | SOIL | C-746-B | Yes |
| SI-0897 | SOIL | C-746-B | Yes |
| SI-0898 | SOIL | C-746-B | Yes |
| SI-0899 | SOIL | C-746-B | Yes |
| SI-0902 | SOIL | C-746-B | Yes |
| SI-0933 | SOIL | C-746-B | Yes |
| SI-0934 | SOIL | C-746-B | Yes |
| SI-0963B | SOIL | C-746-B | Yes |
| SI-0992 | SOIL | C-746-B | Yes |
| SI-0993 | SOIL | C-746-B | Yes |
| SI-1008 | SOIL | C-746-B | Yes |
| SI-1011 | SOIL | C-746-B | Yes |
| SI-1012 | SOIL | C-746-B | Yes |
| SI-1015 | SOIL | C-746-B | Yes |
| SI-1018 | SOIL | C-746-B | Yes |
| SI-1021 | SOIL | C-746-B | Yes |
| SI-1029 | SOIL | C-746-B | Yes |
| SI-1056 | SOIL | C-746-B | Yes |
| SI-1088 | SOIL | C-746-B | Yes |
| SI-1201 | SOIL | C-746-B | Yes |
| W-1942 | SOIL | C-746-B | Yes |
| 05140-01 | SOIL | C-746-H3 | Yes |
| 05140-02 | SOIL | C-746-H3 | Yes |
| 05148-01 | SOIL | C-746-H3 | Yes |
| 05148-02 | SOIL | C-746-H3 | Yes |
| 101177-01 | SOIL | C-746-H3 | Yes |
| 22615-020 | SOIL | C-746-H3 | Yes |
| 22615-021 | SOIL | C-746-H3 | Yes |
| 33829-001 | SOIL | C-746-H3 | Yes |
| 42231-14 | SOIL | C-746-H3 | Yes |
| 45349-01 | SOIL | C-746-H3 | Yes |
| 45349-02 | SOIL | C-746-H3 | Yes |
| 49666-01 | SOIL | C-746-H3 | Yes |
| SI-0057 | SOIL | C-746-H3 | Yes |
| SI-0058 | SOIL | C-746-H3 | Yes |
| SI-0415 | SOIL | C-746-H3 | Yes |
| SI-0927 | SOIL | C-746-H3 | Yes |
| SI-0949 | SOIL | C-746-H3 | Yes |
| SI-0982 | SOIL | C-746-H3 | Yes |
| 45667-01 | SOIL | C-752-A | Yes |
| 45667-02 | SOIL | C-752-A | Yes |
| 45667-03 | SOIL | C-752-A | Yes |
| 45667-04 | SOIL | C-752-A | Yes |
| 45667-05 | SOIL | C-752-A | Yes |
| 45667-06 | SOIL | C-752-A | Yes |

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| 45667-07 | SOIL | C-752-A | Yes |
| 45667-08 | SOIL | C-752-A | Yes |
| 45667-09 | SOIL | C-752-A | Yes |
| 45667-10 | SOIL | C-752-A | Yes |
| 45667-11 | SOIL | C-752-A | Yes |
| 45667-12 | SOIL | C-752-A | Yes |
| 45674-01 | SOIL | C-752-A | Yes |
| 45674-02 | SOIL | C-752-A | Yes |
| 45674-03 | SOIL | C-752-A | Yes |
| 45674-04 | SOIL | C-752-A | Yes |
| 45674-05 | SOIL | C-752-A | Yes |
| 45674-06 | SOIL | C-752-A | Yes |
| 45674-07 | SOIL | C-752-A | Yes |
| 45674-08 | SOIL | C-752-A | Yes |
| 45674-09 | SOIL | C-752-A | Yes |
| 45674-10 | SOIL | C-752-A | Yes |
| 45674-11 | SOIL | C-752-A | Yes |
| 45674-12 | SOIL | C-752-A | Yes |
| 45674-13 | SOIL | C-752-A | Yes |
| 45674-14 | SOIL | C-752-A | Yes |
| 45674-15 | SOIL | C-752-A | Yes |
| 45674-16 | SOIL | C-752-A | Yes |
| 45674-17 | SOIL | C-752-A | Yes |
| 45674-18 | SOIL | C-752-A | Yes |
| 45674-19 | SOIL | C-752-A | Yes |
| 45674-20 | SOIL | C-752-A | Yes |
| 45674-21 | SOIL | C-752-A | Yes |
| 45674-22 | SOIL | C-752-A | Yes |
| 45674-23 | SOIL | C-752-A | Yes |
| 45674-24 | SOIL | C-752-A | Yes |
| 45674-25 | SOIL | C-752-A | Yes |
| 45674-26 | SOIL | C-752-A | Yes |
| 45674-27 | SOIL | C-752-A | Yes |
| 45674-28 | SOIL | C-752-A | Yes |
| 45674-29 | SOIL | C-752-A | Yes |
| 45674-30 | SOIL | C-752-A | Yes |
| 45674-31 | SOIL | C-752-A | Yes |
| 45674-32 | SOIL | C-752-A | Yes |
| 45674-33 | SOIL | C-752-A | Yes |
| 45674-34 | SOIL | C-752-A | Yes |
| 45674-35 | SOIL | C-752-A | Yes |
| 45674-36 | SOIL | C-752-A | Yes |
| 45674-37 | SOIL | C-752-A | Yes |
| 45674-38 | SOIL | C-752-A | Yes |
| 45674-39 | SOIL | C-752-A | Yes |
| 45674-40 | SOIL | C-752-A | Yes |
| 45674-41 | SOIL | C-752-A | Yes |
| 45674-42 | SOIL | C-752-A | Yes |
| 45674-43 | SOIL | C-752-A | Yes |
| 45674-44 | SOIL | C-752-A | Yes |
| 45674-45 | SOIL | C-752-A | Yes |
| 45674-46 | SOIL | C-752-A | Yes |
| 45674-47 | SOIL | C-752-A | Yes |
| 45674-48 | SOIL | C-752-A | Yes |
| 45674-50 | SOIL | C-752-A | Yes |

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| 45674-51 | SOIL | C-752-A | Yes |
| 45674-52 | SOIL | C-752-A | Yes |
| 45674-53 | SOIL | C-752-A | Yes |
| 45674-54 | SOIL | C-752-A | Yes |
| 45674-55 | SOIL | C-752-A | Yes |
| 45674-56 | SOIL | C-752-A | Yes |
| 46110-01 | SOIL | C-752-A | Yes |
| 53727-01 | SOIL | C-752-A | Yes |
| SI-0047 | SOIL | C-746-B | Yes |
| SI-0164 | SOIL | C-746-B | Yes |
| SI-0192 | SOIL | C-746-B | Yes |
| SI-0193 | SOIL | C-746-B | Yes |
| SI-0260 | SOIL | C-746-B | Yes |
| SI-0280 | SOIL | C-746-B | Yes |
| SI-0281 | SOIL | C-746-B | Yes |
| SI-0299? | SOIL | C-746-B | Yes |
| SI-0380 | SOIL | C-746-B | Yes |
| SI-0431 | SOIL | C-746-B | Yes |
| SI-0434 | SOIL | C-746-B | Yes |
| SI-0442 | SOIL | C-746-B | Yes |
| SI-0443 | SOIL | C-746-B | Yes |
| SI-0750 | SOIL | C-746-B | Yes |
| SI-0766 | SOIL | C-746-B | Yes |
| SI-0767 | SOIL | C-746-B | Yes |
| SI-0768 | SOIL | C-746-B | Yes |
| SI-0773 | SOIL | C-746-B | Yes |
| SI-0775 | SOIL | C-746-B | Yes |
| SI-0799 | SOIL | C-746-B | Yes |
| SI-0821 | SOIL | C-746-B | Yes |
| SI-0916 | SOIL | C-746-B | Yes |
| SI-0932 | SOIL | C-746-B | Yes |
| SI-0960 | SOIL | C-746-B | Yes |
| SI-1006 | SOIL | C-746-B | Yes |
| 103808-01 | SOIL & EXCAVATION DEBRIS | C-752-A | Yes |
| 103808-02 | SOIL & EXCAVATION DEBRIS | C-752-A | Yes |
| SI-1020 | SOIL & GROUT | C-746-B | Yes |
| CAS-10916 | SOIL & SEDIMENT SAMPLES | C-753-A | Yes |
| SI-0267 | SOIL (DRILL SOLIDS) | C-746-B | Yes |
| SI-0278 | SOIL (DRILL) | C-746-B | Yes |
| 45344-01 | SOIL (LAB RESIDUALS) | C-746-A | Yes |
| 45344-02 | SOIL (LAB RESIDUALS) | C-746-A | Yes |
| 45344-03 | SOIL (LAB RESIDUALS) | C-746-A | Yes |
| SI-1027 | SOIL ? | C-746-B | Yes |
| 05139-04 | SOIL AC | C-746-A | Yes |
| 22784-06 | SOIL AC | C-746-A | Yes |
| 22832-01 | SOIL AC | C-746-A | Yes |
| 22873-03 | SOIL AC | C-746-A | Yes |
| 22798-05 | SOIL AC | C-746-B | Yes |
| SI-0526 | SOIL AC | C-746-B | Yes |
| SI-0772 | SOIL AC | C-746-B | Yes |
| SI-0895 | SOIL AC | C-746-B | Yes |
| SI-0901 | SOIL AC | C-746-B | Yes |
| SI-1007 | SOIL AC | C-746-B | Yes |
| SI-1022 | SOIL AC | C-746-B | Yes |
| SI-1024 | SOIL AC | C-746-B | Yes |

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| SI-1349 | SOIL AC | C-746-B | Yes |
| SI-1413 | SOIL AC | C-746-B | Yes |
| SI-1418 | SOIL AC | C-746-B | Yes |
| 22566-004 | SOIL AC | C-746-H3 | Yes |
| 22806-001 | SOIL AC | C-746-H3 | Yes |
| 22810-001 | SOIL AC | C-746-H3 | Yes |
| 22810-002 | SOIL AC | C-746-H3 | Yes |
| 22810-003 | SOIL AC | C-746-H3 | Yes |
| 22810-004 | SOIL AC | C-746-H3 | Yes |
| 22815-004 | SOIL AC | C-746-H3 | Yes |
| 22819-001 | SOIL AC | C-746-H3 | Yes |
| SI-0920 | SOIL AC | C-746-H3 | Yes |
| SI-0426 | SOIL AC | C-746-B | Yes |
| SI-0797 | SOIL AC | C-746-B | Yes |
| SI-0822 | SOIL AC | C-746-B | Yes |
| SI-0894 | SOIL AC | C-746-B | Yes |
| SI-1412 | SOIL AC | C-746-B | Yes |
| SI-1415 | SOIL AC | C-746-B | Yes |
| SI-0820 | SOIL AC (COMPOSITE) | C-746-B | Yes |
| 22604-048 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22604-049 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22604-054 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22604-074 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22604-102 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22604-144 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22606-002 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22609-006 | SOIL AC, DRILL FLUID | C-746-A | Yes |
| 22601-009 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22601-011 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22604-043 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22604-122 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22604-136 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22611-006 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22611-007 | SOIL AC, DRILL FLUID | C-746-B | Yes |
| 22601-022 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22601-023 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-025 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-036 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-039 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-064 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-079 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-080 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-095 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-118 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-134 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22604-146 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22606-008 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22606-012 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22606-019 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22606-021 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22608-002 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22608-012 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22608-014 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22608-015 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22608-032 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |

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| 22608-042 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-007 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-015 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-024 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-025 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-030 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-033 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-035 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-038 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22609-040 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-006 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-008 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-024 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-026 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-031 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-032 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-039 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-044 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22610-047 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22611-001 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22611-002 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22611-003 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22611-004 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22611-019 | SOIL AC, DRILL FLUID | C-746-H3 | Yes |
| 22601-025 | SOIL AC,DF | C-746-H3 | Yes |
| 22608-029 | SOIL AC; DF | C-746-H3 | Yes |
| 22608-033 | SOIL AC; DF | C-746-H3 | Yes |
| 55760-01 | SOIL AND ABSORBENT | C-746-B | Yes |
| 53153-01 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-02 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-03 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-04 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-05 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-06 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-07 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 53153-08 | SOIL AND GRAVEL | C-746-H3 | Yes |
| 32235-01 | SOIL AND SEDIMENT SAMPLES | C-746-V | Yes |
| SI-1391 | SOIL AND WATER | C-746-B | Yes |
| 08997-02 | SOIL AUGER CUTTINGS | C-746-B | Yes |
| SI-1335 | SOIL AUGER CUTTINGS | C-746-B | Yes |
| 22604-023 | SOIL AUGER CUTTINGS , DRILL FLUID | C-746-B | Yes |
| 22608-017 | SOIL AUGER CUTTINGS , DRILL FLUID | C-746-B | Yes |
| 22604-005 | SOIL AUGER CUTTINGS, DRILL FLUID | C-746-B | Yes |
| 22608-039 | SOIL AUGER CUTTINGS, DRILL FLUID | C-746-B | Yes |
| 22608-041 | SOIL AUGER CUTTINGS, DRILL FLUID | C-746-B | Yes |
| 22609-017 | SOIL AUGER CUTTINGS, DRILL FLUID | C-746-B | Yes |
| SI-0480 | SOIL CUTTING | C-746-B | Yes |
| SI-0481 | SOIL CUTTING | C-746-B | Yes |
| SI-0652 | SOIL CUTTING | C-746-B | Yes |
| SI-0655 | SOIL CUTTING | C-746-B | Yes |
| SI-0656 | SOIL CUTTING | C-746-B | Yes |
| 57327-01 | SOIL CUTTING | C-752-A | Yes |
| 34822-01 | SOIL CUTTINGS | C-746-A | Yes |
| 34822-02 | SOIL CUTTINGS | C-746-A | Yes |
| 34822-03 | SOIL CUTTINGS | C-746-A | Yes |

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| 37965-02 | SOIL CUTTINGS | C-746-A | Yes |
| 37965-05 | SOIL CUTTINGS | C-746-A | Yes |
| 38038-01 | SOIL CUTTINGS | C-746-A | Yes |
| 38038-08 | SOIL CUTTINGS | C-746-A | Yes |
| 42641-08 | SOIL CUTTINGS | C-746-A | Yes |
| 38038-04 | SOIL CUTTINGS | C-746-B | Yes |
| 38038-05 | SOIL CUTTINGS | C-746-B | Yes |
| SI-0479 | SOIL CUTTINGS | C-746-B | Yes |
| SI-0589 | SOIL CUTTINGS | C-746-B | Yes |
| SI-0963 | SOIL CUTTINGS | C-746-B | Yes |
| 33788-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33788-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33788-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33788-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33789-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33789-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33789-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33789-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-05 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-06 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-07 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33790-08 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33799-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33799-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33799-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33799-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| 33799-05 | SOIL CUTTINGS | C-746-H3 | Yes |
| 34815-09 | SOIL CUTTINGS | C-746-H3 | Yes |
| 34815-10 | SOIL CUTTINGS | C-746-H3 | Yes |
| 34815-11 | SOIL CUTTINGS | C-746-H3 | Yes |
| 38038-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 38038-07 | SOIL CUTTINGS | C-746-H3 | Yes |
| 38038-09 | SOIL CUTTINGS | C-746-H3 | Yes |
| 38038-11 | SOIL CUTTINGS | C-746-H3 | Yes |
| 38038-12 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43157-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43157-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43157-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43157-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43157-05 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43157-06 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43158-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43158-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43158-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 43158-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| 49652-01 | SOIL CUTTINGS | C-746-H3 | Yes |
| 49652-02 | SOIL CUTTINGS | C-746-H3 | Yes |
| 49652-03 | SOIL CUTTINGS | C-746-H3 | Yes |
| 49652-04 | SOIL CUTTINGS | C-746-H3 | Yes |
| SI-0590 | SOIL CUTTINGS/DM? | C-746-B | Yes |
| CASX-18040 | SOIL FOR PCB TREATABILITY STUDY | C-746-B | Yes |

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| 7445 | SOIL FROM 7445, 6085, 7446 | C-746-A | Yes |
| 101113-01 | SOIL SAMPLE RESIDUE | C-752-A | Yes |
| 102526-01 | SOIL SAMPLES | C-746-B | Yes |
| 49668-01 | SOIL SAMPLES | C-746-B | Yes |
| 54229-01 | SOIL SAMPLES WAG23 | C-753-A | Yes |
| SI-1341 | SOIL, AC | C-746-B | Yes |
| SI-1342 | SOIL, AC | C-746-B | Yes |
| SI-1410 | SOIL, AC | C-746-B | Yes |
| SI-1417 | SOIL, AC | C-746-B | Yes |
| SI-1419 | SOIL, AC | C-746-B | Yes |
| SI-1436 | SOIL, AC | C-746-B | Yes |
| SI-1437 | SOIL, AUGER CUTTINGS | C-746-B | Yes |
| SI-1336 | SOIL, AUGER CUTTINGS | C-746-B | Yes |
| SI-1337 | SOIL, AUGER CUTTINGS | C-746-B | Yes |
| SI-1338 | SOIL, AUGER CUTTINGS | C-746-B | Yes |
| 22608-019 | SOIL, AUGER CUTTINGS, DRILL FLUID | C-746-B | Yes |
| 55538-01 | SOIL/CONCRETE/SLUDGE | C-746-H3 | Yes |
| SI-0440 | SOIL/DM | C-746-B | Yes |
| SI-1017 | SOIL/GROUT | C-746-B | Yes |
| 47602-01 | SOIL/PAPER/PLASTIC/GLASS | C-753-A | Yes |
| 46278-08 | SOIL/PLASTIC | C-746-A | Yes |
| SI-0042 | SOIL/PLASTIC | C-746-B | Yes |
| SI-0430 | SOIL/PLASTIC | C-746-B | Yes |
| 46278-01 | SOIL/PLASTIC | C-746-H3 | Yes |
| 46278-02 | SOIL/PLASTIC | C-746-H3 | Yes |
| 46278-05 | SOIL/PLASTIC | C-746-H3 | Yes |
| 46278-06 | SOIL/PLASTIC | C-746-H3 | Yes |
| 46278-07 | SOIL/PLASTIC | C-746-H3 | Yes |
| 47604-01 | SOIL/PLASTIC/GLASS/PAPER | C-753-A | Yes |
| CAS-14683 | SOIL/SEDIMENT SAMPLES | C-753-A | Yes |
| SI-0994 | SOIL/WATER | C-746-B | Yes |
| SI-1409 | SOIL/WATER | C-746-B | Yes |
| 33829-004 | SOILS | C-746-H3 | Yes |
| SI-0261 | SOILS | C-746-B | Yes |
| 3649 | SOLID DEBRIS | C-746-A | No |
| 3650 | SOLID DEBRIS | C-746-A | No |
| 61901-01 | SOLID DEBRIS | C-746-Q | No |
| CAS-17668 | SOLID LAB SAMPLES | C-753-A | No |
| 103229-01 | SOLID LAB WASTE | C-753-A | No |
| 103235-01 | SOLID LAB WASTE | C-753-A | No |
| CAS-16544 | SOLID LAB WASTE/GLOVES/PLASTIC | C-337 | No |
| CAS-16545 | SOLID LAB WASTE/PAPER/PLASTIC | C-337 | No |
| CAS-15710 | SOLID PCB & NICKEL STRIPPER SMPL | C-753-A | No |
| 35195-01 | SOLID PCB WASTE PPE/PADS | C-753-A | No |
| 62140-01 | SOLID SAMPLES | C-746-H3 | No |
| 62144-01 | SOLID SAMPLES | C-746-H3 | No |
| CASX-17660 | SOLID SAMPLES | C-746-V | No |
| 45984-01 | SOLID SAMPLES | C-753-A | No |
| 45984-02 | SOLID SAMPLES | C-753-A | No |
| 56697-01 | SOLID SAMPLES | C-753-A | No |
| 62132-01 | SOLID SAMPLES | C-753-A | No |
| 62135-01 | SOLID SAMPLES | C-753-A | No |
| CAS-17670 | SOLID SAMPLES | C-753-A | No |
| 62141-01 | SOLID SAMPLES | C-746-H3 | Yes |
| 62141-02 | SOLID SAMPLES | C-746-H3 | Yes |

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| 62147-01 | SOLID SAMPLES (VORTEC 97-06) | C-746-A | Yes |
| 61893-01 | SOLID SAMPLES/GLASS | C-753-A | No |
| 55534-01 | SOLID SAMPLES-INCINERABLE | C-746-A | No |
| 56725-01 | SOLID SAMPLES-INCINERABLE | C-746-A | No |
| CASX-16502 | SOLID WASTE - OILY ROCKS | C-746-B | Yes |
| 36491-01 | SOLID WASTE SAMPLE CONTAINERS | C-746-H3 | No |
| 6594 | SOLID WASTE/OILY RAGS/GLOVES | C-746-V | No |
| SI-2083 | SOLID/OFF/HIGH | C-746-H3 | Yes |
| SI-2084 | SOLID/OFF/LOW | C-746-H3 | Yes |
| SI-2087 | SOLID/OH/LOW | C-746-B | Yes |
| 100256-01 | SPENT RESIN | C-746-H3 | No |
| 58452-01 | SPENT RESIN | C-746-H3 | No |
| 58452-02 | SPENT RESIN | C-746-H3 | No |
| 58452-03 | SPENT RESIN | C-746-H3 | No |
| 58452-04 | SPENT RESIN | C-746-H3 | No |
| 58452-05 | SPENT RESIN | C-746-H3 | No |
| 58452-06 | SPENT RESIN | C-746-H3 | No |
| 58452-07 | SPENT RESIN | C-746-H3 | No |
| 58452-08 | SPENT RESIN | C-746-H3 | No |
| 58452-09 | SPENT RESIN | C-746-H3 | No |
| 58452-10 | SPENT RESIN | C-746-H3 | No |
| 58455-01 | SPENT RESIN | C-746-H3 | No |
| 58461-01 | SPENT RESIN | C-746-H3 | No |
| 58462-01 | SPENT RESIN | C-746-H3 | No |
| CASX-15526 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15527 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15528 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15529 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15530 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15531 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15532 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15533 | SPILL CLEANUP - DIRT/GRAVEL | C-746-A | Yes |
| CASX-15534 | SPILL CLEANUP - DIRT/GRAVEL | C-752-A | Yes |
| CASX-15525 | SPILL CLEANUP - PPE/RAGS/DIRT | C-746-B | Yes |
| 29696-01 | OIL/GRAVE | C-746-H3 | No |
| 51972-01 | SPILL CLEAN-UP MATERIAL | C-746-A | No |
| SI-2072 | SUMP CLEAN OUT #4 | C-746-H3 | Yes |
| SI-2073 | SUMP CLEAN OUT #4 | C-746-H3 | Yes |
| SI-2074 | SUMP CLEAN OUT #4 | C-746-H3 | Yes |
| SI-2075 | SUMP CLEAN OUT #4 | C-746-H3 | Yes |
| 38057-01 | SUMP CLEANOUT | C-746-H3 | Yes |
| 38057-02 | SUMP CLEANOUT | C-746-H3 | Yes |
| 38057-03 | SUMP CLEANOUT | C-746-H3 | Yes |
| 38057-04 | SUMP CLEANOUT | C-746-H3 | Yes |
| 38057-05 | SUMP CLEANOUT | C-746-H3 | Yes |
| 38057-06 | SUMP CLEANOUT | C-746-H3 | Yes |
| 31200-08 | SUMP CLEAN-OUT | C-746-H3 | Yes |
| 31200-07 | SUMP CLEAN-OUT | C-752-A | Yes |
| SI-3524 | SUMP CO #8, MPA | C-746-A | Yes |
| SI-3528 | SUMP CO #8, MPA | C-746-A | Yes |
| SI-3529 | SUMP CO #8, MPA | C-746-A | Yes |
| SI-3531 | SUMP CO #8, MPA | C-746-A | Yes |
| SI-3530 | SUMP CO #8, MPA | C-746-H3 | Yes |
| W-1234 | SUMP MUD | C-746-B | Yes |
| W-3607 | SUMP MUD | C-746-B | Yes |

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| W-3619 | SUMP MUD | C-746-B | Yes |
| 48727-01 | SUMP MUD | C-746-H3 | Yes |
| 48727-02 | SUMP MUD | C-746-H3 | Yes |
| 48727-03 | SUMP MUD | C-746-H3 | Yes |
| 48727-04 | SUMP MUD | C-746-H3 | Yes |
| CAS-12865 | SUMP SEDIMENT | C-337 | Yes |
| CASX-17489 | SUMP SLUDGE | C-746-A | Yes |
| CASX-17487 | SUMP SLUDGE | C-746-B | Yes |
| CASX-17488 | SUMP SLUDGE | C-746-B | Yes |
| 46122-01 | SUMP SLUDGE | C-746-H3 | Yes |
| CASX-17492 | SUMP SLUDGE FROM LIFT STATION | C-746-B | Yes |
| CASX-17493 | SUMP SLUDGE FROM LIFT STATION | C-746-B | Yes |
| CASX-17494 | SUMP SLUDGE FROM LIFT STATION | C-746-B | Yes |
| CASX-17495 | SUMP SLUDGE FROM LIFT STATION | C-746-B | Yes |
| CASX-17496 | SUMP SLUDGE FROM LIFT STATION | C-746-B | Yes |
| 104781-01 | SUSPECT LIME | C-752-A | No |
| 54076-01 | TANK CLEANOUT SLUDGE | C-746-H3 | No |
| 55638-01 | TANK SEDIMENT | C-746-H3 | No |
| 55638-02 | TANK SEDIMENT | C-746-H3 | No |
| 55638-03 | TANK SEDIMENT | C-746-H3 | No |
| 55638-04 | TANK SEDIMENT | C-746-H3 | No |
| 55638-05 | TANK SEDIMENT | C-746-H3 | No |
| 55638-06 | TANK SEDIMENT | C-746-H3 | No |
| 55638-07 | TANK SEDIMENT | C-746-H3 | No |
| 55638-08 | TANK SEDIMENT | C-746-H3 | No |
| 55638-09 | TANK SEDIMENT | C-746-H3 | No |
| 55638-10 | TANK SEDIMENT | C-746-H3 | No |
| 55638-11 | TANK SEDIMENT | C-746-H3 | No |
| 55638-12 | TANK SEDIMENT | C-746-H3 | No |
| 55638-13 | TANK SEDIMENT | C-746-H3 | No |
| 55638-14 | TANK SEDIMENT | C-746-H3 | No |
| 55638-15 | TANK SEDIMENT | C-746-H3 | No |
| 55638-16 | TANK SEDIMENT | C-746-H3 | No |
| 55638-17 | TANK SEDIMENT | C-746-H3 | No |
| 55638-18 | TANK SEDIMENT | C-746-H3 | No |
| 55638-19 | TANK SEDIMENT | C-746-H3 | No |
| 54077-01 | TANK SLUDGE | C-752-A | No |
| 54077-02 | TANK SLUDGE | C-752-A | No |
| 54077-03 | TANK SLUDGE | C-752-A | No |
| 54077-04 | TANK SLUDGE | C-752-A | No |
| 54077-05 | TANK SLUDGE | C-752-A | No |
| 54077-06 | TANK SLUDGE | C-752-A | No |
| 54077-07 | TANK SLUDGE | C-752-A | No |
| 13685-01 | TAPE/PLASTIC/PAPER/GLOVES | C-333 | No |
| CAS-18006 | TCLP SAMPLE | C-753-A | No |
| CAS-17550 | TCLP SAMPLE BOTTLES | C-753-A | No |
| CAS-15971 | TOOLS/HOSES/PPE | C-746-B | No |
| SI-2009 | TR, AL BOTTLES | C-746-A | No |
| SI-3512 | TRACK HOE BUCKET DECON | C-746-H3 | Yes |
| 41774-01 | TRANSITE PIECES/DIRT/PLASTIC | C-746-V | Yes |
| 41774-02 | TRANSITE PIECES/DIRT/PLASTIC | C-746-V | Yes |
| 41774-03 | TRANSITE PIECES/DIRT/PLASTIC | C-746-V | Yes |
| 41774-04 | TRANSITE PIECES/DIRT/PLASTIC | C-746-V | Yes |
| CAS-12727 | TRASH - PPE | C-753-A | No |
| CAS-12728 | TRASH - PPE/RAGS | C-753-A | No |

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| CAS-09790 | TRASH/PLASTIC | C-746-B | No |
| CAS-09791 | TRASH/PLASTIC | C-746-B | No |
| CAS-09793 | TRASH/PLASTIC | C-746-B | No |
| CAS-09794 | TRASH/PLASTIC | C-746-B | No |
| CAS-09796 | TRASH/PLASTIC | C-746-B | No |
| CAS-09797 | TRASH/PLASTIC | C-746-B | No |
| 52753-02 | TREATABILITY SOIL SAMPLES | C-746-B | Yes |
| 52753-03 | TREATABILITY SOIL SAMPLES | C-746-B | Yes |
| SI-1152 | TUBING | C-746-B | No |
| W-3531 | TUBING | C-746-H3 | No |
| SI-1143 | TUBING | C-746-B | No |
| SI-0537 | TUBING/PPE | C-746-B | No |
| CAS-12610 | TYVEK GLOVES/GLASS/PAPER/PLASTIC | C-337 | No |
| CAS-12611 | TYVEK GLOVES/GLASS/PAPER/PLASTIC | C-337 | No |
| CAS-17450 | TYVEK SUITS/GLOVES/TAPE | C-752-A | No |
| CAS-17451 | TYVEK SUITS/GLOVES/TAPE | C-746-B | No |
| CAS-17452 | TYVEK SUITS/GLOVES/TAPE | C-746-B | No |
| CAS-12950 | TYVEK SUITS/SHOE COVERS/GLOVES | C-753-A | Yes |
| 17640-01 | TYVEK/GLASS/GLOVES/PAPER/PLASTIC | C-746-Q | No |
| 17640-02 | TYVEK/GLASS/GLOVES/PAPER/PLASTIC | C-746-V | No |
| CASX-14846 | TYVEK/GLASS/PAPER/PLASTIC | C-746-H3 | No |
| 13844-01 | TYVEK/PAPER/PLASTIC/RAGS | C-333 | No |
| 46260-01 | TYVEK/RAGS/SYRANEX/CARDBOARD/OTHER | C-746-Q | No |
| 102012-01 | TYVEK/SARANEX/NEOPRENE/VINYL/PADS/PLASTI | C-746-B | No |
| 101198-01 | TYVEK/SARANEX/NEOPRENE/VINYL/PLASTIC | C-746-Q | No |
| 51407-01 | TYVEK/WIPES/GLOVES/TAPE | C-746-Q | No |
| 36379-01 | TYVEKS/RAGS/COLIWASAS | C-746-V | No |
| 102671-01 | U CONTAMINATED METAL FROM C-720 SUMP PIT | C-752-A | No |
| CAS-14037 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14038 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14039 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14040 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14041 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14042 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14043 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14044 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14045 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14046 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14047 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| CAS-14048 | UNDERLAYMENT AND ROCKS | C-746-A | Yes |
| 23513-02 | UNKNOWN | C-746-B | Yes |
| CAS-16630 | URANIUM CONTAM SOLID LAB | C-753-A | No |
| 09469-01 | URANIUM CONTAMINATED PRECIPITATE | C-746-Q | No |
| 09469-02 | URANIUM CONTAMINATED PRECIPITATE | C-746-Q | No |
| 09469-03 | URANIUM CONTAMINATED PRECIPITATE | C-746-Q | No |
| 09469-05 | URANIUM CONTAMINATED PRECIPITATE | C-746-Q | No |
| 09469-07 | URANIUM CONTAMINATED PRECIPITATE | C-746-Q | No |
| 09469-08 | URANIUM CONTAMINATED PRECIPITATE | C-746-Q | No |
| 04876-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 04876-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 04876-03 | URANIUM PRECIPITATE | C-746-Q | No |
| 04876-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 04888-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 04888-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 04888-03 | URANIUM PRECIPITATE | C-746-Q | No |

| | | | |
|----------|---------------------|---------|----|
| 06427-11 | URANIUM PRECIPITATE | C-746-Q | No |
| 06427-12 | URANIUM PRECIPITATE | C-746-Q | No |
| 06427-13 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-03 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-05 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-06 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-07 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-08 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-09 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-10 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-11 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-12 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-13 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-14 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-15 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-16 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-17 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-18 | URANIUM PRECIPITATE | C-746-Q | No |
| 06430-19 | URANIUM PRECIPITATE | C-746-Q | No |
| 06432-06 | URANIUM PRECIPITATE | C-746-Q | No |
| 06432-07 | URANIUM PRECIPITATE | C-746-Q | No |
| 06432-08 | URANIUM PRECIPITATE | C-746-Q | No |
| 06432-09 | URANIUM PRECIPITATE | C-746-Q | No |
| 06432-10 | URANIUM PRECIPITATE | C-746-Q | No |
| 06447-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 06447-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 06447-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 06447-15 | URANIUM PRECIPITATE | C-746-Q | No |
| 06447-16 | URANIUM PRECIPITATE | C-746-Q | No |
| 13091-17 | URANIUM PRECIPITATE | C-746-Q | No |
| 13091-18 | URANIUM PRECIPITATE | C-746-Q | No |
| 13091-19 | URANIUM PRECIPITATE | C-746-Q | No |
| 13091-26 | URANIUM PRECIPITATE | C-746-Q | No |
| 13091-36 | URANIUM PRECIPITATE | C-746-Q | No |
| 13096-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 13096-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 13096-03 | URANIUM PRECIPITATE | C-746-Q | No |
| 13096-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-03 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-05 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-06 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-07 | URANIUM PRECIPITATE | C-746-Q | No |
| 14696-08 | URANIUM PRECIPITATE | C-746-Q | No |
| 14701-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 14701-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 14701-03 | URANIUM PRECIPITATE | C-746-Q | No |
| 14701-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 14701-05 | URANIUM PRECIPITATE | C-746-Q | No |
| 14701-06 | URANIUM PRECIPITATE | C-746-Q | No |

| | | | |
|----------|---------------------|---------|----|
| 14702-30 | URANIUM PRECIPITATE | C-746-Q | No |
| 14702-31 | URANIUM PRECIPITATE | C-746-Q | No |
| 14702-32 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-03 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-05 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-06 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-07 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-08 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-09 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-10 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-11 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-12 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-13 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-14 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-15 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-16 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-17 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-18 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-19 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-20 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-21 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-22 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-23 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-24 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-25 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-26 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-27 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-28 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-29 | URANIUM PRECIPITATE | C-746-Q | No |
| 14703-30 | URANIUM PRECIPITATE | C-746-Q | No |
| 14987-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 14987-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 34935-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 34935-02 | URANIUM PRECIPITATE | C-746-Q | No |
| 48799-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 6996 | URANIUM PRECIPITATE | C-746-Q | No |
| 6997 | URANIUM PRECIPITATE | C-746-Q | No |
| 6998 | URANIUM PRECIPITATE | C-746-Q | No |
| 7111 | URANIUM PRECIPITATE | C-746-Q | No |
| 7112 | URANIUM PRECIPITATE | C-746-Q | No |
| 7451 | URANIUM PRECIPITATE | C-746-Q | No |
| 7452 | URANIUM PRECIPITATE | C-746-Q | No |
| 7586 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0458 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0459 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0460 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0461 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0462 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0463 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-0464 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1020 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1021 | URANIUM PRECIPITATE | C-746-Q | No |

| | | | |
|-----------|----------------------------------|----------|-----|
| HC-1022 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1023 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1024 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1025 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1026 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1027 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1028 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1030 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1031 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1032 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1033 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1034 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1035 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1036 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1037 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1038 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1137 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1138 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1139 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1140 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1141 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1142 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1182 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1183 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1184 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1185 | URANIUM PRECIPITATE | C-746-Q | No |
| 09469-04 | URANIUM PRECIPITATE | C-746-Q | No |
| 09469-06 | URANIUM PRECIPITATE | C-746-Q | No |
| HC-1029 | URANIUM PRECIPITATE | C-746-A | No |
| SI-0450B | VERMICULITE | C-746-B | No |
| 17619-01 | WASTE SOLID SAMPLES | C-333 | No |
| 17620-01 | WASTE SOLID SAMPLES | C-333 | No |
| 7229 | WASTE SOLID SAMPLES | C-746-A | No |
| 7230 | WASTE SOLID SAMPLES | C-746-A | No |
| 7231 | WASTE SOLID SAMPLES | C-746-A | No |
| 7232 | WASTE SOLID SAMPLES | C-746-A | No |
| 36496-01 | WASTE SOLID SAMPLES | C-746-B | No |
| 36496-02 | WASTE SOLID SAMPLES | C-746-B | No |
| CAS-15840 | WASTE SOLID SAMPLES | C-753-A | No |
| CAS-15914 | WASTE SOLID SAMPLES | C-753-A | No |
| CAS-16584 | WASTE SOLID SAMPLES | C-753-A | No |
| CAS-17018 | WASTE SOLID SAMPLES | C-753-A | No |
| CAS-17407 | WASTE SOLID SAMPLES | C-753-A | No |
| CAS-18023 | WASTE SOLID SAMPLES | C-753-A | No |
| CAS-16462 | WASTE SOLID SAMPLES | C-753-A | Yes |
| CAS-16503 | WASTE SOLID SAMPLES | C-753-A | Yes |
| CAS-16597 | WASTE SOLID SAMPLES IN CONTAINER | C-753-A | Yes |
| 14010-01 | WASTE WATER | C-746-B | Yes |
| 32103-01 | WASTE WATER | C-746-H3 | Yes |
| 05980-02 | WATER | C-333 | Yes |
| 09595-02 | WATER | C-333 | Yes |
| 09595-03 | WATER | C-333 | Yes |
| 09595-04 | WATER | C-333 | Yes |
| 57492-01 | WATER | C-746-A | Yes |
| 57492-02 | WATER | C-746-A | Yes |

| | | | |
|------------|---------------------------------------|----------|-----|
| 05980-01 | WATER | C-746-B | Yes |
| 09595-01 | WATER | C-746-B | Yes |
| 14001-01 | WATER | C-746-B | Yes |
| 14007-01 | WATER | C-746-B | Yes |
| 14007-02 | WATER | C-746-B | Yes |
| 14008-01 | WATER | C-746-B | Yes |
| 14025-01 | WATER | C-746-B | Yes |
| 14039-01 | WATER | C-746-B | Yes |
| 14039-02 | WATER | C-746-B | Yes |
| 23112-01 | WATER | C-746-B | Yes |
| 23834-01 | WATER | C-746-B | Yes |
| 24269-01 | WATER | C-746-B | Yes |
| 105282-01 | WATER / PETROLEUM FROM UST 18 | C-752-A | Yes |
| 105282-02 | WATER / PETROLEUM FROM UST 18 | C-752-A | Yes |
| 105282-03 | WATER / PETROLEUM FROM UST 18 | C-752-A | Yes |
| 105282-04 | WATER / PETROLEUM FROM UST 18 | C-752-A | Yes |
| 105282-05 | WATER / PETROLEUM FROM UST 18 | C-752-A | Yes |
| 105282-06 | WATER / PETROLEUM FROM UST 18 | C-752-A | Yes |
| 105107-01 | WATER FROM UST 17 | C-752-A | Yes |
| 101055-01 | WATER WITH HYDRAULIC FLUID | C-752-A | Yes |
| 101055-02 | WATER WITH HYDRAULIC FLUID | C-752-A | Yes |
| 101055-03 | WATER WITH HYDRAULIC FLUID | C-752-A | Yes |
| 101217-01 | WATER/HYDRAULIC FLUID | C-752-A | Yes |
| CAS-14615 | WATER/MUD/RADZORB,NO FREE LIQUID | C-746-A | Yes |
| SI-3095 | WATER/OFF/LOW | C-746-H3 | Yes |
| SI-3097 | WATER/OFF/LOW | C-746-H3 | Yes |
| SI-3503 | WATER/OFF/LOW | C-746-H3 | Yes |
| SI-3070 | WATER/ON/LOW | C-746-H3 | Yes |
| SI-3096 | WATER/ON/LOW | C-746-H3 | Yes |
| CAL-1174A | WATER/ROCKS/GRAVEL | C-746-A | Yes |
| SI-0661 | WATER; GROUT OR DRILL MUD? | C-746-Q | Yes |
| 31192-04 | WELL DISPLACEMENT WATER/GROUT/RADSORB | C-746-H3 | Yes |
| 36425-01 | WELL SEDIAMENT WATER (RADSORB) | C-746-H3 | Yes |
| 36409-01 | (RADSORB) | C-746-H3 | Yes |
| 100261-01 | WIPES, GLOVES, PPE | C-752-A | No |
| 53130-01 | WOD SCRAP | C-752-A | No |
| W-3598 | WOOD | C-746-H3 | No |
| CASX-18027 | YEARLY SOIL SEDIMENT SAMPLES | C-746-B | Yes |
| 06441-03 | N/A | C-746-B | No |
| 06441-04 | N/A | C-746-B | No |
| 06441-07 | N/A | C-746-B | No |
| 06441-08 | N/A | C-746-Q | No |
| 06441-10 | N/A | C-746-B | No |
| 06441-12 | N/A | C-746-B | No |
| 06441-17 | N/A | C-746-B | No |
| 06441-19 | N/A | C-746-B | No |
| 06441-20 | N/A | C-746-B | No |
| 06441-21 | N/A | C-746-B | No |
| 06441-22 | N/A | C-746-B | No |
| 06441-24 | N/A | C-746-B | No |
| 04763-01 | N/A | C-333 | Yes |
| 04763-02 | N/A | C-333 | Yes |
| 04763-03 | N/A | C-333 | Yes |
| 04763-04 | N/A | C-333 | Yes |
| 04763-05 | N/A | C-333 | Yes |

| | | | |
|-----------|-----|----------|-----|
| 04763-07 | N/A | C-333 | Yes |
| 04763-08 | N/A | C-333 | Yes |
| 04763-09 | N/A | C-333 | Yes |
| 04763-10 | N/A | C-333 | Yes |
| 04763-13 | N/A | C-333 | Yes |
| 04763-15 | N/A | C-333 | Yes |
| 04763-16 | N/A | C-333 | Yes |
| 04763-17 | N/A | C-333 | Yes |
| 04763-18 | N/A | C-333 | Yes |
| 04763-19 | N/A | C-333 | Yes |
| 04763-20 | N/A | C-333 | Yes |
| 04763-21 | N/A | C-333 | Yes |
| 04763-22 | N/A | C-333 | Yes |
| 04763-23 | N/A | C-333 | Yes |
| 04763-24 | N/A | C-333 | Yes |
| 04763-25 | N/A | C-333 | Yes |
| 04763-26 | N/A | C-333 | Yes |
| 04763-27 | N/A | C-333 | Yes |
| 04763-28 | N/A | C-333 | Yes |
| 04763-29 | N/A | C-333 | Yes |
| 04763-30 | N/A | C-333 | Yes |
| 16390-02 | N/A | C-746-H3 | Yes |
| 16390-03 | N/A | C-746-H3 | Yes |
| 16390-04 | N/A | C-746-H3 | Yes |
| 16390-05 | N/A | C-746-H3 | Yes |
| 16390-06 | N/A | C-746-H3 | Yes |
| 13902-237 | N/A | C-746-H3 | Yes |
| 13902-238 | N/A | C-746-H3 | Yes |
| 13902-239 | N/A | C-746-H3 | Yes |
| 13902-240 | N/A | C-746-H3 | Yes |
| 13902-305 | N/A | C-746-H3 | Yes |
| 13902-306 | N/A | C-746-H3 | Yes |
| 13902-307 | N/A | C-746-H3 | Yes |
| 13902-308 | N/A | C-746-H3 | Yes |
| 13904-08 | N/A | C-746-H3 | Yes |
| 13906-237 | N/A | C-746-H3 | Yes |
| 13906-238 | N/A | C-746-H3 | Yes |
| 13906-239 | N/A | C-746-H3 | Yes |
| 16390-01 | N/A | C-746-V | Yes |
| 13905-107 | N/A | C-746-V | Yes |
| 13905-134 | N/A | C-746-V | Yes |
| 13905-141 | N/A | C-746-V | Yes |
| 13905-142 | N/A | C-746-V | Yes |
| 13905-145 | N/A | C-746-V | Yes |
| 13905-146 | N/A | C-746-V | Yes |
| 13905-155 | N/A | C-746-A | Yes |
| 13905-244 | N/A | C-746-V | Yes |
| 13905-252 | N/A | C-746-V | Yes |
| 13905-261 | N/A | C-746-V | Yes |
| 13905-262 | N/A | C-746-V | Yes |
| 13905-321 | N/A | C-746-V | Yes |
| 13905-324 | N/A | C-746-V | Yes |
| 13905-325 | N/A | C-746-V | Yes |
| 13905-328 | N/A | C-746-V | Yes |
| 13905-358 | N/A | C-746-V | Yes |

| | | | |
|-----------|---------------------------------|---------|-----|
| 13905-361 | N/A | C-746-V | Yes |
| 13905-45 | N/A | C-746-V | Yes |
| 13905-46 | N/A | C-746-V | Yes |
| 13905-47 | N/A | C-746-V | Yes |
| 13905-48 | N/A | C-746-V | Yes |
| 13905-79 | N/A | C-746-V | Yes |
| 13905-861 | N/A | C-746-V | Yes |
| 13906-234 | N/A | C-746-V | Yes |
| 13906-257 | N/A | C-746-V | Yes |
| 13906-338 | N/A | C-746-V | Yes |
| 13906-343 | N/A | C-746-V | Yes |
| 13906-607 | N/A | C-746-V | Yes |
| 13906-625 | N/A | C-746-V | Yes |
| 13904-06 | N/A | C-752-A | Yes |
| 103178 | MEGA WAG | C-752-C | Yes |
| 51821-01 | DECON WATER FROM AUGER SAMPLING | C-746-B | Yes |
| 51390-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 51425-01 | URANIUM PRECIPITATE | C-746-B | No |
| 36488-01 | URANIUM PRECIPITATE | C-746-Q | No |
| 04876-09 | URANIUM PRECIPITATE | C-746-Q | No |
| 04879-07 | URANIUM PRECIPITATE | C-753-A | No |
| 04879-02 | URANIUM PRECIPITATE | C-753-A | No |
| 04876-08 | URANIUM PRECIPITATE | C-746-Q | No |
| 04876-06 | URANIUM PRECIPITATE | C-746-Q | No |
| 04879-04 | URANIUM PRECIPITATE | C-753-A | No |
| 04879-03 | URANIUM PRECIPITATE | C-753-A | No |
| 04879-01 | URANIUM PRECIPITATE | C-753-A | No |
| 04876-07 | URANIUM PRECIPITATE | C-746-Q | No |
| 04876-05 | URANIUM PRECIPITATE | C-746-Q | No |
| 04879-05 | URANIUM PRECIPITATE | C-753-A | No |
| 04879-08 | URANIUM PRECIPITATE | C-753-A | No |
| 04879-06 | URANIUM PRECIPITATE | C-753-A | No |
| 13091-42 | URANIUM PRECIP | C-746-Q | No |

*Previously Characterized

Note: if Envir Media column indicates "no" then contains debris

Attachment C

Suspect F and U listed Container Storage Locations

| Location | SWMU # |
|-------------------|--------|
| C-746-Q | 46A |
| C-752-A | 207 |
| C-746-H3 | 159 |
| C-746-B | 39 |
| C-746-B outside | 471 |
| C-746-A | 144 |
| C-746-V | 470 |
| C-753-A | 206 |
| DMSA-333-29 | 285 |
| DMSA-333-24 | 280 |
| DMSA-333-35 | 289 |
| DMSA-333-02 | 257 |
| DMSA-333-34 | 288 |
| DMSA-333-14 | 269 |
| DMSA-333-13 | 268 |
| DMSA-333-03 | 237 |
| DMSA-333-15 | 270 |
| DMSA-333-06 | 261 |
| DMSA-333-25 | 281 |
| DMSA-333-12 | 267 |
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Contained-In Levels and Protocol

**HEALTH-BASED CONTAINED-IN LEVELS AND CHARACTERIZATION
PROTOCOL FOR MEDIA AND MEDIA-RELATED WASTES
GENERATED AT THE PADUCAH GASEOUS DIFFUSION PLANT**

1. BACKGROUND

Because an environmental medium (e.g., soils, surface water, or groundwater) in and of itself is not defined as a solid waste, a release of a listed waste to an environmental medium does not make the medium a hazardous waste per the Mixture or Derived-From Rules. Consequently, EPA developed what is referred to as the "Contained-In" Policy to address environmental media.

In general, the "Contained-In" Policy states that when environmental media are generated and actively managed as wastes and the media have been contaminated with a listed waste, they must be managed as a hazardous waste until they are determined to no longer contain the listed waste. The process to determine if the waste no longer contains a listed waste is called a "contained-in" determination. When conducting a "contained-in" determination, the generator compares the concentrations of the listed hazardous constituents in the environmental media to regulator-approved, health-based standards. If the listed hazardous constituent levels are below the approved health-based levels and the media do not exhibit a hazardous characteristic, the media are deemed to no longer contain a hazardous waste. When the concentrations of the listed constituents are above the health-based levels, then the media must be managed as RCRA-hazardous waste unless treated below the approved health-based levels.

This characterization protocol includes the following:

- Identification of the site-specific health-based levels for use in RCRA-listed waste determinations for newly generated wastes at PGDP; and,
- An outline for a systematic approach to evaluate, characterize, and implement the site-specific health based levels for listed hazardous waste determinations at PGDP.

2. HEALTH-BASED LEVELS

This section identifies the health-based levels for TCE and 1,1,1-TCA that will be used when making contained-in determinations at PGDP. The health-based levels are established at either 10^{-6} risk level for carcinogens or a hazard index (HI) of 1 for systemic toxicants. The values for solids were derived following the protocols presented in App. B of the approved Human Health Risk Methods Document (DOE/OR/07-1506&D2, December 2000) and using site-specific exposure information. The risk assessment assumptions for soils are provided in Appendix A. Based upon site-specific scenarios, for solids, the health-based contaminant concentration level corresponding to either a 10^{-6} risk or a hazard index (HI) of 1, is 39.2 parts per million (ppm) for TCE and is 2,080 ppm for 1,1,1-TCA. Note that 1,1,1-TCA does not have a cancer risk-based screening level derived because a cancer toxicity value for this compound is not available. Therefore the proposed health based standard was calculated using the hazard index.

The site-specific health-based levels for determining whether contaminated media/debris still contains or is no longer contaminated with listed hazardous waste (TCE and 1,1,1 TCA), are as follows: TCE-39.2 ppm for solids and 1,1,1 TCA-2080 ppm for solids. These levels are presented in Table 1. The site-specific health-based levels for determining whether contaminated groundwater destined for on-site treatment and discharge through a KPDES permitted outfall (e.g., groundwater resulting from well-purging, well development, and well sampling) still contains listed hazardous waste (TCE and 1,1,1-TCA are as follows: 0.081 ppm TTCE. Groundwater that meets the health-based level for TCE shall also be deemed to no longer contain 1,1,1 TCA.

Solids that are determined to be below the levels set forth in Table 1 and that are not characteristically hazardous but that cannot be disposed in the C-746-U landfill shall be deemed to no longer contain or to

no longer be contaminated with listed hazardous waste (F001, F002, U228) and may be managed in accordance with applicable low-level waste and TSCA requirements until dispositioned to an appropriate off-site facility. The cabinet agrees to consult with DOE and the State where the off-site facility is located to reach agreement on the appropriate health-based standard for making contained-in determinations for wastes that are to be shipped to such facility. In making contained-in determinations pursuant to this document, the Cabinet is not making any determination regarding the nature or characteristic of the suspect listed waste at any time prior to the date of the contained-in determination.

Table 1
Proposed Contained-In Concentrations

| <u>Contaminant</u> | <u>Solids</u> | <u>Groundwater</u> |
|--------------------|---------------|------------------------|
| TCE | 39.2 ppm | Surface Water Standard |
| 1,1,1-TCA | 2,080 ppm | N/A |

DOE may develop additional project and waste-specific health-based levels for KDEP review and approval on a case-by-case basis to address media that may be managed differently than the standard waste management practices represented by these exposure scenarios.

DOE will apply these health-based standards to the following media wastestreams at the PGDP.

Solids

Soils
Drill cuttings/sample residuals
Sediment

Aqueous Liquids

Groundwater, including purge/well development water/sample residuals water

For the purposes of this paper, related waste is defined as wastes that are mixed with or derived from environmental media containing a listed waste (e.g., have come into contact with such environmental media). Examples of related waste include personnel protective equipment (PPE), sampling equipment, drilling fluids, and decontamination water. Also, related waste streams can be derived from the storage, treatment or disposal of environmental media that contains a listed waste. Related waste may also be referred to as secondary wastes.

Related waste streams consist of the following:

- Debris such as PPE, sampling equipment, and other materials that have been contaminated with environmental media that contains a listed waste;
- Drilling fluids and decontamination water;
- Landfill leachate;
- Wastewaters;
- Wastewater treatment media (filters, activated carbon, etc.); and,
- Wastewater treatment sludges.

Generally, related waste stream determinations will be consistent with determinations for the corresponding primary waste streams. If the primary waste stream is determined not to exceed the health-based standards, any related waste streams will be deemed not to be derived from or mixed with listed hazardous waste. However, the contained-in standards for solids, as presented in Table 1, will be applied to all debris waste streams generated as a result of site activities involving contaminated media. For example, PPE and sampling debris generated during the sampling of a monitoring well with TCE

groundwater concentration less than 39.2 ppm would not require management as a listed TCE hazardous waste.

The contained-in standards will be applied against the contaminant concentration in the media (primary wastestream) based upon process knowledge, in-situ data, or characterization data collected after generation.

For the groundwater at PGDP, the contained-in standard will be applied at the well extraction head based on the most current characterization data. Actual sampling data will be reviewed to ensure that the groundwater is handled appropriately at the point of generation.

Media and related wastes that are below the contained-in standards and do not exhibit a hazardous characteristic will be considered not to "contain" or to be derived from or mixed with a listed waste and will be managed as non-hazardous waste, subject to applicable Land Disposal Restrictions (LDRs), as discussed in Section 3.3.

3. IMPLEMENTATION

A variety of waste streams already generated at the PGDP, and to be generated at the PGDP are potentially RCRA hazardous waste as a result of contamination of an environmental media by a listed hazardous waste. As described above, DOE will use the health-based levels in Table 1 to determine if these waste streams contain listed wastes and are subject to hazardous waste management requirements.

3.1 SAMPLING AND ANALYSIS PLAN

When DOE desires to pursue a contained-in determination for a particular waste stream, for those which require additional characterization, DOE will prepare a Sampling and Analysis Plan (SAP) to collect data to support the request for a contained-in determination. The SAP will be submitted to the Cabinet for review and approval. Review and comments on SAPs and other documents being developed for a CERCLA Response Action conducted under the Federal Facility Agreement (FFA) will follow the review process specified in the FFA. For those SAPs not developed in association with an FFA scope of work, the Cabinet, within thirty (30) days of receipt of a SAP, will review DOE's SAP and either approve the SAP or issue comments. DOE will respond to comments and resubmit the plan within thirty (30) days of receipt of the Cabinet's written comments. The Cabinet will review the response to comments and the resubmitted SAP and either approve the resubmitted plan or issue additional comments within (30) days of receipt of DOE's response to comments and resubmitted plan. If the Cabinet issues any additional comments, DOE may invoke the consultation provisions of the Agreed Order.

The sampling and analysis plans for conducting sampling of environmental media and related wastes will be developed in accordance with the United States Environmental Protection Agency's (USEPA) sampling and analysis protocol as defined in SW-846, 3rd edition, or the most recently EPA approved edition.

The sampling approach for a given population of material will be tailored to the population matrix, the size of the population, and its location, either ex-situ (e.g., container) or in-situ (e.g., ditch). PPE, plastic and other debris that cannot be directly associated with a specific population of environmental media will be evaluated to determine the possibility of contamination with TCE. Since the PPE, plastic and other debris have the potential to have heterogeneous contamination within a container, the sampling protocol will be designed to be matrix-specific, and may include composite sampling, grid sampling, or other methodologies consistent with the guidance outlined in SW-846, 3rd edition, or the most recently approved EPA edition. The specific sampling approach will be detailed in the SAP and submitted to the Cabinet for review and approval.

3.2 APPLICATION OF ANALYTICAL RESULTS

DOE will determine if additional samples will be required to ensure proper and adequate characterization in accordance with SW-846 Chapter 9. Additional sampling may be required if the variance in the sample results are of such a magnitude that the calculation specified in SW-846 shows that an insufficient number of samples were collected to make a decision with the desired degree of confidence. Additional sampling may also be required if the Quality Control samples show unacceptable results (e.g., the blanks show sampling or laboratory contamination, the Relative Percent Difference between duplicate sample results exceeds the acceptable range as specified in SW-846, etc.) If additional samples are required, DOE will conduct additional sampling in accordance with the approved SAP or, if necessary, submit a revised SAP providing for the additional sampling to the Cabinet for review and approval.

DOE will review the assessed data and compare the analytical results to the health based levels as set forth herein and the Agreed Order to determine if the media "contains" a listed waste. If the analytical data indicates that the listed constituents were detected below the applicable health-based levels, the media and any associated debris would be determined not to "contain" listed waste and would not be subject to RCRA management requirements provided that it does not exhibit any hazardous characteristics. If the listed constituent concentrations are above the health-based levels, DOE will identify the wastes as listed hazardous waste requiring RCRA management, or submit a revised SAP to the Cabinet that proposes sampling each container in order to make a hazardous waste determination for each container on an individual basis, or as otherwise agreed to by the Cabinet.

Within twenty (20) days of receipt of final validated data for entry into the OREIS database, DOE shall submit its contained-in determination and all supporting analytical data to the Cabinet. The Cabinet will review DOE's determination and supporting analytical data and provide DOE with notification of any concerns the Cabinet has within thirty (30) days.

3.3 APPLICATION OF LAND DISPOSAL RESTRICTIONS

In accordance with KDEP and EPA regulations, all RCRA hazardous waste must meet the land disposal restrictions (LDRs) for the contaminants of concern prior to being land disposed. The LDRs also apply to media and debris that "contain" or are determined to "no longer contain" a RCRA regulated waste. The LDR Universal Treatment Standards (UTS) for TCE and TCA are presented in Table 2.

Table 2

| <u>Contaminant</u> | <u>Nonwastewaters</u> | <u>Wastewaters</u> |
|--------------------|-----------------------|--------------------|
| TCE | 6 ppm | 0.054 ppm |
| 1,1,1-TCA | 6 ppm | 0.054 ppm |

For soils and debris, DOE will review the assessed data to determine if the media contains a hazardous waste above contained-in-levels. Soil and debris that do not constitute hazardous waste at generation may be disposed of in a subtitle D landfill. Soil and debris that are determined to no longer contain listed hazardous waste and that are not characteristically hazardous must meet LDR treatment standards prior to disposal in a subtitle D landfill. Soil and debris determined to contain a hazardous waste above contained-in levels must be treated to the LDR standards prior to land disposal. Soil and debris that contain a listed hazardous waste above contained-in levels and which have been subsequently treated to meet the contained-in levels and meet the LDR standards may be disposed of in a subtitle D landfill. DOE may apply the LDR treatment standards for contaminated soils promulgated by EPA on May 26, 1998, upon receiving a variance from Kentucky's promulgated LDRs.

At PGDP, the groundwater will be treated at a wastewater treatment unit and ultimately discharged through a KPDES outfall, in which case the LDR standards do not apply at the point source discharge. [401 KAR 31:010 Section 4(1)(b) and 40 CFR 261.4(a)(2)].

Appendix A

RISK ASSUMPTIONS AND CALCULATIONS

RISK ASSUMPTIONS AND CALCULATIONS
Site-Specific No Action Screening Values for a PGDP Contained-In Determinations

Industrial use no action direct contact risk-based values for the PGDP for trichloroethene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA) in soil were calculated as part of the work performed for the Human Health Risk Methods Document (DOE/OR/07-1506&D2, December 2000). In the Methods Document, these no action values are defined as the values below which no action is needed to address contamination in order to be protective of human health. These no action values were calculated using default exposure assumptions and dose equations for ingestion of contaminated soil, inhalation of particulates and vapors emitted by contaminated soil, and dermal contact with contaminated soil. The dose equations are presented in Tables D-29, D-31, and D-33 in Appendix D of the Methods Document. The exposure assumptions used in these equations are presented in Table B.4 in Appendix B of the Methods Document. The method of derivation utilizing these equations and the default exposure assumptions is presented in Section 1 of Appendix B of the Methods Document.

The industrial worker no action numbers calculated using these materials are shown in Table 1. Values in Table 1 were taken from Table A.17 in Appendix A of the Methods Document.

**Table 1. Industrial worker No Action screening values for soil
in PGDP Human Health Risk Methods document**

| Chemical | Hazard-based Value (HI=0.1) | Hazard-based Value^a (HI=1) | Cancer-based Value (Cancer risk=1 × 10⁻⁶) |
|-----------------|--|--|---|
| TCE | 4.70×10^0 | 4.70×10^1 | 2.51×10^0 |
| 1,1,1-TCA | 1.56×10^2 | 1.56×10^3 | NV |

Note:
All values in units of mg/kg (ppm).

HI = Hazard index.
NV = No value available for the cancer risk because analyte is not known to be a carcinogen.

^aIn the Methods Document, the industrial worker no action values are calculated using a target HI of 0.1 to account for multiple contaminants. For a single contaminant, it is more appropriate to use a target HI of 1.

For the current purpose, the industrial worker default no action direct contact risk-based values were converted to site-specific no action values by varying exposure parameters. The scenarios considered, and the values used for the exposure parameters that varied most often between scenarios (i.e., exposure frequency and duration) are as follows:

- Industrial Worker A – a worker that performs grounds maintenance at a landfill and has direct contact with contaminated soil for 16 days per year over a 25 year period;
- Industrial Worker B – a worker that performs grounds maintenance at a landfill and has direct contact with contaminated soil for 16 days per year for a period of one year; and
- Landfill Worker – a worker that performs operation activities at a landfill and has direct contact with contaminated soil for 187.5 days per year for a period of one year.

Exposure parameters for these and other variables used in dose calculations are summarized by exposure route in Tables 2, 3, and 4. Toxicity values are presented in Table 5.

The site-specific exposure frequencies for Industrial Worker A and B match those used in several other projects at the PGDP and are based upon results of interviews with supervisory personnel at the PGDP. The site-specific exposure frequency for the Landfill Worker is based upon the assumption that the exposure frequency of a landfill worker would approximate that of a PGDP default excavation worker.

The site-specific exposure duration for Industrial Worker A is based upon the default rate for industrial workers at the PGDP. The site-specific exposure durations for Industrial Worker B and the Landfill Worker are based upon the assumption that exposure duration for these individuals would be minimized because contaminated materials would be quickly buried.

The site-specific no action screening values calculated using the aforementioned exposure parameters and an HI and cancer risk target of 1 and 1×10^{-6} are shown in Table 6. The smallest site-specific screening values over all receptors for each organic compound are as follows.

For TCE:

Hazard-based value (HI at 1.0) = 63 mg/kg (ppm)

Cancer-based value (Cancer risk at 1×10^{-6}) = 39 mg/kg (ppm)

For 1,1,1-TCA:

Hazard-based value (HI at 1.0) = 2,080 mg/kg (ppm)

Cancer-based value (Cancer risk at 1×10^{-6}) = None (no cancer slope toxicity value available)

Table 2. Exposure parameters used for derivation of dose from ingestion of soil

| Parameter | Units | Value used |
|--------------------------------|--------------------|---|
| Concentration in soil = C_s | mg/kg | Calculated value |
| Ingestion rate = IR | mg/day | |
| Default | | 50 |
| Industrial Worker A | | 50 |
| Industrial Worker B | | 480 |
| Landfill Worker | | 50 |
| Fraction ingested = FI | unitless | 1 |
| Exposure frequency = EF | day/yr | |
| Default | | 250 |
| Industrial Worker A | | 16 |
| Industrial Worker B | | 16 |
| Landfill Worker | | 187.5 |
| Exposure duration = ED | year | |
| Default | | 25 |
| Industrial Worker A | | 25 |
| Industrial Worker B | | 1 |
| Landfill Worker | | 1 |
| Conversion factor = CF | kg/mg | 10^{-6} |
| Body weight = BW | kg | 70 |
| Averaging time = AT | yr \times day/yr | 70 \times 365 (carcinogen) ED \times 365 (noncarcinogen) |

IR for Default, Industrial Worker A, and Landfill Worker is the PGDP default value for the Industrial Worker scenario. IR for Industrial Worker B is the PGDP default value for the Excavation Worker scenario.

Table 3. Exposure parameters used for derivation of dose from dermal contact with soil

| Parameter | Units | Value used |
|-----------------------------------|--|---|
| Concentration in soil = C_s | mg/kg | Calculated value |
| Conversion factor-dermal = CF_d | (kg-cm ²)/(mg-m ²) | 0.01 |
| Surface area = SA | m ² /day | 0.43 |
| Adherence factor = AF | mg/cm ² | 1 |
| Absorption factor = ABS | unitless | 0.25 |
| Exposure frequency = EF | day/yr | |
| Default | | 250 |
| Industrial Worker A | | 16 |
| Industrial Worker B | | 16 |
| Landfill Worker | | 187.5 |
| Exposure duration = ED | years | |
| Default | | 25 |
| Industrial Worker A | | 25 |
| Industrial Worker B | | 1 |
| Landfill Worker | | 1 |
| Body weight = BW | kg | 70 |
| Averaging time = AT | yr × day/yr | 70 × 365 (carcinogen) ED × 365 (noncarcinogen) |

Table 4. Exposure parameters used for inhalation of particulates and vapors emitted by soil

| Parameter | Units | Value used |
|------------------------------------|----------------------|--|
| Concentration in soil = C_s | mg/kg | Calculated value |
| Conversion factor = CF | g/kg | 10 ³ |
| Exposure frequency = EF | day/year | |
| Default | | 250 |
| Industrial Worker A | | 16 |
| Industrial Worker B | | 16 |
| Landfill Worker | | 187.5 |
| Exposure duration = ED | years | |
| Default | | 25 |
| Industrial Worker A | | 25 |
| Industrial Worker B | | 1 |
| Landfill Worker | | 1 |
| Exposure time = ET | hour/day | 8 |
| Volatilization factor = VF | m ³ /kg | TCE = 3.45 × 10 ³ 1,1,1-TCA = 2.34 × 10 ³ |
| Particulate emission factor = PEF | m ³ /kg | 3.21 × 10 ¹⁰ |
| Total inhalation rate = IR_{air} | m ³ /hour | 2.5 |
| Body weight = BW | kg | 70 |
| Averaging time = AT | yr × day/yr | 70 × 365 (carcinogen) ED × 365 (noncarcinogen) |

Table 5. Toxicity values by route of exposure

| Analyte | Reference Dose [mg/(kg × day)] | | | Cancer Slope Factor [mg/(kg × day)] ⁻¹ | | |
|-----------|--------------------------------|-------------------------|-------------------------|---|-------------------------|-------------------------|
| | Oral | Dermal | Inhalation | Oral | Dermal | Inhalation |
| TCE | 6.00 × 10 ⁻³ | 9.00 × 10 ⁻⁴ | 5.97 × 10 ⁻³ | 1.10 × 10 ⁻² | 7.33 × 10 ⁻² | 6.00 × 10 ⁻³ |
| 1,1,1-TCA | 3.50 × 10 ⁻² | 3.15 × 10 ⁻² | 2.86 × 10 ⁻¹ | No value | No value | No value |

Table 6. Site-specific industrial worker no action screening values for soil

| Chemical | Industrial Worker A | | Industrial Worker B | | Landfill Worker | |
|-----------|---------------------|--------------------|---------------------|--------------------|--------------------|--------------------|
| | Hazard | Cancer | Hazard | Cancer | Hazard | Cancer |
| TCE | 7.35×10^2 | 3.92×10^1 | 7.11×10^2 | 9.40×10^2 | 6.27×10^1 | 8.36×10^1 |
| 1,1,1-TCA | 2.44×10^4 | NV | 2.05×10^4 | NV | 2.08×10^3 | NV |

Notes:

All values in units of mg/kg.

See text for explanation of scenarios.

NV = No value calculated because compound is not a carcinogen.

Hazard target used in calculations is 1. Cancer risk target used in calculations is 1×10^{-6} .

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Attachment E

The highlighted and underlined portions of this document set forth the requirements of the DMSA Characterization/Remediation Plan that are subject to requirements of this Agreed Order. Those portions of this document not highlighted and underlined are not subject to, or enforceable under, the provision of the Agreed Order and are provided for information purposes only.

**Paducah Gaseous Diffusion Plant
Department of Energy Material Storage Area
Characterization/Remediation Plan
Paducah, Kentucky**

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**Paducah Gaseous Diffusion Plant
Department of Energy Material Storage Area
Characterization/Remediation Plan
Paducah, Kentucky**

Date Issued – September 2003

Prepared for the
U.S. Department of Energy
Office of Environmental Management

BECHTEL JACOBS COMPANY LLC
managing the
Environmental Management Activities at the
East Tennessee Technology Park
Oak Ridge Y-12 Plant Oak Ridge National Laboratory
Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant

under contract DE-AC05-98OR22700
for the
U.S. DEPARTMENT OF ENERGY

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ACRONYMS

| | |
|-------|--|
| AHA | Activity Hazard Analysis |
| AOC | Area of Concern |
| BA | budget authority |
| BJC | Bechtel Jacobs Company LLC |
| DMSA | DOE Material Storage Area |
| DOE | United States Department of Energy |
| DQO | Data Quality Objectives |
| ES&H | Environmental, Safety, and Health |
| ISMS | Integrated Safety Management System |
| KDEP | Kentucky Department for Environmental Protection |
| LLW | Low-Level Radioactive Waste |
| M&I | Management and Integration |
| NCS | Nuclear Criticality Safety |
| NCSA | Nuclear Criticality Safety Approval |
| NCSE | Nuclear Criticality Safety Evaluation |
| NDA | Non Destructive Analysis |
| NEPA | National Environmental Policy Act |
| NFT | Nuclear Filter Technology Corporation |
| NOV | Notice of Violation |
| NRC | Nuclear Regulatory Commission |
| PCBs | Polychlorinated Biphenyls |
| PGDP | Paducah Gaseous Diffusion Plant |
| PORTS | Portsmouth Gaseous Diffusion Plant |
| QA | Quality Assurance |
| QAP | Quality Assurance Plan |
| QA/QC | Quality Assurance/Quality Control |
| RCRA | Resource Conservation and Recovery Act |
| RCT | Radiological Control Technicians |
| RFD | Request for Disposal |
| SA | Safety Advocate |
| SAP | Sampling and Analysis Plan |
| SEC | Safety and Ecology Corporation |
| SME | Subject Matter Experts |
| SMO | Sample Management Office |
| STR | Subcontract Technical Representative |
| SWMU | Solid Waste Management Unit |
| TBD | to be determined |
| TSCA | Toxic Substances Control Act |
| USEC | United States Enrichment Corporation |
| WBS | Work Breakdown Structure |
| WGP | Waste Generation Plan |
| WSMS | Westinghouse Safety Management Solutions LLC |
| WSS | Work Smart Standards |

EXECUTIVE SUMMARY

On September 5, 2000, the Kentucky Department for Environmental Protection issued a Notice of Violation (NOV) to the United States Department of Energy (DOE) alleging that:

1. DOE generated solid waste, failed to characterize that waste and subsequently managed the wastes in Department of Energy Storage Areas (DMSAs);
2. DOE failed to notify the State regarding these Solid Waste Management Units (SWMUs) and;
3. DOE stored hazardous and mixed waste for greater than 90 days without a permit.

The NOV included required remedial measures. Item 4 of the required actions included the submittal of a workplan within 90 days of receipt of the NOV. The workplan is to address the characterization of all wastes managed in DOE Material Storage Areas (DMSAs), Solid Waste Management Units (SWMUs), and Areas of Concern (AOCs). The workplan is to contain schedules for the characterization, proper storage, and final disposition of solid and hazardous wastes managed in DMSAs, SWMUs, and AOCs. All solid and hazardous wastes within DMSAs are to be properly characterized and managed in accordance with the approved workplan no later than June 1, 2001.

This document responds to Item 4 of the above-mentioned NOV. It outlines activities for the characterization of wastes managed in 160 DMSAs. These activities will address Nuclear Criticality Safety (NCS) concerns, and will also include waste determination and/or characterization activities for radioactive waste, solid waste, Resource Conservation and Recovery Act (RCRA) hazardous waste, and asbestos and polychlorinated biphenyls (PCBs) regulated under the Toxic Substances Control Act (TSCA). For purposes of this document, RCRA hazardous wastes are wastes regulated as hazardous under Kentucky Hazardous Waste Regulations. In addition, any required packaging of RCRA hazardous or TSCA generated waste is included. The workplan scope also includes the proper management, treatment, and disposal of all hazardous wastes characterized within the DMSAs. Any resulting non-hazardous solid waste will be disposed on-site at the Paducah Gaseous Diffusion Plant (PGDP) C-746-U Landfill, assuming it meets the waste acceptance criteria. Finally, the scope includes the required permitting and closure activities for those DMSAs that are determined to contain hazardous waste.

The method of accomplishment for the work utilizes the management and integration of a number of subcontractors to build a DMSA Project Team. Prioritization of the DMSAs is used to sequence and schedule the characterization activities by four Field Execution Teams. Field resources include over 60 personnel.

Characterization of all material in 160 DMSAs would be completed approximately 50 months from notice to proceed by DOE. The notice to proceed was assumed to be January 1, 2001. Treatment or disposal of hazardous waste, with available technology, is scheduled to be completed within 12 months of characterization. The workplan calls for a 60-month project schedule to complete characterization, treatment, and disposal activities.

The total budget authority (BA) for this project is estimated to be \$82,000,000.

| | | |
|------------------------------|---------|--------------|
| The BA estimated by year is: | FY 2001 | \$14,000,000 |
| | FY 2002 | \$18,000,000 |
| | FY 2003 | \$18,000,000 |
| | FY 2004 | \$18,000,000 |
| | FY 2005 | \$14,000,000 |

I. INTRODUCTION

On October 24, 1992, President Bush signed the Energy Policy Act of 1992, Pub. Law 102-486, which established the United States Enrichment Corporation (USEC) as a government corporation. USEC's charter was to provide uranium enrichment services to the government and to private industry on a profitable and competitive basis. To accomplish this purpose, USEC entered into an agreement on July 1, 1993, with the DOE, to lease the operations facilities at the gaseous diffusion plants, located at Paducah, Kentucky (PGDP) and Portsmouth, Ohio (PORTS) from DOE. Through this arrangement, the uranium enrichment activities previously performed by DOE would be taken over by this newly created government corporation. USEC would then perform this scope of work, with the eventual objective of becoming a publicly owned private corporation. As part of this process, DOE would gradually withdraw its role as a regulator for enrichment operations, and the Nuclear Regulatory Commission (NRC) would assume the role of regulator for USEC's operations. The transition to NRC regulation occurred on January 1, 1997.

Prior to the transition to NRC regulation, a number of areas in which various materials were stored within USEC leased space were identified. These materials presented regulatory issues that could prevent the NRC from certifying USEC's continued operation of the gaseous diffusion plants. The lack of characterization data regarding Nuclear Criticality Safety (NCS) concerns was the main issue with respect to these materials. DOE agreed, on May 28, 1996, to accept back the leasehold for these areas, which would return the responsibility and authority for management of materials within these areas to DOE. These "deleased" areas became DOE Material Storage Areas (DMSAs) when the lease was modified on December 31, 1996. The DMSAs contained surplus equipment, parts, materials and low-level radioactive and PCB wastes. The NRC subsequently assumed regulatory authority over the USEC operations at the gaseous diffusion plants. This workplan presents DMSA information limited to the DMSAs located at PGDP.

At the time DOE accepted return of the DMSAs, no accurate inventory of the materials within the DMSAs existed, except the containerized waste stored in the Waste Management Storage Areas. As part of the agreement with USEC to accept the DMSAs, DOE required USEC to produce an inventory of the materials located in the DMSAs. This inventory provided the most complete information regarding the contents of the DMSAs available at that time. In many cases, however, materials were not arranged in a manner that allowed access to all materials within the DMSA. The inventory and identification of all materials in the DMSAs has not been confirmed or completed.

Limited activities in the DMSAs have been conducted since January 1997 to support NCS characterization. Preliminary efforts have categorized the DMSAs as Phase 1 (expected to have no fissionable material, but not fully characterized), Phase 2 (items possibly containing fissionable material), and Phase 3 (items characterized for storage and containing no fissionable materials). Eleven DMSAs were identified as high priority regarding NCS classification. These DMSAs were NCS characterized by USEC during Fiscal Year 2000. As part of this project, potential RCRA hazardous and TSCA concerns were identified.

The NCS characterization effort for a Phase 1 is assumed to be minimal compared to a Phase 2 DMSA. The NCS characterization of a Phase 1 DMSA will still require a review and evaluation of existing data and process knowledge for inventory of items in order to properly prepare the characterization reports. Currently Phase 1 DMSAs contain uninventoried, uncharacterized material, therefore, it is anticipated that an additional 10% of NCS sampling will be required in Phase 1 DMSAs compared to the amount of actual field sampling that will be required in the Phase 2 DMSAs. No additional NCS sampling is anticipated for Phase 3 DMSAs. The time required for a Phase 2 DMSA is

significantly greater due to the restrictions of movement of fissile material under NCS requirements. Items uncharacterized for NCS cannot be moved until they are exempted by a DMSA Inspector or sampled and analyzed for the amount of fissionable material.

Phase 3 DMSAs contain items which have been reviewed and determinations have been made for NCS, RCRA, TSCA, etc. The following definitions for a Phase 1, 2, and 3 DMSA are taken from Bechtel Jacobs Company LLC (BJC) procedure PA-3002, "Administration of Paducah DOE Material Storage Areas."

- Phase 1 DMSA – Materials have not been *fully characterized*. However, the DMSA has been walked down by NCS personnel and no fissionable or potentially fissionable materials have been identified.
- Phase 2 DMSA – Materials may or may not be *fully characterized*. However, DMSA is considered to contain fissionable or potentially fissionable material based on walkdown by the NCS specialist or based on NCS characterization.
- Phase 3 DMSA – All materials have been *fully characterized* and no fissionable materials are included.

On September 5, 2000, the Commonwealth of Kentucky, Department for Environmental Protection issued a Notice of Violation (NOV) to DOE for failure to comply with regulatory requirements regarding solid and hazardous waste and for failure to comply with conditions of the PGDP Hazardous Waste Permit. A required remedial measure was identified in the NOV as the submittal of a workplan to fully address the characterization of all wastes managed in DMSAs. The purpose of this plan is to satisfy this required action and includes the scope of work, method of accomplishment, schedule, assumptions, and cost estimate, for characterization of DMSAs and disposition of any resulting solid and RCRA hazardous wastes.

II. SCOPE OF WORK

The scope of this project includes characterization of 160 Department of Energy Material Storage Areas (DMSAs) for NCS, Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act (TSCA), radioactive, and solid waste concerns. TSCA waste generated will be packaged and stored. Final disposition will be managed in a separate program according to TSCA requirements. RCRA hazardous and solid waste will be packaged, stored, treated and disposed, as required. Material in fixed equipment located within DMSA boundaries will be characterized and the waste generated managed in accordance with regulatory requirements. This workplan assumes that up to 16 fixed equipment systems will be encountered during characterization; however, the scope excludes removal of fixed equipment and standing buildings.

A Part A RCRA hazardous permit application will be submitted for those areas where RCRA hazardous wastes are discovered. Closure of the areas identified in the RCRA hazardous permit will be accomplished in accordance with RCRA hazardous requirements. Although not included in this scope for planning purposes, it is recommended that negotiation of an agreed order be pursued as an alternative to the permitting/closure of DMSAs found to contain hazardous wastes.

Major elements of the work scope include mobilization, characterization, waste management, RCRA hazardous treatment, RCRA hazardous disposal and demobilization. Mobilization will include hiring staff and subcontractors, installation of staff support facilities, and training. Treatment of RCRA hazardous wastes will be completed if the treatment technology is available.

Although not included in this scope for planning purposes, it is recommended that the non-hazardous scrap metal characterized in the DMSA Project be fed into the "Scrap Metal Removal Project" for disposition, either through inclusion under the existing Engineering Evaluation/Cost Analysis or as a separate waste stream.

The preferred alternative action will be determined based upon characterization results and alternatives identified in the "Engineering Evaluation/Cost Analysis for Scrap Metal Disposition at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky." An accurate volume of non-hazardous scrap metal located in DMSAs has not been estimated at this time. A rough order of magnitude estimate is considered to be 140,000 cubic feet of scrap metal with a high uncertainty due to plastic wrapped unknown items.

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III. WORK BREAKDOWN STRUCTURE AND SCHEDULE

In order to establish a schedule for the workplan, which addresses the environmental concerns as indicated in the NOV, the DMSAs were divided into priority levels, with A being the highest priority.

Level A priority includes those DMSAs that present potential for release of hazardous materials to the environment, or that have been currently identified as having a higher potential for containing RCRA hazardous or TSCA waste. A total of 33 DMSAs have been assigned level A priority including the C-400-01, C-400-03, C-400-05 (C-400 Test Loop), C-409-01, and C-409-02 DMSAs, outside DMSAs, and the 11 DMSAs that have been NCS characterized by United States Enrichment Corporation (USEC) and have identified potential RCRA hazardous or TSCA concerns. Level B priority is assumed to be those DMSAs that have a substantial number of uncharacterized containers that potentially contain RCRA hazardous or TSCA wastes. There are currently 11 level B priority DMSAs. All 116 remaining DMSAs will be worked as a level C priority. Characterization will begin with the level A priority actions. Level B and C priority areas will be worked as additional resources are mobilized. Table 1 identifies the priority listing of the DMSAs. Figures 1-11 present maps of the DMSA locations. Appendix A depicts the overall schedule.

Subject Matter Experts (SMEs) will inspect all outside areas and identify potential RCRA hazardous or TSCA concerns that will be managed by priority. Characterization of materials will begin with NCS evaluations as needed, followed by characterization for radiological, asbestos, RCRA hazardous and TSCA (PCBs). Wastes identified as RCRA hazardous or TSCA will be managed appropriately, including packaging, marking, storage, etc.

RCRA hazardous wastes requiring treatment will be treated in accordance with the regulations. Transportation of the RCRA hazardous and solid wastes to approved treatment/disposal sites will begin within 12 months of the waste characterization, and will continue until the wastes are dispositioned. Wastes meeting the respective acceptance criteria may be disposed at government, commercial, and on-site facilities. RCRA hazardous and solid wastes not meeting the disposal facility acceptance criteria will be stored.

Mobilization began in January 2001 and will continue through June 2001. Field crews began activities during February 2001 and will continue through March 2005. Waste treatment and disposal will be completed by the end of December 2005 in accordance with regulatory requirements. Table 1 provides a full listing of DMSAs by priority assignment.

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DMSA PRIORITY LISTING

Table 1

| PRIORITY | DMSA # | PHASE | DESCRIPTION OF MATERIALS | |
|---|---------------------------------|--------------|--|-------------------------------------|
| A | C-400-05 | 2 | Unknown, Process Material, Containers | |
| | C-400-01 | 2 | TCA Degreaser, Uranium Recovery Unit | |
| | C-400-03 | 2 | Gold Dissolver Tank | |
| | C-409-01 | 2 | Slope Test Facility, Unknown Contents | |
| | C-409-02 | 2 | Stabilizing Booths, Unknown Contents | |
| | OS-14 | 2 | Rail Car Tankers | |
| | OS-06 | 2 | Lay Down Yard, Drums | |
| | OS-07 | 2 | Lay Down Yard, Drums and plastic wrapped equipment | |
| | OS-15 | ½ | Process Equipment – Suspect Tanks | |
| | NCS High Priority Top 11 | | | Misc. Equipment (NCS Characterized) |
| | C-331-09 | 2 | | |
| | C-331-10 | 3 | | |
| | C-331-13 | 2 | | |
| | C-331-14 | 2 | | |
| | C-331-15 | 2 | | |
| | C-333-31 | 2 | | |
| | C-335-04 | 3 | | |
| | C-335-05 | 2 | | |
| | C-337-30 | 2 | | |
| C-337-36 | 2 | | | |
| C-337-37 | 3 | | | |
| Outside Misc. Phase 1 (OS-02, OS-03, OS-04, OS-05, OS-08, OS-09, OS- 10, OS-11, OS-12, OS-13) | | All Phase 1 | Misc. Equipment | |
| Outside Misc. Phase 2 (OS-16, OS-17, OS-18) | | All Phase 2 | Misc. Equipment | |
| B | C-400-06 | 2 | Cadmium Plating Tanks | |
| | C-331-16 | 2 | B-25 Boxes, Misc. Process Equipment | |
| | C-337-42 | 2 | Drummed Material | |
| | C-337-43 | 2 | Drummed Material | |
| | C-337-44 | 2 | Drummed Material | |
| | C-337-45 | 2 | Drummed Material | |
| | C-333-41 | 2 | Drummed Material | |
| | C-333-42 | 2 | Drummed Material | |
| | C-333-43 | 2 | Drummed Material | |
| | C-335-03 | 1 (Drums) | Drummed Material | |
| | C-720-01 | 2 | Varnish Tank | |

| PRIORITY | DMSA # | PHASE | DESCRIPTION OF MATERIALS |
|----------|---|-------------|---|
| C | C-310 Phase 2 (5) C-310-01, C-310-02, C-310-03, C-310-04, C-310-05 | All Phase 2 | Misc. Process Equipment |
| | C-333 Phase 2 (13) C-333-01, C-333-03, C-333-04, C-333-05, C-333-20, C-333-21, C-333-22, C-333-23, C-333-32, C-333-37, C-333-38, C-333-39, C-333-40 | All Phase 2 | Misc. Process Equipment, LLW |
| | C-333 Phase 1 (26) C-333-02, C-333-06, C-333-07, C-333-08, C-333-09, C-333-10, C-333-11, C-333-12, C-333-13, C-333-14, C-333-15, C-333-16, C-333-17, C-333-18, C-333-19, C-333-24, C-333-25, C-333-26, C-333-27, C-333-28, C-333-29, C-333-30, C-333-33, C-333-34, C-333-35, C-333-36 | All Phase 1 | Misc. Process Equipment, LLW, UF ₄ |
| | C-337 Phase 2 (7) C-337-23, C-337-25, C-337-27, C-337-29, C-337-35, C-337-40, C-337-41 | All Phase 2 | Misc. Process Equipment |
| | C-337 Phase 1 (31) C-337-01, C-337-02, C-337-03, C-337-04, C-337-05, C-337-06, C-337-07, C-337-08, C-337-09, C-337-10, C-337-11, C-337-12, C-337-13, C-337-14, C-337-15, C-337-16, C-337-17, C-337-18, C-337-19, C-337-20, C-337-21, C-337-22, C-337-24, C-337-26, C-337-28, C-337-31, C-337-32, C-337-33, C-337-34, C-337-38, C-337-39, C-337-40 | All Phase 1 | PCB Waste, UF ₄ |
| | C-335 Phase 3 (4) C-335-09, C-335-10, C-335-11, C-335-12 | All Phase 3 | UF ₄ , Misc. Process Equipment |

| PRIORITY | DMSA # | PHASE | DESCRIPTION OF MATERIALS |
|---------------|--|-------------|---|
| C (continued) | C-335 Phase 2 (4) C-335-02, C-335-03, C-335-06, C-335-07 | All Phase 2 | Misc. Process Equipment |
| | C-335 Phase 1 (2) C-335-01, C-335-08 | All Phase 1 | Misc. Process Equipment |
| | C-331 Phase 3 (6) C-331-19, C-331-20, C-331-21, C-331-22, C-331-23, C-331-24 | All Phase 3 | UF ₄ , Misc. Process Equipment |
| | C-331 Phase 2 (7) C-331-01, C-331-03, C-331-05, C-331-06, C-331-07, C-331-08, C-331-12 | All Phase 2 | Misc. Process Equipment |
| | C-331 Phase 1 (5) C-331-02, C-331-04, C-331-11, C-331-17, C-331-18 | All Phase 1 | UF ₄ , Misc. Process Equipment |
| | C-400 Phase 2 (3) C-400-02, C-400-07, C-400-08 | All Phase 2 | Closed RCRA hazardous unit, Misc. Equipment |
| | C-720 Phase 2 (3) C-720-02, C-720-03, C-720-04 | All Phase 2 | Misc. Equipment |

DOE DMSA Map #1

DOE DMSA Map #2

DOE DMSA Map #3

DOE DMSA Map #4

DOE DMSA Map #5

DOE DMSA Map #6

DOE DMSA Map #7

DOE DMSA Map #8

DOE DMSA Map #9

DOE DMSA Map #10

DOE DMSA Map #11

IV. METHOD OF ACCOMPLISHMENT

A. GENERAL

The general method of accomplishment will be the use of the BJC management and integration approach. BJC will use, to the extent possible, existing subcontracts to obtain resources and perform the work. BJC will provide the appropriate management and oversight resources to ensure smooth integration of subcontractors in performing the work as a team project.

Characterization of the material in DMSAs includes evaluation of the material for NCS, RCRA hazardous, PCB, asbestos, and radioactive contaminants. The characterization of the DMSAs will begin with those areas that are deemed to be of higher priority based on the potential for release of contaminants to the environment and the potential to contain RCRA hazardous or PCB wastes.

It is the goal of this project to maintain an effective program to control personnel exposure to chemical, radiological, and physical stress consistent with established standards of the DOE and the Occupational Safety and Health Administration.

B. PROJECT TEAM

The Project Team will include BJC for project management and integration (M&I), subcontract technical oversight, environmental, safety and health safety advocate oversight, and procurement. Subcontracted resources may be obtained from Weskem LLC for waste operations, Westinghouse Safety Management Solutions LLC (WSMS) for NCS and radiation protection engineering, and Safety and Ecology Corporation (SEC) for field operations radiation protection support, USEC for non-destructive analysis support, Nuclear Filter Technology Corporation (NFT), Incorporated for data management support, and USEC for analytical support. Additional support will be obtained from other subcontractors as needed. See Figures 15 and 16 for Project and Field Execution Team Organization Charts.

Field Team Execution

A team concept will be utilized to accomplish the scope of the DMSA work activities. Four work teams will be placed into the field. Each team will consist of a Front Line Supervisor and nine team members. The team members will include Environmental, Safety and Health (ES&H) technicians, Radiological Control Technicians (RCT), DMSA Inspectors, samplers, decontamination operators, waste operators, and maintenance mechanics.

All field personnel will be required to wear protective clothing and equipment specified in the project-specific health and safety plan. Contamination controls will be maintained at each work site. RCTs will be assigned to provide contamination control support for each field team. An ES&H technician will be assigned to each field team to provide industrial hygiene and safety support.

Field personnel will be knowledgeable of all project-specific documents relevant to the work being performed which may include a health and safety plan, Activity Hazard Analysis (AHA), quality assurance project plan, site-specific sampling and analysis plan (SAP), and waste management plan. A copy of each plan will be available for review by field personnel before the onset and through the duration of any field activities. Field personnel will use these documents as necessary to obtain specific information regarding decontamination, equipment/supplies, health and safety, sample collection/identification, sample packaging, etc.

Work Control

Work will be planned incorporating the following core functions of the Integrated Safety Management System (ISMS):

- Define the scope of work.
- Identify, categorize, and analyze hazards.
- Develop and implement hazard controls.
- Verify readiness and perform the work safely.
- Collect feedback and implement actions for continuous improvement.

Key personnel will plan tasks to ensure that the work will be executed in a manner that addresses safety, health, the environment, and complies with all applicable rules, regulations, and procedures. All needed work permits (e.g., health & safety, radiological) will be addressed and issued. All project task documentation will be complete prior to initiating specific DMSA field activities. Readiness will be verified during a pre-task meeting with personnel performing the work. This ensures personnel understand the requirements and hazards of the task. Work will be performed safely and, if necessary, work will be stopped to address any problems.

Field oversight will be provided to ensure that the work is being performed safely and in accordance with applicable requirements. Post-job briefings will be conducted to review how work was performed and any suggestions for improvements.

C. TECHNICAL APPROACH

Uranium enrichment materials stored in DMSAs are commingled with other materials and present a complex work environment. These materials must be moved and sorted in order to find and characterize all potential RCRA hazardous /TSCA wastes. DMSAs must receive a nuclear criticality safety (NCS) characterization prior to the disturbance of any materials.

Activities Preliminary to DMSA Sorting (NCS Characterization)

NCS characterization provides the information necessary to safely move or manage materials without the threat of an uncontrolled nuclear criticality. This characterization can be very slow in a complicated environment of uranium enrichment process materials. The consequences of an uncontrolled nuclear criticality mandate the characterization. An uncontrolled nuclear criticality will release potentially lethal levels of radiation for personnel that are near the event. This scenario must be prevented.

During the initial NCS characterization, the DMSA Inspector's determination of the proper NCS status for items will be based upon a review of documentation, process knowledge, and/or visual inspection. The DMSA inspector coordinates these activities with the NCS engineer. Only those items that will be moved or disturbed must be characterized using the initial NCS characterization steps.

NCS Documentation Review

As a first step in the NCS characterization process, existing documentation is reviewed by the DMSA Inspector for information on the uranium content of DMSA items. The extent of the documentation review is documented. Such documentation may exist, for example, as Requests for Disposal for waste items or as records of process equipment history/status.

The documentation review is used to categorize items according to these requirements:

- If historical documentation clearly shows an item has no significant uranium accumulation, the DMSA Inspector declares it NCS Exempt.
- If the documentation clearly shows an item does not contain fissionable-assay material, the DMSA Inspector declares it NCS exempt.
- If historical documentation shows an item has a ^{235}U mass and enrichment within the limits for a Spacing-Controlled Item, then the item is controlled as such.
- If historical documentation shows an item has a ^{235}U mass and enrichment exceeding the limits for a Spacing-Controlled Item, then the item is declared a Singularly-Contingent Item and promptly handled per the NCS requirements.
- 5, 30, and 55-gallon drums that meet the criteria for Spacing Exempt Items in Nuclear Criticality Safety Approval (NCSA) 97-001 will be governed by NCSA 97-001.

When documented mass and enrichment data is used to establish the NCS status of an item, there will be:

- clear traceability between the item and the documentation.
- appropriate accounting for uncertainty in mass and enrichment measurements.

NCS Survey Activities

Preliminary NCS characterization has segregated the 160 DMSAs into Phase 1 DMSAs (expected to have no significant uranium-235 isotope (^{235}U) accumulations) and Phase 2 DMSAs (where significant ^{235}U accumulations may exist). Table 1 provides a full listing of DMSAs by priority assignment.

Phase 2 DMSAs contain some equipment, materials, and waste that may contain fissionable-assay material (>1 wt% ^{235}U). Since some of the DMSA materials are uncharacterized and they may contain unquantified amounts of contamination, a single parameter may be protecting against a contingency that could result in an accidental nuclear criticality. Thus, precautions are taken during the planned characterization operations to ensure that any undocumented control is not compromised. Some of these undocumented controls may include mass, absorption, geometry, interaction, concentration, moderation, enrichment, reflection, and volume.

Nuclear Criticality Safety Evaluation (NCSE) 98-001 was developed and approved to cover the NCS characterization of the DMSAs. NCSE 98-001 was prepared in accordance with DOE Order 420.1 as implemented in Bechtel-Jacobs procedures for an NCS program and NCSAs.

Many of the Phase 2 DMSA items have not been exposed to the process gas streams, so there is negligible potential that they contain significant uranium accumulations. The intent in planning the DMSA NCS characterization is to allow those items that are exempt from NCS controls to be readily relocated. At the same time, NCS controls must be maintained for those remaining items that may contain significant uranium accumulations.

For items that have been exposed to process gas streams, the DMSA Inspector may declare any such item to be NCS Exempt, if the visual inspection shows all internal and external surfaces are virtually free of uranium accumulation and liquids. Thus, a piece of process equipment may be declared NCS Exempt based upon visual inspection alone if all surfaces can be inspected. Otherwise, if all surfaces are not visible for visual inspection, the analytical characterization (swipes or Non Destructive Analysis [NDA]) will be used to show that an item has minimal uranium accumulation.

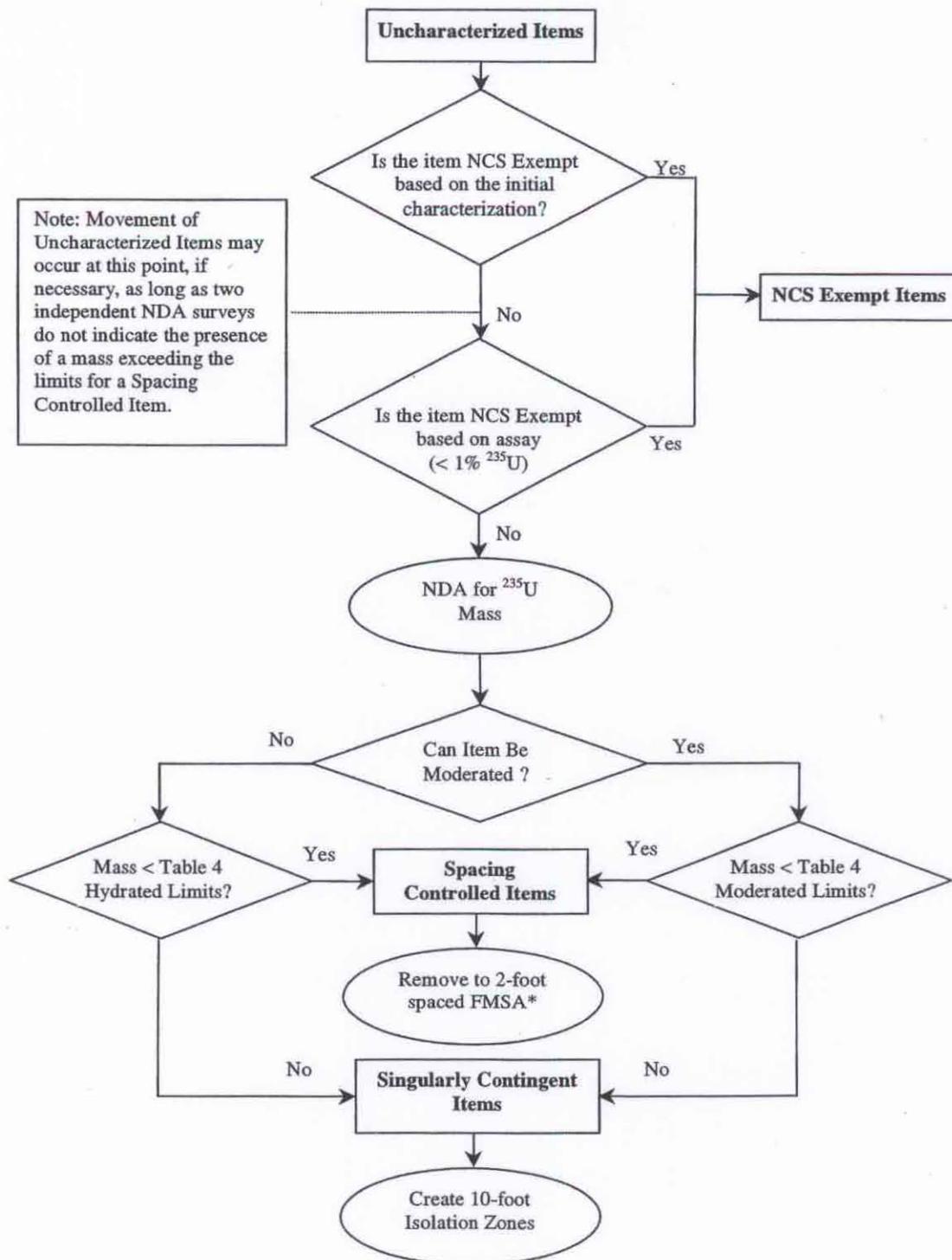


Figure 14: Overview of DMSA NCS Characterization

*Note: FMSA (Fissionable Material Storage Area) – An area where items are stored under NCS controls to comply with the double contingency principle. In addition to FCA signs, FMSAs are posted with “Fissile Storage Array” signs stipulating the appropriate limits, controls, and instructions. FMSAs are posted in accordance with BJC procedure BJC-NS-1005, “Nuclear Criticality Safety Program Elements.”

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Assay Swipes for ²³⁵U Enrichment

Two independent analyses are used to determine the ²³⁵U enrichment and/or the NCS status of an accumulation. Documentation from a previous enrichment analysis may serve as one of the two analyses, so that only one swipe is needed. If such documentation is used, there must be traceability between the document and the item. If documentation is not available, two independent swipes are required. The laboratory analysis of these swipes appropriately account for measurement uncertainty by including a factor of two positive standard deviations.

If two independent analyses of an accumulation show an ²³⁵U enrichment less than or equal to 1 wt%, then the item may be declared NCS Exempt.

NDA Mass Survey

NDA mass surveys may be used to scan for uranium accumulations within the DMSAs using NDA techniques similar to those commonly used to locate uranium accumulations in the process areas of PGDP. The NDA is performed by an individual who has approved, documented experience and training. NDA surveys are performed prior to moving or disturbing Uncharacterized or Spacing-Controlled Items. NDA surveys are not required before moving NCS-Exempt Items as long as they can be moved without moving or disturbing other materials.

Waste Characterization and Sorting Activities

The materials in each DMSA will be inspected and inventoried. This activity will require that the material within most DMSAs be sorted. Sorting of DMSAs will only occur after NCS characterization. During the inspections, DMSA materials that are determined to be waste may be classified as RCRA hazardous, TSCA, Low-level radioactive, mixed, or solid waste if enough process knowledge is available. Radiation surveys or analyses may be required to complete waste classifications. Sampling and analyses will be performed in accordance with SW-846.

Waste Classification

The definitions of the waste classifications are provided below:

RCRA Hazardous Waste — Any solid, liquid, or contained gaseous material (compressed gas cylinder) which is characteristically hazardous or is a listed hazardous waste as defined by KRS 224.01-010 and 401 KAR 31:030, and/or any material which has come in contact with a listed hazardous waste, including spill cleanup residue. For purposes of this document, RCRA hazardous wastes are wastes regulated as hazardous under Kentucky Hazardous Waste Regulations.

TSCA Waste — Wastes regulated under the Toxic Substances Control Act as defined in 40 CFR 761 and as regulated under the Uranium Enrichment TSCA Federal Facilities Compliance Agreement.

Low-Level Radioactive Waste — Waste that contains radioactivity but is not, by definition, high-level waste, transuranic waste, spent nuclear fuel, or byproduct material as defined by DOE Order 435.1. Low-level waste does not contain hazardous waste as defined in 401 KAR 31 or materials regulated under the Toxic Substances Control Act as defined in 40 CFR 761.

Mixed Waste — Waste containing both radioactive and RCRA hazardous components as defined by the Atomic Energy Act and the Kentucky Hazardous Waste Regulations. Mixed waste identified by this

project will be managed in accordance with the September 1997, Agreed Order (DWM-30039-042) and approved Mixed Waste Site Treatment Plan.

Solid Waste — Any solid, liquid, or contained gaseous material (compressed gas cylinder) which is not radioactive and is not RCRA hazardous waste or TSCA waste as defined in KRS 224.01-010(31).

RCRA Hazardous Waste Characterization and Management

RCRA hazardous waste will be classified using process knowledge or chemical analysis. RCRA hazardous wastes includes both listed and characteristic wastes as defined by applicable regulations. Inspections will use process knowledge to quickly isolate those wastes readily identified as RCRA hazardous regulated. Disassembly of abandoned equipment within in the DMSA may be necessary to isolate RCRA hazardous wastes.

Other wastes not readily identified may require sampling in order to characterize the waste as RCRA hazardous. Personnel that collect samples will be limited to those individuals who are trained and knowledgeable of field procedures. Field surveillances will be conducted to ensure that the requirements of sampling technique are met.

Specific DMSA material will be sampled and appropriate labels placed on sample containers as directed in the project specific SAP. Quality control samples will be collected as directed by the SAP. Complete chain of custody forms will be initiated for each sample. Chain-of-custody is required for analytical samples to provide traceability of possession from initial sample collection through sample transfer and/or final disposition. The field sampler is responsible for the proper handling and custody of the samples collected until they are properly and formally transferred to another person or the laboratory.

Data tracking procedures will be utilized to maintain sample data integrity, to facilitate the management of analytical laboratory services, to enable project personnel to determine the status of the analytical data at any time, and to ensure that data is reviewed in accordance with project data quality objectives (DQOs). Samples collected for laboratory analysis will be tracked from collection through disposal using various types of sample related documentation, including chain-of-custody forms and sample disposal records.

Only Sample Management Office (SMO) approved laboratories will be utilized for waste analysis. This approval process includes on site audits of the laboratories. Statements of work will be provided to the laboratories to initiate the analysis required.

Analytical data will be reviewed to determine whether the data quality meets the requirements of the project. The level of review is determined by the DQOs established for each sample. A review of the data will be conducted to verify that the analytical subcontractor has met the technical requirements of the analytical subcontract in terms of completeness and compliance with specified analytical and Quality Assurance and Quality Control (QA/QC) protocols. Data Verification will be accomplished by a technical review of data quality and useability against the DQOs. Data Validation will be a formal review process performed by an independent validator if required by the project SAP. Data review is performed by qualified and trained personnel. As a result of the technical review of data quality, data may be flagged, or qualified, to alert the end user to any limitations of the data. Any qualifiers assigned to the data are maintained in the database with the data.

RCRA hazardous wastes will be containerized in appropriate packaging that meets the waste acceptance criteria for Part B permitted storage. The container will be labeled in accordance with procedure and moved into appropriate storage.

A Request for Disposal (RFD) form will be completed for all material in each DMSA. The RFD will provide the description, estimated volume, and preliminary characterization of the material. Process knowledge will be documented using the form and attachments to the form.

RCRA hazardous waste will be shipped to an approved off-site treatment/disposal facility within one year of the waste's accumulation start date.

TSCA (PCB) Waste Characterization and Management

TSCA (PCB) waste will be classified using process knowledge or chemical analysis. Inspections will use process knowledge to quickly isolate those wastes readily identified as TSCA regulated. Disassembly of abandoned equipment within in the DMSA may be necessary to isolate TSCA wastes. Each work crew will segregate DMSA metal from nonmetal materials. Oily material, equipment containing oil, materials that are known to contain or may possibly contain PCB oils, and material contaminated with or potentially contaminated with PCBs will be segregated. Items that have come into contact with PCBs will be managed separately unless decontaminated to less than 10 micrograms PCBs /100 cm². Capacitors will be removed from equipment managed as PCB waste unless clearly marked as "No PCBs." Equipment reservoirs containing oil will be drained and absorbent material will be added to the reservoir.

Wastes requiring chemical analysis will be sampled and analyzed in the same manner as the RCRA hazardous waste that was previously described.

TSCA (PCB) wastes will be containerized in appropriate packaging that meets the waste acceptance criteria for TSCA (PCB) storage. The container will be labeled in accordance with procedure and moved into appropriate storage.

A Request for Disposal (RFD) form will be completed for all TSCA (PCB) material. The RFD will provide the description, estimated volume, and preliminary characterization of the material. Process knowledge will be documented using the form and attachments to the form.

TSCA (PCB) liquid and soft solid waste will be shipped for disposal to the TSCA (PCB) Incinerator at Oak Ridge, Tennessee as the incinerator is made available. Other TSCA (PCB) solid wastes will be stored in adequate storage until such time as disposal capacity is available.

Low-Level Radioactive Waste (LLW) Characterization and Management

LLW waste will be classified using process knowledge, radiation surveys or radiochemical analysis. Wastes requiring radiochemical analysis will be sampled and analyzed in the same manner as the RCRA hazardous waste that was previously described. A Request for Disposal (RFD) form will be completed for all LLW material. The RFD will provide the description, estimated volume, and preliminary characterization of the material. Process knowledge and any radiation surveys will be documented using the form and attachments to the form.

LLW will be sorted, managed, and stored within the DMSA. Those wastes requiring contamination control will be wrapped in clear plastic.

Mixed Waste Characterization and Management

Mixed waste will be classified using process knowledge, radiation surveys, radiochemical analysis or chemical analysis. Mixed wastes include both listed and characteristic wastes as defined by state regulations. Inspections will use process knowledge to quickly isolate those wastes readily identified as Mixed regulated. Disassembly of abandoned equipment within in the DMSA may be necessary to isolate Mixed wastes. Wastes requiring radiochemical or chemical analysis will be sampled and analyzed in the same manner as the RCRA hazardous waste that was previously described

Mixed wastes will be containerized in appropriate packaging that meets the waste acceptance criteria for Part B permitted storage. The container will be labeled in accordance with procedure and moved into appropriate storage.

A RFD form will be completed for all Mixed waste material in each DMSA. The RFD will provide the description, estimated volume, and preliminary characterization of the material. Process knowledge will be documented using the form and attachments to the form.

Mixed waste will be added to the Site Treatment Plan for the Paducah site and will be treated or disposed as treatment/disposal technology is made available.

Solid Waste Characterization and Management

Solid waste will be characterized using two approaches. Radiation surveys will be performed for potentially surface contaminated material. Radiochemical analysis will be performed for potentially volumetrically contaminated material. Wastes requiring radiochemical analysis will be sampled and analyzed in the same manner as the RCRA hazardous waste that was previously described. A RFD form will be completed for all solid waste material. The RFD will provide the description, estimated volume, and preliminary characterization of the material. Process knowledge and any radiation surveys will be documented using the form and attachments to the form.

Solid waste will be disposed at the PGDP C-746-U Landfill. If DMSA material is known to contain or possibly contain asbestos fibers, an asbestos evaluation and/or sampling will be performed. Asbestos will be removed and the material will be packaged as asbestos containing materials. Solid waste with contaminated asbestos containing material will be disposed at the PGDP C-746-U Landfill according to solid waste regulations.

Permitting/Closure

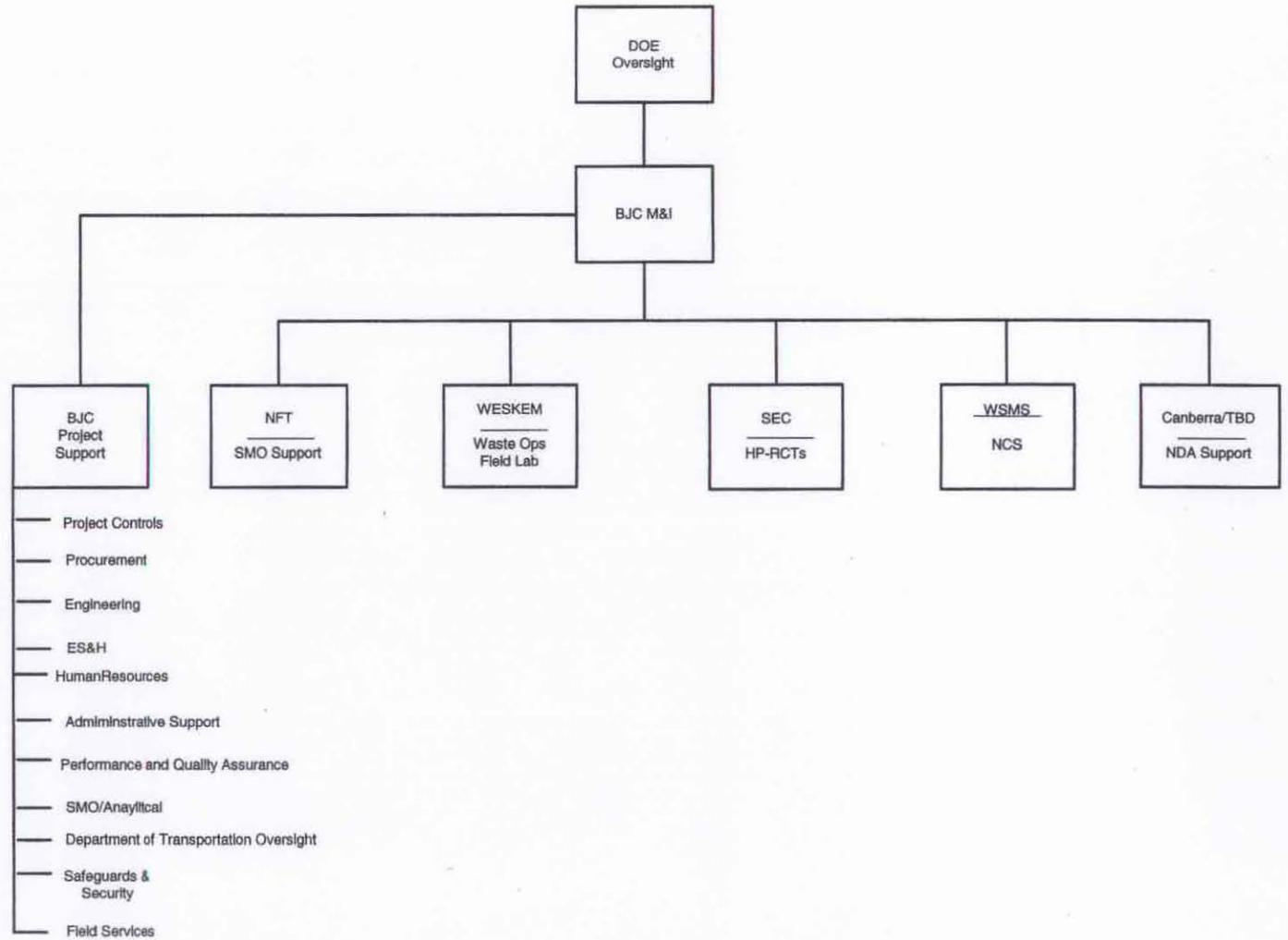
A Part A RCRA hazardous permit application will be submitted for those areas where RCRA hazardous /Mixed wastes are discovered. Closure of the areas identified in the RCRA hazardous /Mixed permit will be accomplished in accordance with RCRA hazardous /Mixed requirements. Although not included in this scope for planning purposes, it is recommended that negotiation of an agreed order be pursued as an alternative to the permitting/closure of DMSAs found to contain hazardous wastes.

Abandoned fixed equipment within DMSAs will be sampled for characterization. Fixed equipment and systems would be drained and left in place for future D&D for the building containing the equipment. Additional RCRA closure activities for the equipment would be conducted as agreed between DOE and the Kentucky Department for Environmental Protection (KDEP).

Individual items will be sampled as necessary to delineate the extent, if any, of contamination from hazardous, PCBs, or radioactive wastes. Cleanup of releases which may be identified during the execution of this project will be managed according to DOE and the contractors plans and procedures.

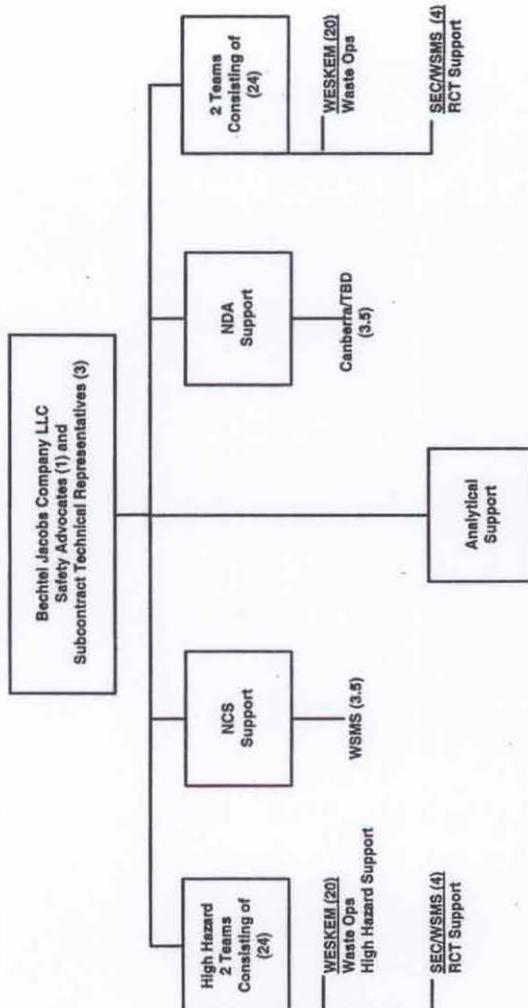
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DMSA PROJECT MANAGEMENT AND INTEGRATION (M&I) ORGANIZATION



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DMSA FIELD EXECUTION TEAMS



Field Resources
Total (61)

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Key Field Position Descriptions

BJC Subcontract Technical Representative (STR)

- The STR directly oversees and verifies the performance of the work. The STR is the primary interface with the subcontractors. The STR reports to the BJC Task Manager.

BJC Safety Advocate (SA)

- The SA provides support to the STR by overseeing the implementation of Integrated Safety Management and ES&H compliance in the field.

Subject Matter Experts (SMEs)

- SMEs will conduct DMSA inspections and inventories. Inspections will determine those materials that are readily identified as RCRA hazardous /TSCA wastes.

NCS Engineer

- The NCS Engineer is familiar with the physics of nuclear criticality and with the associated safety practices to furnish technical guidance to the DMSA management team appropriate to the scope of operations. In addition, the NCS engineer is skilled in the interpretation of data pertinent to nuclear criticality safety and familiar with operations to serve as an advisor to the DMSA team.

DMSA Inspector

- The DMSA Inspector has a minimum of five years experience in either cascade operations or process maintenance, dealing directly with the operation and/or maintenance of enrichment process components. The DMSA Inspector also has a minimum of ten years experience at an operating gaseous diffusion plant in any capacity.

NDA Specialist

- The NDA Specialist has a minimum of three months experience performing and interpreting NDA radiation surveys without required oversight and a minimum of three months gaseous diffusion plant experience.

RCTs

- The RCTs perform radiological surveys, perform dosimetry work, and support field work. RCTs ensure radiological contamination control requirements are met.

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V. MAJOR ASSUMPTIONS

The following list of assumptions were utilized in determining the current project cost and schedules. Exceptions or deviations from these assumptions could impact the scope, cost and schedule of this project:

1. Notice to proceed will be issued by January 1, 2001.
2. Appropriate subcontractor support and equipment for this project will be available to support the schedule.
3. The USEC laboratory will be utilized for the NCS characterization and radiological data.
4. USEC or offsite laboratories will be used for hazardous waste, PCB, and asbestos characterization.
5. Support facilities (change houses, break trailers, and office trailers) will be available. From the notice to proceed, the support facilities and infrastructure will take five months to become fully operational.
6. There will be sufficient space within PGDP to accommodate the additional facilities.
7. No recycling or reuse of materials, will be included as part of this project.
8. BJC will perform all DMSA work under the M&I approach utilizing existing subcontracts under a level of effort basis.
9. Authorization basis documents will be prepared/ revised as required without impacts to the prescribed schedule.
10. Equipment will be dedicated to the DMSA work.
11. Highway transportation will be utilized for off-site transportation to the disposal facilities.
12. Appropriate assessments and readiness reviews will be performed as required and there will be no impacts to the prescribed schedule. No additional DOE Oak Ridge readiness reviews will be required.
13. No singularly contingent NCS items will be found during this project. If found, a NCSE will be generated and will be classified as a separate project.
14. Effort to manage classified items when identified will not be significant.
15. Areas may be de-leased from USEC space to perform the mission of this project. The de-leased space will be provided in appropriate locations.
16. USEC Plant Operating Review Committee approvals as required will be timely and not impact the project schedule.
17. Twenty percent of the DMSAs will require RCRA hazardous permitting and subsequent RCRA hazardous closure.
 - For inside facilities with concrete flooring, the approach will be to wash the floor one time, sample for verification and assumed clean.
 - Sixteen fixed equipment systems are assumed to exist. This fixed equipment will be classified as part of the building and not removed as part of RCRA hazardous closure.
 - RCRA hazardous closure for the outside facilities will consist of removing the RCRA hazardous /Mixed Waste material. Two inches of soil/rock will be taken from the surface at the area of the RCRA hazardous /Mixed Waste. Sampling of the exposed sub-surface layer will be performed. The soil will then be backfilled and seeded. It is assumed that these actions will be sufficient to complete RCRA hazardous closure. For outside surfaces where concrete is found, the concrete will be washed one time and samples taken for verification and assume clean.

- DMSA OS-04 and DMSA OS-14 consists of radiologically contaminated rail cars and rail tankers that are located on the rail line. These DMSAs will have the soil removed, the sub-layer sampled, the soil backfilled.
 - All RCRA hazardous closures will be limited to the existing DMSA boundaries.
 - RCRA hazardous closure activity of any fixed structures or piping would be limited to the items within the DMSA boundary and isolated as necessary.
18. The 11 DMSAs worked by USEC will not require further NCS characterization.
 19. The estimate and scope of the landlord activities for 160 DMSAs (Work Breakdown Structure 04.60.04.05.01) and the Waste/NCS Characterization resulting from the 11 DMSAs worked by USEC (WBS 04.60.04.05.03) are included in this project.
 20. Once notice to proceed is given and funding provided, fieldwork will begin on a limited basis and accelerate, as resources become available and the personnel are trained. The project will be fully staffed within five months.
 21. Newly generated RCRA hazardous waste treatable with available treatment technology will be treated within one year. The waste will then be disposed of within one year of completing treatment.
 22. Activities under this project, except for treatment and disposal, will be covered under National Environmental Protection Agency (NEPA) categorical exclusions.
 23. DOE will receive work plan approval from the Commonwealth of Kentucky no later than April 15, 2001.
 24. The programmatic environmental assessment for waste shipments and treatments will be approved by May 2001.
 25. DOE Order 435.1, *Radioactive Waste Management* exemptions will be granted in a timely manner for storage and disposal of low-level waste.
 26. No additional air permits will be required for this project.
 27. No additional controls beyond silt fences, straw bales, and gabions will be required for surface water sediment controls for the project.
 28. No substantial delays will occur due to inclement weather.
 29. Other organizations such as the Department of Justice will not impact scope, schedule, or cost.
 30. UF₄ is not considered a "solid waste" under 40 CFR 261.4 (a).
 31. Disposal of TSCA-PCB waste is funded under a separate project.
 32. Solid waste will meet the PGDP C-746-U Landfill acceptance criteria for disposal.

VI. ENVIRONMENT, SAFETY AND HEALTH

The following outlines the BJC approach to ES&H for the DMSA Characterization/Remediation project.

ZERO ACCIDENT PERFORMANCE

BJC is dedicated to the concept that all accidents are preventable. Accordingly, BJC is committed to achieving and sustaining "Zero Accident Performance" through continuous improvement practices. "Zero Accident Performance" includes zero unpermitted discharges or releases with respect to protection of the environment. Our subcontractors are required to commit to this philosophy, as well.

INTEGRATED SAFETY MANAGEMENT SYSTEM

BJC is committed to implementing our Integrated Safety Management System (ISMS) that promotes the Company's core values and the principles set forth by DOE. The objective of ISMS is to systematically integrate ES&H protection into management and work practices at all levels so that workers, the public, and the environment are protected while assigned projects are accomplished.

As part of the ES&H plan for this project, an ISMS Matrix will be developed that will specify the appropriate sections of its work control and planning documents where the specific ISMS elements are addressed. This ensures that the work control and planning documents fully encompass the ISMS framework.

EMPLOYEE EMPOWERMENT

BJC has empowered its employees to adhere to all ES&H requirements. Employees and subcontractors will have the right and obligation to report unsafe conditions and to interrupt or Stop Work without fear of reprisal. No one will be asked to complete a task that an individual feels is unsafe or that may endanger the environment.

EMPLOYEE INVOLVEMENT

The ES&H Plan will describe how worker feedback and involvement in work planning will be used to enhance the safety and efficiency of the work performed. Processes will include the following:

- Safety suggestion,
- Near-miss reporting,
- Safety/toolbox meeting,
- Pre-job briefings, and
- Employee involvement in AHA.

ES&H PLAN

Provided below is an outline of elements included in the ES&H Plan that will be prepared prior to work mobilization. As part of plan development, an ES&H crosswalk will be completed that correlates all hazards that are anticipated in the performance of the scope of work with Work Smart Standards (WSS). This will ensure that the requisite protection for those hazards is addressed.

The plan will also describe how the Employee (or team) not only analyzes and solves problems, but also continuously improves the safety culture and conditions affecting the natural

environment. The plan also describes how feedback occurs. The basic tenets of ISMS and its other requirements shall be described fully in the ES&H Plan, and its underlying philosophy shall be implemented through these specific implementation strategies.

The ES&H Plan shall demonstrate written commitment to the implementation of the ISMS Program. The ISMS principles and core functions will be incorporated into the Work. The ES&H Plan shall incorporate the following management functions:

- a description of how Work within this scope will be performed shall be provided;
- the scope of all Work will be clearly understood before it is begun;
- the hazards associated with that Work will be identified, analyzed, and clearly understood;
- appropriate standards and requirements will be identified, tracked for changes, and applied to control the hazards associated with the Work to be performed;
- the Work will be performed in accordance with the standards and requirements identified;
- the process for reviewing, addressing, and communicating lessons learned will be in place and used; and
- a process for worker feedback and continuous improvement will be in place and used.

The ES&H Plan shall also demonstrate that these essential functions have been integrated into all Work:

- line management responsibility for ES&H;
- clear assignment of roles and responsibilities;
- competence commensurate with responsibilities;
- balanced priorities (i.e., cost and schedule not to take precedence over safety);
- clear identification of appropriate ES&H standards and requirements;
- assurance that all Work has been reviewed and is authorized; and
- hazard controls tailored to the Work being performed.

The ES&H Plan shall at a minimum include the following elements as applicable to its Scope of Work:

- Work Area characterization and description,
- Zero Accident Performance,
- employee empowerment,
- employee involvement,
- organization,
- reporting and record keeping,
- medical surveillance/monitoring,
- first-aid and medical services,
- ES&H training,
- ES&H performance measures and incentives,
- ES&H AHA,
- Facility/Site access control,
- environmental protection/compliance,
- emergency management,
- industrial safety requirements,
- industrial hygiene requirements,
- radiation protection requirements,

- radiation and environmental ALARA requirements and performance goals,
- chemical and radiological decontamination requirements,
- monitoring/sampling requirements, and
- pollution prevention requirements

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VII. QUALITY ASSURANCE

The existing DMSA Quality Assurance Plan (QAP) will be revised as part of this overall project plan to identify and document the current approach to ensure that the DMSA project is accomplished as efficiently as possible while obtaining adequate information for decision-making. The QAP will cover the scope of characterizing materials and remediating the DMSAs.

The QAP will identify and document the general quality requirements and the BJC approach to planning, implementation, assessment and decision-making. Likewise, a general Sampling and Analysis Plan (SAP) and a Waste Generation Plan (WGP) will be developed consistent with requirements to be followed throughout the life of the project.

The QAP will include the elements specified in 10 CFR 830.120, *Quality Assurance*, as applicable to project planning, implementation, and assessment. Each element will be taken into consideration to determine if existing systems and operations provide adequate controls. Where the systems in place might fail to produce quality results, additional actions will be developed by the project team and will be detailed in the QAP. The elements to be addressed are shown below.

Because of the size and duration of this project, the project will be divided into more manageable segments by individual or groups of DMSAs. Detailed outputs from the planning stages of each segment will be included in various DMSA-specific documents, including SAPs, WGP, and project plans. Quality assurance/quality control details will be incorporated into the applicable DMSA-specific plans. When the work is underway, planning for the next segment will occur. The plan/implement/assess process will be reiterated as needed until the project is completed.

QUALITY MANAGEMENT

- Program. Specific members of the project team will be identified, and responsibilities for quality for each member have been identified.
- Training and Qualification. A matrix showing key personnel and the training required for each will be developed. Qualifications for the DMSA inspector, and NDA expert will also be identified for these key members.
- Quality Problems and Improvements. Responsibilities will be assigned to ensure all problems identified are addressed, including developing corrective actions to prevent reoccurrence if required.
- Documents and Records. QA records will be identified, and responsibilities for those records will be specified.

PERFORMANCE

- Planning. Planning will be conducted to encompass DQOs, health and safety controls, and potential noncompliance resolutions.
- Instructions and Procedures. Authorized procedures for field activities will be identified in the project plans. Sampling and analyses will be conducted by specified procedures to meet Waste Acceptance Criteria.
- Inventory, Identification and Control. Identification of containers and items will be detailed in DMSA-specific project plans; control of containers after sampling will be specified in DMSA-specific SAPs.
- Control of Measuring and Test Equipment. Health and safety monitoring and laboratory characterization equipment will be calibrated and maintained to existing procedures.

- **Regulatory Compliance.** Responsibilities for identifying and preventing potential noncompliances during the project have been delineated in the plan.
- **Procurement.** Responsibilities for procurement will be specified in the plan.
- **Change Control.** Changes, change control, and responsibilities will be addressed.

ASSESSMENT AND DECISION-MAKING

- **Management Assessments.** Readiness assessments meeting the requirements of the BJC procedure BJC-PQ-1510, *Readiness Evaluations*, will be conducted as required. Data verification, validation, and assessment activities will also be specified in the QAP.
- **Independent Assessments.** Independent assessments will be addressed in the QAP as needed.

VIII. COST ESTIMATE

**DMSA Characterization / Remediation
Cost Plan, Roll-up
With NCS Characterization Effort Break Out
\$ x 1000**

| Work Element Break Down | Fiscal Year | | | | | | Total |
|---|---------------|---------------|---------------|---------------|---------------|--------------|---------------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | |
| Management & Oversight | 525 | 1,634 | 1,675 | 1,724 | 1,760 | 440 | 7,758 |
| Infrastructure-Office/Break/Change Out Facilities | 2,261 | | | | | | 2,261 |
| NCS/NDA/Analytical Support | 1,231 | 322 | 322 | 322 | 323 | | 2,520 |
| Field Work – Waste Characterization | 8,704 | 13,681 | 12,708 | 11,126 | 4,294 | 369 | 50,513 |
| NCS Characterization | 802 | 1,437 | 1,239 | 1,191 | 725 | | 5,394 |
| Treatment & Disposal | | 329 | 1,429 | 3,267 | 3,682 | 408 | 9,115 |
| RCRA Closures | 477 | | 1,075 | 1,107 | 1,130 | 282 | 4,071 |
| Total | 14,000 | 17,403 | 18,448 | 18,737 | 11,914 | 1,499 | 82,001 |
| Waste Characterization Total | 11,967 | 15,644 | 16,887 | 17,224 | 10,866 | 1499 | <u>74,087</u> |
| NCS Characterization Total | 2,033 | 1,759 | 1,561 | 1,513 | 1,048 | | <u>7,914</u> |

Note: In the Executive Summary (page # ix) the table at the bottom of the page shows the expected budget amounts by year to be authorized by DOE for the project. The table above shows how the dollars are expected to be spent based on the resource loaded schedule for the project.

APPENDIX A

WBS and Schedule

APPENDIX B

Work Package Outline

Work packages for executing fieldwork on DMSAs are based upon the Integrated Safety Management System for DOE, and will include the following elements at a minimum:

- a. **Scope of Work.** This includes a description of work steps and/or work instructions.
- b. **Hazard Analysis.** The hazard analysis is performed to identify potential hazards that may be encountered during performance of the work steps.
- c. **Hazard Controls.** This element evaluates the hazards and develops and implements the hazard controls such as administrative controls, engineering controls, or personal protection equipment.
- d. **Confirmation of readiness and performance to safety perform work.** This includes the necessary reviews, walkdowns, briefings, and approvals to verify readiness to perform work.
- e. **Lessons Learned Feedback and Results.** This element allows for worker feedback to provide for continuous improvement of work performance.

In order to maintain the prepared 60-month schedule, KDEP would need to provide significantly expedited review and approval of the work packages, as contrasted to the typical 30 day review.

APPENDIX C

Characterization Report Description

The characterization reports will be submitted to KDEP after completion of the work activities for each DMSA. A characterization report would be generated for each DMSA. The characterization reports would include an inventory listing of items identified in the specific DMSA. For each item inventoried the report would also include the NCS classification and the following waste determinations: non waste resource material, solid waste, hazardous waste, PCB waste, asbestos waste, and radioactive waste. In addition, estimates or actual waste volumes and weights would be included for each container or item inventoried. The method of characterization would be identified as process knowledge, or direct analytical data would be referenced for validation and verification. Finally, the storage or disposition location would be identified for each item inventoried as of the date of the inventory report.

DISTRIBUTION

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R. C. Sleeman, Oak Ridge
W. D. Tidwell, Paducah

Attachment F

DMSA PRIORITY LISTING
Table 1

| PRIORITY | DMSA # |
|----------|---|
| A | C-400-05 C-400-01 C-400-03 C-409-01 C-409-02 OS-14 OS-06 OS-07 OS-15 |
| | NCS High Priority Top 11 C-331-09 C-331-10 C-331-13 C-331-14 C-331-15 C-333-31 C-335-04 C-335-05 C-337-30 C-337-36 C-337-37 |
| | Outside Misc. Phase 1 (OS-02, OS-03, OS-04, OS-05, OS-08, OS-09, OS- 10, OS-11, OS-12, OS-13) |
| | Outside Misc. Phase 2 (OS-16, OS-17, OS-18) |
| B | C-400-06 C-331-16 C-337-42 C-337-43 C-337-44 C-337-45 C-333-41 C-333-42 C-333-43 C-335-03 C-720-01 |

| PRIORITY | DMSA # |
|---|--|
| C | C-310 Phase 2 (5) C-310-01, C-310-02, C-310-03, C-310-04, C-310-05 |
| | C-333 Phase 2 (13) C-333-01, C-333-03, C-333-04, C-333-05, C-333-20, C-333-21, C-333-22, C-333-23, C-333-32, C-333-37, C-333-38, C-333-39, C-333-40 |
| | C-333 Phase 1 (26) C-333-02, C-333-06, C-333-07, C-333-08, C-333-09, C-333-10, C-333-11, C-333-12, C-333-13, C-333-14, C-333-15, C-333-16, C-333-17, C-333-18, C-333-19, C-333-24, C-333-25, C-333-26, C-333-27, C-333-28, C-333-29, C-333-30, C-333-33, C-333-34, C-333-35, C-333-36 |
| | C-337 Phase 2 (7) C-337-23, C-337-25, C-337-27, C-337-29, C-337-35, C-337-40, C-337-41 |
| | C-337 Phase 1 (31) C-337-01, C-337-02, C-337-03, C-337-04, C-337-05, C-337-06, C-337-07, C-337-08, C-337-09, C-337-10, C-337-11, C-337-12, C-337-13, C-337-14, C-337-15, C-337-16, C-337-17, C-337-18, C-337-19, C-337-20, C-337-21, C-337-22, C-337-24, C-337-26, C-337-28, C-337-31, C-337-32, C-337-33, C-337-34, C-337-38, C-337-39, C-337-40 |
| C-335 Phase 3 (4) C-335-09, C-335-10, C-335-11, C-335-12 | |

| PRIORITY | DMSA # |
|---------------|---|
| C (continued) | C-335 Phase 2 (4) C-335-02, C-335-03, C-335-06, C-335-07 |
| | C-335 Phase 1 (2) C-335-01, C-335-08 |
| | C-331 Phase 3 (6) C-331-19, C-331-20, C-331-21, C-331-22, C-331-23, C-331-24 |
| | C-331 Phase 2 (7) C-331-01, C-331-03, C-331-05, C-331-06, C-331-07, C-331-08, C-331-12 |
| | C-331 Phase 1 (5) C-331-02, C-331-04, C-331-11, C-331-17, C-331-18 |
| | C-400 Phase 2 (3) C-400-02, C-400-07, C-400-08 |
| | C-720 Phase 2 (3) C-720-02, C-720-03, C-720-04 |

G

Attachment G

Doc #
Revision 0

Sampling and Analysis Plan
Sampling and Analysis Plan
For the Containers of Potentially F and U Listed Hazardous Waste

Issued August, 2003

Prepared by Bechtel Jacobs Co., LLC

1.0 Purpose and Scope

The purpose of this document is to describe the sampling and analysis plan and the characterization approach for the identified containers, which are now suspected to contain listed Resource Conservation and Recovery Act (RCRA) waste. The waste consists of environmental media, debris, and sludge.

Most of the stored waste is contained in 55-gallon containers; however, volume size ranges from B-25 boxes to 5-gallon pails. This plan defines the sampling methodology, identifies waste profiles/populations to be sampled, the basis for determining the number of samples, the number of samples to be taken, the analytical requirements, the quality control of samples and use of data.

The containers will be characterized in approximately 75 populations based on the generation source, location, and/or the activity or task that caused the waste to be generated. This will allow the populations to be characterized by statistical sampling in accordance with SW-846. Population-specific analytical Statements of Work will be developed to implement the goals defined in the following sections of this Plan and will be submitted to the Cabinet for review and approval. Data from the characterization of the waste according to this Plan will be used to make "contained-in" determinations for the containers.

2.0 Background

The environmental media, which is comprised of soil, sediments, water, and sludge, were generated from auger cuttings, borings, and excavation tasks to investigate or clean up spills and releases in various locations at the PGDP. The waste also consists of debris that was generated as a result of performing those tasks. The debris may include, but is not limited to, personal protective equipment (PPE), plastic, absorbents, concrete, construction materials, and grout.

3.0 Contaminants of Concern

The contaminants of concern for this Plan are total, (i.e., bulk), TCE and TCA.

4.0 Sampling and Analytical Strategy

Sampling and analysis protocols for conducting all environmental media and associated debris sampling will be in accordance with the United States Environmental Protection Agency's (USEPA) sampling and analysis protocol as defined in SW-846, 3rd edition, or the most recent edition.

All characterization of populations will be based on sampling a statistically sound subset of the population as outlined in SW-846, Chapter 9. The containers to be sampled will be randomly selected.

Soil and other environmental media matrices are assumed to be homogeneous within each container. In addition, any contamination is assumed to be uniformly distributed. These assumptions are based on the nature of the waste matrices, as well as, the typical nature of waste at the PGDP site. Based on these assumptions, the sample collection methodology will be by grab sampling.

The waste debris that can be directly associated with a specific population of environmental media will be characterized using the data generated by sampling that population of environmental media, i.e. debris will be assumed to contain TCE and/or TCA at the source levels as the environmental media with which it is associated. If TCE or TCA in the media are below the contained-in levels, the associated debris will be assumed to be

below the contained-in levels. PPE, plastic and other debris that cannot be directly associated with a specific population of media will be sampled and analyzed for total TCE and TCA to determine the possibility of contamination with TCE and/or TCA. The sampling protocol will be designed to be matrix-specific, and includes composite sampling, grid sampling, or other methodologies consistent with the guidance outlined in SW-846, 3rd edition, or the most recent edition

5.0 Sample Shipment

All sample shipments will be made in accordance with DOT hazardous materials regulations.

6.0 Analyses and Data Reporting Schedule

Applicable contracting documents will require analyses to be completed and data supplied within a standard 30-day turnaround time.

7.0 Quality Assurance and Quality Control

The Data Quality Objective (DQO) process was applied for each population in this project, and the output is presented in Appendix 1 of this document.

7.1 Quality Goals

The following quality goals are applicable for the population-specific sampling and analyses events:

- Representativeness will be measured by evaluating the Relative Percent Difference (RPD) between the sample and field sample duplicate. A maximum RPD value of 20% will be used as a standard. If this standard is exceeded, then a determination will be made as to the usability of the data, taking into consideration such parameters as the magnitude of the exceedance, the number of samples in the population, and the average result for the population .
- Completeness goals for the number of measurements required for a data set will be 100 percent. In order to ensure that an adequate number of data points are obtained, a contingency of 20 percent will be added to the number of data points required in order to evaluate a population. The number of data points required, including the 20 percent contingency, are shown in Appendix 1.

7.2 Chain of Custody and Sample Management

Analytical samples will be maintained under chain of custody. Samples to be shipped offsite will be refrigerated and held under chain of custody until shipments are made.

7.3 Documentation

Sampling personnel will document fieldwork in a sampling logbook. Sampling logbooks are quality records. The logbook(s) will be maintained as a quality assurance record in accordance with site procedures.

7.4 Quality Control Samples

One equipment rinseate sample will be collected after the collection of every twentieth sample, at a minimum. Likewise, trip blanks for volatiles analyses will be collected at the same rate.

Duplicate samples will be obtained on a one-to-twenty ratio. If the sample was a composite sample, the duplicate will be collected from the same composited material.

7.5 Preservation

Sample preservation will be noted on the Chains of Custody. Waste samples will be preserved by maintaining the samples at 4° Celsius, $\pm 2^\circ$. Quality Control Samples will be preserved as described in SW-846, 3rd edition or the most recent edition.

7.4 Tamper Indicator Device

All samples will be secured with a tamper indication device (TID) and removed only upon receipt at the contracted laboratories by approved laboratory personnel.

8.0 Data Review and Use

8.1 Data Review

Following receipt of analytical data, the data will be reviewed. That review will include one hundred percent verification and assessment. Verification includes electronic and document reviews of specified data quality checks. Assessment includes qualitative and quantitative evaluation of the data to determine its limitations and usability for decision-making. Verification and assessment requirements are outlined in site-specific procedures. Quantitative evaluation of the data will be consistent with the requirements found in SW-846, Chapter 9. Qualitative evaluation of the data will be consistent with site-specific procedures.

Data assessment must be completed and documented before data can be used for "contained-in" decision-making purposes. The data assessment will be peer reviewed by qualified personnel and the data review and evaluation will be appropriately documented according to site-specific procedures. The documentation will be managed according to site-specific records management protocol. Electronic data and metadata will be protected (e.g. read only files, electronic file back-ups) and archived according to site-specific protocol.

8.2 Statistical Evaluation of the Data

Statistical evaluation of the data will include distribution and goodness-of-fit evaluations using industry-standard statistical tools (e.g. Shapiro-Wilkes or comparable) per SW-846, Chapter 9. If necessary, the data will be transformed to produce a normal distribution prior to calculating the standard deviation and variance. In addition, calculations will be performed to determine if a sufficient number of samples were collected according to the methodology in SW-846, Chapter 9. If these calculations establish (in accordance with SW-846, Chapter 9) that the number of samples or data points were not statistically sound to make a final characterization, the number of additional samples to be collected will be evaluated.

8.3 Data Use

Statistical calculations will be performed, where appropriate, to determine an eighty percent (two-tailed) confidence interval, consistent with SW-846 guidance. The population will be characterized according to

the upper confidence level (UCL). Statistical evaluations will be applicable whenever at least two data points exist for a population and whenever at least one of the sample results for TCE or TCA yields a concentration that exceeds the laboratory reporting limit. In cases where such statistical calculations are performed, the following proxy values will be utilized:

| Data Point Qualifier Flag | Proxy Value |
|---------------------------|--|
| No Flag | Reported Value |
| "U" (Undetect) Qualifier | Half of the Laboratory Reporting Limit |

A minimum, maximum, average and upper 80% confidence level (two-tailed) will be calculated for data sets where not all results are below the laboratory reporting limit.

The contamination level for a population will be based on the upper 80% confidence level unless all results are below the laboratory reporting limit or unless all containers in the population were sampled. In cases where the results are below the laboratory reporting limit then the population will be characterized at the reporting limit. In the case where all containers in the population were sampled then each container will be characterized according to its own result.

9.0 Reporting

A summary report will be prepared annually showing the number of containers characterized, the number of containers sampled, and the data results, including the minimum, maximum, average and the UCL₈₀ for the population.

10.0 Acronyms

| | |
|-------|--|
| BJC | Bechtel Jacobs Company |
| DOE | Department of Energy |
| DQO | Data Quality Objectives |
| PPE | Personal Protective Equipment |
| RCRA | Resource Conservation and Recovery Act |
| OREIS | Oak Ridge Environmental Information System |
| SAP | Sampling and Analysis Plan |
| SMO | Sample Management Office |
| TCA | 1,1,1-Trichloroethane |
| TCE | Trichloroethene |
| TSCA | Toxic Substances Control Act |
| UCL | Upper Confidence Limit |
| WAC | Waste Acceptance Criteria |

APPENDIX 1

| Population Number | Project ID | Process Generating Waste | Total Number of Containers | Number of Env. Containers | Solid Env. Containers | Solid Env. Containers Data Points Required | Aq. Env. Containers | Aq. Env. Containers Data Points Required | Number of Non-env. Containers | Non-env. Data Points Required |
|-------------------|------------------|--|----------------------------|---------------------------|-----------------------|--|---------------------|--|-------------------------------|-------------------------------|
| 001 | WAG 3 | SWMU 4 Soil boring 004-025,022,031,043,044,045,046,047,048,049,050,056,057,053,054,055 | 16 | 10 | 10 | 3 | 0 | 0 | 6 | 0 |
| 002 | Data Gap RI | WAG 3/8/28 DGRI SWMU 4,5,6,99 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 004 | NSDD | NSDD Trenching and other related waste, decon water | 43 | 17 | 14 | 3 | 3 | 2 | 26 | 0 |
| 010 | C-400 debris | C-400-04 DMSA and other debris/soils removed from C-400, WM23 tank spill cleanup, C-400 soil NW corner, dirt/rock south side | 92 | 65 | 65 | 5 | 0 | 0 | 27 | 0 |
| 011 | C-745-K | UST 17 excavation in C-745-K South, UST 18, C-745-M | 20 | 18 | 7 | 3 | 11 | 3 | 2 | 0 |
| 012 | Phase I | phase I soils and materials, sample residuals, PPE, water | 213 | 36 | 33 | 4 | 3 | 2 | 177 | 0 |
| 014 | Ditch 2 | Misc projects at ditch 2 (also 013) | 3 | 2 | 2 | 2 | 0 | 0 | 1 | 0 |
| 015 | Ditch 10 and 12 | misc projects at outfall ditch 010 and 012, decon water etc from 001, 002, 010, 011, and 012, | 5 | 2 | 2 | 2 | 0 | 0 | 3 | 0 |
| 017 | Misc projects | unknown sources--suspect based on current guidance; contaminated trash--paper, plastic, PPE, gravel, sludge | 106 | 36 | 25 | 4 | 11 | 3 | 70 | 0 |
| 019 | C-403 Neut pit | neut pit cleanup--hypalon, PPE | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 3 |
| 023 | Activated Carbon | activated carbon from sampling/treatment | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 2 |
| 024 | WAG 23 | WAG 23 samples waste/ other WAG 23 SWMU 1 waste | 23 | 19 | 16 | 4 | 3 | 2 | 4 | 0 |
| 027 | WAG 27 | Wastewater from WAG 27 with TCE detections. | 4 | 4 | 0 | 0 | 4 | 2 | 0 | 0 |

APPENDIX 1

| Population Number | Project ID | Process Generating Waste | Total Number of Containers | Number of Env. Containers | Solid Env. Containers | Solid Env. Containers Data Points Required | Aq. Env. Containers | Aq. Env. Containers Data Points Required | Number of Non-env. Containers | Non-env. Data Points Required |
|-------------------|---------------|--|----------------------------|---------------------------|-----------------------|--|---------------------|--|-------------------------------|-------------------------------|
| 028 | WAG 22 | WAG 22, C-749 investigation C-747--PPE, soil | 87 | 19 | 19 | 4 | 0 | 0 | 68 | 0 |
| 029 | WAG 15 | WAG 15--PPE, plastic sheeting, decon water | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 0 |
| 030 | SWMU 27 | SWMU 27--soil sample residuals, PPE, plastic | 3 | 1 | 1 | 1 | 0 | 0 | 2 | 0 |
| 032 | Phase 3 | Phase 3 from listed sources; drill cuttings, water | 31 | 31 | 20 | 4 | 11 | 3 | 0 | 0 |
| 034 | C-404 | C-404, MW49 abandonment, PPE/Plastic/trash from leachate pit | 20 | 14 | 13 | 3 | 1 | 1 | 6 | 0 |
| 035 | WAG 6 | WAG 6 decon water | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| 036 | Misc samples | Leachate samples from concrete, Solid lab waste from PCB lab, segregation of waste--CAS-6276 & CAS-9733, Soil and sed sample excess--routine, lab waste, solid--ER drillings | 32 | 32 | 32 | 4 | 0 | 0 | 0 | 0 |
| 039 | C-720 | materials from C-720, grass/dirt from C-720, U-cont. metal from sump pit | 23 | 19 | 4 | 2 | 15 | 3 | 4 | 0 |
| 040 | SWMU 11 | materials/waste from SWMU 011 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 041 | SWMU 4 RGA | RGA borings within SWMU 4; PPE, plastic | 26 | 10 | 9 | 3 | 1 | 1 | 16 | 0 |
| 042 | AZ-044 | project AZ-044 (unrecognized project--unknown source) | 22 | 2 | 2 | 2 | 0 | 0 | 20 | 0 |
| 046 | C-612 | filter cake/misc facility trash/spent resin, PPE | 24 | 1 | 0 | 0 | 1 | 1 | 23 | 4 |
| 050 | C-340 | PCB cleanup--dirt, floorsweep, MgF2, transformer dike work, east side 340 sampling, RCRA/TSCA cleanup, excavation C-340 area 4&6, dirt from area 2 & 3 | 1446 | 1444 | 1441 | 14 | 3 | 2 | 2 | 0 |

APPENDIX 1

| Population Number | Project ID | Process Generating Waste | Total Number of Containers | Number of Env. Containers | Solid Env. Containers | Solid Env. Containers Data Points Required | Aq. Env. Containers | Aq. Env. Containers Data Points Required | Number of Non-env. Containers | Non-env. Data Points Required |
|-------------------|---------------------|---|----------------------------|---------------------------|-----------------------|--|---------------------|--|-------------------------------|-------------------------------|
| 052 | Outfalls suspect | o/f 001 and 003 samples | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 054 | C-409 | closure, drum sampling--RCRA testing waste | 90 | 5 | 3 | 2 | 2 | 2 | 85 | 0 |
| 059 | Phase 2 | drill tailings from phase II, soil/mud | 58 | 53 | 48 | 5 | 5 | 3 | 5 | 0 |
| 060 | Ditch 11 | Autosampler and excavated soil, yearly sed samples, outfall flume | 1035 | 1020 | 1020 | 13 | 0 | 0 | 15 | 0 |
| 061 | Unknown Tank Sludge | tank sludge from unknown sources, sludge tank cleanout stored C-746-H3 | 59 | 0 | 0 | 0 | 0 | 0 | 59 | 5 |
| 063 | Phase 2 sump | Phase II sump clean out | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 3 |
| 067 | NW Plume | borings "J", multiple soil borings, decon sludge, EW228 cuttings, SB32, SB31, SB27, SB30, MW247 | 49 | 49 | 49 | 5 | 0 | 0 | 0 | 0 |
| 068 | Phase 4 RGA | RGA borings from phase 4--soil | 121 | 108 | 108 | 6 | 0 | 0 | 13 | 0 |
| 075 | Ditch 001 | sump ditch 001 concrete and soil Chl and temp project | 23 | 23 | 23 | 4 | 0 | 0 | 0 | 0 |
| 077 | O/F 2 lift station | sludge from 002 lift station, flume sludge | 17 | 15 | 15 | 3 | 0 | 0 | 2 | 0 |
| 078 | Lab waste | misc lab waste | 37 | 12 | 12 | 3 | 0 | 0 | 25 | 0 |
| 079 | O/F 010 | outfall 010 sump lift station sludge | 14 | 14 | 14 | 3 | 0 | 0 | 0 | 0 |
| 087 | Phase 3 RGA | samples PZ-5G SB-07 etc., PZ 110, PZ117 | 90 | 90 | 11 | 3 | 79 | 6 | 0 | 0 |
| 092 | OF 011/012 Inv | soil cuttings from OF 011 and 012 investigation | 4 | 4 | 4 | 2 | 0 | 0 | 0 | 0 |
| 093 | CDM UST site | MW-04A UST site--not enough information | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 102 | SWMU 193/194 | drill fluid and cutting PZ107; PPE, glass | 3 | 1 | 0 | 0 | 1 | 1 | 2 | 0 |

APPENDIX 1

| Population Number | Project ID | Process Generating Waste | Total Number of Containers | Number of Env. Containers | Solid Env. Containers | Solid Env. Containers Data Points Required | Aq. Env. Containers | Aq. Env. Containers Data Points Required | Number of Non-env. Containers | Non-env. Data Points Required |
|-------------------|------------------------------|---|----------------------------|---------------------------|-----------------------|--|---------------------|--|-------------------------------|-------------------------------|
| 106 | Phase 2 contained | soil/rubber gaskets--phase 2 SI possibly contained in; sump waste, soil | 20 | 4 | 4 | 2 | 0 | 0 | 16 | 0 |
| 110 | Lab residuals/sampling waste | soils from test area, lab residuals from other projects, other sampling waste (PPE, plastic, paper) | 76 | 22 | 22 | 4 | 0 | 0 | 54 | 0 |
| 111 | WAG1 SWMU100 | WAG 1 SWMU 100 MW 330 auger cuttings, sump clean out, other WAG 1 waste | 47 | 47 | 46 | 5 | 1 | 1 | 0 | 0 |
| 112 | CDM abandon | well abandonment CDM well purge water, well displacement water | 13 | 12 | 8 | 3 | 4 | 2 | 1 | 0 |
| 116 | Phase 1 contained | phase 1 MW144, MW145 with TCE totals below 39.2 ppm possibly contained in | 275 | 267 | 244 | 8 | 23 | 4 | 8 | 0 |
| 118 | Test Pit #5 | "contents of drum with sludge (wet soil) from test pit #5 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |
| 121 | C-750 UST | C-750 UST soil; PPE, rinseate | 15 | 12 | 12 | 3 | 0 | 0 | 3 | 0 |
| 121MBR | C-750-C UST contained | rinseate from C-750-C UST closure--possibly contained in | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 125 | WAG 1&7 sample | sample jars from WAG 1&7--sample#'s listed on RFD 46110 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 129 | C-746-Q | C-746-Q past water spill (SWMU 46A),PPE/Plastic/trash from C-746-Q | 23 | 1 | 0 | 0 | 1 | 1 | 22 | 0 |
| 139 | C-720 contained | contaminated water from C-720 below 39.2 ppm threshold possibly contained in | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 156 | SWMU 136 | bentonite from WAG 1 SWMU 136 MW304 | 73 | 72 | 69 | 5 | 3 | 2 | 1 | 0 |
| 161 | Borings in SWMU | borings/wells in listed swmus | 4 | 2 | 2 | 2 | 0 | 0 | 2 | 0 |

APPENDIX 1

| Population Number | Project ID | Process Generating Waste | Total Number of Containers | Number of Env. Containers | Solid Env. Containers | Solid Env. Containers Data Points Required | Aq. Env. Containers | Aq. Env. Containers Data Points Required | Number of Non-env. Containers | Non-env. Data Points Required |
|-------------------|-------------------------|---|----------------------------|---------------------------|-----------------------|--|---------------------|--|-------------------------------|-------------------------------|
| 173 | WAG 22 contained | WAG 22 SWMU 2-15-1 borehole with data possibly contained in--soil | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 182 | Switchyards contained | sludge/water from 540-A, 541-A grounding vault, pads/pigs/etc C-540-A possibly contained in | 9 | 1 | 1 | 1 | 0 | 0 | 8 | 0 |
| 184 | Lab Waste-no analytical | Misc lab waste--no analytical; both incinerable and non-incinerable solid samples | 25 | 0 | 0 | 0 | 0 | 0 | 25 | 4 |
| 188 | TCE removal | filter bags from carbon system--TCE removal previously located in C-400 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 189 | LDR sampling | misc waste from LDR sampling; incinerable and non-incinerable debris | 43 | 6 | 6 | 3 | 0 | 0 | 37 | 0 |
| 193 | Switchyards non env | environmental and nonenvironmental media (or associated) from C-533, C-537, C-531 | 126 | 85 | 85 | 6 | 0 | 0 | 41 | 0 |
| 197 | C-746-H3 spill | spill cleanup C-746-H3 tank # C-400-11; PPE; vermiculite | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 199 | C-400 TCLP det | PCB plastic and trash from C-400 with TCE TCLP detection | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 3 |
| 205 | PCB Carbon Filter | PCB cont carbon filters from PCB carbon filter system | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 208 | Uranium Precipitate | Uranium Precipitate collection | 293 | 0 | 0 | 0 | 0 | 0 | 293 | 8 |
| D 145 | MW66 | C-747-A MW66--PPE | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| D 154 | RGA wells | plastic from EW230, dirty plastic MW325, plastic--abandonment MW47-/51 aband. MW9,12,15, aband PZ1G etc., aband. Z5, Z9;PPE | 47 | 0 | 0 | 0 | 0 | 0 | 47 | 5 |
| D 159 | WAG 1&7 | WAG 1&7 plastic; gravel, tyvek | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 3 |

APPENDIX 1

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|-------------------|-----------------|---|----------------------------|---------------------------|-----------------------|--|---------------------|--|-------------------------------|-------------------------------|
| D 161 | Borings in Swmu | Borings/wells in listed swmu's | 12 | 0 | 0 | 0 | 0 | 0 | 12 | 3 |
| D 36 | Lab residuals | various projects--lab residuals with sample #'s (some without #'s) | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| D 54 | C-409 | PCB and uranium cont solid waste from C-409; 1-55 gal drum | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| D 59 | Phase 2 PPE | PPE/Plastic/debris from Phase 2 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 3 |
| D 68 | Phase 4 | Phase 4 petroleum absorbant pads, ppe/plastic from RGA/plume wells | 54 | 0 | 0 | 0 | 0 | 0 | 54 | 5 |
| D 82 | C-746-R | epoxy resin coating from cement pad at C-746-R pad, hypalon/etc from R pad spills | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 3 |
| S 146 | Sludge C-416 | sump cleanout C-416 decon pad--sludge | 17 | 17 | 17 | 4 | 0 | 0 | 0 | 0 |

H

Attachment H

MODEL DMSA CHARACTERIZATION REPORT

[THE REPORT WILL BEGIN WITH A GENERAL SYNOPSIS OF THE TYPE AND QUANTITY OF ITEMS ENCOUNTERED IN THE DMSA, THE DATE OF INITIATION OF CHARACTERIZATION ACTIVITIES, AND THE CONCLUSION OF CHARACTERIZATION ACTIVITIES.]

Department of Energy Material Storage Area (DMSA) C-310-02 is located on the east wall of the C-310 process building near columns E12/14-F12/14. It encompasses approximately 600 square feet (ft²). This DMSA is also identified as Solid Waste Management Unit (SWMU) #231. Within the DMSA is a metal fenced area (cage) used for storage of excess laboratory equipment and supplies. The area surrounding the fenced cage was used for storage of electrical supplies, miscellaneous scrap metal and wooden items. Two metal B-25 storage containers are also located in the DMSA. Numerous Resource Conservation Recovery Act (RCRA) hazardous wastes such as circuit boards, fuses, light bulbs, aerosol cans, vacuum tubes and pump oils were identified in the DMSA. When identified, the hazardous wastes are classified as either "newly generated" or "newly discovered". This classification is explained in greater detail in the RCRA section of the Characterization Report. Recycling and offsite disposal of the circuit boards are also found in the RCRA section. The waste and materials in the DMSA occupied a volume of approximately 1,112 cubic feet (ft³) with an estimated weight of 16,377 pounds (lbs). Field activities in the DMSA were initiated in August 2002. Completion of field activities occurred in May 2003.

RCRA/RCRA MIXED

[REPORT WILL INCLUDE INFORMATION EITHER IDENTIFYING RCRA/RCRA MIXED WASTE DISCOVERED OR GENERATED OR INDICATING THAT NO RCRA/RCRA MIXED WASTE WAS DISCOVERED OR GENERATED.]

Resource Conservation Recovery Act (RCRA) hazardous wastes are identified as either "newly discovered" or "newly generated". Newly discovered wastes are those hazardous wastes which are found loose or not installed in equipment. Examples of this waste type are aerosol cans or light bulbs lying on the floor. Newly generated wastes are hazardous wastes which must be removed from equipment (such as circuit boards) or drained from equipment (such as oils). These classifications are noted on the "Waste Removed from DMSA C-310-02" section of this report. Numerous circuit boards, two aerosol cans, six lithium batteries, several light bulbs, vacuum tubes and fuses were identified in the DMSA. Also small volumes of oils were drained from three pumps. As items/materials were characterized and classified as hazardous, they were packaged, labeled and transported to a RCRA permitted storage facility. The exceptions to this were the three containers of oils which were placed in a Satellite Accumulation Area (SAA) which was established within the DMSA on November 19, 2002. The aerosol cans were stored in the C-733 RCRA permitted storage facility which is designated for storage of ignitable wastes. The remaining hazardous wastes were stored in the C-752-A RCRA permitted facility. The lithium batteries were segregated from other wastes since they are reactive

hazardous wastes. In May 2003, it was determined that the contents of two of the three containers of waste oils were consumed in the sampling and analytical process. The containers were then verified as "RCRA empty" and placed in a low level waste (LLW) collection container. The third bottle of oil contained a small amount of oil. This waste was transported from the SAA to the C-752-A RCRA permitted facility. Documentation relative to these wastes was amended to reflect the change in status. The SAA was closed on May 12, 2002. The aerosol cans were classified as newly discovered hazardous waste. The remaining hazardous wastes were removed from equipment and classified as newly generated. In December 2002, the Department of Energy (DOE) provided guidance for the recycling of circuit boards which are not radiologically contaminated.¹ These circuit boards are not considered hazardous waste since they meet the scrap metal being recycled exclusion in 40 CFR Part 261.4 (a)(13). Large quantities of the circuit boards from C-310-02 met this criterion and were reclassified as nonhazardous and shipped offsite on February 18, 2003, to Advanced Environmental Recycling Company (AERC) in Allentown, Pennsylvania. The circuit boards which were recycled are indicated under the column "recy" on the DMSA C-310-02 Inventory Report as well as the Inventory and Characterization Report in the attached compact disk. The hazardous wastes in the DMSA which were radiologically contaminated were classified as RCRA/Mixed wastes. The circuit boards and vacuum tubes which were classified as RCRA/Mixed were shipped for disposal to Envirocare of Utah, Incorporated which is located in Clive, Utah, on May 2, 2003. This is noted on the Initial Inventory and Characterization Report and also on the Waste Identified for Removal Report in the attached compact disk.

¹ Seaborg, W. Don December 31, 2002, Site Manager, Department of Energy, Paducah Site Office, letter to Robert H. Daniell, Division of Waste Management, Kentucky Department for Environmental Protection, Frankfort, Kentucky

Attachment I

Container Management Plan

**CONTAINER MANAGEMENT PLAN FOR THE POTENTIALLY LISTED 5100
CONTAINERS**

Inspections

The visible portions of the containers will be inspected weekly. Container surface areas will be inspected within the parameters of the current container storage array.

The containers will be inspected for rust over 75% of the surface area of the container, one or more concave dents of less than or equal to 30 degrees, visible leaks, and legible labeling reading "Hazardous Waste Pending Regulatory Determination."

Labeling

The containers will have labels reading "Hazardous Waste Pending Regulatory Determination."

Missing or illegible labels will be replaced or rewritten to ensure adequate marking.

Container Condition

Within two-hundred and seventy days (270) days of completion of the first inspection, DOE will repackage (i.e., over-packed or transferred to another container) containers that are identified by DOE during the first inspection under this Container Management Plan as: (1) being rusted over 75% of the surface area; (2) having one or more concave dents of less than or equal to 30 degrees; or (3) having visible leaks or penetration. In repackaging the containers, priority will be given to containers stored outside.

Within thirty (30) days of the relevant inspection, DOE will repackage (i.e., over-packed or transferred to another container) containers that are identified by DOE during subsequent inspections under this Container Management Plan as: (1) being rusted over 75% of the surface area; (2) having one or more concave dents of less than or equal to 30 degrees; or (3) having visible leaks.

Container Management

All containers will be placed on pallets or otherwise elevated to prevent contact with rainwater or a spilled material.

Attachment J

Distinct Storage Areas

C-333

C-337

C-746-A

C-746-B

C-746-H3

C-746-Q

C-746-V

C-752-A

C-752-C

C-753-A

C-746-M

Attachment K

DOCUMENTATION REVIEWED BY KDWM AS OF 9/18/03

The Kentucky Division of Waste Management reviewed the following documents pertaining to the C-746-T Landfill:

- C-746-T Logbook kept by landfill operators during the time of operation through approximately 1993, when the landfill entered the closure phase
- A whitepaper entitled, "Whitepaper: C-746-S and C-746-T Landfills – Inventory for Potentially Listed Hazardous Waste"; and
- The TCE Listed Waste Criteria, Revision 7.

The following documents were made available to the Kentucky Division of Waste Management, and were cursorily reviewed:

- Analytical results from the Facility Safety Assessment Report (FSAR) Seismic Investigation;
- Waste sampling procedures for Martin Marietta Energy Systems, Inc. (assuming these were included in the FSAR);
- Sampling Plan for the FSAR Seismic Investigation;
- A map from the FSAR Seismic Investigation,
- Teamup database disposal records for the Inert Landfill;

The C-746-T Landfill logbook was reviewed and the KDWM and requested copies of 8 pages of the document. This document was a record kept from 1991 until 1995 by the landfill operators. They kept general logs of daily activities and the types of waste being disposed. The FSAR Seismic Investigation file also was made available to KDMW; it contained analytical results for the composite samples, a sampling plan, a waste sampling procedure, and a map that designated the locations of the borings that are located within the boundary of the TCE contamination plume. A printout of the Teamup database disposal records was also made available. The white paper discussed above was submitted to the KDWM in July of 2002. This document discussed the process of how the C-746-T Landfill waste was reviewed and the potential for listed waste to have been disposed of in the landfill. This document had a table that correlated the logbook to the database and a directory of the environmental media waste that was investigated as well as those media that were considered a "suspect" or "potentially" listed waste. Lastly, the KDWM has had the opportunity to review the TCE Listed Waste Criteria that were developed to assist in the review process of waste already disposed of in the C-746-S&T and the C-746-U Landfills and on-site/legacy waste storage.

Attachment L

Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 1997

Total Number of NOV for 1997 1

August 7, 1997 -- NOV

The extent of the violations observed is as follows:

1. Noncompliance with conditions of permits S-96-175 (Revised) and S-96-239

Attachment I
COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION FOR AIR QUALITY
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

TO: USDOE
Paducah Office Site
P.O. Box 1410
Paducah, Kentucky 42001

Date of Violation: August 7, 1997
County: McCracken
I.D. # (if applicable): 072-2460-0003
Violation Log #: V97-PAD-034

This is to advise you that, because of the circumstances noted below, you are violating the provisions of:
(X) KRS 224, () KRS 151, () KRS 223, () KRS 146, () _____
Regulation: 401 KAR 50:060 Sections 2(2) and 4(1)

The extent of the violations observed is as follows: noncompliance with conditions of permits S-96-175 (Revised) and S-96-239.

Required actions for remedial measures include, but are not limited to: submit a written reply within fifteen (15) days stating actions taken, or to be taken, to achieve and maintain compliance.

Violations of the above cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each air quality violation.

To respond to this Notice of Violation, write to:

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION FOR AIR QUALITY
4500 Clarks River Road
Paducah, KY 42003

Attention: Mr. Ken Frye, Regional Supervisor, or call (502) 898-8468

Signature: Stan Coole Title: ENV INSP III #65 Date: 8/28/97

Name of persons to whom copy was delivered:

Mr. Daniel Tidwell Title: Env. Engineer Date: 8/28/97

How Delivered: Certified Mail Personal Service

Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 1998

Total Number of NOV for 1998 0

No Violations for 1998

Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 1999

Total Number of NOV for 1999 2

September 28, 1999 -- NOV

The extent of the violations observed is as follows:

- 1. Failure to report planned changes per Conditions III.E.10 and IV.J.1 of the Hazardous Waste Permit.**

Failure to Comply with Permit Conditions III.E.10 and IV.J.1

The soil had not been fully characterized was excavated and relocated from SWMUs 193 and 194 without adequate notification.

November 23, 1999

The extent of the violations observed is as follows:

- 2. Nov for Paducah Gaseous Diffusion Plant (KY0004049) Outfall 001 WET Failures**

KPDES permit violation of Whole Effluent Toxicity limits at Outfall 001 for July and August 1999.

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

XCY-DRGV
-GWB
-DBE
-JWM
-RJK
-RES
-Rebecca
Forsee

September 28, 1999

CERTIFIED MAIL #
RETURN RECEIPT REQUESTED

Mr. Jimmie Hodges, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Jimmy C. Massey, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Failure to Comply with Permit Conditions III.E.10 and IV.J.1
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

To: Myrna Redfield
From: Tusi Taylor
RW
9/28/99

Gentlemen:

On June 7, 1999 the Division of Waste Management (Division) issued a Letter of Warning to DOE in response to two instances in which soil that had not been fully characterized was excavated and relocated from SWMUs 193 and 194 without adequate notification. Notifications were received on April 15, 1999 for a New Sign Installation within SWMU 194 and renovation of the C-745-L cylinder yard located in SWMU 193. However, these notifications did not indicate that approximately 4500 cubic yards of soil would be excavated from the C-745-L cylinder yard and deposited in a large, uncovered spoils area located at the southeastern corner of the SWMU. Nor did the notifications specify that the soil excavated from SWMU 194 would be transported outside the SWMU boundaries and deposited in a pile located near the VORTEC staging area. The Letter of Warning clearly indicated that, "inadequate notifications and subsequent mobilization of contaminated material prior to approval by the Division would be a violation of Condition III.E.10, and IV.J.1 of the Hazardous Waste Permit", and that, "any further infraction, ... , may result in a Notice of Violation."

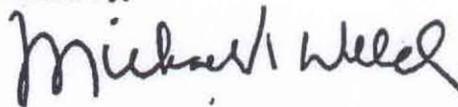


Mr. Jimmie Hodges,
Mr. Jimmy Massey
Page 2
September 28, 1999

On August 30, 1999 approximately 245 cubic yards of soil was excavated near the southeastern corner of SWMU 194 as a part of road and parking lot construction activities. This soil, which had not been adequately characterized, was transported from SWMU 194 to the soil spoils area located at the southeastern corner of SWMU 193. These activities were undertaken without prior notification being given to the Division as required by Conditions III.E.10, and IV.J.1 of the Hazardous Waste Permit.

Enclosed is a Notice of Violation issued for failure to comply with the conditions of the Permit. Please contact Tuss Taylor at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E., Manager
Hazardous Waste Branch

MW/tm

attachment

cc: Carl R. Froede, Jr., USEPA Region 4
John Morgan, Bechtel Jacobs
Les Price, ORO/DOE
Myrna Redfield, DOE
Margie Williams, DWM-Paducah
Todd Mullins, DWM-Frankfort
DWM File# 928
DOE Reading File

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

Z 258 075 084

November 23, 1999

Mr. J. Dale Jackson, Acting Site Manager
Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, KY 42001

Den. 1
10 10 20/31

RE: NOV for Paducah Gaseous Diffusion Plant
(KY0004049) Outfall 001 WET Failures.

Dear Mr. Jackson:

On October 27, 1999, the Division of Water received the toxicity test report for the Paducah Gaseous Diffusion Plant (KY0004049) Outfall 001, for tests conducted in July and August 1999. These test results showed significant toxicity to the fathead minnow (TUc=1.79 and 1.91) above your KPDES permit limit of 1.00 TUc.

Therefore, as stated in your permit, Part IV, Section 3.A., a Toxicity Reduction Evaluation (TRE) plan and implementation schedule must be submitted to the Division. As toxicity was demonstrated with only the minnow, TRE activities may be conducted using only that species. However, commencing immediately, the frequency of your routine compliance toxicity testing (using both species) will be changed to monthly and will continue for the duration of the TRE.



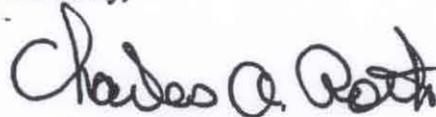
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Mr. J. Dale Jackson
Page Two

The TRE plan and schedule shall be sent by **December 28, 1999** to the attention of Doug Allgeier, Supervisor, Industrial Section, KPDES Branch.

If you have any question you may contact me at 502-564-3410, extension 497.

Sincerely,



Charles A. Roth, Supervisor
Bioassay Section

c: Teresa Clements, Enforcement Branch
John Gowins, Enforcement Branch
Doug Allgeier, KPDES Branch
Data Inventory and Management Section
Paducah Regional Office
Mike Welch, Hazardous Waste Branch
DOW Files
Dan Guminski, PGDP

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Frankfort, KY 40601

NOTICE OF VIOLATION

TO:
Mr. J. Dale Jackson, Acting Site Manager
Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, KY 42001

I.D.# KY0004049
County: McCracken
Date of Violation: July and August 1999

This is to advise you that, as specified below, you are in violation of the provisions of () KRS 146, () KRS 151, () KRS 223, (X) KRS 224

Regulation: 401 KAR 5:065 Section: 1(1)

A description of the violation(s) follows: KPDES permit violations of Whole Effluent Toxicity limits at Outfall 001 for July and August 1999.

Remedial measures required include, but are not limited to: Submission of a Toxicity Reduction Evaluation (TRE) plan and schedule as set forth in the accompanying letter. In addition, monthly compliance monitoring must commence immediately.

Remedial measures must be completed by December, 28, 1999

Violations of the above cited statutes and regulations are subject to penalties of up to \$25,000 per day. Compliance with remedial measure deadlines does not provide exemption from liability for violations during the period of remediation. Any person who knowingly violates the aforementioned statutes may be subject to criminal prosecution. To discuss this Notice of Violation, please contact the undersigned at: (502) 564-3410 ext. 497.

Issued By: Charles A. Roth

Date: 11/23/99

Date: _____

Name of person to whom copy was delivered:

_____ Date: _____

How Delivered:

Certified Mail

Personal Service

Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 2000

Total Number of NOV for 2000 6

January 14, 2000 -- NOV

The extent of the violations observed is as follows:

1. Deteriorated silt fences at numerous locations and are no longer effective in filtering the solid UF₄, uranium and other contaminated sediments from the scrapyards surface water runoff.

May 23, 2000 -- NOV

The extent of the violations observed is as follows:

2. **Failure to comply with permit condition II.J.9.a.**
Failure to sample for all RAD parameters listed in Table VIII/Condition II.J.9 of the Hazardous Waste Permit in accordance with Condition II.J.9 a and in accordance to the schedule identified in Condition II.J.7.c.

July 13, 2000 -- NOV

The extent of the violations observed is as follows:

3. Reasonable precautions were not been taken to prevent particulate matter from becoming airborne from the Drum Mountain baler and associated transfer point.

July 13, 2000 -- NOV

The extent of the violations observed is as follows:

4. Denial of Cabinet personnel entrance to Drum Mountain for the purpose of inspection for the ascertaining of compliance. Entry for the inspection of Drum Mountain removal project was denied for a period of one hour and three minutes.

July 27, 2000 -- NOV

The extent of the violations observed is as follows:

5. U.S. DOE has violated Part II.I.5 of the Hazardous Waste Management Permit and 401 KAR 34:180, Section 8, by failing to separate containers of hazardous waste from incompatible materials by a dike, berm, wall or other device.

September 5, 2000 -- NOV

The extent of the violations observed is as follows:

6. Failure to characterize and notification requirements for newly discovered SWMUs and Areas of Concern as defined in 401 KAR.
Investigation and characterization of DMSA C-400-04 identified hazardous and mixed radioactive hazardous wastes, which have been stored greater than 90 days without a permit.

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

January 14, 2000

CERTIFIED MAIL # Z 258 073 941
RETURN RECEIPT REQUESTED

Mr. J. Dale Jackson, Acting Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Failure to Comply with Permit Conditions III.E.6 and III.E.5
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

On November 4, 1999, staff from the Division of Waste Management conducted a visual inspection of the silt fences around SWMUs 12, 14 and 15. The silt fences have deteriorated at numerous locations and are no longer effective in filtering the solid UF_4 uranium and other contaminated sediments from the scrapyards surface water runoff. Division staff also observed drain pipes crossing the northern fenced boundary of the scrapyards. These drains are not shown in the as-built drawings contained in the Interim Measures Report & Operation and Maintenance Plan for Containment of Scrapyard Sediment Runoff at the PGDP (DOE/OR/07-1299&D1).



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Mr. J. Dale Jackson
Mr. Gordon L. Dover
Page 2
January 14, 2000

The silt fences installed in April 1994 as an Interim Corrective Measure have not been maintained in accordance with Condition III.E.6 of the facilities Hazardous Waste Management Permit. Additionally, reasonable steps have not been taken to minimize releases to the environment as required by Condition III.E.5 of the facilities Hazardous Waste Management Permit. The Division is further concerned with the statement in Section 5.5 of the August 1999 Five-Year Review of the Surface Water Operable Unit that includes "...the fencing is in good condition." Enclosed is a Notice of Violation issued for failure to comply with the Conditions III.E.6 and III.E.5 of the Permit. Please contact Tuss Taylor at (502) 564-6716 if you have questions concerning this issue.

Sincerely,

Aubre Meyer for
Michael V. Welch P.E., Manager
Hazardous Waste Branch

MW/mg

Enclosure - Notice of Violation

cc: Carl R. Froede, Jr., USEPA Region 4
Les Price, ORO/DOE
Myrna Redfield, DOE
Margie Williams, DWM-Paducsh
DWM File# 700
DOE Reading File

JAMES E. BICKFORD
SECRETARY



received
5/24/00 dlm

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

May 23, 2000

CERTIFIED MAIL # Z 258 073 863
RETURN RECEIPT REQUESTED

Mr. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Gordon Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Failure to Comply with Permit Condition II.J.9.a
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

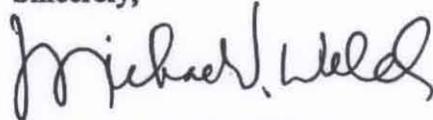
As stated in your letter of May 4, 2000, certain RAD parameters, as listed in Table VIII/Condition II.J.9 of your permit, were not analyzed for the July 1998, January 1999, July 1999 and January 2000 sampling events. This is a violation of Condition II.J.9.a of your permit and a violation of Kentucky Revised Statutes 224.99-010 (1). The Division acknowledges, as stated in your letter, that you intend to sample for the required RAD parameters during the July 2000.

| | | | | | |
|-------------------|-------------------|---------|-----------------|------------|---|
| Post-It® Fax Note | 7671 | Date | 5/24/00 | # of pages | 3 |
| To | Patricia Willison | From | Danny Gurnowski | | |
| Co./Dept. | | Co. | | | |
| Phone # | | Phone # | | | |
| Fax # | | Fax # | | | |

Mr. Don Seaborg,
Mr. Gordon Dover
Page 2
May 23, 2000

Enclosed is a Notice of Violation issued for failure to comply with the conditions of the Permit. Please contact Tuss Taylor at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E, Manager
Hazardous Waste Branch

MW/bkb

attachment

cc: Carl R. Froede, Jr., USEPA Region 4
Dianna Feireisel, DOE
Dave Dollins, DOE
John Morgan, Bechtel Jacobs
Robert Sleeman, ORO/DOE
Margie Williams, DWM-Paducah
Gaye Brewer, Paducah Site Office
Connie Smith, Enforcement Branch
Dale Burton/Brian Baker, Hazardous Waste Branch
DWM File # 870
DOE Reading File

12. please to sample for women
+ TC-99 at E-404 Landfill

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY ROAD
FRANKFORT KY 40601

NOTICE OF VIOLATION

TO: Mr. Don Seaborg,
Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Violation Date: May 23, 2000
ID #: KY8-890-008-982
County: McCracken
Location: 5600 Hobbs Road
West Paducah, Kentucky 42086

Mr. Jimmy C. Massey,
Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

This is to advise you that, because of the circumstances noted below, you are in violation of the provisions of Hazardous Waste Permit Condition II.J.9.a. and the Kentucky Revised Statutes 224.99-010.

The extent of the violation(s) is as follows: Failure to sample for all RAD parameters listed in Table VIII/Condition II.J.9 of the Hazardous Waste Permit in accordance with Condition II.J.9.a and in accordance to the schedule identified in Condition II.J.7.c.

Required action for remedial measures include, but are not limited to: Conducting the required sampling and analyses during the July 2000 sampling event and for the life of the permit. Violations of the above-cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 for each day during which a violation continues. To respond to this Notice of Violation, write to:

Michael V. Welch, Manager, Hazardous Waste Branch
Division of Waste Management
14 Reilly Road
Frankfort KY 40601

or call: Tuss Taylor at (502) 564-6716, ext. 244.

Signature: Michael V. Welch
Branch Manager Date: 5/23/00

Delivered by Certified Mail # Z 258 073 863

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION FOR AIR QUALITY
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

TO: United States Department of Energy.
P.O. Box 1410
Paducah, Kentucky 42002-1410

DATE OF VIOLATIONS: July 13, 2000

COUNTY: McCracken
ID# 21-145-00003

VIOLATIONS LOG #: *V00-PAD-023*

This is to advise the United States Department of Energy that because of the circumstances noted below, the United States Department of Energy, is violating the provisions of:

(X) KRS 224, () KRS 151, () KRS 223, () KRS 146, () 401 KAR 63:010, 401 KAR 50:055 Section 2.

The extent of the violations observed is as follows:

Reasonable precautions were not being taken to prevent particulate matter from becoming airborne from the Drum Mountain baler and associated transfer point. Drum Mountain baler and associated transfer point and their associated air pollution control equipment were not being maintained and operated in a manner consistent with good air pollution control practices to minimize emissions.

Required actions for remedial measures include, but are not limited to: Cease operation of the Drum Mountain baler and associated transfer point until air pollution controls are in place. Before resuming operations notify the Paducah Regional Office of the Division for Air Quality when controls are in place and when compliance shall be demonstrated at the baler and it's associated transfer point.

Violations of the above-cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each air quality violation.

To respond to this Notice of Violation, write to:

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION FOR AIR QUALITY

4500 Clarks River Road

Paducah, Kentucky 42003

Attention: Mr. Ken Frye, Regional Supervisor

Telephone: 270-898-8468

Signatures: *Stan Cook* Title: Environmental Inspector #65 Date: *7-24-2000*

The name of persons to who copy was delivered:

Mr. Danny Lewinski Title: *Environmental Compliance Manager*

How Delivered: Certified Mail # _____
Personal Service

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION FOR AIR QUALITY
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

TO: Mr. W. Don Seaborg
Paducah Site Office
United States Department of Energy.
P.O. Box 1410
Paducah, Kentucky 42001-1410

DATE OF VIOLATIONS: July 13, 2000
COUNTY: McCracken
ID# 21-145-00003
VIOLATIONS LOG #: V00-PAD-024

This is to advise the United States Department of Energy that because of the circumstances noted below, the United States Department of Energy, is violating the provisions of:

(X) KRS 224, () KRS 151, () KRS 223, () KRS 146, ()
224.10-100

The extent of the violations observed is as follows:

Denial of Cabinet personnel entrance to Drum Mountain for the purpose of inspection for the ascertaining of compliance. Entry for the inspection of Drum Mountain removal project was denied for a period of one (1) hour and three (3) minutes.

Required actions for remedial measures include, but are not limited to: USDOE shall provide access pursuant to KRS 224.10-100 and the Federal Facilities Agreement Section XXVIII.

Violations of the above-cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each air quality violation.

To respond to this Notice of Violation, write to:

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION FOR AIR QUALITY
4500 Clarks River Road
Paducah, Kentucky 42003
Attention: Mr. Ken Frya, Regional Supervisor
Telephone: 270-898-8468

Signature: *Stan Lee* Title: Environmental Inspector #65 Date: 7/28/2000

The name of persons to who copy was delivered:

Mr. W. Don Seaborg Title: Site Manager

How Delivered: Certified Mail # 7099 3220 0007 2586 6833

Faxed to Paducah Site Office on Friday, July 28, 2000

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

To: U.S. Department of Energy Date Violation Observed: 7/27/00
P.O. Box 1410 County: McCracken
Paducah, KY 42001 ID# (if applicable): KY8-890-008-982

This is to advise you that, because of the circumstances noted below, you are in violation of the provisions of KRS 224, KRS 151, KRS 223, KRS 146, 401 KAR

The extent of the violation(s) observed is as follows:

1. U.S. DOE has violated Part II.L.5. of the Hazardous Waste Management Permit and 401 KAR 34:180, Section 8, by failing to separate containers of hazardous waste from incompatible materials by a dike, berm, wall or other device.

Required action for remedial measures include, but are not limited to:

1. The United States Department of Energy must immediately comply with 401 KAR 34:180, Section 8, and the Part B Permit Part II.L.5. by separating containers of hazardous waste from other incompatible materials by a dike, berm, wall or other device.

These Remedial measures are effective and must be implemented immediately upon the receipt of this notice. Violations of the above-cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each hazardous waste violation and \$5,000 per day for each solid waste violation.

To respond to this Notice of Violation, write to:

Division of Waste Management
4500 Clarks River Road
Paducah, KY 42003-0823

Attention: B. Parrish Roush, or call (502) 898-8468

Signature: B. Parrish Roush Title: Env. Inspector III Date: 8/8/00

Name of person or persons to whom copy was delivered:

Mr. Don Seaborg Title: Site Manager Date: 8/8/00

delivered: Hand Delivered



Danny

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

PADUCAH REGIONAL OFFICE
4500 CLARKS RIVER RD
PADUCAH KY 42003-0823

September 5, 2000

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001
CERTIFIED MAIL #7099 3220 0007 2586 7113

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053
CERTIFIED MAIL #7099 3220 0007 2586 7106

RE: Failure to Comply with Permit Conditions IV.B
Failure to Comply with Kentucky Hazardous Waste Regulations
Paducah Gaseous Diffusion Plant
KY8-890-008-982

Gentlemen:

The Division of Waste Management has reviewed the May 17, 2000 information provided pursuant to the RCRA Section 3007 Information Request issued by Region IV, EPA on April 4, 2000. The Division has also conducted visual site inspections of the DOE Material Storage Areas (DMSAs). As the DOE acknowledges in the 3007 Submittal, DMSA's include wastes which have not been characterized and managed in accordance with 401 KAR 32:010, Section 2. Clearly, DMSA's include Units that are Solid Waste Management Units and the DOE has failed to notify the Division of these SWMUs.

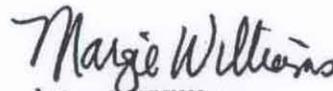
Enclosed is a Notice of Violation issued for failure to comply with Permit Condition IV.B, 401 KAR 32:010, Section 2, 401 KAR 32:030, 401 KAR 38:010, Section 4 and KRS 224.46-520.



Mr. W. Don Seaborg
Mr. Gordon L. Dover
Page 2
September 5, 2000

Should you have questions concerning the findings of inspections of the DMSAs, please contact Parrish Roush at (270) 898-8468. Please contact Tuss Taylor at (502) 564-6716 if you wish to schedule a meeting to discuss a resolution to the violations.

Sincerely,



Margie Williams
Environmental Control Supervisor
Division of Waste Management

MW/MG/PR

Enclosure – Notice of Violation issued 8/29/00

C: Mike Welch, DWM, Frankfort
Bill Burger, DWM, Frankfort
Robert Sleeman, ORO/DOE
DWM File# 1020
DOE Reading File
Larry Lamberth, USEPA Region IV
Jeff Crane, USEPA Region IV

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

To: United States Dept. of Energy Date Violation Observed: 6/12/00-8/9/00
P.O. Box 1410 County: McCracken
Paducah, KY 42001 ID# (if applicable): KY8-890-008-982

This is to advise you that, because of the circumstances noted below, you are in violation of the provisions of the following statute(s) and/or regulation(s):

1. The U.S. DOE generated solid wastes as defined in 401 KAR Chapter 31. The U.S. DOE failed to characterize these wastes in violation of KRS 224.46-520 and 401 KAR 32:030, Section 2. These wastes have subsequently been managed in approximately 150 units referred to as DOE Material Storage Areas (DMSAs).
2. DMSA's include Solid Waste Management Units (SWMUs) subject to Part IV of the Hazardous Waste Management Permit and 401 KAR 34:060. U.S. DOE violated the notification requirements of Part IV.B. of the hazardous Waste Management Permit for newly discovered SWMUs and Areas of Concern (AOCs).
3. Investigation and characterization of DMSA C-400-04 identified hazardous and mixed radioactive hazardous wastes which have been stored greater than 90 days without a permit in violation of 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the Hazardous Waste Management Permit. U.S. DOE failed to characterize these wastes in accordance with 401 KAR 32:010, Section 2, when the contents of C-400-04 were abandoned in the late 1980's. These wastes have subsequently been managed in violation of all applicable provisions of 401 KAR Chapters 30 through 40.

Required action for remedial measures include, but are not limited to:

1. Submit a notification for any newly identified SWMUs or AOCs within fifteen (15) calendar days of the receipt of this Notice. The notification for any newly identified SWMUs or AOCs shall include the information required under condition IV.B.2 of the Hazardous Waste Management Permit.
2. Submit a SWMU Assessment Report (SAR) for any newly identified SWMUs within ninety (90) calendar days of receipt of this notice. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the Hazardous Waste Management Permit. The SARs shall also include a proposal from the DOE regarding any further investigation recommended for any of the SWMUs or AOCs.

DIVISION OF WASTE MANAGEMENT
NOTICE OF VIOLATION CONTINUATION SHEET

Page 2 of 2

Facility Name U.S. Dept. of Energy Identification# KYD-985-072-008

Date of NOV 9/5/00 Date Violation Observed 6/12/00-8/9/00

3. Submit a revised Part A Application to include Room C-400-04 within sixty (60) calendar days of the receipt of this notice. Submit a closure plan to address closure of Room C-400-04, the C-400-04 process equipment and floor drain within ninety (90) calendar days of receipt of this notice.
4. Within 90 days of the receipt of this notice, submit a workplan to fully address the characterization of all wastes managed in DMSAs, SWMUs, and AOCs in accordance with KRS 224.46-520 and 401 KAR 32:010, Section 2. The workplan shall contain schedules for the characterization, proper storage and final disposition of all solid and hazardous wastes managed in DMSA's, SWMUs and AOCs. All solid and hazardous wastes within DMSA's must be properly characterized and managed in accordance with an approved workplan no later than June 1, 2001.
5. Cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately. All hazardous waste at the Paducah Gaseous Diffusion Plant must be managed in accordance with all applicable provisions of Chapters 30-38 of Title 401 of the Kentucky Administrative Regulations.

Violations of the above cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each hazardous waste violation and \$5,000 per day for each solid waste violation.

To respond to this Notice of Violation, write to:

Division of Waste Management
14 Reilly Road
Frankfort, Kentucky 40601

Attention: B. Parrish Roush, or call (270) 898-8468

Signature: B. Parrish Roush Title: Env. Inspector III Date: 9/5/00

Name of person or persons to whom delivered:

Mr. Don Seaborg Title: Site Manager Date: 9/5/00

How Delivered: Certified Mail # 7099 3220 0007 2586 7113

Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 2001

Total Number of NOV for 2001 4

February 28, 2001 -- NOV

The extent of the violations observed is as follows:

1. Failure to submit a Discharge Monitoring Report for Outfall 017-X for November 2000.

July 30, 2001 -- NOV

The extent of the violations observed is as follows:

2. Failure to provide a well abandonment and replacement workplan for C-404 Landfill monitoring well MW-87.

July 31, 2001 -- NOV

The extent of the violations observed is as follows:

3. Investigation and characterization of DMSA C-331-10 identified hazardous waste which has been stored greater than 90 days without a permit.

October 9, 2001 -- NOV

The extent of the violations observed is as follows:

4. Investigation and characterization of DMSAs C-331-15, C-335-05, and C-333-31 identified hazardous waste, which has been stored greater than 90 days without a permit.

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601



February 28, 2001

10 23 FEB 2

Certified No. 7000 0600 0029 0709 2099
Return Receipt Requested

Mr. W. Don Seaborg, Site Manager
US DOE Paducah Gaseous Diffusion Plant
Post Office Box 1410
Paducah, Kentucky 42002

Re: KPDES No. KY0004049
McCracken County, Kentucky
DOW 01019

Dear Mr. Seaborg:

Enclosed please find a Notice of Violation for failure to submit a Discharge Monitoring Report (DMR) for Outfall 017-X, at the referenced facility. This violation places the US DOE Paducah Gaseous Diffusion Plant in significant violation of its discharge permit.

Please provide a written explanation of reasons for the violation and what is being done to maintain compliance at this time. The response must be submitted to this office by April 1, 2001. Failure to comply subjects your facility to penalties as specified in the Clean Water Act. Your cooperation and assistance in this matter is appreciated. If you have any questions, please contact Teresa L. Clements of my staff at (502) 564-3410, extension 174.

Sincerely,

Gary F. Levy,
Environmental Control Manager
Enforcement Branch
Division of Water

GFL/TLC
Enclosure

c: Paducah Regional Office
Beth Walls, U.S. EPA
KPDES Branch



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COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION of WATER

NOTICE OF VIOLATION

TO:
US DOE Paducah Gaseous Diffusion
Post Office Box 1410
Paducah KY 42002
Attn: Mr. W. Don Seaborg

SITE:
Wastewater Treatment Facility

Site ID #: KY0004049
County(ies): McCracken
Notifications/Complaints System #:
NOV Tracking #:

Date(s) of Violation(s): November 2000

This is to advise you are in violation of the provisions of KRS Chapter 224 due to the circumstances cited below:

Statutes/Regulations:
401 KAR 5:065

A description of the violation(s)
Failure to submit a Discharge Monitoring Report for Outfall 017-X for November 2000.

The required remedial measure(s), and date(s) to be completed by, are as follows:
Provide a written explanation of reasons for the violations and what is being done to maintain compliance at the facility by April 1, 2001.

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

A written response to this Notice of Violation shall be sent to the undersigned by April 1, 2001

Division of Water
14 Rolly Road
Frankfort, KY
Telephone #502-564-3410
Teresa L. Clements

Issued By: Teresa L. Clements *Teresa Clements* Date: 2/28/01
Environmental Control Supervisor

Issued By: Gary F. Levy *Gary F. Levy* Date: 2/28/01
Environmental Control Manager

How Delivered: Certified Mail

JAMES E. BICKFORD
 SECRETARY



PAUL E. PATTON
 GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
 DEPARTMENT FOR ENVIRONMENTAL PROTECTION
 FRANKFORT OFFICE PARK
 14 REILLY RD
 FRANKFORT KY 40601

July 30, 2001

CERTIFIED MAIL # 7000 1670 0007 9753 1007
RETURN RECEIPT REQUESTED

Mr. Don Seaborg, Site Manager
 US Department of Energy
 Paducah Site Office
 PO Box 1410
 Paducah, Kentucky 42001

Mr. Gordon L. Dover, Paducah Manager of Projects
 Bechtel Jacobs Company LLC
 761 Veterans Avenue
 Kevil, Kentucky 42053

RE: Failure to Comply with Hazardous Waste Permit Condition II.J.1
 Paducah Gaseous Diffusion Plant
 McCracken County, Kentucky
 KY8-890-008-982

Gentlemen:

On March 26, 2001 the Division of Waste Management (Division) issued a letter to the Department of Energy (DOE) requiring that a well abandonment and replacement workplan be submitted for several compliance monitoring wells within 45 days following DOE's receipt of the letter. This correspondence stated that the Division had determined these wells to be corroded and therefore no longer suitable for use as monitoring wells. One of the corroded wells is monitoring well MW-87, a C-404 Landfill compliance well. Downhole well video of MW-87 provided by DOE plainly indicates that a large hole is present in the well's stainless steel casing at 54 feet, 3 inches.

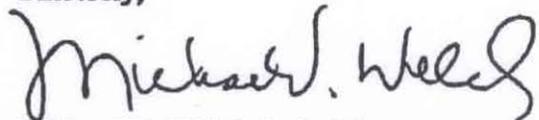
On May 14, 2001 DOE submitted a letter proposing in part to redevelop MW-87 and perform another downhole camera survey of the well. This work was to be conducted in conjunction with similar work to be performed at the C-746 S&T and C-746 U landfills. However, no schedule was provided for any of these activities.



Mr. Don Seaborg,
Mr. Gordon Dover
Page 2
July 30, 2001

DOE's failure to submit a well abandonment and replacement workplan for MW-87 is a violation of Condition II.J.1 of the PGDP Hazardous Waste Management Permit. Enclosed is a Notice of Violation issued for failure to comply with the conditions of the Permit. Please contact Tuss Taylor at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch, P.E., Manager
Hazardous Waste Branch

MW/tm

Attachment

cc: Carl R. Froede, Jr., USEPA Region 4
John Morgan, Bechtel Jacobs
Robert Sleeman, ORO/DOE
Gary Bodenstein, DOE-Paducah
Margie Williams, DWM-Paducah
Gary Brewer, AIP-Paducah
Todd Mullins, FFA-Frankfort
Tony Hatton, FFA-Frankfort
DWM File# 870
DOE Reading File

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

July 31, 2001

CERTIFIED MAIL # 7000 1670 0007 9753 3247
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Unpermitted Storage of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

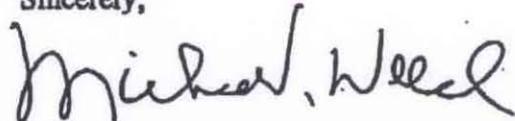
On June 18, 2001, the Division of Waste Management was notified of the DOE's identification of hazardous waste in DMSA C-331-10. Enclosed is a Notice of Violation issued for failure to comply with 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the facility's Hazardous Waste Management Permit.



Mr. W. Don Seaborg
Mr. Gordon L. Dover
Page 2
July 31, 2001

Please contact Mike Guffey at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E, Manager
Hazardous Waste Branch

MW/mg

Enclosure - Notice of Violation

cc: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Robert Sleeman, ORO/DOE
David Tidwell, DOE
Margie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, HWB-Paducah
DWM File# 101
DOE Reading File

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

To: United States Dept. of Energy Date Violation Observed: 6/11/01
P.O. Box 1410 County: McCracken
Paducah, KY 42001 ID# (if applicable): KY8-890-008-982

This is to advise you that, because of the circumstances noted below, you are in violation of the provisions of the following statute(s) and/or regulation(s):

The extent of the violation(s) observed is as follows:

Investigation and characterization of DMSA C-331-10 identified hazardous waste which has been stored greater than 90 days without a permit in violation of 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the Hazardous Waste Management Permit.

Required action for remedial measures include, but are not limited to:

1. Submit an amended SWMU Assessment Report (SAR) for SWMU 244 within ninety (90) calendar days of the receipt of this notice. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit.
2. Submit a revised Part A Application to include DMSA 331-10 (SWMU 244) within thirty (30) calendar days of receipt of this notice.
3. Submit a closure plan to address closure of DMSA 331-10 (SWMU 244) within sixty (60) calendar days of receipt of this notice.
4. Cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately. All hazardous waste at the Paducah Gaseous Diffusion Plant must be managed in accordance with all applicable provisions of Chapters 30-38 of Title 401 of the Kentucky Administrative Regulations.

DIVISION OF WASTE MANAGEMENT
NOTICE OF VIOLATION CONTINUATION SHEET

Facility Name U.S. Dept. of Energy Identification# KYD-985-072-008

Date of NOV 7/31/01 Date Violation Observed 6/11/01

Violations of the above cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each hazardous waste violation and \$5,000 per day for each solid waste violation.

To respond to this Notice of Violation, write to:

Division of Waste Management
14 Reilly Road
Frankfort, KY 40601

Attention: Michael V. Welch, or call (502) 564-6716

Signature: *Michael V. Welch* Title: Manager, KDWM-HWB Date: 8/31/01

Name of person or persons to whom copy was delivered:

Mr. Don Seaborg Title: Site Manager-DOE Date: 8/31/01
Mr. Gordon Dover Title: Paducah Manager of Projects BJC Date: 8/31/01

How Delivered: Certified Mail



COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

October 9, 2001

CERTIFIED MAIL # 7000 1670 0007 9753 1052
RETURN RECEIPT REQUESTED

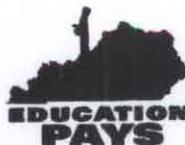
Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Unpermitted Storage of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

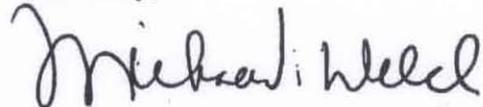
On September 20, 2001, the Division of Waste Management was notified of the DOE's identification of hazardous waste in DMSAs C-335-05, C-331-15 and C-333-31. Enclosed is a Notice of Violation issued for failure to comply with 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the facility's Hazardous Waste Management Permit. Please note that these violations do not address the items removed from equipment in C-331-15 and C-335-04.



Mr. W. Don Seaborg
Mr. Gordon L. Dover
Page 2
October 9, 2001

Please contact Mike Guffey at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E, Manager
Hazardous Waste Branch

MW/mg

Enclosure - Notice of Violation

cc: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Robert Sleeman, ORO/DOE
David Tidwell, DOE
Mergie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, HWB-Paducah
DWM File# 101
DOE Reading File

DIVISION OF WASTE MANAGEMENT
NOTICE OF VIOLATION CONTINUATION SHEETFacility Name U.S. Dept. of Energy Identification# KYD-985-072-008Date of NOV 10/9/01 Date Violation Observed 9/20/01

Violations of the above cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each hazardous waste violation and \$5,000 per day for each solid waste violation.

To respond to this Notice of Violation, write to:

Division of Waste Management
14 Reilly Road
Frankfort, KY 40601

Attention: Michael V. Welch, or call (502) 564-6716

Signature: *Michael Welch* Title: Manager, KDWM-HWB Date: 10/9/01

Name of person or persons to whom copy was delivered:

Mr. Don Seaborg Title: Site Manager-DOE Date: 10/10/01
Mr. Gordon Dover Title: Paducah Manager of Projects BJC Date: 10/10/01

How Delivered: Certified Mail

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
FRANKFORT, KENTUCKY 40601

NOTICE OF VIOLATION

To: United States Dept. of Energy Date Violation Observed: 9/20/01

P.O. Box 1410 County: McCracken

Paducah, KY 42001 ID# (if applicable): KY8-890-008-982

This is to advise you that, because of the circumstances noted below, you are in violation of the provisions of the following statute(s) and/or regulation(s):

The extent of the violation(s) observed is as follows:

Investigation and characterization of DMSAs C-331-15, C-335-05 and C-333-31 identified hazardous waste which has been stored greater than 90 days without a permit in violation of 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the Hazardous Waste Management Permit.

Required action for remedial measures include, but are not limited to:

1. Submit amended SWMU Assessment Reports (SARs) for SWMUs 249, 287 and 301 within ninety (90) calendar days of the receipt of this notice. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit.
2. Submit a revised Part A Application to include DMSAs C-331-15, C-335-05 and C-333-31 within thirty (30) calendar days of receipt of this notice.
3. Submit a closure plan(s) to address closure of DMSAs C-331-15, C-335-05 and C-333-31 within sixty (60) calendar days of receipt of this notice.
4. Cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately. All hazardous waste at the Paducah Gaseous Diffusion Plant must be managed in accordance with all applicable provisions of Chapters 30-38 of Title 401 of the Kentucky Administrative Regulations.

Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 2002

Total Number of NOV for 2002 7

January 18, 2002 -- NOV

The extent of the violations observed is as follows:

1. Failure to characterize these wastes. Investigation, characterization, subsequent reporting and/or other available information regarding SWMUs and identified hazardous waste which have been stored greater than 90 days without a permit.

February 28, 2002 -- NOV

The extent of the violations observed is as follows:

2. Investigation, characterization, subsequent reporting and/or other available information regarding SWMUs. Hazardous waste identified which have been stored greater than 90 days without a permit.

March 11, 2002 -- NOV

The extent of the violations observed is as follows:

3. Unpermitted Storage of Hazardous Waste. Investigation, characterization, subsequent reporting and/or other available information regarding SWMUs. Hazardous waste identified which have been stored greater than 90 days without a permit.

November 12, 2002 -- NOV

The extent of the violations observed is as follows:

4. Failure to comply with KSR 224 and numerous waste management regulations. Failure to make a hazardous waste determination for wastes disposed of in SWMU 209, the C-746-S Solid Waste Landfill and SWMU 210, the C-746-T Solid Waste Landfill. Disposal of hazardous waste without notifying the cabinet and obtaining construction and operation permits from the cabinet.

November 12, 2002 -- NOV

The extent of the violations observed is as follows:

5. Generated wastes as defined in 401 KAR Chapter 31 and failure to characterize these wastes in violation of KRS 224.46-510. These wastes have been managed in the following SWMUs 351, 287, 219, 464, 277, 276, 240, 239, 231, and 250.

November 12, 2002 -- NOV

The extent of the violations observed is as follows:

6. Failure to make a hazardous waste determination for wastes disposed of in SWMU 208, the C-746-U Solid Waste Landfill by failure to determine if the waste is listed as a hazardous waste in 401 KAR 31:040, in violation of KAR 32:010(2)(2). Disposing of hazardous waste without first notifying the Cabinet and obtaining construction and operation permits.

November 12, 2002 -- NOV

The extent of the violations observed is as follows:

7. Recordkeeping. A generator shall keep a copy of each manifest signed in accordance with KAR32:020 in addition to the signed copy returned for the designated facility which received the waste. Both copies shall be retained on record for at least three years from the due date of the report.

JAMES E. BICKFORD
SECRETARY



NO. 277U F. 11

474

PAUL E. PATTO
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601



January 18, 2002

CERTIFIED MAIL # 7099 3220 0008 0368 1969
7099 3220 0008 0368 1976

RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

| | | | | | |
|-------------------|------------------------|---------|---------|------------|---|
| Post-it® Fax Note | 7671 | Date | 1-25-02 | # of pages | 5 |
| To | Dover / Massey / Davis | From | Bartel | | |
| Co./Dept. | K-Blaine / K-Blaine | Co. | | | |
| Phone # | | Phone # | | | |
| Fax # | | Fax # | | | |

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Unpermitted Storage of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

Enclosed, is a Notice of Violation issued for failure to comply with 401 KAR 32:030, Section 2, 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the facility's Hazardous Waste Management Permit.

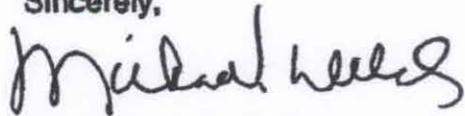
Please note that the Division does not agree with the "newly generated" determination made on the mercury-contaminated oil removed from the Welch pump on December 11, 2001. This wastestream will need to be addressed within the C-331-15 Closure Plan (submitted on December 7, 2001), as will be reflected in our forthcoming comments on the C-331-15 Closure Plan.



Mr. W. Don Seaborg
Mr. Gordon L. Dover
Page 3
January 18, 2002

Please contact Mike Guffey at (502) 584-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E, Manager
Hazardous Waste Branch

MVW/mg

Enclosure - Notice of Violation

cc: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Robert Sleeman, ORO/DOE
David Tidwell, DOE
Margie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, HWB-Paducah
DWM File# 101
DOE Reading File

No. 2570 1. 375

**COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
FRANKFORT, KENTUCKY 40601**

NOTICE OF VIOLATION

To: United States Dept. of Energy

Dates Violation Observed:
3/13/01 thru 3/16/01 and
8/10/01 thru 1/9/02

P.O. Box 1410 County: McCracken

Paducah, KY 42001 ID# (if applicable): KY8-890-008-982

This is to advise you that, because of the circumstances noted below, you are in violation of the provisions of the following statute(s) and/or regulation(s):

The extent of the violation(s) observed is as follows:

1. The U.S. DOE generated wastes as defined in 401 KAR Chapter 31. The U.S. DOE failed to characterize these wastes in violation of KRS 224.46-520 and 401 KAR 32:010, Section 2. These wastes have subsequently been managed in Solid Waste Management Units 206 (C753-A), 464(C-746-A), and 159(C-746-H3 pad).
2. Investigation, characterization, subsequent reporting and/or other available information regarding Solid Waste Management Units (SWMUs) #'s 206 (C753-A), 159 (C-746-H3 pad), 214 (DMSA OS-3), 216 (DMSA OS-5), 220 (DMSA OS-9), 222 (DMSA OS-11), 223 (DMSA OS-12), 249 (DMSA 331-15), 287 (DMSA C333-31), 351 (DMSA C-400-05), 354 (DMSA C-409-01), 355(DMSA C-409-02) and 464 (C-746-A) have identified hazardous waste(s) which have been stored greater than 90 days without a permit in violation of 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the Hazardous Waste Management Permit.

Required action for remedial measures include, but are not limited to:

1. DOE shall characterize all waste discovered in SWMU Nos. 206 (C753-A), 464 (C-746-A), and 159 (C-746-H3 pad), in accordance with KRS 224.46-520 and 401 KAR 32:010, Section 2 by March 1, 2002. All solid and/or hazardous wastes discovered in SWMU Nos. 206, 464(C-746-A), and 159 (C-746-H3 pad) shall be managed in accordance with the requirements of KRS Chapter 224 and 401 KAR Chapters 30-49.
2. DOE shall submit amended SWMU Assessment Reports (SARs) for SWMUs #, 206 (C753-A), 159 (C-746-H3 pad), 214 (DMSA OS-3), 216 (DMSA OS-5), 220 (DMSA OS-9), 222 (DMSA OS-11), 223 (DMSA OS-12), 249 (DMSA 331-15), 287 (DMSA C333-31), 351 (DMSA C-400-05), 354 (DMSA C-409-01), 355(DMSA C-409-02) and 464 (C-746-A) within one hundred and eighty (180) calendar days of the receipt of this notice. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit.

**DIVISION OF WASTE MANAGEMENT
NOTICE OF VIOLATION CONTINUATION SHEET**

Facility Name U.S. Dept. of Energy

Identification# KYD-985-072-008

Date of NOV 1/18/02

Dates Violation Observed

3/13/01 thru 3/16/01 and

8/10/01 thru 1/9/02

3. DOE shall submit a revised Part A Application to include SWMUs # 206 (C753-A), 159 (C-746-H3 pad), 214 (DMSA OS-3), 216 (DMSA OS-5), 220 (DMSA OS-9), 222 (DMSA OS-11), 223 (DMSA OS-12), 351 (DMSA C-400-05), 354 (DMSA C-409-01), 355 (DMSA C-409-02) and 464 (C-746-A) and to update the wastestreams for SWMUs 249 (DMSA 331-15) and 287 (DMSA C333-31), within thirty (30) calendar days of receipt of this notice.
4. DOE shall submit a closure plan(s) to address closure of SWMUS # , 206 (C753-A), 159 (C-746-H3 pad), 214 (DMSA OS-3), 216 (DMSA OS-5), 220 (DMSA OS-9), 222 (DMSA OS-11), 223 (DMSA OS-12), 351 (DMSA C-400-05), 354 (DMSA C-409-01), 355 (DMSA C-409-02) and 464 (C-746-A) within one-hundred and eighty (180) calendar days of receipt of this notice.
5. DOE shall revise the closure plans for SWMUs # 249 (DMSA 331-15) and 287 (DMSA C333-31) to address the wastestreams discovered on 11/08/01, 11/09/01, 11/13/01 and 12/12/01 within one-hundred and eighty (180) calendar days of receipt of this notice.
6. DOE shall cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately. All hazardous waste at the Paducah Gaseous Diffusion Plant must be managed in accordance with all applicable provisions of Chapters 30-38 of Title 401 of the Kentucky Administrative Regulations.

Violations of the above cited Kentucky Revised Statutes are subject to the maximum penalties of \$25,000 per day for each hazardous waste violation and \$5,000 per day for each solid waste violation.

To respond to this Notice of Violation, write to:

Division of Waste Management
14 Reilly Road
Frankfort, KY 40601

Attention: Michael V. Welch, or call (502) 564-6716

Signature: Michael Welch Title: Manager, KDWM-HWB Date: 1/18/02

**DIVISION OF WASTE MANAGEMENT
NOTICE OF VIOLATION CONTINUATION SHEET**

Facility Name U.S. Dept. of Energy

Identification# KYD-985-072-008

Date of NOV 1/18/02

Dates Violation Observed
3/13/01 thru 3/16/01 and
8/10/01 thru 1/9/02

Name of person or persons to whom copy was delivered:

Mr. Don Seaborg

Title: Site Manager-DOE

Date: 1/18/02

Mr. Gordon Dover

Title: Paducah Manager of Projects BJC

Date: 1/18/02

How Delivered: Certified Mail , # 7099 3220 0008 0368 1969 and 7099 3220 0008 0368 1976

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

9 59

February 28, 2002

CERTIFIED MAIL # 7099 3220 0007 9753 1083
7099 3220 0007 9753 1090
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Unpermitted Storage of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

Enclosed, is a Notice of Violation issued for failure to comply with 401 KAR 32:010, Section 2; 401 KAR 32:030, Section 5; 401 KAR 38:010, Section 4; KRS 224.46-510, KRS 224.46-520 and Part II of the facility's Hazardous Waste Management Permit.

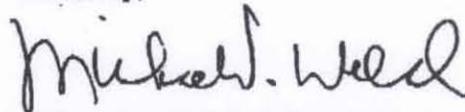


NO. 3032 P. 3/5

Mr. W. Don Seaborg
Mr. Gordon L. Dover
Page 2
February 28, 2002

Please contact Mike Guffey at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E., Manager
Hazardous Waste Branch

MVW/mg

Enclosure – Notice of Violation

cc: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Robert Sleeman, ORO/DOE
David Tidwell, DOE
Randy McDowell, Office of Legal Services
Virginia Baker, Office of Legal Services
Margie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, HWB-Paducah
DWM File# 101
DOE Reading File

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET

February 28, 2002

NOTICE OF VIOLATION

TO:

United States Department of Energy
P.O. Box 1410
W. Paducah KY 42001
Attn: W. Don Seaborg Site Manager - Paducah DOE, Gordon Dover Paducah Manager of Projects - BJC

SITE:

Paducah Gaseous Diffusion Plant
P.O. Box 1410
W. Paducah KY 42001

Site ID #: KY8-890-008-982

Date(s) Violation(s) Observed: Jan. 17, Jan. 31, Feb. 11, Feb. 12 Feb. 18 & Feb. 19 2002.

County: McCracken

Notifications/Complaints System #:

NOV Tracking #:

OLS Case #:

This is to advise that you are in violation of the provisions cited below:

KRS 224.46-510

KRS 224.46-520

401 KAR 32:010, Section 2

401KAR 32:030, Section 5

401KAR 38:010, Section 4

Part II of the PGDP Hazardous waste Permit

A description of the violation:

1. The U.S. DOE generated wastes as defined in 401 KAR Chapter 31. The U.S. DOE failed to characterize these wastes in violation of KRS 224.46-520 and 401 KAR 32:010, Section 2. These wastes have subsequently been managed in Solid Waste Management Units 248 (DMSA C-331-14), 287(DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02).

2. Investigation, characterization, subsequent reporting and/or other available information regarding Solid Waste Management Units (SWMUs) #'s 248 (DMSA C-331-14), 287(DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02) have identified hazardous waste(s) which have been stored greater than 90 days without a permit in violation of 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-510 and Part II of the Hazardous Waste Management Permit.

The required remedial measure(s), and date(s) to be completed by; are as follows:

1. DOE shall submit amended SWMU Assessment Reports (SARs) for SWMUS 248 (DMSA C-331-14), 287(DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02) within one hundred and eighty (180) calendar days of the receipt of this notice. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit.
2. DOE shall submit a revised Part A Application to include SWMU # 248 (DMSA C-331-14) and to update the wastestreams for SWMUs 287(DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02) within thirty (30) calendar days of receipt of this notice.
3. DOE shall submit a closure plan(s) to address closure of SWMU # 248 (DMSA C-331-14) within one-hundred and eighty (180) calendar days of receipt of this notice.
4. DOE shall revise the closure plans for SWMUs 287(DMSA C-333-31), 351 (DMSA C-400-05) and 355 (DMSA C-409-02) to address the additional wastestreams, discovered on 1/31/02, 2/11/02, 2/12/02, 2/18/02 and 2/19/02, within one hundred and eighty (180) calendar days of receipt of this notice.

5. DOE shall cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately. All hazardous waste at the Paducah Gaseous Diffusion Plant must be managed in accordance with all applicable provisions of Chapters 30-38 of Title 401 of the Kentucky Administrative Regulations.

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division of Waste Management
14 Reilly Road
Frankfort, KY 40601
(502) 564-6716
ATTENTION: Michael V. Welch

Issued By:

Michael V. Welch
Manager, Hazardous Waste Branch

Date: 2/28/2002

How Delivered: Certified Mail / Certified# 7000 1670 0007 9753 1083
Certified# 7000 1670 0007 9753 1090

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MAR 14 2002

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

March 11, 2002

CERTIFIED MAIL # 7099 1670 0007 9753 0963
7099 1670 0007 9753 0970
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

Mr. Gordon L. Dover, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Unpermitted Storage of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Gentlemen:

Enclosed, is a Notice of Violation issued for failure to comply with 401 KAR 32:010, Section 2; 401 KAR 32:030, Section 5; 401 KAR 38:010, Section 4; KRS 224.46-510, KRS 224.46-520 and Part II of the facility's Hazardous Waste Management Permit.

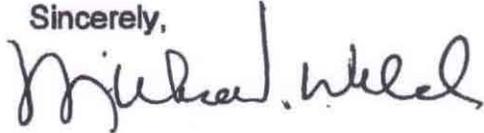


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Mr. W. Don Seaborg
Mr. Gordon L. Dover
Page 2
March 11, 2002

Please contact Mike Guffey at (502) 564-6716 if you have questions concerning this issue.

Sincerely,



Michael V. Welch P.E, Manager
Hazardous Waste Branch

MVW/mg

Enclosure – Notice of Violation

cc: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Robert Sleeman, ORO/DOE
David Tidwell, DOE
Randy McDowell, OLS
Virginia Baker, OLS
Margie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, HWB-Paducah
DWM File# 101
DOE Reading File

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
March 11, 2002

NOTICE OF VIOLATION

TO:

United States Department of Energy
P.O. Box 1410

W. Paducah KY 42001

Attn: W. Don Seaborg Site Manager – Paducah DOE, Gordon Dover Paducah Manager of Projects - BJC

Site ID #: KY8-890-008-982

SITE:

Paducah Gaseous Diffusion Plant
P.O. Box 1410

W. Paducah KY 42001

Date(s) Violation(s) Observed: September 20, 2001
and March 5, 2002.

County: McCracken

Notifications/Complaints System #:

NOV Tracking #:

OLS Case #:

This is to advise that you are in violation of the provisions cited below:

KRS 224.46-510

KRS 224.46-520

401 KAR 32:010, Section 2

401KAR 32:030, Section 5

401KAR 38:010, Section 4

Part II of the PGDP Hazardous waste Permit

A description of the violation:

1. The U.S. DOE generated wastes as defined in 401 KAR Chapter 31. The U.S. DOE failed to characterize these wastes in violation of KRS 224.46-510 and 401 KAR 32:010, Section 2. These wastes have subsequently been managed in Solid Waste Management Units 287(DMSA C-333-31) and 355 (DMSA C-409-02).
2. Investigation, characterization, subsequent reporting and/or other available information regarding Solid Waste Management Units (SWMUs) #'s 287 (DMSA C-333-31) and 355 (DMSA C-409-02) have identified hazardous waste(s) which have been stored greater than 90 days without a permit in violation of 401 KAR 32:030, Section 5, 401 KAR 38:010, Section 4, KRS 224.46-520 and Part II of the Hazardous Waste Management Permit.

The required remedial measure(s), and date(s) to be completed by; are as follows:

1. DOE shall submit amended SWMU Assessment Reports (SARs) for SWMUS 287 (DMSA C-333-31) and 355 (DMSA C-409-02) within one hundred and eighty (180) calendar days of the receipt of this notice. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit.
2. DOE shall submit a revised Part A Application to update the wastestreams for SWMUs 287 (DMSA C-333-31) and 355 (DMSA C-409-02) within thirty (30) calendar days of receipt of this notice.
3. DOE shall revise the closure plans for SWMUs 287(DMSA C-333-31) and 355 (DMSA C-409-02) to address the additional wastestreams discovered on 9/20/01 and 3/5/02 within one hundred and eighty (180) calendar days of receipt of this notice.
4. DOE shall cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately. All hazardous waste at the Paducah Gaseous Diffusion Plant must be managed in accordance with all applicable provisions of Chapters 30-38 of Title 401 of the Kentucky Administrative Regulations.

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DEP 4025

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HENRY C. LIST
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY RD
FRANKFORT KY 40601-1190

November 12, 2002

CERTIFIED MAIL #7000 1670 0007 9753 1199
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

RE: Unpermitted Storage and Disposal of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Dear Mr. Seaborg:

Enclosed are Notices of Violation (NOVs) issued for failure to comply with KRS 224 and numerous waste management regulations promulgated pursuant to those statutes. Please contact me at (502) 564-6716 if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert H. Daniell".

Robert H. Daniell
Director

Enclosures - Notices of Violation (4)

c: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Randy McDowell, Office of Legal Services
Ron Gruzsky, Solid Waste Branch
Margie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, Hazardous Waste Branch-Paducah
DOE Reading File



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COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

NOTICE OF VIOLATION

TO:
US DEPT. OF ENERGY
PO BOX 1410
5600 HOBBS ROAD
PADUCAH KY 420021410
Attn: MR. W. DON SEABORG, SITE MANAGER

SITE:
US DOE PADUCAH GAS DIFFUSION PLT
5600 HOBBS ROAD
PADUCAH KY 42001

Site ID #: KY8890008982
County: Mccracken
Notifications/Complaints System #:
NOV Tracking #: 6916

Date(s) Violation(s) Observed: 07/09/2002
OIG Case #:
Enforcement Case #: DWM # 02143

This is to advise that you are in violation of the provisions cited below:

Statute/Regulation(No. 1): KRS 224.46-510(2) 401 KAR 32:010 2(2)

A description of the violation:

Failure to make a hazardous waste determination for wastes disposed of in SWMU 209, the C-746-S Solid Waste Landfill and SWMU 210, the C-746-T Solid Waste Landfill, by failure to determine if the waste is listed as a hazardous waste in 401 KAR 31:040, in violation of KRS 224.46-510(2) and 401 KAR 32:010(2)(2).

The required remedial measure(s), and date(s) to be completed by; are as follows:

US DOE shall submit amended SWMU Assessment Reports (SARs) for SWMU 209, the C-746-S Solid Waste Landfill and SWMU 210, the C-746-T Solid Waste Landfill. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit. To be completed by: 12/20/2002

Statute/Regulation(No. 2): KRS 224.46-520(1) 401 KAR 38:010 4

A description of the violation:

Disposal of hazardous waste in SWMU 209, the C-746-S Solid Waste Landfill and SWMU 210, the C-746-T Solid Waste Landfill, in violation of KRS 224.46-520(1) and 401 KAR 38:010(4), by disposal of hazardous waste without first notifying the cabinet and obtaining construction and operation permits from the Cabinet.

The required remedial measure(s), and date(s) to be completed by; are as follows:

US DOE shall submit the following information to the Cabinet:

- (a) A map of the PGDP site delineating all areas (e.g., ditches, sumps, etc.) where US DOE has concluded that either listed or characteristic hazardous wastes have been discharged.
- (b) An inventory of any and all wastes/media that have been removed from those areas in which US DOE has concluded that hazardous wastes have been discharged. This list shall include types and quantities of wastes/media removed, date of removed, method and location of storage and/or disposal.
- (c) A listing of all drums and/or other storage receptacles, including but not limited to, low level or TSCA waste containers, currently stored on site, whereby US DOE considers the original waste determination to be suspect. This listing shall include all available information regarding the point of generation, date of generation and current storage locations of the waste.
- (d) An inventory of all previous waste shipments off site whereby US DOE considers the original waste determination to be suspect. This list shall include a listing of the types and quantities of wastes disposed, the point of generation, date of generation, method of shipment, shipping manifests and all receipts of disposal.
- (e) An inventory of all previous waste streams disposed of in any on site landfill(s), which US DOE considers the original waste determination to be suspect. This list shall include the point of generation for these wastes, date of generation, disposal location and date of disposal.

(f) Provide a detailed overview of the uses of TCE and TCA throughout the PGDP and all documentation associated with the management and disposal practices of TCE and TCA.

To be completed by: 12/20/2002

Statute/Regulation(No. 3): KRS 224 401 KAR 47:040 3(3) [1984]

A description of the violation:

Disposal of hazardous waste in a Solid Waste Landfill, in violation of KRS 224 and 401 47:040(3)(3), which states that no liquids or hazardous wastes shall be discharged to or placed in a landfill without obtaining a permit modification or a written variance from the Cabinet.

The required remedial measure(s), and date(s) to be completed by; are as follows:

US DOE shall submit to the Cabinet an Investigation and Corrective Action Work Plan for SWMU 9, the C-746 S Solid Waste Landfill and SWMU 10, the C-746-T Solid Waste Landfill. To be completed by: 01/06/2003

Statute/Regulation(No. 4): KRS 224 401 KAR 48:090 8

A description of the violation:

Disposal of hazardous waste in a Solid Waste Landfill, in violation of KRS 224 and 401 KAR 48:090(8), which states that the owner or operator of a contained landfill shall only dispose of wastes that (a) are not hazardous wastes regulated pursuant to 401 KAR Chapters 30 through 40, except for limited quantity hazardous wastes and exempt spill residues.

The required remedial measure(s), and date(s) to be completed by; are as follows:

See remedial measure for violation no. 3 (i.e., Investigation and Corrective Action Work Plan). To be completed by: 01/06/2003

Statute/Regulation(No. 5): KRS 224 401 KAR 47:040(3)1 [1984]&47:120.1

A description of the violation:

Failure to comply with the conditions of the Solid Waste Disposal Permit No. 00073.15, including the inert landfill plans approved in February 1985 for the C-746-T Solid Waste Landfill, in violation of KRS 224, 401 KAR 47:040(3)(1) [1984] and 401KAR 47:120(1)

The required remedial measure(s), and date(s) to be completed by; are as follows:

See remedial measure for violation no. 3 (i.e., Investigation and Corrective Action Work Plan). To be completed by: 01/06/2003

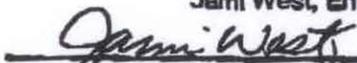
Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division Of Waste Management
Central Office
14 Reilly Road
Frankfort, Ky 40601
502-564-6716 EXT. 285

Jami West, Environmental Enforcement Specialist III

Issued By:


Jami West

Date: 11/13/2002

Issued By:

Environmental Enforcement Specialist III

Date: 11/13/2002

+

+

James M. Ganey
~~James M. Ganey~~ Environmental Engineering Assistant III

How Delivered:

Certified #

cc: HW, ENF, OLS, File, RO

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DEP 4025

+

HENRY C. LIST
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY RD
FRANKFORT KY 40601-1190

November 12, 2002

CERTIFIED MAIL #7000 1670 0007 9753 1199
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

RE: Unpermitted Storage and Disposal of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Dear Mr. Seaborg:

Enclosed are Notices of Violation (NOVs) issued for failure to comply with KRS 224 and numerous waste management regulations promulgated pursuant to those statutes. Please contact me at (502) 564-6716 if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert H. Daniell".

Robert H. Daniell
Director

Enclosures -- Notices of Violation (4)

c: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Randy McDowell, Office of Legal Services
Ron Gruzesky, Solid Waste Branch
Margie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, Hazardous Waste Branch-Paducah
DOE Reading File



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COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

NOTICE OF VIOLATION

TO:

US DEPT. OF ENERGY
PO BOX 1410
5600 HOBBS ROAD
PADUCAH KY 420021410
Attn: MR. W. DON SEABORG, SITE MANAGER

SITE:

US DOE PADUCAH GAS DIFFUSION PLT
5600 HOBBS ROAD
PADUCAH KY 42001

Site ID #: KY8890008982
County: Mccracken
Notifications/Complaints System #:
NOV Tracking #: 6584

Date(s) Violation(s) Observed: 03/12/2002

OIG Case #:
Enforcement Case #: 02143

This is to advise that you are in violation of the provisions cited below:

Statute/Regulation(No. 1): KRS 224.46-510(2) 401 KAR 32:010 2

A description of the violation:

US DOE generated wastes as defined in 401 KAR Chapter 31 and failed to characterize these wastes in violation of KRS 224.46-510(2) and 401 KAR 32:010(2). These wastes have been managed in the following Solid Waste Management Units (SWMUs):

SWMU 351 / DMSA C-400-05;
SWMU 287 / DMSA C-333-31;
SWMU 219 / DMSA OS-8;
SWMU 464 / C-746-A (West End Smelter);
SWMU 277 / DMSA C-333-21;
SWMU 276 / DMSA C-333-20;
SWMU 240 / DMSA C-331-06;
SWMU 239 / DMSA C-331-05;
SWMU 231 / DMSA C-310-02; and
SWMU 250 / DMSA C-331-16.

The required remedial measure(s), and date(s) to be completed by; are as follows:

[1] US DOE shall submit amended SWMU Assessment Reports (SARs) for the following SWMUs. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit.

SWMU 351 / DMSA C-400-05;
SWMU 287 / DMSA C-333-31;
SWMU 219 / DMSA OS-8;
SWMU 464 / C-746-A (West End Smelter);
SWMU 277 / DMSA C-333-21;
SWMU 276 / DMSA C-333-20;
SWMU 240 / DMSA C-331-06;
SWMU 239 / DMSA C-331-05;
SWMU 231 / DMSA C-310-02; and
SWMU 250 / DMSA C-331-16. To be completed by: 05/09/2003

Statute/Regulation(No. 2): KRS 224.46-510 401 KAR 32:030 5

A description of the violation:

On March 12, April 24 and 29, May 29, June 17, July 26, August 6, 8, 12, 14, 20, 21 and 22, September 25, October 16, 17, 22 and 29, 2002 the US DOE submitted notifications to the Cabinet documenting that US

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DEP 4025

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DOE stored hazardous waste(s) for greater than ninety (90) days, in violation of KRS 224.46-510 and 401 KAR 32:030(5), in the following Solid Waste Management Units (SWMUs):

- SWMU 351 / DMSA C-400-05;
- SWMU 287 / DMSA C-333-31;
- SWMU 219 / DMSA OS-8;
- SWMU 464 / C-746-A (West End Smelter);
- SWMU 277 / DMSA C-333-21;
- SWMU 276 / DMSA C-333-20;
- SWMU 240 / DMSA C-331-06;
- SWMU 239 / DMSA C-331-05;
- SWMU 231 / DMSA C-310-02; and
- SWMU 250 / DMSA C-331-16.

The required remedial measure(s), and date(s) to be completed by; are as follows:

[2] US DOE shall submit to the Cabinet a revised Part A Application to include the following SWMUs as hazardous waste management units.

- SWMU 277 / DMSA C-333-21;
- SWMU 276 / DMSA C-333-20;
- SWMU 240 / DMSA C-331-06;
- SWMU 239 / DMSA C-331-05;
- SWMU 231 / DMSA C-310-02;
- SWMU 219 / DMSA OS08; and
- SWMU 250 / DMSA C-331-16. To be completed by: 02/07/2003

[3] US DOE shall submit to the Cabinet a revised Part A application to update the wastestreams for the following SWMUs:

- SWMU 287 / DMSA C-333-31;
- SWMU 351 / DMSA C-400-05; and
- SWMU 464 / C-746-A (West End Smelter). To be completed by: 02/07/2003

[4] US DOE shall submit to the Cabinet closure plans to address closure of the following SWMUs:

- SWMU 277 / DMSA C-333-21;
- SWMU 276 / DMSA C-333-20;
- SWMU 240 / DMSA C-331-06;
- SWMU 239 / DMSA C-331-05;
- SWMU 231 / DMSA C-310-02;
- SWMU 219 / DMSA OS08; and
- SWMU 250 / DMSA C-331-16. To be completed by: 05/09/2003

[5] US DOE shall submit revised closure plans for the following SWMUs to address the additional wastestreams discovered on March 12, July 26, August 8 and 22, October 17, 22, and 29.

- SWMU 287 / DMSA C-333-31;
- SWMU 351 / DMSA C-400-05; and
- SWMU 464 / C-746-A (West End Smelter). To be completed by: 05/09/2003

[6] US DOE shall cease the unpermitted storage of hazardous waste at all locations owned or operated by the US DOE at the Paducah Gaseous Diffusion Plant (PGDP) immediately. To be completed by: 11/07/2002

Statute/Regulation(No. 3): KRS 224.46-520(1) 401 KAR 38:010 4

A description of the violation:

On March 12, April 24 and 29, May 29, June 17, July 26, August 6, 8, 12, 14, 20, 21 and 22, September 25, October 16, 17, 22 and 29 2002 the US DOE submitted notifications to the Cabinet documenting that US DOE stored hazardous waste(s) for greater than ninety (90) days in the Solid Waste Management Units (SWMUs) listed below. Therefore US DOE is in violation of KRS 224.46-520(1) and 401 KAR 38:010(4), which states that no person shall engage in the storage, treatment, recycling, or disposal of hazardous waste without first notifying the Cabinet and obtaining construction and operation permits from the Cabinet.

- SWMU 351 / DMSA C-400-05;
- SWMU 287 / DMSA C-333-31;

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SWMU 219 / DMSA OS-8;
SWMU 464 / C-746-A (West End Smelter);
SWMU 277 / DMSA C-333-21;
SWMU 276 / DMSA C-333-20;
SWMU 240 / DMSA C-331-06;
SWMU 239 / DMSA C-331-05;
SWMU 231 / DMSA C-310-02; and
SWMU 250 / DMSA C-331-16.

The required remedial measure(s), and date(s) to be completed by; are as follows:

[7] US DOE shall submit to the Cabinet a revised Part A Application to include the following SWMUs as hazardous waste management units.

SWMU 277 / DMSA C-333-21;
SWMU 276 / DMSA C-333-20;
SWMU 240 / DMSA C-331-06;
SWMU 239 / DMSA C-331-05;
SWMU 231 / DMSA C-310-02;
SWMU 219 / DMSA OS08; and
SWMU 250 / DMSA C-331-16. To be completed by: 02/07/2003

[8] US DOE shall submit to the Cabinet a revised Part A application to update the wastestreams for the following SWMUs:

SWMU 287 / DMSA C-333-31;
SWMU 351 / DMSA C-400-05; and
SWMU 464 / C-746-A (West End Smelter). To be completed by: 02/07/2003

[9] US DOE shall submit to the Cabinet closure plans to address closure of the following SWMUs:

SWMU 277 / DMSA C-333-21;
SWMU 276 / DMSA C-333-20;
SWMU 240 / DMSA C-331-06;
SWMU 239 / DMSA C-331-05;
SWMU 231 / DMSA C-310-02;
SWMU 219 / DMSA OS08; and
SWMU 250 / DMSA C-331-16. To be completed by: 05/09/2003

[10] US DOE shall submit revised closure plans for the following SWMUs to address the additional wastestreams discovered on March 12, July 26, August 8 and 22, October 17, 22 and 29.

SWMU 287 / DMSA C-333-31;
SWMU 351 / DMSA C-400-05; and
SWMU 464 / C-746-A (West End Smelter). To be completed by: 05/09/2003

[11] US DOE shall cease the unpermitted storage of hazardous waste at all locations owned or operated by the US DOE at the Paducah Gaseous Diffusion Plant (PGDP) immediately. To be completed by: 11/07/2002

Statute/Regulation(No. 4): KRS 224 401 KAR 32

A description of the violation:

Failure to meet the hazardous waste generator requirements found in 401 KAR Chapter 32.

The required remedial measure(s), and date(s) to be completed by; are as follows:

[12] All hazardous waste at the PGDP shall be managed in accordance with all applicable provisions of Chapters 32 of Title 401 of the Kentucky Administrative Regulations. To be completed by: 11/07/2002

Statute/Regulation(No. 5): KRS 224 401 KAR 34

A description of the violation:

Failure to meet requirements for treatment, storage, and disposal facilities found in 401 KAR Chapter 34.

The required remedial measure(s), and date(s) to be completed by; are as follows:

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DEP 4025

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[13] All hazardous waste at the PGDP shall be managed in accordance with all applicable provisions of Chapter 34 of Title 401 of the Kentucky Administrative Regulations. To be completed by: 11/07/2002

Statute/Regulation(No. 6): KRS 224 401 KAR 38:030 1(1)

A description of the violation:

Failure to comply with Part II.A.2 of the Hazardous Waste Permit in violation of KRS 224 and 401 KAR 38:030(1)(1), which states that the permittee must comply with all conditions of this permit.

The required remedial measure(s), and date(s) to be completed by; are as follows:

US DOE shall comply with all applicable provisions of the Hazardous Waste Management Permit immediately. To be completed by: 11/07/2002

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division Of Waste Management
Central Office
14 Reilly Road
Frankfort, Ky 40601
502-564-6716 EXT. 285

Jami West, Environmental Enforcement Specialist III

Issued By:

Jami West

Date: 11/06/2002

Jami West Environmental Enforcement Specialist III

Issued By:

James M. Guffey

Date: 11/06/2002

James M. Guffey Environmental Engineering Assistant III

How Delivered:

Certified #

cc: HW, ENF, OLS, File, RO

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HENRY C. LIST
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY RD
FRANKFORT KY 40601-1190

November 12, 2002

CERTIFIED MAIL #7000 1670 0007 9753 1199
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

RE: Unpermitted Storage and Disposal of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Dear Mr. Seaborg:

Enclosed are Notices of Violation (NOVs) issued for failure to comply with KRS 224 and numerous waste management regulations promulgated pursuant to those statutes. Please contact me at (502) 564-6716 if you have questions.

Sincerely,

Robert H. Daniell
Director

Enclosures - Notices of Violation (4)

c: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Randy McDowell, Office of Legal Services
Ron Gruzsky, Solid Waste Branch
Mergie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, Hazardous Waste Branch-Paducah
DOB Reading File



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COMMONWEALTH OF KENTUCKY.
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

NOTICE OF VIOLATION

TO:

US DEPT. OF ENERGY
PO BOX 1410
5600 HOBBS ROAD
PADUCAH KY 420021410
Attn: MR. W. DON SEABORG, SITE MANAGER

SITE:

US DOE PADUCAH GAS DIFFUSION PLT
5600 HOBBS ROAD

PADUCAH KY 42001

Site ID #: KY8890008982

County: Mcracken

Notifications/Complaints System #:

NOV Tracking #: 6917

Date(s) Violation(s) Observed: 05/03/2002

OIG Case #:

Enforcement Case #: DWM # 02143

This is to advise that you are in violation of the provisions cited below:

Statute/Regulation(No. 1): KRS 224.46-510(2) 401 KAR 32:010 2(2)

A description of the violation:

Failure to make a hazardous waste determination for wastes disposed of in SWMU 208, the C-746-U Solid Waste Landfill, by failure to determine if the waste is listed as a hazardous waste in 401 KAR 31:040, in violation of KRS 224.46-510(2) and 401 KAR 32:010(2)(2).

The required remedial measure(s), and date(s) to be completed by, are as follows:

US DOE shall complete hazardous waste determinations in accordance with 401 KAR 32:010(2)(2), in order to prevent disposal of hazardous waste in the C-746-U Solid Waste Landfill. To be completed by: 11/13/2002

Statute/Regulation(No. 2): KRS 224.46-520(1) 401 KAR 38:010 4

A description of the violation:

Disposal of hazardous waste in SWMU 208, the C-746-U Solid Waste Landfill, in violation of KRS 224.46-520(1) and 401 KAR 38:010(4), by disposal of hazardous waste without first notifying the Cabinet and obtaining construction and operation permits from the Cabinet.

The required remedial measure(s), and date(s) to be completed by, are as follows:

US DOE shall cease all unpermitted disposal of hazardous waste in the C-746-U Solid Waste Landfill immediately. To be completed by: 11/13/2002

US DOE shall submit the following information to the Cabinet:

(a) A map of the PGDP site delineating all areas (e.g., ditches, sumps, etc.) where US DOE has concluded that either listed or characteristic hazardous wastes have been discharged.

(b) An inventory of any and all wastes/media that have been removed from those areas in which US DOE has concluded that hazardous wastes have been discharged. This list shall include types and quantities of wastes/media removed, date of removal, method and location of storage and/or disposal.

(c) A listing of all drums and/or other storage receptacles, including but not limited to, low level or TSCA waste containers, currently stored on site, whereby US DOE considers the original waste determination to be suspect. This listing shall include all available information regarding the point of generation, date of generation and current storage locations of the waste.

(d) An inventory of all previous waste shipments off site whereby US DOE considers the original waste determination to be suspect. This list shall include a listing of the types and quantities of wastes disposed, the point of generation, date of generation, method of shipment, shipping manifests and all receipts of disposal.

(e) An inventory of all previous waste streams disposed of in any on site landfill(s), which US DOE considers the original waste determination to be suspect. This list shall include the point of generation for these wastes, date of generation, disposal location and date of disposal.

(f) Provide a detailed overview of the uses of TCE and TCA throughout the PGDP and all documentation associated with the management and disposal practices of TCE and TCA.

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To be completed by: 12/20/2002

US DOE shall submit an amended SWMU Assessment Report (SAR) for SWMU 208, the C-746-U Solid Waste Landfill. At a minimum, the SAR shall provide the information required under Condition IV.B.3 of the facility Hazardous Waste Management Permit. To be completed by: 12/20/2002

Statute/Regulation(No. 3): KRS 224 401 KAR 48:090 2

A description of the violation:

Failure to effectively implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste as defined in 401 KAR Chapter 31 by failure to properly identify listed hazardous wastes in violation of 401 KAR 48:090 Section 2.

The required remedial measure(s), and date(s) to be completed by; are as follows:

US DOE shall submit to the Cabinet a revised Waste Inspection Program that accurately describes the wastestreams being disposed of in the C-746-U Solid Waste Landfill, and meets the requirements of 401 KAR 48:090(2). To be completed by: 12/20/2002

Statute/Regulation(No. 4): KRS 224 401 KAR 47:120 1

A description of the violation:

Failure to comply with all conditions of the Solid Waste Disposal Facility Permit No. 073.00045, in violation of KRS 224 and 401 KAR 47:120(1), by disposal of hazardous waste in the C-746-U Solid Waste Landfill.

The required remedial measure(s), and date(s) to be completed by; are as follows:

US DOE shall comply with all applicable conditions of the Solid Waste Disposal Facility Permit No. 073.00045 immediately. To be completed by: 11/13/2002

US DOE shall submit a plan to address the disposal of hazardous wastes in SWMU 208, the C-746-U Solid Waste Landfill. The plan shall describe the course of action for removal of hazardous waste containers and all releases associated with these containers.

Alternatively, the plan shall describe a sampling effort to obtain bulk analyses from the containers of hazardous waste disposed of in the C-746-U Solid Waste Landfill for purposes of a revised regulatory determination. To be completed by: 12/20/2002

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division Of Waste Management
Central Office
14 Reilly Road
Frankfort, Ky 40601
502-564-6716 EXT. 285

Jami West, Environmental Enforcement Specialist III

Issued By:

Jami West

Date: 11/13/2002

Jami West Environmental Enforcement Specialist III

Issued By:

James M. Guffey

Date: 11/13/2002

James M. Guffey Environmental Engineering Assistant III

How Delivered:

Certified #

cc: HW, ENP, OLS, File, RO

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DEP 4025

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Fact Sheet
Wednesday November 13, 2002
Notice of Violation Issued by Kentucky Department for Environmental Protection
to the Department of Energy - Paducah

Description

- On Tuesday November 12, 2002, the Director of the Department for Environmental Protection, issued a notice of violation (NOV) entitled "Unpermitted Storage of Hazardous Waste Paducah Gaseous Diffusion Plant McCracken County, Kentucky, KY8-890-008-982".
- DOE received this NOV on Wednesday November 13, 2002.
- The NOV focuses on the Paducah DOE Material Storage Areas (DMSAs) C-400-05, C-333-31, OS-8, C-333-21, C-333-20, C-331-06, C-331-05, C-310-02, and C-331-16. It also includes the C-746-A West End Smelter
- Items discovered in these DMSA's include light bulbs, circuit boards, capacitor, sealant, aerosol cans, a light starter, a mercury manometer, a fluorescent light starter, paint, mercury-wetted relays, and a light bulb base
- The violations occurred on March 12, April 24 and 29, May 29, June 17, July 26, August 6, 8, 12, 14, 20, 21 and 22, September 25, October 16, 17, 22 and 29, 2002.
 - Note that the RCRA notifications on August 8 and 21, 2002, only identified Newly Generated waste, not Newly Discovered

Background

- A current project is ongoing at Paducah to characterize the 160 DMSAs.
- These DMSAs contain a variety of materials with the potential to contain nuclear criticality safety and hazardous material concerns.
- As the DMSA Project identifies hazardous waste as either "newly discovered" or "newly generated", notifications are self reported to KDEP by DOE.
- The Commonwealth has previously issued NOV's to DOE on September 5, 2000, July 31, 2001, October 9, 2001, January 18, 2002, February 28, 2002, and March 11, 2002 for similar violations that apply to DMSAs. In addition, an administrative complaint has been filed by the Commonwealth against DOE on October 26, 2001.
- The NOV's appear to be for "newly discovered" hazardous waste only, with the exception of August 8 and 21, 2002, as noted above.

NOV Required Actions

1. DOE is to submit amended Solid Waste Management Unit (SWMU) Assessment Reports by 5/9/03.
2. DOE is to submit a revised Part "A" Application for the hazardous waste management permit by 2/7/03.
3. DOE is to submit a revised Part "A" Application to update the wastestreams by 2/7/03.
4. DOE is to submit revised closure plans by 5/9/03.
5. DOE is to submit revised closure plans to address the additional waste streams by 5/9/03.
6. DOE is to cease the unpermitted storage of hazardous waste at all locations owned or operated by the DOE at the Paducah Gaseous Diffusion Plant immediately.

Other Points of Emphasis

- Violations are subject to civil penalties of up to \$25,000 per day per violation.
- To date, DOE has received 7 NOV's (including this one) affecting numerous DMSAs, for similar violations. Some of these DMSAs have been cited in multiple NOV's as additional hazardous waste has been discovered.
- DOE has been in negotiations with the Commonwealth over the past few months in an attempt to settle their outstanding Administrative Complaint.



COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY RD
FRANKFORT KY 40601-1190

November 12, 2002

CERTIFIED MAIL #7000 1670 0007 9753 1199
RETURN RECEIPT REQUESTED

Mr. W. Don Seaborg, Site Manager
US Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001

RE: Unpermitted Storage and Disposal of Hazardous Waste
Paducah Gaseous Diffusion Plant
McCracken County, Kentucky
KY8-890-008-982

Dear Mr. Seaborg:

Enclosed are Notices of Violation (NOVs) issued for failure to comply with KRS 224 and numerous waste management regulations promulgated pursuant to those statutes. Please contact me at (502) 564-6716 if you have questions.

Sincerely,

Robert H. Daniell
Director

Enclosures -- Notices of Violation (4)

c: Carl R. Froede, Jr., USEPA Region 4
Larry Lamberth, USEPA Region 4
Randy McDowell, Office of Legal Services
Ron Gruzsky, Solid Waste Branch
Mergie Williams, DWM-Paducah
Connie Smith, Enforcement Branch
Gaye Brewer, Hazardous Waste Branch-Paducah
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COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

NOTICE OF VIOLATION

TO:

US DEPT. OF ENERGY
PO BOX 1410
5600 HOBBS ROAD
PADUCAH KY 420021410
Attn: W. DON SEABORG

SITE:

US DOE PADUCAH GAS DIFFUSION PLT
5800 HOBBS ROAD

PADUCAH KY 42001

Site ID #: KY8890008982

County: McCracken

Notifications/Complaints System #:

NOV Tracking #: 98840

Date(s) Violation(s) Observed: 4/16/2002

OIG Case #:

Enforcement Case #:

This is to advise that you are in violation of the provisions cited below:

Statute/Regulation(No. 1): KRS 224 401 KAR 32:040

A description of the violation:

401 KAR 32:040 Sections 1 & 2 state: Section 1. Recordkeeping. (1) A generator shall keep a copy of each manifest signed in accordance with Section 4(1) of 401 KAR 32:020 in addition to the signed copy returned from the designated facility which received the waste. Both copies shall be retained on record for at least three (3) years from the date the waste was accepted by the initial transporter.

(2) A generator shall keep a copy of each annual report and exception report for a period of at least three (3) years from the due date of the report (March 1).

(3) A generator shall keep records of any test results, waste analyses, or other determinations made in accordance with Section 2 of 401 KAR 32:010 for at least three (3) years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(4) A generator shall keep a log showing all facility and equipment inspections as required in Section 6 of 401 KAR 35:020.

(5) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the secretary.

Section 2. Annual Reporting. (1) A generator who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States shall prepare and submit a Hazardous Waste Annual Report, DEP Form 7072-91, incorporated by reference in Section 5 of this administrative regulation. The Hazardous Waste Annual Report shall be submitted to the cabinet no later than March 1 for the preceding calendar year.

(2) Any generator who treats, stores, or disposes of hazardous waste on-site shall submit the Hazardous Waste Annual Report covering those wastes in accordance with provisions of 401 KAR Chapters 34, 35, 36, and 38. Reporting for exports of hazardous waste outside the United States is not required on the annual report form but shall be accomplished by a separate annual report pursuant to 401 KAR 32:050.

(3) Generators shall provide a duplicate copy of the Hazardous Waste Annual Report to the county judge/executive of the county or chief executive officer of an urban county government within which the waste site or facility which will receive waste from the generator is located and to the county judge/executive of the county or chief executive officer of an urban-county government within which the generator is located in order that the county judge/executive or chief executive officer may make the report available to the county law enforcement and emergency services for emergency planning purposes.

At the beginning of the CEI on May 6, 2002 a copy of the inspection agenda was provided to Danny Guminiski (Bechtel Jacobs), which included a list of the records I would be inspecting. On May 16, 2002 inspection of the requested records was done. The 1999-2001 Hazardous Waste Annual Reports provided for review were "working copies" and were not copies of the signed annual reports submitted to DWM.

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The 1999 annual report indicated that there were 10 manifested hazardous waste shipments. Review of copies of manifests provided by the facility found only 3 manifests. The 2000 annual report indicated that there were 15 manifested hazardous waste shipments. Review of copies of manifests provided by the facility found 13 manifests. The 2001 annual report indicated that there were 4 manifested hazardous waste shipments. Review of copies of manifests provided by the facility found only 2 manifests.

There was not any evidence provided that the annual reports had been submitted to the McCracken Co. Judge/Executive.

The required remedial measure(s), and date(s) to be completed by; are as follows:

Perform a detailed reconciliation of hazardous waste manifests and hazardous waste annual reports for the years 1999-2001. Include in the reconciliation document a listing describing the type of waste for all waste manifests (hazardous, non-hazardous, TSCA, etc.) generated from 1999-2001, sorted by manifest number. Submit to the Paducah Regional Office and the Division of Waste Management Hazardous Waste Branch.

To be completed by: 12/06/2002

Provide evidence that the 1999-2001 hazardous waste annual reports were submitted to the McCracken Co. Judge/Executive. Submit to the Paducah Regional Office and the Division of Waste Management Hazardous Waste Branch.

To be completed by: 12/06/2002

Statute/Regulation(No. 2): KRS 224 401 KAR 34:020 7

A description of the violation:

In accordance with the Hazardous Waste Facility Permit issued to this facility, 401 KAR 34:020 Section 7 is applicable and states, in part: (5) Training records on current personnel shall be kept until closure of the facility; training records on former employees shall be kept for at least three (3) years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

Training records/training program were reviewed at the Weskem office located at Kevil. The records were found to be generally complete for Weskem personnel; however, it appears that personnel other than employees of Weskem may be involved in hazardous waste operations and implementation of the contingency plan. The records for personnel other than Weskem were not available at the Weskem office, and it was unclear where such records would be located.

The facility does not have the required records in its possession. It appears that the various sub-contractors all maintain separate record keeping systems.

The required remedial measure(s), and date(s) to be completed by; are as follows:

The permittee shall make a determination of which personnel at this facility are required to be trained in accordance with 401 KAR 34:020 Section 7, regardless of the employee's employer, and maintain copies of the required training records in a central location.

To be completed by: 12/06/2002

Statute/Regulation(No. 3): KRS 224 401 KAR 32:040 1

A description of the violation:

401 KAR 32:040 Section 1 states: Recordkeeping, (1) A generator shall keep a copy of each manifest signed in accordance with Section 4(1) of 401 KAR 32:020 in addition to the signed copy returned from the designated facility which received the waste. Both copies shall be retained on record for at least three (3) years from the date the waste was accepted by the initial transporter.

401 KAR 32:100, Appendix on hazardous waste manifest and instructions, is also applicable.

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During review of generator manifests it was noted that the required copies of the manifest document (original and generator copy) were mixed in with various other internal documents associated with the shipment, and that there were skips in the sequential numbering system. Facility personnel advised that the various sub-contractors contacted Weskem for sequential manifest numbers when waste was to be shipped, and that the sequential numbering system was utilized for all waste shipments (hazardous, PCB, low level radioactive). Each sub-contractor maintained their copies of manifests. I requested copies of all hazardous waste manifests for 1999-2002 (original, generator copy, and land disposal restriction notice) to be sent to my office by May 24, and descriptions of other manifests in order to evaluate the sequential numbering systems accuracy. Manifest numbers of hazardous waste manifests provided include:

- . 00347 - 08/31/1999
- . 00345 - 09/03/1999
- . 00348 - 09/23/1999
- . 00353 - 01/06/2000
- . 00354 - 01/06/2000
- . 00357 - 05/24/2000
- . 00358 - 05/24/2000
- . 00359 - 05/24/2000
- . 00362 - 07/25/2000
- . 00364 - 09/08/2000
- . 00365 - 09/08/2000
- . 00367 - 09/28/2000
- . 00368 - 09/28/2000
- . 00369 - 09/28/2000
- . 00371 - 09/28/2000
- . 00373 - 12/08/2000
- . 00379 - 09/11/2001
- . 00380 - 10/30/2001

The copies of the requested manifests are not complete. There is insufficient documentation to determine if the sequential numbering system is being followed; in fact, manifest # 00347 was shipped on 08/31/1999 and manifest # 00345 was shipped on 09/03/1999, which was 3 days after #00347 was shipped. There are also gaps in the manifest numbers that I am unable to reconcile with the documentation provided.

It is noted that manifest # 00379 does not have the correct EPA hazardous waste number in item I, and does not have a waste handling code in item K. Manifest # 00380 does not have a waste handling code in item K.

The required remedial measure(s), and date(s) to be completed by; are as follows:

Provide documentation that a sequential numbering system is being used for hazardous waste manifests. Submit documentation to the Paducah Regional Office and the Division of Waste Management Hazardous Waste Branch.

To be completed by: 12/06/2002

Correct manifest # 00379 by placing the proper EPA hazardous waste number in item I and the proper waste handling code in item K. Correct manifest # 00380 by placing the proper waste handling code in item K.

To be completed by: 12/06/2002

Provide an explanation of why manifest # 00345 was dated as being shipped after manifest # 00347. Submit documentation to the Paducah Regional Office and the Division of Waste Management Hazardous Waste Branch.

To be completed by: 12/06/2002

Statute/Regulation(No. 4): KRS 224 401 KAR 37:010 7

A description of the violation:

401 KAR 37:010 Section 7 requires that land disposal restriction notices have the manifest number listed that is associated with the waste shipment.

It was noted that the LDR notice associated with manifest # 00380 does not have the manifest number.

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The required remedial measure(s), and date(s) to be completed by; are as follows:
Correct the LDR notice associated with manifest # 00380 by placing the manifest number on the notice.
To be completed by: 12/06/2002

Statute/Regulation(No. 5): KRS 224 401 KAR 34:050 6

A description of the violation:

As was previously noted, the 1999-2001 Hazardous Waste Annual reports provided were not the signed copies submitted to DWM, and the number of manifested shipments of waste reported does not correspond with the number of hazardous waste manifests provided by the facility.

The required remedial measure(s), and date(s) to be completed by; are as follows:

Perform a detailed reconciliation of hazardous waste manifests and hazardous waste annual reports for the years 1999-2001. Include in the reconciliation document a listing describing the type of waste for all waste manifests (hazardous, non-hazardous, TSCA, etc.) generated from 1999-2001, sorted by manifest number, and submit to the Paducah Regional Office and the Division of Waste Management Hazardous Waste Branch.

To be completed by: 12/06/2002

Statute/Regulation(No. 6): KRS 224 401 KAR 32:030 5(1)(B)

A description of the violation:

401 KAR 32:030 Section 5(1)(b) states: The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

Two mobile tanks and one drum in the 90 day storage area at C-746-S & T Landfills were noted to lack the accumulation date. The dates were added to the labels to correct the violation, which was confirmed later in the inspection.

The required remedial measure(s), and date(s) to be completed by; are as follows:

Take appropriate measures to ensure that all containers of hazardous waste are in compliance with Kentucky hazardous waste regulations.

To be completed by: 12/06/2002

Statute/Regulation(No. 7): KRS 224 401 KAR 35:180 5

A description of the violation:

401 KAR 35:180 Section 5 states: Inspections. The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration of containers and the containment system caused by corrosion or other factors.

It was noted that there were several instances where inspections of the 90 day storage areas were not done every 7 days, which is the common interpretation of the regulatory requirement. A 7 day schedule is utilized for other inspections that the facility conducts.

It was also noted that the form being used to document the inspections of the 90 day areas appears to be designed for TSCA storage areas. The form needs to be modified/replaced with a form specific for 90 day RCRA waste storage area requirements.

The required remedial measure(s), and date(s) to be completed by; are as follows:

Take appropriate measures to ensure that all storage areas are inspected weekly (i.e. every 7 days), and that the results of the inspections are documented properly.

To be completed by: 12/06/2002

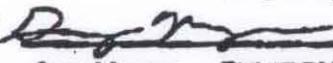
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Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division Of Waste Management
Paducah Regional Office
4500 Clarks River Road
Paducah, Ky 420030823
270-898-8468 (8:00 AM TO 4:00 PM WEEKDAYS)
Gary Morgan, ENVIRONMENTAL INSPECTOR III

Issued By: 

Date: 11/04/2002

Gary Morgan ENVIRONMENTAL INSPECTOR III

Issued By: _____

Date: 11/04/2002

How Delivered: Certified Mail Certified #:

cc: Copies to File, DWM-Frankfort, OLS

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Bechtel Jacobs Company LLC
Notice of Violations (NOV)

For 2003

Total Number of NOV for 2003 3

January 24, 2003 -- NOV

The extent of the violations observed is as follows:

1. Hazardous Waste Generator Reporting Requirements.

March 17, 2003 -- NOV

The extent of the violations observed is as follows:

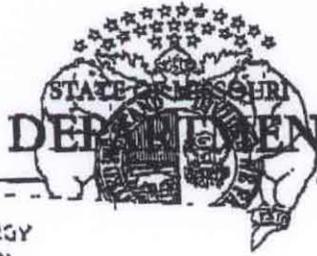
2. KPDES permit violations of whole Effluent Toxicity limit in Outfall 001.

April 15, 2003 -- NOV

The extent of the violations observed is as follows:

3. Failure to pay Missouri annual registration renewal fee. The registration renewal fee is required from any generator whose registration status is active.

TO: Glen Galen
From: Danny Guminiski



Bob Holden, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.state.mo.us

DEPARTMENT OF ENERGY
1600 HOBBS RD, B1
WEST PADUCAH, KY 42086
EPA ID: KY8896048982 MO ID: 038874

JAN 27 AM 10:34

CERTIFIED MAIL

NOTICE OF VIOLATION

January 24, 2003

RE: Hazardous Waste Generator Reporting Requirements

This is to notify you that as a registered hazardous waste generator in Missouri, you are in violation of the Missouri Hazardous Waste Management Law, because you have not submitted required reports to the Department, in violation of 40 CFR Part 262, Subpart D, as incorporated and modified by 10 CSR 25 5.262. As a registered generator of hazardous waste, you are obligated to comply with Missouri reporting requirements, including submission of manifest summary reports. As of the date of this letter, the Department of Natural Resources has not received manifest summary reports on your hazardous waste activity for the period July 1, 2001 to June 30, 2002.

If you complete these reports correctly and file them with the department within 30 days of your receipt of this letter, no further punitive action will be taken against your company for the situation noted above. If your cooperation is not forthcoming in accordance with that schedule, two punitive measures may be taken:

- a) **All Missouri facilities which either treat, store, or dispose of hazardous waste from offsite, or which conduct recycling of offsite waste under a Missouri Resource Recovery Certificate, shall be informed that if they accept any hazardous waste from you before you have updated your registration information, they are subject to prosecution for a knowing violation of the Missouri Hazardous Waste Management Law and Regulations and appropriate enforcement and penalties shall be sought by the State.**
- b) **Your company may be referred to the Attorney General's Office for a determination of whether pursuit of monetary or other penalties is appropriate.**

If you did not generate or ship hazardous waste during this period, please complete Part I of the "Generator's Hazardous Waste Summary Report" form and indicate "No waste" appropriately on the form. If your firm no longer generates waste, please send a written request on company letterhead to the department asking that your generator ID number be made inactive.

Integrity and excellence in all we do



Notice of Violation
January 24, 2003
Page 2

Upon receiving your manifest summary reports, the Hazardous Waste Program will calculate any fees and taxes due and a billing will be sent to you with an explanation of the calculations. If your hazardous waste generation activity has resulted in liability for any fees and taxes under 260.380, 260.475 or 260.479 RSMO, failure to pay those fees and taxes may also result in enforcement action. In addition to any fees and taxes due, certain penalties and interest are required by statute in situations where the generator has failed to pay hazardous waste fees and taxes.

If you have questions, or need to obtain a copy of the "*Generator's Hazardous Waste Summary Report*", please contact Mr. David Green of the Hazardous Waste Program at (573) 751-3204. If you need a report form and have internet access, you may download the form from the following address:

www.dnr.state.mo.us/oac/forms/780-1097.pdf

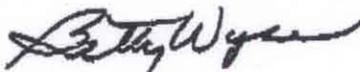
The report is in a PDF file format and requires "Acrobat Reader" to be able to successfully download it.

Please send all correspondence concerning this matter to the Missouri Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102.

Thank you for your prompt attention to this matter.

Sincerely,

HAZARDOUS WASTE PROGRAM



Betty Wyse
Acting Director

BW: dgj

Enclosure

Met August

1 Haz

HENRY C. LIST
SECRETARY



TO:
Glew
Glew

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

March 17, 2003

Certified No. 7002 2030 0002 3577 3580
Return Receipt Requested

Paducah Gaseous Diffusion Plant
Department of Energy
ATTN: Brian Bell
5600 Hobbs Road
Paducah, Kentucky 42002-1410

Re: DOE/BJC/PGDP
McCracken County, Kentucky
Case No. DOW 03137 (NOV # 8899)
KPDES No. KY0004049

Dear Mr. Bell:

DOE is in violation of KRS 224 401 KAR 5:065 1(1) as referenced in the attached Notice of Violation.

In order to avoid further enforcement action, comply with the remedial measures set forth in the attached Notice of Violation. Failure to comply subjects your facility to penalties as specified in KRS 224. Your cooperation and assistance in this matter is appreciated. If you have any questions, please contact Mark Vogel at (502) 564-3410.

Sincerely,

Phillip A. Bromall
Environmental Control Supervisor
Enforcement Branch
Division of Water

PAB/csa
Enclosure

c: Mark Vogel, KPDES Branch
Paducah Regional Office
Cathleen Adams, Enforcement Branch
KPDES File



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COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER

NOTICE OF VIOLATION

TO: DEPARTMENT OF ENERGY
5600 HOBBS RD
PADUCAH KY 420021410
Attn:

SITE: DOE/BJC/PGDP
5600 HOBBS
WEST PADUCAH KY 42086

Site ID #: KY0004049
County: Mccracken
Notifications/Complaints System #:
NOV Tracking #: 8899

Date(s) Violation(s) Observed: 10/01/2002

OIG Case #:
Enforcement Case #: 03137

This is to advise that you are in violation of the provisions cited below:

Statute/Regulation(No. 1): KRS 224 401 KAR 5:065 1(1)

A description of the violation:

KPDES permit violations of Whole Effluent Toxicity limit in Outfall 001.

The required remedial measure(s), and date(s) to be completed by; are as follows:

Submission of a Toxicity Reduction Evaluation (TRE) Plan and implementation schedule by March 31, 2002. In addition, monthly compliance monitoring must continue for the duration of the TRE and quarterly progress reports are due before the 28th day of the month following the end of the quarter. To be completed by: 03/31/2002

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division Of Water
Central Office
14 Reilly Road
Frankfort, Ky 40601
(502) 564-3410

Cathleen Adams, Environmental Enforcement Specialist

Issued By:

Cathleen Adams

Date: 03/17/2003

Issued By:

Cathleen Adams Environmental Enforcement Specialist
Mark Vogel
Mark Vogel

Date: 03/17/2003

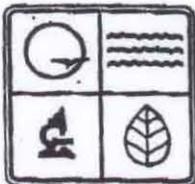
How Delivered: Certified Mail Certified #: 7002 2030 0002 3577 3580

cc: Paducah RO
KPDES Branch

+

DEP 4025

+



MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR AND LAND PROTECTION DIVISION



NOTICE OF VIOLATION

HAZARDOUS WASTE PROGRAM

April 15, 2003

US DEPT OF ENERGY
KY8890008982
038874

ANNUAL REGISTRATION RENEWAL FEE DETAIL INFORMATION

The annual registration renewal fee is authorized by Section 26.380 RSMo. This registration renewal fee is required from any generator whose registration status is active.

FOR THE PERIOD JANUARY 1, 2003 TO DECEMBER 31, 2003.....\$100.00*

FORMULA

\$100.00 PER CALENDAR YEAR

- * If you do not wish to renew your registration, you must make that request in writing to the department. However, please note that generators who inactivate and who later in that same year request to re-activate will be subject to a \$50.00 administrative reinstatement fee in addition to the \$100.00 registration renewal fee.
- * If you are located in Missouri and generate or accumulate regulated quantities of hazardous waste, you may not inactivate your registration. It is a violation of the Missouri Hazardous Waste Management Law to generate or accumulate regulated quantities of hazardous waste while your registration is inactive.
- * If you are located in Missouri and do not generate or accumulate regulated quantities of hazardous waste, you may request in writing that your registration be made inactive.
- * If you are located outside of Missouri and no longer ship hazardous waste into Missouri, you may request in writing that your registration be made inactive. However, before you can ship hazardous waste into Missouri again, you will be required to re-activate your registration and pay the registration fee.
- * If you are registered as a Conditionally Exempt Small Quantity Generator but wish to inactivate your registration, please see the enclosed form for further instructions.

If the registration renewal fee is not paid or a written request to inactivate your registration is not received by the department within 15 days from the date of this invoice, your registration will be administratively inactivated. If you later wish to re-activate your registration, you may be subject to a \$50.00 administrative reinstatement fee in addition to the \$100.00 registration renewal fee.

Additionally, Missouri Treatment, Storage, or Disposal (TSD) facilities and hazardous waste transporters licensed to operate in Missouri are prohibited from accepting hazardous waste from any site that generates or accumulates enough hazardous waste to be regulated and is unregistered, or from a site that has an inactive registration. If you are located in Missouri, it is a violation of the Missouri Hazardous Waste Management Law to generate or accumulate reportable quantities of hazardous waste, as defined in 10 CSR 25-5.262, while your registration is inactive.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR AND LAND PROTECTION DIVISION



NOTICE OF VIOLATION

HAZARDOUS WASTE FEES AND TAXES INVOICE

CERTIFIED MAIL

April 15, 2003

RECEIVED APR 21 2003

RICHARD KUEHN
US DEPT OF ENERGY
PO BOX 1410
PADUCAH, KY 42002

Dear RICHARD KUEHN:

As of April 15, 2003, the Department has not received your payment for the annual registration fee for the period of January 1, 2003 through December 31, 2003 and/or for the fees and/or taxes levied on the hazardous waste which was generated and/or disposed of in Missouri during the period July 1, 2001 through June 30, 2002. A summary of the amount(s) due is given at the end of this page.

This Notice of Violation is based on our review of the summary reports and payments received to date from your firm. At this time your company is in violation of the Missouri Hazardous Waste Management Regulations at 10 CSR 25-5.262 and 10 CSR 25-12.010.

Questions should be referred to Mary Williams at (573) 751-2919. Mail inquiries should be directed to the Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102

Check or money order is to be made payable to the Missouri Department of Natural Resources. Payment is due within 15 days from the date you receive this invoice. Accounts remaining unresolved will be referred to the Hazardous Waste Program Enforcement Section for further action. Send all payments and the section below to the following address:

MISSOURI DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE PROGRAM
P.O. BOX 477
JEFFERSON CITY, MO 65102

PLEASE RETURN THIS SECTION WITH PAYMENT

US DEPT OF ENERGY
5600 HOBBS RD (B)
WEST PADUCAH, KY 42086

EPA #: KY8890008982
MO #: 038874

2002

SUMMARY OF HAZARDOUS WASTE FEES & TAXES

| | |
|--|-----------------|
| Category Tax Due..... | \$0.00 |
| \$1.00 Per Ton Generator Fee Due..... | \$0.00 |
| \$25.00 Per Ton Land Disposal Tax Due..... | \$0.00 |
| \$100.00 Registration Renewal Fee..... | \$100.00 |
| TOTAL FEES AND/OR TAXES DUE..... | \$100.00 |

Failure to return this section may result in your account not being credited properly.

HENRY C. LIST
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

PADUCAH REGIONAL OFFICE
4500 CLARKS RIVER RD
PADUCAH KY 42003-0823
(270) 898-8468
September 11, 2003

★ SEP 15 AM 10:55
Sept 30

U.S. Department of Energy
Paducah Site Office
Attn: Mr. W. Don Seaborg
PO Box 1410
Paducah, KY 42002-1410

RE: ID# 21-145-00003
AJ# 3059

Dear Mr. Seaborg:

A review of the Division for Air Quality files for your facility has been completed and it has been determined that an Annual Compliance Certification for 2002 was not submitted by January 30, 2003, as required by regulation 401 KAR 52:020, Section 21. As a result of this non-compliance, the enclosed Notice of Violation is being issued at this time.

In order to correct the aforementioned violation, an Annual Compliance Certification for 2002 (form DEP 7007 CC) must be submitted to the DAQ Paducah Regional Office, DAQ Central Office, and EPA Region IV within 15 days of receipt of this correspondence. The certification form can be accessed through the NREPC website at <http://www.environment.ky.gov>.

If you have any questions, please contact me.

Sincerely,
Bill Clark
Bill Clark, Supervisor
Division for Air Quality

BC
enclosure



**COMMONWEALTH OF KENTUCKY -
 NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
 DEPARTMENT FOR ENVIRONMENTAL PROTECTION
 Division for Air Quality
 NOTICE OF VIOLATION**

TO:

U.S. Department of Energy
 Paducah Site Office
 Attn: Mr. W. Don Seaborg
 PO Box 1410
 Paducah, KY 42002-1410

County: McCracken

This is to advise that you are in violation of the provisions cited below:

| <u>Requirement</u> | <u>Subject Item</u> | <u>Description of Non-Compliance</u> |
|---|-----------------------|--|
| <p>COMPLIANCE CERTIFICATION: The permittee shall certify compliance with the terms and conditions contained in this permit and shall submit compliance certification: Due annually, by the 30th of January to the Regional Office listed on the front of this permit. Compliance Certification Form (DEP 7007CC) (or an approved alternative) shall be used in accordance with the following requirements: a. Identification of each term or condition; b. The compliance status regarding each term or condition of the permit; c. Whether compliance was continuous or intermittent; and d. The method used for determining the compliance status for the source, currently and over the reporting period. e. For an emissions unit that was still under construction or which has not commenced operation at the end of the year covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit. f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the Regional Office listed on the front of this permit and the following addresses: U.S. EPA Region IV, Air Enforcement Branch, Atlanta Federal Center, 61 Forsyth St., Atlanta, GA 30303-8960; Division for Air Quality, Central Files, 803 Schenkel Lane, Frankfort, KY 40601, Division for Air Quality, Paducah Regional Office, 4500 Clarks river Road, Paducah, KY 42003. [401 KAR 52:020 Section 21]</p> | <p>AIOO0000003059</p> | <p>The source failed to submit the 2002 Annual Compliance Certification as required.</p> |

The required remedial measure(s), and date(s) to be completed by are as follows:

Remedial Measures

The source must complete and submit an Annual Compliance Certification for 2002 (form DEP 7007 CC) within 15 days of receipt of this notice. The certification must be submitted to the DAQ Paducah Regional Office, DAQ Central Office, and EPA Region IV.

Violations of the above cited statute(s) and/or regulation(s) are subject to a civil penalty per day per violation. Violations carry civil penalties of up to \$25,000 per day per violation depending on the statutes/regulations violated. In addition, violations may be concurrently enjoined. Compliance with remedial measures and their deadlines does not provide exemption from liability for violations during the period of remediation, nor prevent additional remedial measures from being required.

If you have questions or need further information, write or call the undersigned:

Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah, KY 42003
270/898/8468 (8:00 AM - 4:30 PM)
Bill Clark, Regional Supervisor

Issued By: Bill Clark Date: September 11, 2003
Bill Clark, Regional Supervisor

Issued By: _____ Date: _____

How Delivered: Certified Mail Certified/Registered # 7000 1530 0003 2096 8402