FILED
SEP 10 1997
Office of Administrative Hearings
received
CM 11/2/99
(66)

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL
PROTECTION CABINET
FILE NO. DWM-30039-042

UNITED STATES DEPARTMENT OF ENERGY PETITIONER

VS. AGREED ORDER

RECORD COPY

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET RESPONDENT

3-0015-0769

* * * * * * *

STATEMENTS OF FACT

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 United States Department of Energy (hereinafter "DOE") owns the Paducah Gaseous Diffusion Plant ("PGDP"), a uranium enrichment facility, located near Paducah, Kentucky in McCracken county. PGDP is a "facility" as that term is defined in 401 KAR 30:010, Section 1, (73).

3. Lockheed Martin Energy Systems, Inc. is a Delaware corporation authorized to conduct business in the Commonwealth of Kentucky and is a co-operator of the facility.

4. The United States Enrichment Corporation ("USEC"), a wholly owned federal government corporation, leases and operates portions of the PGDP, subject to the lease provisions between DOE and USEC.

5. DOE is a "person" as that term is defined by KRS 224.01-010 (17) and 401 KAR 30:010, Section 1, (153).

6. At PGDP, DOE generates hazardous waste as that term is defined by KRS 224.01-010 (31) (b) and 401 KAR 31:010, Section 3. DOE also generates mixed waste which is waste that contains both hazardous waste subject to the Resource Conservation and Recovery Act of 1976, 42 U.S.C. Section 6901 et seq. as amended ("RCRA"), and a source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954, 42 U.S.C. Section 2011 et seq. as amended ("AEA"). See also 401 KAR 31:010, Section 11.

7. The Commonwealth of Kentucky received authorization from the U. S. Environmental Protection Agency ("EPA") to regulate the hazardous waste component of mixed waste on October 20, 1988 (53 FR 41164).

8. The Cabinet has the authority to prohibit the land disposal of hazardous wastes that have not been pretreated to established standards. These prohibitions are commonly referred to as the Land Disposal Restrictions ("LDRs"). See KRS 224.46-520(2) and 401 KAR Chapter 37.

9. At PGDP, DOE has generated and is storing mixed wastes subject to the requirements of KRS 224.46-520(2) and 401 KAR 37:030, Section 1 (solvent wastes); 401 KAR 37:030, Section 2 (dioxin containing wastes); 401 KAR 37:030, Section 3 (California list wastes); 401 KAR

37:030, Section 4 (first third wastes); 401 KAR 37:030, Section 5 (second third wastes); 401 KAR 37:030, Section 6 (third third wastes) and 401 KAR 37:040. See also 42 U.S.C. 6924(m) and 40 Code of Federal Regulations, Part 268.

10. 42 U.S.C. Section 6924 (j), 40 Code of Federal Regulations, Part 268 and 401 KAR 37:050 prohibit the storage of LDR wastes at PGDP. The Cabinet has determined that DOE's past storage of mixed wastes and its future storage of mixed wastes, which is not for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment or disposal, is and will be a violation of the storage prohibition referenced herein.

11. DOE maintains that adequate treatment capacities do not exist for its inventory of mixed wastes which are subject to the LDRs and the LDR storage prohibition. However, DOE's storage of mixed wastes pending the development of treatment capacity does not constitute storage to accumulate sufficient quantities to facilitate proper recovery, treatment or disposal.

12. Pursuant to 42 U.S.C. Section 6939c, (Federal Facility Compliance Act (FFCA), Section 105), enacted October 6, 1992, the Secretary of DOE is required to develop and submit to the Cabinet a plan for the development of treatment capacities and technologies to treat all of the mixed wastes at PGDP, regardless of when they were generated, to the standards contained in the LDRs.

13. 42 U. S. C. Section 6939c requires the Cabinet to consider the need for regional treatment facilities, to consult with the Administrator of EPA and any other state in which a facility affected by the plan is located, and to consider public comments in the review of the plan. 42 U. S. C. Section 6939c further provides for the Cabinet to approve, approve with modifications, or disapprove the plan within six (6) months after receipt of the plan

(hereinafter, "Site Treatment Plan" or "STP").

14. 42 U.S.C. Section 6961(a), as amended by the FFCA, expressly waives sovereign immunity for each department, agency, and instrumentality of the executive, legislative, and judicial branches of the federal government for all substantive and procedural federal, state, interstate, and local requirements respecting control and abatement of solid waste or hazardous waste disposal and management.

15. DOE is a department of the executive branch of the federal government which generates, stores, treats, transports and manages hazardous wastes, including mixed wastes, at PGDP. Thus DOE is subject to and shall comply with all substantive and procedural federal, state, interstate, and local requirements in the same manner, and to the same extent, as any person is subject to such requirements, including, but not limited to, permitting and reporting requirements, any injunctive relief, all administrative orders and all civil and administrative penalties and fines regardless of whether punitive or coercive in nature or imposed for isolated, intermittent, or continuing violations and the payment of reasonable service charges. These requirements include KRS Chapter 224 and 401 KAR Chapters 30 - 49.

16. The effective date of the waiver of sovereign immunity contained in 42 U.S.C. Section 6961(a), with respect to civil, criminal, and administrative penalties and fines, for violations of Section 3004(j) of the Solid Waste Disposal Act ("SWDA"), 42 U.S.C. Section 6924(j), involving storage of mixed waste that is not subject to an existing agreement, permit, or administrative or judicial order, is delayed until October 6, 1995 so long as such waste is managed in compliance with all applicable requirements. FFCA, Section 102 (c)(2).

17. Further, after October 6, 1995, the waiver of sovereign immunity contained in 42 U.S.C. Section 6961(a), with respect to civil, criminal, and administrative penalties and fines, shall not apply to DOE for violations of Section 3004(j) of the SWDA, 42 U.S.C. Section 6924(j), involving storage of mixed waste, so long as DOE is in compliance with both: a plan that has been submitted and approved pursuant to 42 U.S.C. Section 6939c, and which is in effect; and an order requiring compliance with such plan which has been issued pursuant to 42 U.S.C. Section 6939c and which is in effect. FFCA, Section 102(c).

18. On April 6, 1993, DOE published a *Federal Register* notice (58 FR 17875) describing its proposed process for developing the Site Treatment Plan ("STP") in three phases: the conceptual STP, the draft STP, and a proposed STP.

19. On or about November 30, 1993, DOE submitted to the Cabinet a conceptual STP. The Cabinet provided DOE with comments on the conceptual STP by letter dated April 19, 1994.

20. On or about August 30, 1994, DOE submitted to the Cabinet a draft STP. The Cabinet provided DOE with comments on the draft STP by letter dated October 25, 1994.

21. On April 3, 1995, DOE submitted to the Cabinet the proposed STP for PGDP. The proposed STP consisted of two (2) volumes; Volume I: Background and Volume II: Compliance Plan.

22. On April 6, 1995 and May 21, 1995, the Cabinet published a notice of availability of the proposed STP and made the proposed STP available to the public upon request. On May 18, 1995 the Cabinet and DOE held a public meeting on the proposed STP.

23. The Cabinet reviewed the proposed STP, considered the need for regional treatment facilities, consulted with EPA and states in which a facility affected by the proposed STP is located, and considered all public comments received by the Cabinet regarding the proposed STP.

24. The Cabinet modified the proposed STP and approved it as modified on October 5, 1995. The modified STP is the approved STP for PGDP.

25. On October 5, 1995 the Cabinet issued an Order to DOE which required DOE to comply with the approved STP.

26. On November 2, 1995 DOE filed a petition for hearing which challenged portions of the approved STP and the Order. The Cabinet has amended sections IV and VI of the approved STP, which is incorporated by reference and attached hereto as Exhibit A.

27. On or about March 31, 1996 DOE submitted an annual update of the approved STP. The Cabinet approved the annual update on August 9, 1996.

NOW THEREFORE, in the interest of settling all civil claims and controversies raised by DOE's petiton for hearing and in the interest of settling all civil claims for DOE's violation of the hazardous waste storage prohibition contained in 42 U. S. C. Section 6924 (j), 40 C.F.R., Part 268 and 401 KAR 37:050 for those mixed wastes covered by the approved STP and in the interest of issuance of an Order which requires compliance with an approved Site Treatment Plan as required by 42 U.S.C 6939c (b), the parties hereby consent to the entry of this Agreed Order and agree as follows:

COMPLIANCE REQUIREMENTS

28. The approved STP shall apply to all mixed wastes at PGDP which are being stored in violation of the hazardous waste storage prohibition contained in 42 U.S.C. Section 6924 (j), 40 Code of Federal Regulations, Part 268 and 401 KAR 37:050, regardless of when such wastes were generated, including mixed wastes which are newly discovered, identified, generated or received from off-site. The approved STP shall also apply to mixed wastes that are generated through the corrective action requirements of PGDP's Hazardous Waste permit; through remedial actions under CERCLA; and decontamination and decommissioning activities at PGDP. However, the approved STP shall not apply to mixed wastes generated by USEC at PGDP. DOE maintains as it characterizes, sorts and surveys mixed waste currently in storage, it will determine that certain waste previously identified as mixed waste is either a hazardous waste without a radioactive component or a radioactive waste without a hazardous waste component. DOE shall maintain operating records which indicate when wastes were first determined to be a hazardous waste without a radioactive component subject to the LDRs. The operating records shall include a description of the waste form, hazardous waste codes, volume of the waste and a schedule for treatment of the hazardous waste to meet the LDR treatment standards. When waste is determined to be hazardous waste without a radioactive component which is subject to LDR treatment standards, the Cabinet will consider the waste to be covered by this Order for a period of ninety (90) days after the date DOE first determines the waste to be hazardous waste without a radioactive component. If the waste is verified to be a radioactive waste without a hazardous component, it will not be covered by the approved

STP and this Order. DOE shall treat wastes verified to be mixed waste pursuant to the compliance dates contained in the approved STP.

29. DOE shall implement and comply with the approved STP in accordance with the schedules contained in the approved STP. The approved STP contains procedures for conducting required activities and compliance dates which establish the date by which DOE must complete the identified work. The required activities and compliance dates are enforceable provisions subject to administrative and/or judicial enforcement and the assessment of civil penalties. The approved STP provides compliance dates for: a) off-site shipment of mixed wastes for treatment at both commercial facilities and facilities located at other DOE sites; b) treatment of mixed wastes in the C-400-D Lime Precipitation Unit at PGDP; and, c) additional characterization of mixed wastes and based on the characterization results, compliance dates for treatment of all mixed wastes to ensure compliance with the LDRs and the storage prohibition.

30. On or before March 31, 1996 and each year thereafter until termination of this Agreed Order, DOE shall submit to the Cabinet an update of the approved STP for review, comment and approval. The update shall include: a) all approved amendments and revisions of the approved STP made during the previous year for PGDP; b) an update of the Tables of PGDP Mixed Wastes indicating the volume of waste in storage at the end of the previous year and the estimated volume projected to be placed in storage in the next five (5) years; c) proposed amendments or revisions to the approved STP and identification of any changes included in the annual update which require the Cabinet's approval as an amendment or revision; and d) identification of additional or new compliance dates. In addition, the annual update shall

contain a report, ("STP Annual Report"), which summarizes the work conducted in implementing the approved STP during the previous year, including; a) the current status of the projects described in the approved STP and an explanation of how the work conducted supports compliance with the schedules in the approved STP; b) a description of any projected difficulties in meeting the compliance dates; c) a description of DOE's funding for approved STP activities and any funding issue that is likely to significantly impact compliance dates; d) an index or chart that clearly indicates all pages of the approved STP affected by amendments or revisions of the approved STP during the previous year; e) a summary of new waste streams generated or identified within the previous year and additional waste characterization information regarding existing, new or projected waste streams; and f) a list of all mixed wastes that DOE believes meet the treatment standards of the LDRs and all supporting information. The Cabinet will review the annual update and upon approval, it shall be incorporated into the approved STP. The Cabinet's approval of any revision or amendment contained in an annual update shall be in accordance with the procedures in paragraphs 35-37.

31. Within fifteen (15) days of receipt of any update or revision to the Mixed Waste Inventory Report ("MWIR") for PGDP required by 42 U.S.C. Section 6939c(a), DOE shall submit to the Cabinet the update or revision of the MWIR for PGDP.

32. DOE developed and submitted a Waste Minimization and Pollution Prevention Awareness Program pursuant to a Federal Facility Compliance Agreement with EPA Region IV. DOE shall implement its Waste Minimization and Pollution Prevention Awareness Program and submit a Progress Report to the Cabinet annually on or before March 31 of each year.

33. DOE shall submit fiscal year quarterly written progress reports (FY Quarterly Reports) which describe the actions which DOE has taken during the previous quarter to implement the requirements of the approved STP and the Order. FY Quarterly Reports shall describe the schedules of activities to be taken during the upcoming quarter. FY Quarterly Reports shall also provide the identity and assigned tasks of each of DOE's contractors for the work required by the approved STP and the Order. The FY Quarterly Reports shall include a detailed statement of the manner and extent to which the requirements and compliance dates set out in the approved STP are being met. In addition, the FY Quarterly Reports shall identify any anticipated delays in meeting compliance dates, the reason(s) for the delay and actions taken to prevent or mitigate the delay.

34. FY Quarterly Reports shall be submitted on or before the thirtieth day following the end of each fiscal year quarter (i.e., January 30, April 30, July 30 and October 30). DOE's first fiscal year quarterly progress report shall be due thirty (30) days after the end of the first quarter following the entry of this Order.

REVISIONS AND AMENDMENTS

35. The Cabinet may require revisions and/or amendments to the approved STP and DOE may propose revisions and/or amendments to the approved STP. All revisions/amendments to the approved STP are subject to the Cabinet's review and approval. The Cabinet will determine whether any proposed change to the approved STP is a revision subject to the provisions of 42 U.S.C. 6939c (b)(2) and (3). For the purposes of this Agreed Order, a revision is: (a) the addition or deletion of a treatment facility at PGDP or treatment technology

development not previously identified in the approved STP; (b) any extension of a compliance date of more than ninety (90) days; (c) any addition of a waste stream which affects treatment compliance dates or treatment technology development; or (d) any other change to the approved STP which the Cabinet determines warrants public comment.

36. If the Cabinet requires a revision, it will notify DOE of the required revision and outline the reasons for the revision. DOE shall submit the revision to the Cabinet within thirty (30) days of the Cabinet's notification. If DOE proposes a revision, it shall submit the proposal in writing to the Cabinet, including the rationale for the proposed revision and outlining in detail its impact on all aspects of the approved STP. For all revisions, as defined herein, the Cabinet will publish a notice of availability of the proposed revision to the approved STP and provide a public comment period of at least thirty (30) days. The Cabinet will review the proposed revision, use its best efforts to consult with EPA and other affected states and consider the following factors in its determination to either approve, approve with modifications or disapprove the proposed revision: the need for regional treatment facilities; public comments received; the impact of the proposed revision on human health and the environment; the impact of the revision on project management, life-cycle costs and logistic, technical, and engineering issues related to the project; new or emerging technologies; new technical or characterization information; site priorities identified through consultation among DOE, the Cabinet, the PGDP site specific advisory board, and the public; the Congressional budget appropriation, OMB apportionment, and DOE PGDP EM allotment for FY, as well as the President's budget for FY + 1 and associated outyear funding targets, DOE's efforts to comply with the requirements of paragraph 62; and other relevant factors.

37. For all other amendments to the approved STP the following procedures shall be followed. If the Cabinet requires an amendment, it will notify DOE of the required amendment and outline the reasons for the amendment. DOE shall submit the amendment to the Cabinet within thirty (30) days of the Cabinet's notification. If DOE proposes an amendment, it shall submit the proposal in writing to the Cabinet, including the rationale for the proposed amendment and outlining in detail its impact on all aspects of the approved STP. The Cabinet will review the proposed amendment and provide DOE written notice of its approval, approval with modifications or its disapproval after consideration of the factors listed in paragraph 36.

DISPUTE RESOLUTION

38. Except as otherwise specifically provided for in this Agreed Order, any good faith dispute which arises concerning compliance with the approved STP and this Agreed Order, including any revisions and amendments to the approved STP and this Agreed Order, is subject to the dispute resolution procedures outlined herein.

39. The Parties to this Agreed Order shall first attempt to resolve expeditiously and informally all good faith disputes concerning compliance with the approved STP and the requirements of this Agreed Order at the project manager level. Informal dispute resolution shall be limited to a period of thirty days from the occurrence of the event giving rise to the dispute.

40. In the event that any good faith dispute concerning compliance with the approved STP or this Agreed Order is not resolved through informal means, within ten (10) days of the end of informal dispute resolution, DOE shall give written notice to the Cabinet of its intent to invoke

the Dispute Resolution Procedure set out in paragraphs 41 - 46. In the event DOE fails to submit the written notice required by this paragraph, DOE shall be deemed to have accepted the position of the Cabinet.

41. DOE's written notice of its intent to invoke these Dispute Resolution Procedures 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 all supporting documentation on which DOE relies and an explanation of what work is or will be affected by the dispute, including any impacts on compliance dates. The Cabinet will submit a written response to DOE within twenty (20) days of receipt of DOE's notification. Within thirty (30) days of the Cabinet's response to DOE, DOE's site manager at PGDP and the Cabinet's Director of the Division of Waste Management shall attempt to resolve the dispute through meetings or conference calls.

42. If DOE's site manager at PGDP and the Cabinet's Director of the Division of Waste Management are unable to resolve the dispute within thirty (30) days, then either party may submit a written statement of the dispute to the Cabinet's Commisioner of the Department for Environmental Protection for final resolution. The Commisioner of the Department for Environmental Protection may meet with DOE's site manager at PGDP and the Cabinet's Director of the Division of Waste Management and the project managers and their immediate supervisors and may request additional information concerning the dispute. The Commissioner will render a decision on the dispute within thirty (30) days of receipt of the written statement of dispute. The decision of the Commissioner shall be binding and shall be considered a final resolution of the dispute, subject to the provisions of KRS 224.10-420(2).

43. The pendency of any dispute under this section shall not affect DOE's responsibility for timely performance of the work required by this Agreed Order, except that the time period for the completion of work affected by such dispute may be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All other elements of the work required by this Agreed Order shall continue and be completed in accordance with the applicable schedules. Prior to the granting of an extension due to dispute resolution, the Cabinet will determine the elements of work, submittals or actions affected by the dispute and if dispute resolution was invoked in good faith and that any delay will not adversely affect human health or the environment.

44. During dispute resolution, work affected by the dispute shall immediately be discontinued if the Division of Waste Management requests, in writing, that work related to the dispute be stopped because, in the Division's opinion, such work is inadequate or defective and such inadequacy or defect is likely to yield an adverse effect on human health or the environment. To the extent possible, the Divison shall give DOE prior notification that a work stoppage request is forthcoming. After stoppage of work, if DOE believes that the work stoppage is inappropriate or may have potential significant adverse impacts, then DOE may immediately invoke the formal dispute resolution procedures.

45. Subject to the provisions of KRS 224.10-420 (2), DOE shall incorporate the final resolution into the appropriate plan, schedule or procedure pursuant to the provisions of paragraphs 35 - 37 within thirty (30) days of resolution of a dispute. Thereafter, DOE shall implement this Agreed Order according to the amended plan, schedule or procedure

46. Resolution of disputes may include a determination of the length of any time extensions which are necessary.

FORCE MAJEURE

47. DOE shall perform the requirements of this Agreed Order and the approved STP within the time limits set forth or approved herein, unless the performance is prevented or delayed solely by events which constitute a force majeure, in which event the delay in performance shall be excused and no civil penalty shall be assessed. A force majeure is defined as any event arising from causes not reasonably foreseeable and beyond the control of DOE, or its consultants and contractors, which could not be avoided or overcome by due diligence and which delays or prevents performance by a date required by this Agreed Order. Force majeure events do not include unanticipated or increased costs of performance, changed economic or financial conditions, normal precipitation events, the failure by a contractor to perform, or the failure by a supplier to deliver.

48. DOE shall notify the Director of the Division of Waste Management by telephone by the end of the next business day and in writing within ten (10) days after it becomes aware of events which it knows or should know constitute a force majeure. The notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to minimize the delay and an estimated timetable for implementation of these measures and all compliance dates or other requirements that would be affected [illegible] to comply with the notice provision of this section shall be grounds for the Cabinet to deny an extension of time for performance. If any event is anticipated to occur which may cause a delay

in meeting the requirements of this Agreed Order, DOE shall notify the Director of the Division of Waste Management by telephone by the end of the next business day and in writing within ten (10) days of learning of the possibility of a force majeure event, if the event has not already occurred. The Cabinet will respond in writing to any written notice received.

49. DOE shall have the burden of establishing that a delay was caused by a force majeure event. If DOE demonstrates to the Cabinet that the delay has been or will be caused by a force majeure event, the Cabinet will extend the time for performance for that element of the Agreed Order for a period at least equal to the delay resulting from such circumstances. For changes to the approved STP, this shall be accomplished through paragraphs 35 - 37 of this Agreed Order.

50. Within ten (10) days of receipt of the Cabinet's decision to deny DOE's claim of force majeure, DOE may invoke the dispute resolution procedures of this Agreed Order. Failure to invoke the dispute resolution procedures within this time period shall be deemed to be an acceptance by DOE of the Cabinet's decision and a waiver by DOE of its right to dispute any denial of an extension request. If the Cabinet decides that a force majeure event has not occurred, the Cabinet reserves its right to assess a civil penalty and/or pursue any other enforcement action available to it.

BUDGET PLANNING AND EXECUTION

51. DOE shall use its best efforts and take all necessary steps to obtain sufficient and timely funding to meet all of its obligations under the approved STP and this Agreed Order. DOE compliance with the Budget Planning and Execution provisions of this Agreed Order shall constitute compliance with the above standard. DOE acknowledges Executive Order 12088's

requirement that DOE include sufficient funds in its budget request to the President to support the activities and requirements to be conducted under the approved STP and this Agreed Order.

52. DOE shall consult with the Cabinet in formulating its annual Environmental Management (EM) budget for PGDP, including project work scope and management, priorities, and schedules/compliance dates. DOE shall provide the Cabinet with all necessary information and briefings on the budget formulation, including funding information at the Activity Data Sheet (ADS) level, or equivalent, or the work breakdown structure (WBS) level, or equivalent, if requested. The Cabinet will continue to serve as an ex-officio member of the Oak Ridge Reservation Environmental Restoration Prioritization Board which may serve as one of the means by which DOE provides the Cabinet with budget formulation and project management information. In addition, DOE shall provide the Cabinet with budget and project information as follows:

53. DOE PGDP shall provide the Cabinet with information on the EM planning budget for fiscal year + two (FY +2), within seven (7) Days of DOE PGDP receiving such information, including any information on OMB and DOE-HQ target funding guidance. Within twenty-one (21) Days of DOE-PGDP receiving target funding guidance, DOE-PGDP shall provide the Cabinet with a preliminary assessment of its impacts at PGDP. DOE shall also provide a copy of PGDP's initial contractor budget guidance to the Cabinet within two (2) weeks after its issuance.

54. By February 1 of each year, DOE shall prepare a draft Integrated Priority List for PGDP. DOE shall provide the Cabinet with a copy of its draft Integrated Priority List for PGDP and an assessment of the budget targets on site priorities by February 15 of each year. The list shall

11

prioritize all PGDP waste management and environmental restoration activities (including all obligations of the approved STP and this Agreed Order) and may include other site activities, as appropriate.

55. Between February 1 and the date that DOE submits its annual budget request and supporting ADS, or its equivalent, for PGDP EM activities to DOE-HQ, DOE and the Cabinet shall meet and discuss project work scope, priorities, and funding levels required to comply with the obligations of the approved STP and this Agreed Order. DOE may revise its budget request and supporting documentation in response to issues raised by the Cabinet during this timeframe. In the event that issues are not resolved with DOE, DOE shall submit with its budget request to DOE-HQ an outline of any unresolved issues identifying the issues, and DOE's and the Cabinet's respective positions with respect to those issues, along with an estimate of the funding necessary to meet the requirements and obligations of this Agreement. In addition, if the Cabinet disagrees with DOE's assessment, it may prepare an assessment of the impacts as it relates to PGDP and DOE shall include a copy of the assessment and any comments with its budget request to DOE-HQ. DOE shall provide the Cabinet with a complete copy of the budget request and attached documentation relating to PGDP that is sent to DOE-HQ.

56. After submission of the PGDP EM budget request to DOE-HQ, and prior to submission of the EM budget request to the Secretary of DOE, it is DOE's intent to provide the Cabinet with a copy of any additional written analyses of the proposed PGDP budget and/or potential changes to the proposed PGDP EM budget and any analyses of associated potential impacts on work required under the approved STP and this Agreed Order sent from PGDP or DOE-ORR to DOE-HQ concerning the PGDP EM budget, subject to a claim of privilege by DOE. In the event of

a claim of privilege, DOE shall provide the Cabinet with an explanation setting forth the basis for the claim of privilege. In the event that DOE changes its intent to provide the Cabinet with the documentation required by this paragraph, DOE shall provide the Cabinet with a written explanation as to why such documentation will no longer be provided. DOE's decision is not subject to the dispute resolution provisions of this Agreement.

57. If the issues raised by the Cabinet are not resolved prior to DOE's submission of its budget request to the Office of Management and Budget (OMB), DOE shall include an outline of any unresolved issues at PGDP identifying the issues and DOE's and the Cabinet's respective positions with respect to those issues, including any comments submitted by the Cabinet, and an estimate of the funding necessary to meet the requirements of the approved STP and this Agreed Order with DOE-HQ's budget request submitted to the OMB.

58. Within 10 days of the President's submission of the FY + 1 budget to Congress, DOE shall submit to the Cabinet a summary of the budget request forwarded to DOE-HQ by DOE-ORR and submit to the Cabinet the DOE-PGDP budget request contained in the President's budget.

59. Within thirty (30) days after the President's submission of the FY + 1 budget to the Congress, DOE shall brief the Cabient on the President's budget request as it relates to the PGDP at the ADS, or equivalent, level of detail or below, if requested. At this briefing, DOE shall provide the Cabinet with a written description of the funding levels included in the President's budget request as it relates to PGDP and identification of any differences between these levels and the levels necessary to comply with the terms of the approved STP and this Agreed Order, along

with an assessment of the impacts these differences may have on DOE's ability to meet its requirements under the approved STP and this Agreed Order.

60. Within thirty (30) days after Congressional appropriation of the FY budget, DOE shall brief the Cabinet on the budget appropriation and proposed Environmental Management (EM) funding allocations for the new FY at the ADS, or equivalent, level or below, if requested. If there is a delay in Congressional appropriations beyond the first of the new federal fiscal year, DOE shall inform the Cabinet of any continuing resolution action and the impact of the delay on its ability to meet the requirements of the approved STP and this Agreed Order. The Cabinet will review this information and may recommend reallocation of available funds.

61. Within ten (10) days of the DOE EM allotments to ORR, DOE-ORR shall brief the Cabinet on the DOE-ORR EM allotments at the ADS, or equivalent, level or below, if requested.

62. If DOE believes that adequate funds or appropriations are not available to comply with the FY obligations of the approved STP and this Agreed Order, DOE shall nonetheless make a good faith effort to comply with the obligations for FY. A good faith effort may, but does not necessarily, include one or more of the following actions: rescoping or rescheduling the work being performed under this agreement consistent with the enforceable commitments, developing and implementing new productivity or cost-saving measures, requesting re-allotments or reprogramming of appropriated funds, and seeking supplemental appropriations.

63. If DOE believes that adequate funds or appropriations are not available to comply with the FY obligations of the approved STP and this Agreed Order, DOE may submit a request for a

revision or other amendment of any affected compliance dates in accordance with the provisions of paragraphs 35-37.

64. During the regularly scheduled project manager meetings, the project managers in their review of the progress of projects scheduled for the year shall discuss potential cost savings initiatives and productivity gains for the projects.

65. DOE shall provide the Cabinet with copies of any PGDP program execution guidance at the same time it is provided to DOE's contractors. DOE shall consult with the Cabinet in reviewing WBS summaries prepared by the contractors.

66. Throughout the FY, DOE shall promptly notify the Cabinet of any proposed site-specific or major programmatic action, if such action is likely to have an impact on DOE's ability to meet the requirements of this Agreement. DOE shall consider any comments made by the Cabinet in implementing the proposed action.

67. Within thirty (30) days of the completion of DOE's annual midyear management review, DOE shall brief the Cabinet on any decisions that affect compliance with the requirements of the approved STP and this Agreed Order.

68. Neither the process described above, nor the Cabinet's participation in the process, waives its position that the Executive Branch is obligated to seek full funding for all activities required by the approved STP and this Agreed Order and that DOE's failure to obtain adequate funds or appropriations from Congress does not in any way relieve DOE from its obligation to comply with the approved STP and this Agreed Order. If adequate funds or appropriations are not available to fulfill DOE's obligations under this Agreement, the Cabinet may pursue any remedy it has under this Agreed Order or exercise any of their statutory or regulatory authority. In any action

to enforce any provision of this Agreed Order, DOE may raise as a defense that its failure or delay was caused by the unavailability of appropriated funds. The Cabinet disagrees that an Anti-Deficiency Act Defense or any other defense based on the lack of appropriations or funding exists. However, the Cabinet and DOE agree and stipulate that it is premature at this time to raise and adjudicate the existence of any such defense. Acceptance of this provision (or any other specific reservation of rights by the Cabinet) does not constitute a waiver by DOE of its right to argue that its obligations under this Agreed Order and the STP are subject to the provisions of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

69. The participation by the Cabinet in DOE's budget planning and execution process under this Section is limited solely to the process set forth herein and shall in no way be construed as allowing the Cabinet to become involved with the internal DOE budget process. Furthermore, nothing herein shall affect DOE's authority over its budgets and funding level submissions.

70. DOE agrees to notify the Cabinet when it provides confidential budget information to the Cabinet. The Cabinet agrees not to release confidential budget information to any other entities prior to submission of the President's budget request to Congress, unless authorizied by DOE or required to do so by the Kentucky Open Records Act (KRS 61.870 et seq.) or by court order. DOE may intervene in any proceeding brought to compel or enjoin release of this information. If allowed to intervene, DOE may assert its interest in, and the legal basis for, maintaining the confidentiality of this information.

71. Beginning in February, 1999 and every three (3) years thereafter, DOE and the Cabinet shall meet and evaluate the compliance dates of the approved STP and determine whether the

compliance dates should be modified. The evaluation and determination shall be based on the factors outlined in paragraph 36 of this Agreed Order. If DOE and the Cabinet agree that a modification is warranted, DOE shall proceed with the modification request pursuant to the procedures outlined in paragraphs 35-37. If no agreement can be reached on modification, DOE may invoke formal dispute resolution pursuant to paragraphs 41-46.

MISCELLANEOUS PROVISIONS

72. The Cabinet agrees to allow the performance of the above-listed compliance requirements of this Agreed Order to satisfy DOE's obligations under 42 U.S.C. 6939c for development and submission of a plan for the development of treatment capabilities and technologies to treat all of the mixed waste at PGDP and to satisfy all civil claims for DOE's violation of the hazardous waste storage prohibition contained in 42 U.S.C. Section 6924 (j), 40 Code of Federal Regulations, Part 268 and 401 KAR 37:050 for those mixed wastes covered by the approved STP.

73. Within the (10) days of the effective date of this Agreed Order, the Cabinet and DOE shall designate a Project Manager and notify the other party of the designation. The Project Managers shall oversee the implementation of the approved STP and this Agreed Order and act as the primary contact for communication between the parties. The parties may change their Project Manager designations upon providing ten (10) days written notice of the change, if possible. All submittals required of DOE by this Agreed Order shall be to the Cabinet's Project Manager.

74. This Agreed Order addresses only those matters specifically set out or referred to in this Agreed Order. The Cabinet enters into this Agreed Order based on information supplied by DOE. 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 defenses thereto. The Cabinet expressly reserves its right at any time to issue administrative orders and to take any other enforcement action it deems necessary, including the right to order all necessary remedial measures, assess penalties for violations, or recover all response costs incurred, and DOE reserves its defenses thereto.

75. The Agreed Order shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit to DOE. DOE reserves its defenses thereto, except that it shall not use this Agreed Order as a defense to those permitting actions.

76. DOE waives its right to any hearing on the matters addressed herein, but reserves its rights to invoke the dispute resolution procedures described in this Agreed Order. Failure by DOE to comply strictly with the terms of this Agreed Order shall be grounds for the Cabinet to seek enforcement of this Agreed Order in Franklin Circuit Court and pursue any other appropriate administrative or judicial action under KRS Chapter 224 and the regulations promulgated pursuant thereto.

77. 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 failure to comply with the terms of this Agreed Order.

78. This Agreed order or any of its provisions, conditions or dates contained herein may be amended, modified, deleted or extended only upon a written request stating the reasons therefore, and by the approval and written Order of the Secretary or his designee. A request for an extension of time shall be tendered prior to the time performance is due. Any request made

pursuant to this paragraph shall be submitted directly to the Director of the Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601. Any amendment, modification, deletion or extension granted pursuant to this paragraph shall not affect any other provision, condition or date within this Agreed Order unless specifically and expressly so provided by the written Order.

79. 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 result in compliance with the provisions of KRS Chapter 224 and the regulations adopted pursuant thereto. Notwithstanding the Cabinet's review and approval of any plans formulated pursuant to this Agreed Order, DOE shall remain solely responsible for compliance with the terms of KRS Chapter 224 and the regulations adopted pursuant thereto, this Agreed Order and any permit requirements.

80. The provisions of this Agreed Order shall apply to and be binding upon DOE. The acts or omissions of DOE's contractors, agents and employees shall not excuse the performance of any provision of this Agreed Order. DOE shall be responsible for ensuring that all contractors, employees, agents, consultants, firms, and other persons or entities acting on behalf of DOE with respect to the approved STP and this Agreed Order, will comply with the terms of the approved STP and this Agreed Order. DOE shall give notice of this Agreed Order to any purchaser, lessee or successor in interest prior to the transfer of ownership and/or operation of any part of its now existing facility, shall notify the Cabinet that such notice has been given and follow all statutory and regulatory requirements for such a transfer. Regardless of whether or not any transfer takes

place, DOE shall remain fully responsible for the performance of all compliance requirements identified in this Agreed Order.

81. The Cabinet and DOE agree that the compliance requirements specified herein are facility-specific and designed to comply with the statutes and regulations cited herein. This Agreed Order applies specifically and exclusively to the unique facility referenced herein and is inapplicable to any other site or facility.

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

83. The parties acknowledge that they are in the process of completing negotiation of a Federal Facility Agreement (FFA) for the PGDP with the Environmental Protection Agency, Region IV. The FFA contains budget planning and execution provisions similar to the budget planning and execution provisions of this Agreed Order. Upon the effective date of the FFA and in order to avoid duplicative requirements, DOE may coordinate and combine, as appropriate, the budget planning and execution requirements of the FFA with the budget planning and execution requirements of this Agreed Order.

84. The parties acknowledge the recent amendments made to the Waste Isolation Pilot Plant Land Withdrawal Act by Section 3188 of the National Defense Authorization Act for Fiscal Year 1997, Pub. L. 104-201, signed September 23, 1996. The parties agree to evaluate this Order and the approved STP in view of these amendments. DOE may propose modifications to this Order and the approved STP based on this evaluation. If the Cabinet and DOE agree that a modification is warranted DOE shall proceed with the modification request pursuant to the procedures outlined in

paragraphs 35-37 and 78. If no agreement can be reached DOE may invoke formal dispute resolution pursuant to paragraphs 41-46.

TERMINATION

85. This Agreed Order shall terminate when DOE has completed its obligations under the approved STP and this Agreed Order. When DOE has completed its obligations under the approved STP and this Agreed Order, it shall submit a written demonstration and certification for approval by the Cabinet. DOE's obligations shall terminate upon the Cabinet's written approval of DOE's certification that all of its obligations have been completed.

AGREED TO BY:

Steven D. Richardson
United States Department of Energy

7/17/97
Date

Dep. Mgr. ORO
Title

APPROVAL RECOMMENDED BY:

Robert H. Daniell, Director
Division of Waste Management

8-5-97
Date

Robert W. Logan, Commissioner
Department for Environmental Protection

8/21/97
Date

Randall G. McDowell, Supervisor
Office of Legal Services

8/28/97
Date

Glenna Jo Curry, General Counsel
Office of Legal Services

8/28/97
Date

HAVE SEEN:

James L. Dickinson, Hearing Officer

9/8/97
Date

ORDER

Wherefore, the foregoing AGREED ORDER is entered as the final Order of the Natural Resources and Environmental Protection Cabinet this 10th day of Sept., 1997.

NATURAL RESOURCES AND
ENVIRONMENTAL PROTECTION CABINET

JAMES E. BICKFORD, SECRETARY

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing **AGREED ORDER** was mailed, postage prepaid, to the following this 10th day of Sept., 1997:

Hon. Rachel Blumenfeld
U.S. DOE
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37381

and mailed, messenger to.

Robert Daniell, Director
Division of Waste Management
and hand-delivered to:

Randall G. McDowell
Office of Legal Services

Shirley Booth
DOCKET COORDINATOR

Distribution:

JLG
JK
Order
LTS
KC

SITE TREATMENT PLAN
UNITED STATES DEPARTMENT OF ENERGY
PADUCAH GASEOUS DIFFUSION PLANT

I. INTRODUCTION

The Paducah Gaseous Diffusion Plant (PGDP) is owned by the United States Department of Energy (DOE) and is located in western Kentucky in McCracken County. The principal site process is the separation of uranium isotopes through gaseous diffusion. In October 1992, congressional passage of the Energy Policy Act of 1992 established the United States Enrichment Corporation (USEC). In accordance with the Energy Policy Act, the USEC leases and operates the uranium enrichment facility at the PGDP. The primary mission of the DOE-PGDP is environmental restoration and waste management.

The DOE is required by Section 3021(b) of the Resource Conservation and Recovery Act (RCRA), as amended by the Federal Facility Compliance Act (FFC Act), to prepare Site Treatment Plans (STPs) describing the development of treatment capacities and technologies for treating mixed waste, defined by the FFC Act as waste containing both a hazardous waste subject to RCRA, and a source, special nuclear or by-product material subject to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.). On April 6, 1993, the DOE published a notice, 58 Federal Register 17875, describing the proposed process for developing the STPs in three phases, including a Conceptual Site Treatment Plan (CSTP), a Draft Site Treatment Plan (DSTP), and a Proposed Site Treatment Plan (PSTP). The Cabinet has reviewed the PSTP, modified its terms and approved the STP[1] as follows.

[1] The information in the approved Site Treatment Plan has been revised by the March 1996 annual update.

A total of 164 mixed wastestreams have been identified as being generated or stored at the DOE-PGDP. The DOE-PGDP wastestreams were organized into treatment groups. Technologies were screened and treatment options were identified for each of these treatment groups. Options were then evaluated on the basis of ability to meet the criteria of regulatory compliance, environmental, health and safety, treatment effectiveness, ease of implementation, stakeholder concerns, life-cycle cost, and technology development. A treatment option was selected as a result of this evaluation process.

The DOE-PGDP has approximately 1062.62 m^3 of mixed waste as listed in Table 1. The following are the treatment options for the DOE-PGDP's wastestreams. All volumes are considered estimates based on the currently available information. The amount of organic containing liquids targeted for treatment at the TSCA Incinerator in Oak Ridge, Tennessee is 168.41 m^3. The amount of combustible solids targeted for treatment at the TSCA Incinerator is 99.80 m^3. The amount of waste consisting of either solid or liquid inorganic chemicals that contain metal contaminants and/or considered to be corrosive targeted for treatment at the DOE-PGDP's C-400-D facility is 11.96 m^3. The amount of photographic waste targeted for commercial recycling is 3.32 m^3. The amount of cyanide waste targeted for the Cyanide Treatment Facility at ORR is .78 m^3. The amount of sludge and debris waste targeted for commercial stabilization is 168.02 m^3. The amount of Mixed Transuranic (TRU) waste targeted for disposal at the Waste Isolation Pilot Plant is 1.76 m^3. Also, 577.57 m^3 of waste requires further characterization to determine a proper treatment method.

II. IMPLEMENTATION OF THE SITE TREATMENT PLAN

DOE shall comply with the terms and conditions of the approved STP. The STP shall include all mixed wastes at DOE-PGDP [excluding the United States Enrichment Corporation (USEC) generated wastes], which is being stored in violation of the Land Disposal Restrictions (LDRs) of 401 KAR Chapter 37 and RCRA Section 3004 (j), whether such wastes were generated or accumulated in the past, present, or future. This includes wastes which are newly discovered, identified, generated, or received from off-site.

DOE shall comply with the following procedures for including additional mixed wastes at the DOE-PGDP in the approved STP, including mixed wastes that are newly discovered, identified, generated, or received from offsite, and mixed wastes that are generated through corrective action, environmental restoration and decontamination and decommissioning activities. In each annual update of the approved STP, DOE shall propose to include additional mixed wastes in the STP as either a proposed amendment or revision to the approved STP. DOE's request shall include a description of the waste form, applicable hazardous waste codes, waste volumes, treatment technology and capacity needs and proposed treatment schedules. If the DOE cannot provide such information or schedules because of inadequate characterization or it is otherwise impracticable to do so, DOE shall include appropriate justification, including the characterization methodology used, supporting information, and proposed plans for developing such information and schedules. If the Cabinet agrees with DOE's explanation for not being able to provide the necessary information or schedules, the Cabinet may allow the information to be included in the next regularly scheduled annual update. In no event shall this information and proposed schedules be delayed beyond two consecutive annual updates.

DOE shall comply with the following procedures for deletion of wastes from the approved STP. DOE shall submit a request for deletion of waste from the approved STP as an amendment or revision to the approved STP. The request shall be included in the next regularly scheduled annual update of the approved STP. The request shall include documentation that the waste has been treated on-site or received at an off-site facility for treatment, disposal, or storage pending treatment or disposal. The Cabinet may propose that a waste be deleted if it determines that the waste is no longer subject to the LDRs under 401 KAR Chapter 37 or 40 CFR Part 268.

III. MIXED LOW LEVEL WASTE

This Section identifies compliance dates for the 160 Mixed Low-Level Waste (MLLW) streams generated or stored by the DOE-PGDP. Compliance dates are those dates by which DOE shall complete the activities identified in the approved STP . All MLLW streams generated by the DOE-PGDP are considered to be contact handled (CH). Table 1 of this attachment lists the DOE-PGDP 160 MLLW streams and gives weight and volume information available as of December 1995.[2]

Treatment of MLLW will be implemented in accordance with the standards specified in 401 Kentucky Administrative Regulations (K.A.R.) Chapter 37 and 268 Subpart D of Section 40 Code of Federal Regulations (C.F.R.). Two categories of treatment standards for LDR waste are specified in Subpart D. The technology-based treatment standard 401 K.A.R. 37:040 Section 3, Table 7 and 40 C.F.R. 268.42, Table 2 specifies the best technology for treatment of hazardous waste. The concentration-based treatment standards are expressed in terms of the constituent concentration in water 401 K.A.R. 37:040 Section 5, Table CCW and 40 C.F.R. 268.43, Table CCW or constituent concentration in waste extract 401 K.A.R. 37:040 Section 2, Table CCWE and 40 C.F.R. 268.43

[2] Table 1 has been updated by the March 1996 annual update

Table CCWE. The majority of mixed waste is required to meet the concentration-based treatment standards.

The wastestream information in the STP reflects the DOE-PGDP's inventory as of December 1994. All of DOE-PGDP's MLLW streams are considered to have existing treatment technology. MLLW Streams believed to meet LDR Treatment Standards and/or Requiring Further Characterization/Sorting, is a grouping of waste which after further investigations will either no longer be mixed waste or will be placed in the proper mixed waste group.

IV. MLLW STREAMS FOR WHICH TECHNOLOGY EXISTS

This section identifies schedules for treatment of mixed wastes where treatment technology exists. The DOE-PGDP is currently using the Toxic Substances Control Act (TSCA) Incinerator in Oak Ridge, Tennessee for treatment of liquid mixed waste. The DOE-PGDP's Lime Precipitation Unit is the only on-site treatment facility available.

A. TSCA Incinerator

Table 2[3] of this attachment lists the DOE-PGDP liquid wastestreams scheduled for shipment to the TSCA Incinerator. Table 3[4] of this attachment lists the DOE-PGDP solid wastestreams scheduled for shipment to the TSCA Incinerator. These tables identify the individual wastestreams and include information about quantities and hazardous waste codes.

Compliance date for organic containing liquids

All of the liquid wastestreams listed in Table 2 shall be shipped to the TSCA Incinerator by October 31, 1997. Prior to any shipment to the TSCA Incinerator, DOE shall send written notification of the shipment to the Tennessee Department of Environment and Conservation. Within

[3] Table 2 has been updated by the March 1996 annual update

[4] Table 3 has been updated by the March 1996 annual update

ten (10) days of the last shipment of the wastes listed in Table 2, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

Compliance dates for combustible solids (soft solids)

By June 30, 1997, the DOE-PGDP shall request approval from DOE-ORR for treatment of the soft solids listed in Table 3. All soft solids listed in Table 3 shall be shipped to the TSCA Incinerator by December 31, 2003. Prior to any shipment to the TSCA Incinerator, DOE shall send written notification of the shipment to the Tennessee Department of Environment and Conservation. Within ten (10) days of the last shipment of the wastes listed in Table 3, DOE shall send written documentation to the Cabinet that the activities required by the compliance date has been completed.

Treatment Residues

The treatment of the wastestreams in Tables 2 and 3 at the TSCA incinerator will produce some treatment residues. The Tennessee Department of Environment and Conservation has agreed that all treatment residues from the DOE-PGDP liquid and soft solid wastestreams can remain in storage at the Oak Ridge Reservation pending shipment to the Envirocare mixed waste disposal facility in Utah. However, Tennessee's agreement is contingent upon the treatment residues from the TSCA Incinerator being shipped to Envirocare within a fixed period of time. If DOE fails to ship the treatment residues to Envirocare within this timeframe, it may be necessary for the treatment residues from the PGDP wastestreams to be shipped back to PGDP for storage pending final disposal. In order to address this contingency, DOE-PGDP shall prepare a Residues Management Contingency Plan which outlines the procedures and conditions for the return of PGDP treatment residues to PGDP. DOE PGDP shall submit the Residues Management Contingency Plan to the Cabinet for review and comment by December 31, 1995. The Cabinet asserts it has the authority

to approve or disapprove the Residues Management Contingency Plan. DOE-PGDP shall request the Cabinet's approval of the Residues Management Contingency Plan. DOE-PGDP does not agree that the Cabinet has the authority to approve or disapprove the Residues Management Contingency Plan. The Cabinet will submit to DOE-PGDP its comments and approve or disapprove the plan, by a date proposed by DOE-PGDP and agreed to by the Cabinet. If the Cabinet disapproves the plan or does not act on the plan by the agreed upon date, DOE-PGDP may invoke the formal dispute resolution procedures, or take whatever other action it deems appropriate, including filing an action in federal district court. The Cabinet reserves all its legal rights and defenses with respect to any action taken by DOE. All shipments of PGDP's treatment residues to PGDP must be in compliance with the terms and conditions of DOE-PGDP's storage permit.

B. C-400-D Lime Precipitation Unit

Table 4[3] of this attachment lists the DOE-PGDP wastestreams scheduled for treatment at the C-400-D Lime Precipitation Unit. This table identifies the individual wastestreams and includes information about quantity and EPA Codes.

Compliance Dates

All wastestreams included in Table 4 shall be treated in PGDP's Lime Precipitation Unit by December 31, 1997. If any waste in this treatment group does not meet the waste acceptance criteria (WAC) of the Lime Precipitation Unit, the DOE-PGDP shall propose a treatment plan and treatment schedule by December 31,1997 as an amendment or revision of the approved STP. All solid residues from the treatment process, in the form of filter cake, shall be characterized within ninety (90) days of generation, placed in the appropriate treatment group and treated in accordance with the schedule for that wastestream. Within sixty (60) days of the last batch treatment for the

[3] Table 4 has been updated by the March 1996 annual update

wastestreams listed in Table 4, DOE shall send written documentation to the Cabinet that the activities required by the compliance date has been completed.

C. Commercial Recycling of Photographic Waste

Table 5[6] of this attachment lists the DOE-PGDP wastestreams scheduled for treatment at a Commercial Recycling Facility. This table identifies the individual wastestreams and includes information about quantity and hazardous waste codes.

Compliance dates

The DOE-PGDP shall issue a request for proposals from commercial vendors for proof of their treatment process by December 31, 1997. The DOE-PGDP shall issue a request for proposals from commercial vendors for treatment of the photographic waste by December 31, 1998. The DOE-PGDP shall evaluate the proposals and enter into contracts by December 31, 1999. DOE shall ship all the photographic wastestreams listed in Table 5 to commercial recycling facilities by December 31, 2001. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

D. Cyanide Treatment Facility at ORR

Table 6[7] (cyanide waste) of this attachment lists the DOE-PGDP wastestreams scheduled for treatment at the Cyanide Treatment Facility located at the Oak Ridge Reservation. This table identifies the individual wastestreams and includes information about quantities and hazardous waste codes.

[6] Table 5 has been updated by the March 1996 annual update

[7] Table 6 has been updated by the March 1996 annual update

Compliance dates

By June 30, 1997, the DOE-PGDP shall request approval from DOE-ORR for treatment of the cyanide waste listed in Table 6. DOE-PGDP shall ship all the cyanide waste listed in Table 6 to the ORR for treatment by December 31, 2002. Prior to any shipment to the Cyanide Treatment Facility, DOE shall send written notification of the shipment to the Tennessee Department of Environment and Conservation. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

Treatment Residues

The treatment of the wastestreams in Table 6 at the Cyanide Treatment Facility at ORR will produce some treatment residues. DOE-PGDP shall include these residues in their Residues Management Contingency Plan.

E. Commercial Stabilization

Table 7[8] of this attachment lists the DOE-PGDP wastestreams scheduled for treatment at a Commercial Stabilization Facility. This table identifies the individual wastestreams and includes information about quantities and hazardous waste codes.

Compliance dates

The DOE-PGDP shall issue a request for proposals from commercial vendors for proof of their treatment process by December 31, 1997. The DOE-PGDP shall issue a request for proposals from commercial vendors for treatment of the wastesteams listed in Table 7 by December 31, 1998. The DOE PGDP shall evaluate the proposals and enter into contracts by December 31, 2001. DOE shall ship all the wastesteams listed in Table 7 to commercial stabilization facilities by [illegible]

[8] Table 7 has been updated by the March 1996 annual update

31, 2007. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

V. MLLW STREAMS REQUIRING FURTHER CHARACTERIZATION/SORTING

Table 9[9] of this attachment lists the DOE-PGDP wastes requiring further characterization to determine the proper treatment method. This table identifies the individual wastestreams and includes information about quantity and hazardous waste codes. Depending upon the outcome of the characterization efforts, four likely scenarios are foreseen:

(1) The wastestream will contain only constituents D018 to D043 and can be processed to meet the disposal WAC of Envirocare under an existing DOE contract;

(2) The wastestream will meet LDR treatment standards and require no further treatment. For these wastestreams DOE shall comply with the procedures for deletion of a wastestream;

(3) The wastestream will be characterized as mixed waste and incorporated into a treatment group of the STP; or

(4) The wastestream may be characterized as other than mixed waste. For these wastes DOE shall comply with the procedures outlined in paragraph 28 of the Agreed Order.

A. Compliance dates for Table 9 wastestreams needing further characterization

DOE shall determine which wastestreams in Table 9 contain only D018 through D043 wastecodes by April 30, 1996. DOE shall ship the wastestreams in Table 9 that contain only D018 through D043 wastecodes to the Envirocare mixed waste disposal facility in Utah by September 30,

[9] Table 9 has been updated by the March 1996 annual update

1996. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

DOE shall complete characterization of the remaining wastestreams in Table 9 by December 31, 2005. DOE shall submit a treatment plan with proposed schedules for the remaining wastestreams by July 1, 2006, in accordance with the revision and amendment provisions of the Order. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

B. Ash Receivers

Table 10[10] of this attachment lists the wastestreams consisting of Ash Receivers. This table identifies the individual wastestreams and includes information about quantity and EPA codes.

Compliance dates

The DOE-PGDP shall characterize the waste in Table 10 by December 31, 1996. By July 1, 1997, the DOE-PGDP shall submit a treatment plan with proposed schedules for this waste if it is confirmed to be mixed in accordance with the revision and amendment provisions of the Order. If DOE determines that the wastestreams in Table 10 are not mixed waste, DOE shall comply with procedures outlined in paragraph 4 of section V. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

[10] Table 10 has been updated by the March 1996 annual update

C. Surface Radiological Characterization

Table 11[1] of this attachment lists the DOE-PGDP wastestreams scheduled for surface radiological characterization. This table identifies the individual wastestreams and includes information about quantity and EPA codes.

Compliance dates

All wastestreams in Table 11 shall have surface radiological characterization completed by July 31, 2001. For those wastes which are determined to be mixed wastes, DOE shall submit a treatment plan with proposed schedules by December 31, 2001 in accordance with the revision and amendment provisions of the Order. For those wastes which DOE determines are not mixed wastes, DOE shall follow the procedures outlined in paragraph 4 of section V. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

VI. MIXED TRANSURANIC WASTE

DOE's national strategy to achieve compliance with the requirements of the FFC Act for MTRU waste is to ship the MTRU waste to the Waste Isolation Pilot Project (WIPP) in New Mexico by using the no-migration variance petition approach described in 40 C.F.R. § 268.6. Under this strategy, the DOE intends to continue interim storage of MTRU waste, continue preparation of such wastes for shipment to WIPP, and then ship and dispose of such wastes in WIPP. Although this may be DOE's national strategy, DOE shall continue to identify, develop and evaluate treatment technologies for mixed transuranic waste consistent with the requirements of the Federal Facility Compliance Act and this Site Treatment Plan.

---

[1] Table 11 has been updated by the March 1996 annual update

Table 13[12] lists the DOE-PGDP mixed transuranic wastestreams proposed for shipment to WIPP. This table identifies information about quantity and hazardous waste codes.

Compliance Dates

DOE-PGDP shall complete characterization, processing, and packaging and shipment of the wastestreams listed in Table 13 to meet the WAC for WIPP by December 31, 2015. Within ten (10) days of the compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

If DOE's national efforts to identify, develop and evaluate treatment technologies and treatment capacity for mixed transuranic waste result in a treatment technology and treatment capacity for the wastestreams in Table 13 prior to the compliance date for shipment to WIPP, DOE-PGDP shall notify the Cabinet and submit a treatment plan with proposed schedules for treatment of the wastestreams in Table 13 within six (6) months of the notification, in accordance with the revision and amendment provisions of the Order. Within ten (10) days of each compliance date, DOE shall send written documentation to the Cabinet that the activities required by the compliance date have been completed.

[12] Table 13 has been updated by the March 1996 annual update

Table 1 The DOE-PGDP MLLW Wastestreams, Weights, and Volumes

WS	Name	kg	m^3	L/S	EPA Codes
PA-A001	MISC. FLAMMABLE MATERIALS-Aqueous	435.7	0.60	L	D001 D002 D006 D007 D008 D018
PA-B001	MISC. FLAMMABLE MATERIALS- Aqueous Non HOC Organic Liquid	344	0.40	L	D001
PA-C001	MISC. FLAMMABLE MATERIALS-Solvents	809.6	0.97	L	D001 D039
PA-D001	MISC. FLAMMABLE MATERIALS-Fuels	1176.5	2.44	L	D001 D018 F003
PA-E001	MISC. FLAMMABLE MATERIALS-Adhesives Liquid	506.7	1.24	L	D001 D035 U122
PA-F001	MISC. FLAMMABLE MATERIALS- Spill Cleanup Material	120.7	0.20	S	D001
PA-G001	MISC. FLAMMABLE MATERIALS-Paints	3437.2	5.21	S	D001 F003
PA-H001	MISC. FLAMMABLE MATERIALS-Diesel Sludge	495.3	0.40	S	D001
PA-I001	MISC. FLAMMABLE MATERIALS - Adhesives Solid	221.7	0.64	S	D001 U122 D035
PA-J001	MISC. FLAMMABLE MATERIALS-Metal Debris	91.2	0.40	S	D001
PA-K001	MISC. FLAMMABLE MATERIALS-Paper/Cloth Debris	89.8	0.20	S	D001
PA-L001	MISC. FLAMMABLE MATERIALS-Hetero Debris	234.5	0.40	S	D001
PA-M001	MISC. FLAMMABLE MATERIALS-Oxidizer	344.9	0.72	S	D001 D007
PA-N001	MISC. FLAMMABLE MATERIALS-Flammable Liquid	107.2	0.31	L	D001 D035 U002 D008
PA-O001	MISC. FLAMMABLE MATERIALS-Waste Samples	415.2	0.60	L	D001
PA-P001	MISC. FLAMMABLE MATERIALS-Organic Peroxide	7.7	0.01	L	D001
PA-Q001	MISC. FLAMMABLE MATERIALS-Compressed Gas	46.1	0.22	S	D001 D003
PA-W002	TRI(2-ETHYLHEXYL) PHOSPHATE/HEXANE	321.7	0.60	L	D001 D002
PA-W003	WASTE MINERAL SPIRITS-Paint Wastes	6356.9	8.24	L	D001
PA-A004	DISCARDED BATTERIES-Lead	940.5	1.84	S	D002 D008
PA-B004	DISCARDED BATTERIES-Cadmium	390.3	0.40	S	D006 D002 D008
PA-C004	DISCARDED BATTERIES-Mercury	1869.2	2.76	S	D006 D002 D008 D009 D011
PA-D004	DISCARDED BATTERIES-Other	173.8	0.35	S	D001 D003 D002 D006 D008
PA-W005	METHYL ETHYL KETONE/PEROXIDE	8.1	0.05	L	D001 D035 U159
PA-A006	MISC. ACIDS AND BASES-Acids	7319.4	11.72	L	D002 D004 D005 D007 D008 F001 D009 D010 D026
PA-B006	MISC. ACIDS AND BASES-Base	4146.6	5.17	L	D002
PA-C006	MISC. ACIDS AND BASES-Other Waste	2551.3	3.64	L	D002 D009 F001 D039

Table 1. The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-D006	MISC. ACIDS AND BASES- Aqueous Org Liquid	67.1	0.72	S	D002
PA-E006	MISC. ACIDS AND BASES- Inorganic Sludges	24316.1	18.44	SL	D002
PA-F006	MISC. ACIDS AND BASES- Sodium Hydroxide	115.7	0.22	S	D002
PA-G006	MISC. ACIDS AND BASES- Inorganic Chemicals	512.3	1.45	S	D002
PA-H006	MISC. ACIDS AND BASES- Organic Chemicals	999	3.89	S	D002
PA-I006	MISC. ACIDS AND BASES- Plastic Debris	546.2	1.76	SL	D002
PA-J006	MISC. ACIDS AND BASES-Unknown	247.4	0.37	L	D002
PA-K006	MISC. ACIDS AND BASES- Aqueous Labpacks	637.8	0.82	L	D002
PA-M006	MISC. ACIDS AND BASES- Solid Labpacks	409.3	1.54	L	D002
PA-W010	HYDROCHLORIC ACID TANK-Sludge	311.3	0.64	S	D002 D006 D007
PA-A011	MISC. AQUEOUS SOLUTION CONTAIN/TOX METALS-Basic	4.5	0.01	L	D002 D006
PA-B011	MISC. AQUEOUS SOLUTION CONTAIN/TOX METALS-Neutral	9789.2	12.57	L	D007 D006 D008 D040 D010
PA-C011	MISC. AQUEOUS SOLUTION CONTAIN/TOX METALS- Other Wastewaters	3199.4	3.37	L	D006 D007 D004 D005 D008
PA-A013	NICKEL STRIPPER SOLID RESIDUE-Sludge	4988.3	7.31	L	D002 D006 D007 D008 D039
PA-B013	NICKEL STRIPPER SOLID RESIDUE-Organic Debris	74.9	0.20	S	D002 D006 D007 D008
PA-C013	NICKEL STRIPPER SOLID RESIDUE-Composite Filters	436.1	1.71	S	D002 D006 D007 D008
PA-C015	TECHNETIUM WASTE-Liquid	1807.2	1.80	L	D002 D007
PA-D015	TECHNETIUM WASTE-Solid/Sludge	1594.4	1.35	S	D007
PA-A017	AQUEOUS CLEANER- Acidic Wastewater	1870.3	2.36	L	D002 D007 D006 D008
PA-B017	AQUEOUS CLEANER- Neutral Wastewater	11614.3	14.40	L	D008 D011 D006 D007 D009 D010 D028 D033 D018
PA-A018	MISC. REACTIVE MATERIALS- Cyanide Liquid	68.1	0.05	L	D003
PA-B018	MISC. REACTIVE MATERIALS- Cyanide Solids	3.6	0.01	S	D003
PA-C018	MISC. REACTIVE MATERIALS- Solid Labpack	109.4	0.20	S	D003
PA-A019	MISC. ARSENIC BEARING WASTE-Glycol	12157.5	10.61	L	D004
PA-B019	MISC. ARSENIC BEARING WASTE-Solids	220.4	0.53	S	D004
PA-C019	MISC. ARSENIC BEARING WASTE-Organic Debris	8.5	0.02	S	D004

Table 1 The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-A020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Sandblasting Media	7569.3	6.45	S	D006 D008
PA-B020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Absorbed Org Liquids	956.6	1.64	S	D007 D004 D008
PA-C020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Inorganic Sludges	161	0.40	S	D008 D005 D007 D010
PA-D020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Inorg Homog Solids	55841.1	78.83	S	D004 D006 D008 D007 D011
PA-E020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Metal Debris	1273.5	2.40	S	D006 D008 D009 D011
PA-F020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Light Bulbs	3062.9	9.61	S	D006 D008 D009
PA-G020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Plastic Debris	101.2	0.20	S	D011
PA-H020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Paper/Cloth Debris	329.7	1.26	S	D007 D008 D011 D006
PA-I020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Organic Debris	933.5	1.83	S	D006 D004 D007 D008 D009 D011
PA-J020	MISC. SOLID MATTER CONTAIN/ TOXIC METALS-Heterog Debris	103.5	0.20	S	D006
PA-W021	ASH RECEIVERS	91972.1	459.24	S	D004 D007
PA-W022	URANIUM PRECIPITATE	561.5	1.01	S	D006
PA-W023	GOLD DISSOLVER SLUDGE	2.7	0.01	S	D006 D008
PA-A024	MISC. CHROMATE-BEARING WASTE-Inorg Particulates	231.4	0.21	S	D007
PA-B024	MISC. CHROMATE-BEARING WASTE-Solids	4190.2	5.44	S	D007
PA-C024	MISC. CHROMATE-BEARING WASTE-Soils	1441.3	1.20	S	D007
PA-D024	MISC. CHROMATE-BEARING WASTE-Paper/Cloth Debris	905.6	3.06	S	D007
PA-E024	MISC. CHROMATE-BEARING WASTE-Composite Filters	241.5	0.81	S	D007
PA-F024	MISC. CHROMATE-BEARING WASTE-Unknown	916.8	1.32	S	D007
PA-G024	MISC. CHROMATE-BEARING WASTE-Labpacks	1116.1	1.24	S	D007
PA-W025	MAGNESIUM FLUORIDE PELLETS	3342.9	5.16	S	D007
PA-W026	SODIUM DICHROMATE	318.7	0.52	S	D007
PA-W027	POTASSIUM DICHROMATE FILTER CAKE	51.2	0.32	S	[illegible]
PA-W028	CASCADE VACUUM DUST	155.2	0.32	S	D006 [illegible]
PA-A030	MISC. LEAD-BEARING WASTE-Antifreeze	211.9	0.52	L	D008
PA-B030	MISC. LEAD-BEARING WASTE-Machine Coolant	167.5	0.20	L	D008
PA-C030	MISC. LEAD-BEARING WASTE-Soil	161.9	0.21	S	D008
PA-D030	MISC. LEAD-BEARING WASTE-Metal Debris	[illegible]	[illegible]	[illegible]	[illegible]
PA-E030	MISC. LEAD-BEARING WASTE-Bricks	[illegible]	[illegible]	[illegible]	D008

Table 1 The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-F030	MISC. LEAD-BEARING WASTE- Organic Debris	1530.1	3.01	S	D008
PA-G030	MISC. LEAD-BEARING WASTE-Filters	366.6	1.00	S	D008
PA-H030	MISC. LEAD-BEARING WASTE- Hetero Debris	135.1	0.23	S	D008
PA-I030	MISC. LEAD-BEARING WASTE- Lab Waste Samples	768.4	1.20	S	D008
PA-J030	MISC. LEAD-BEARING WASTE- Lead Bullets	1630.5	0.80	S	D008
PA-K030	MISC. LEAD-BEARING WASTE- Lead Metal	3611.2	3.47	S	D008
PA-L030	MISC. LEAD-BEARING WASTE-Inorganic Chemicals	0.4	0.01	S	D002 D006 D008
PA-W031	HOT WATER RINSE TANK-Sludge	1742.1	2.56	SL	D008
PA-A032	ALKALI CLEANING TANK LIQUID-Aqueous Basic	745.8	0.80	L	D008 D010
PA-C032	ALKALI CLEANING TANK LIQUID-Paper/Cloth Debris	457.5	0.60	S	D008 D018 D010
PA-A033	MISC. MERCURY-BEARING WASTES-Inorg Particulates	59	0.20	S	D009
PA-B033	MISC. MERCURY-BEARING WASTES-Soils	3506.8	2.80	S	D009
PA-C033	MISC. MERCURY-BEARING WASTES-Metal Debris	178.5	0.63	S	D009 U151
PA-D033	MISC. MERCURY-BEARING WASTES-Fluor Light bulbs	11623	42.74	S	D009 D006 D008
PA-E033	MISC. MERCURY-BEARING WASTES-Plastic Debris	181.5	0.60	S	D009
PA-F033	MISC. MERCURY-BEARING WASTES-Organic Debris	159.5	0.62	S	D009
PA-G033	MISC. MERCURY-BEARING WASTES-Hetero Debris	249.3	0.61	S	D009 D011
PA-H033	MISC. MERCURY-BEARING WASTES-Labpacks	109.2	0.40	S	D009
PA-I033	MISC. MERCURY-BEARING WASTES-Labpacks	166.2	0.47	L	U151 D009
PA-A034	MISC. SELENIUM-BEARING WASTES-Inorganic Particulates	35.7	0.12	S	D010
PA-B034	MISC. SELENIUM-BEARING WASTES-Paper/Cloth Debris	174.7	0.60	S	D010
PA-W036	PHOTOGRAPHIC FIXER SOLUTION	2653.3	3.32	L	D011
PA-A037	SPENT SOLVENTS-Aqueous HOC Organic Liquids	2433.8	3.52	L	F003 D001 F005 F002 D002 D018 D006 D008

Table 1. The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-B037	SPENT SOLVENTS- HOC Organic Liquids	1360.9	2.37	L	F005 D001 F001 F002 U044 U210 U211 F003 D019 D002 U226 U228
PA-C037	SPENT SOLVENTS-Paint Wastes	419.4	0.40	L	F003 D001
PA-A038	SPENT SOLVENT SOLIDS- Aqueous Organic Liquids Non HOC	4	0.01	S	F003
PA-B038	SPENT SOLVENT SOLIDS- Absorbed Org Liquids	349.5	0.73	S	F001
PA-C038	SPENT SOLVENT SOLIDS- Inorganic Sludges	325.8	0.43	L	F001 D001
PA-D038	SPENT SOLVENT SOLIDS- Paint Related Waste	388.5	0.72	S	F005 D001
PA-E038	SPENT SOLVENT SOLIDS- HOC Organic Sludge	3227.9	4.68	S	F001 D040 D008
PA-F038	SPENT SOLVENT SOLIDS- Org Homog Solids	44	0.20	S	F005 D001
PA-H038	SPENT SOLVENT SOLIDS- Metal Debris	1666.8	3.06	S	F001 F003
PA-I038	SPENT SOLVENT SOLIDS- Glass Debris	74.4	0.20	S	F001
PA-J038	SPENT SOLVENT SOLIDS- Plastic Debris	531.7	1.80	S	F001
PA-K038	SPENT SOLVENT SOLIDS-Wood	3684.7	8.00	S	F001
PA-L038	SPENT SOLVENT SOLIDS- Paper/Cloth Debris	4029.2	13.33	S	F003 D001 D035 D018 F001 D039 F005
PA-M038	SPENT SOLVENT SOLIDS- Organic Debris	23127.2	43.95	S	F001 D008 D040 D007 F002 D018 D039 F003 F005 D035 D001
PA-N038	SPENT SOLVENT SOLIDS- Hetero Debris	214.5	0.60	S	F003 F001
PA-O038	SPENT SOLVENT SOLIDS-Labpacks	84.6	0.31	S	F001 D007 D009
PA-A039	TRICHLOROETHYLENE- Aqueous HOC Organic Liquids	12162.8	12.21	L	F001 D040 D001
PA-B039	TRICHLOROETHYLENE- HOC Organic Liquids	21103.9	30.00	L	F001 D006 D007 D008 D018
PA-C039	TRICHLOROETHYLENE- HOC Organic Sludges	3614.6	5.00	S	F001 D001
PA-D039	TRICHLOROETHYLENE- HOC Organic Sludges	3285.6	3.20	L	D040
PA-W040	WASTE OIL CONTAM/W HALOGENATED SOLVENTS	2378.8	2.41	L	D006 D007 D011 D018 D040 F001
PA-W043	METHANOL, ACETONE	18.1	0.02	L	D001 F003
PA-W044	DIBUTYL CARBITOL (SCINTILLATION) SOLUTION	248.8	0.40	L	F003 D001
PA-W046	SILVER CYANIDE	112.9	0.52	L	F007 D003 D011
PA-W047	PENTACHLOROPHENOL	388.5	0.20	L	F027 D037
PA-A048	[illegible] DISPOSABLE LABORATORY CHEMICALS Acid Liquid	2.2	0.01	L	D002

Table 1 The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-B048	MISC. DISCARDED LABORATORY CHEMICALS-TCE	95.7	0.32	L	U227
PA-C048	MISC. DISCARDED LABORATORY CHEMICALS-Trichlor	902.3	1.00	L	U226
PA-D048	MISC. DISCARDED LABORATORY CHEMICALS-Misc. Solvents	30.8	0.20	L	U002 U211 D001 D019 U226 U239
PA-E048	MISC. DISCARDED LABORATORY CHEMICALS-Unk Solid	26.1	0.04	S	D002
PA-F048	MISC. DISCARDED LABORATORY CHEMICALS-Asbestos Debris	123	0.20	S	U080
PA-G048	MISC. DISCARDED LABORATORY CHEMICALS-Cleanup Debris	40.8	0.20	S	U080 U122 D001 D035
PA-H048	MISC. DISCARDED LABORATORY CHEMICALS-Lab Waste	103	0.52	S	U228 D040
PA-I048	MISC. DISCARDED LABORATORY CHEMICALS-Reactive	4.9	0.20	S	P105 D003
PA-A049	MISC. TCLP WASTES-Aqueous w/Organics	8696.8	8.61	L	D018 D008 D040 D028
PA-B049	MISC. TCLP WASTES-Developer Solution/Photo Chemicals	2329.5	2.64	L	D001 D003 D006 D002 D010 D011
PA-C049	MISC. TCLP WASTES- Aqueous Non HOC Org Liquid	1153.2	1.20	L	D006 D008 D011 D007
PA-D049	MISC. TCLP WASTES–Antifreeze	257.7	0.41	L	PEND
PA-E049	MISC. TCLP WASTES- Sandblasting Media	300	0.20	S	D008
PA-F049	MISC. TCLP WASTES- Absorbed Org Liquids	634.4	1.20	L	D018 D023
PA-G049	MISC. TCLP WASTES-Inorg Sludges	414.4	0.53	L	D007 D008 D002
PA-H049	MISC. TCLP WASTES-Salt Waste	0.9	0.01	S	D001
PA-J049	MISC. TCLP WASTES-Carbon Filters	310	0.32	S	D040
PA-K049	MISC. TCLP WASTES-Organic Sludge	2418.6	8.24	L	F001 D018 D006 D007 D008
PA-L049	MISC. TCLP WASTES- Organic Chemicals	35.8	0.07	L	D026 D025
PA-M049	MISC. TCLP WASTES-Rock Debris	148.9	0.11	S	D008
PA-N049	MISC. TCLP WASTES-Plastic Debris	232.7	0.60	S	D002 D007 D037
PA-O049	MISC. TCLP WASTES- Paper/Cloth Debris	258	1.03	S	D032 D011
PA-P049	MISC. TCLP WASTES- Organic Debris	626.2	1.32	S	D037 D006 D008 D007 F001
PA-Q049	MISC. TCLP WASTES Labpacks	1685.1	3.07	S	D008 D009 D011 D018 D006 D007 F001
PA-A051	AEROSOL CANS	4969	14.94	S	D001 D003
PA-B051	AEROSOL CANS containing 1,1,1 Trichlor	40.7	0.20	S	D001 D003 U226
PA-A052	WASTE OILS Aqueous Non HOC Organic Liquids	4475.8	6.29	L	D001 D018 D006 D008 D007 D039
PA-B052	WASTE OILS Non HOC Organic Liquids	2867.3	11.82	L	D018

Table 1. The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-C052	WASTE OILS	22971.8	26.23	L	D018 D006 D007 D011 D008
		504207.8	1062.62		

Table 1. The DOE-PGDP MLLW Wastestreams, Weights, and Volumes (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-C052	WASTE OILS	22971.8	26.23	L	D018 D006 D007 D011 D008
		504207.8	1062.62		

Table 2. The DOE-PGDP Liquid Waste Targeted for TSCA Incinerator

WS	Name	kg	m^3	US	EPA Codes
PA-A001	MISC. FLAMMABLE MATERIALS - Aqueous	435.7	0.60	L	D001 D002 D006 D007 D008 D018
PA-B001	MISC. FLAMMABLE MATERIALS - Aqueous Non HOC Organic Liquid	344	0.40	L	D001
PA-C001	MISC. FLAMMABLE MATERIALS - Solvents	809.6	0.97	L	D001 D039
PA-D001	MISC. FLAMMABLE MATERIALS - Fuels	1176.5	2.44	L	D001 D018 F003
PA-E001	MISC. FLAMMABLE MATERIALS - Adhesives Liquid	506.7	1.24	L	D001 D035 U122
PA-N001	MISC. FLAMMABLE MATERIALS - Flammable Liquid	107.2	0.31	L	D001 D035 U002 D008
PA-O001	MISC. FLAMMABLE MATERIALS - Waste Samples	415.2	0.80	L	D001
PA-P001	MISC. FLAMMABLE MATERIALS - Organic Peroxide	7.7	0.01	L	D001
PA-W002	TRI(2-ETHYLHEXYL) PHOSPHATE/HEXANE	321.7	0.60	L	D001 D002
PA-W005	METHYL ETHYL KETONE/PEROXIDE	8.1	0.05	L	D001 D035 U159
PA-A006	MISC. ACIDS AND BASES - Acidic	7319.4	11.72	L	D002 D004 D008 D005 D006 D007 D008 F001 D009 D010 D026
PA-C006	MISC. ACIDS AND BASES - Other Waste Waters	2551.3	3.64	L	D002 D009 F001 D008
PA-D006	MISC. ACIDS AND BASES - Aqueous Org Liquid	67.1	0.72	S	D002
PA-K006	MISC. ACIDS AND BASES - Aqueous Labpacks	637.8	0.82	L	D002
PA-B011	MISC. AQUEOUS SOLUTION CONTAIN/TOX METALS - Neutral	9789.2	12.57	L	D007 D006 D008 D040 D010
PA-A017	AQUEOUS CLEANER - Acidic Wastewater	1870.3	2.36	L	D002 D007 D006 D008
PA-B017	AQUEOUS CLEANER - Neutral Wastewater	11614.3	14.40	L	D008 D011 D006 D007 D009 D010 D028 D033 D018
PA-A019	MISC. ARSENIC-BEARING WASTE - Glycol	12157.5	10.61	L	D004
PA-A030	MISC. LEAD-BEARING WASTE - Antifreeze	211.9	0.52	L	D008
PA-B030	MISC. LEAD BEARING WASTE - Machine Coolant	167.5	0.20	L	D008
PA-A037	SPENT SOLVENTS - Aqueous HOC Organic Liquids	2433.8	3.52	L	F003 D001 F001 D001 [illegible]

A-11

Table 2 The DOE-PGDP Liquid Waste Targeted for TSCA Incinerator (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-B037	SPENT SOLVENTS - HOC Organic Liquids	1360.9	2.37	L	F005 D001 F001 F002 U044 U210 U211 F003 D019 D002 U226 U228
PA-A038	SPENT SOLVENT SOLIDS - Aqueous Organic Liquids Non HOC	4	0.01	S	F003
PA-A039	TRICHLOROETHYLENE Aqueous HOC Organic Liquids	12162.8	12.21	L	F001 D040 D001
PA-B039	TRICHLOROETHYLENE - HOC Organic Liquids	21103.9	30.00	L	F001 D006 D007 D008 D018
PA-W040	WASTE OIL CONTAMW HALOGENATED SOLVENTS	2378.8	2.41	L	D006 D007 D011 D018 D040 F001
PA-W043	METHANOL, ACETONE	18.1	0.02	L	D001 F003
PA-W044	DIBUTYL CARBITOL (SCINTILLATION) SOLUTION	248.8	0.40	L	F003 D001
PA-B048	MISC. DISCARDED LABORATORY CHEMICALS - TCE	95.7	0.32	L	U227
PA-C048	MISC. DISCARDED LABORATORY CHEMICALS - Trichlor	902.3	1.00	L	U226
PA-D048	MISC. DISCARDED LABORATORY CHEMICALS - Misc. Solvents	30.8	0.20	L	U002 U211 D001 D019 U226 U239
PA-A049	MISC. TCLP WASTES - Aqueous w/ Organics	8696.8	8.61	L	D018 D008 D040 D028
PA-B049	MISC. TCLP WASTES - Developer Solution/Photo Chemicals	2329.5	2.64	L	D001 D003 D006 D002 D010 D011
PA-C049	MISC. TCLP WASTES - Aqueous Non HOC Org Liquid	1153.2	1.20	L	D006 D008 D011 D007
PA-D049	MISC. TCLP WASTES - Antifreeze	257.7	0.41	L	PEND
PA-A052	WASTE OILS - Aqueous Non HOC Organic Liquids	4475.8	6.29	L	D001 D018 D006
PA-B052	WASTE OILS - Non HOC Organic Liquids	23676.4	31.82	L	D006 D007 D008 D018
		131848	168.41		

Table 3 The DOE-PGDP Solid Waste Targeted for TSCA Incinerator

WS	Name	kg	m^3	L/S	EPA Codes
PA-G001	MISC. FLAMMABLE MATERIALS - Paints	3437.2	5.21	S	D001 F003
PA-I001	MISC. FLAMMABLE MATERIALS - Adhesives Solid	221.7	0.64	S	D001 U122 D035
PA-K001	MISC. FLAMMABLE MATERIALS - Paper/Cloth Debris	89.8	0.20	S	D001
PA-W003	WASTE MINERAL SPIRITS - Paint Wastes	6356.9	8.24	L	D001
PA-I006	MISC. ACIDS AND BASES - Plastic Debris	546.2	1.76	SL	D002
PA-B013	NICKEL STRIPPER SOLID RESIDUE - Organic Debris	74.9	0.20	S	D002 D006 D007 D008
PA-C019	MISC. ARSENIC-BEARING WASTE - Organic Debris	8.5	0.02	S	D004
PA-G020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Plastic Debris	101.2	0.20	S	D011
PA-H020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Paper/Cloth Debris	329.7	1.26	S	D007 D008 D011 D006
PA-I020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Organic Debris	933.5	1.83	S	D006 D004 D007 D008 D009 D011
PA-J020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Heterog Debris	103.5	0.20	S	D006
PA-D024	MISC. CHROMATE-BEARING WASTE - Paper/Cloth Debris	905.6	3.06	S	D007
PA-F030	MISC. LEAD-BEARING WASTE - Organic Debris	1530.1	3.01	S	D008
PA-C032	ALKALI CLEANING TANK LIQUID - Paper/Cloth Debris	457.5	0.60	S	D008 D018 D010
PA-E033	MISC. MERCURY-BEARING WASTES - Plastic Debris	181.5	0.60	S	D009
PA-F033	MISC. MERCURY-BEARING WASTES - Organic Debris	159.5	0.62	S	D009
PA-B034	MISC. SELENIUM-BEARING WASTES - Paper/Cloth Debris	174.7	0.60	S	D010
PA-C037	SPENT SOLVENTS - Paint Wastes	419.4	0.40	L	F003 D001
PA-D038	SPENT SOLVENT SOLIDS - Paint Related Waste	388.5	0.72	S	F005 D001
PA-F038	SPENT SOLVENT SOLIDS - Org Homog Solids	44	0.20	S	F005 D001
PA-J038	SPENT SOLVENT SOLIDS - Plastic Debris	531.7	1.80	S	F001
PA-K038	SPENT SOLVENT SOLIDS - Wood	3684.7	8.00	S	F001
PA-L038	SPENT SOLVENT SOLIDS - Paper/Cloth Debris	4029.2	13.33	S	F003 D001 D035 D018 F001 D003 F005

Table 3. The DOE-PGDP Solid Waste Targeted for TSCA Incinerator (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-M038	SPENT SOLVENT SOLIDS - Organic Debris	23127.2	43.95	S	F001 D008 D040 D007 F002 D018 D039 F003 F005 D035 D001
PA-G048	MISC. DISCARDED LABORATORY CHEMICALS - Cleanup Debris	40.8	0.20	S	U080 U122 D001 D035
PA-N049	MISC. TCLP WASTES - Plastic Debris	232.7	0.60	S	D002 D007 D037
PA-O049	MISC. TCLP WASTES - Paper/Cloth Debris	258	1.03	S	D032 D011
PA-P049	MISC. TCLP WASTES - Organic Debris	626.2	1.32	S	D037 D006 D008 D007 F001
		48994.4	99.80		

Table 4 The DOE-PGDP Waste Targeted for C-400-D On-Site Treatment

WS	Name	kg	m^3	L/S	EPA Codes
PA-B006	MISC. ACIDS AND BASES - Basic	4146.6	5.17	L	D002
PA-F006	MISC. ACIDS AND BASES - Sodium Hydroxide	115.7	0.22	S	D002
PA-A011	MISC. AQUEOUS SOLUTION CONTAIN/TOX METALS - Basic	4.5	0.01	L	D002 D006
PA-C011	MISC. AQUEOUS SOLUTION CONTAIN/TOX METALS - Other Wastewaters	3199.4	3.37	L	D006 D007 D004 D005 D008
PA-B019	MISC. ARSENIC-BEARING WASTE - Solids	220.4	0.53	S	D004
PA-F024	MISC. CHROMATE-BEARING WASTE - Unknown	916.8	1.32	S	D007
PA-W026	SODIUM DICHROMATE	318.7	0.52	S	D007
PA-L030	MISC. LEAD-BEARING WASTE - Inorganic Chemicals	0.4	0.01	S	D002 D006 D008
PA-A032	ALKALI CLEANING TANK LIQUID-Aqueous Basic	745.8	0.80	L	D008 D010
PA-A048	MISC. DISCARDED LABORATORY CHEMICALS - Acid Liquid	7.2	0.01	L	D002
		9675.5	11.96		

Table 5 The DOE-PGDP Waste Targeted for Commercial Recycle

WS	Name	kg	m^3	L/S	EPA Codes
PA-W036	PHOTOGRAPHIC FIXER SOLUTION	2653.3	3.32	L	D011
		2653.3	3.32		

Table 6 The DOE-PGDP Waste Targeted for Cyanide Treatment Facility

WS	Name	kg	m^3	L/S	EPA Codes
PA-A018	MISC. REACTIVE MATERIALS - Cyanide Liquid	68.1	0.05	L	D003
PA-B018	MISC. REACTIVE MATERIALS -Cyanide Solids	3.6	0.01	S	D003
PA-W046	SILVER CYANIDE	112.9	0.52	L	F007 D003 D011
PA-I048	MISC. DISCARDED LABORATORY CHEMICALS - Reactive	4.9	0.20	S	P105 D003
		189.5	0.78		

Table 7 The DOE-PGDP Waste Targeted for Commercial Stabilization

WS	Name	kg	m^3	L/S	EPA Codes
PA-F001	MISC. FLAMMABLE MATERIALS - Spill Cleanup Material	120.7	0.20	S	D001
PA-H001	MISC. FLAMMABLE MATERIALS - Diesel Sludge	495.3	0.40	S	D001
PA-E006	MISC. ACIDS AND BASES - Inorganic Sludges	24316.1	18.44	SL	D002
PA-W010	HYDROCHLORIC ACID TANK - Sludge	311.3	0.64	S	D002 D006 D007
PA-A013	NICKEL STRIPPER SOLID RESIDUE - Sludge	4988.3	7.31	L	D002 D006 D007 D008 D039
PA-C013	NICKEL STRIPPER SOLID RESIDUE - Composite Filters	436.1	1.71	S	D002 D006 D007 D008
PA-D015	TECHNETIUM WASTE - Solid/Sludge	1594.4	1.35	S	D007
PA-A020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Sandblasting Media	7569.3	6.45	S	D006 D008
PA-B020	MISC. SOLID MATTER CONTAIN/TOXIC METALS-Absorbed Org Liquids	956.6	1.64	S	D007 D004 D008
PA-C020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Inorganic Sludges	161	0.40	S	D008 D005 D007 D010
PA-D020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Inorg Homog Solids	55841.1	78.83	S	D004 D006 D008 D007 D011
PA-F020	MISC. SOLID MATTER CONTAIN/TOXIC METALS - Light Bulbs	3062.9	9.61	S	D006 D008 D009
PA-W022	URANIUM PRECIPITATE	561.5	1.01	S	D006
PA-W023	GOLD DISSOLVER SLUDGE	2.7	0.01	S	D006 D008
PA-A024	MISC. CHROMATE-BEARING WASTE - Inorg Particulates	231.4	0.21	S	D007
PA-C024	MISC. CHROMATE-BEARING WASTE - Soils	1441.3	1.20	S	D007
PA-E024	MISC. CHROMATE-BEARING WASTE - Composite Filters	241.5	0.81	S	D007
PA-W025	MAGNESIUM FLUORIDE PELLETS	3342.9	5.16	S	D007
PA-W027	POTASSIUM DICHROMATE FILTER CAKE	51.2	0.32	S	D007
PA-W028	CASCADE VACUUM DUST	155.2	0.32	S	D006 D008
PA-C030	MISC. LEAD-BEARING WASTE - Soil	161.9	0.21	S	D008
PA-G030	MISC. LEAD-BEARING WASTE - Filters	366.6	1.00	S	D008
PA-H030	MISC. LEAD BEARING WASTE - Hetero Debris	135.1	0.23	S	D008
PA-W031	HOT WATER RINSE TANK - Sludge	1742.1	2.56	SL	D008

Table 7 The DOE-PGDP Waste Targeted for Commercial Stabilization (continued)

WS	Name	kg	m^3	L/S	EPA Codes
PA-A033	MISC. MERCURY-BEARING WASTES - Inorg Particulates	59	0.20	S	D009
PA B033	MISC. MERCURY-BEARING WASTES - Soils	3506.8	2.80	S	D009
PA-G033	MISC. MERCURY-BEARING WASTES - Hetero Debris	249.3	0.61	S	D009 D011
PA-A034	MISC. SELENIUM-BEARING WASTES - Inorganic Particulates	35.7	0.12	S	D010
PA-B038	SPENT SOLVENT SOLIDS - Absorbed Org Liquids	349.5	0.73	S	F001
PA-C038	SPENT SOLVENT SOLIDS - Inorganic Sludges	325.8	0.43	L	F001 D001
PA-E038	SPENT SOLVENT SOLIDS - HOC Organic Sludge	3227.9	4.68	S	F001 D040 D008
PA-H038	SPENT SOLVENT SOLIDS - Metal Debris	1666.8	3.06	S	F001 F003
PA-I038	SPENT SOLVENT SOLIDS - Glass Debris	74.4	0.20	S	F001
PA-C039	TRICHLOROETHYLENE - HOC Organic Sludges	3614.6	5.00	S	F001 D001
PA-E049	MISC TCLP WASTES - Sandblasting Media	300	0.20	S	D008
PA-F049	MISC TCLP WASTES - Absorbed Org Liquids	634.4	1.20	L	D018 D023
PA-G049	MISC TCLP WASTES - Inorg Sludges	414.4	0.53	L	D007 D008 D002
PA-K049	MISC TCLP WASTES-Organic Sludge	2418.6	8.24	L	F001 D018 D006 D007 D008
		125163.7	168.02		

Table 9 The DOE-PGDP Waste Requiring Further Characterization/Sorting

WS	Name	kg	m^3	L/S	EPA Codes
PA-J001	MISC. FLAMMABLE MATERIALS - Metal Debris	91.2	0.40	S	D001
PA-L001	MISC. FLAMMABLE MATERIALS - Hetero Debris	234.5	0.40	S	D001
PA-M001	MISC. FLAMMABLE MATERIALS - Oxidizer	344.9	0.72	S	D001 D007
PA-G006	MISC. ACIDS AND BASES - Inorganic Chemicals	512.3	1.45	S	D002
PA-H006	MISC. ACIDS AND BASES - Organic Chemicals	999	3.89	S	D002
PA-J006	MISC. ACIDS AND BASES - Unknown	247.4	0.37	L	D002
PA-M006	MISC. ACIDS AND BASES - Solid Labpacks	409.3	1.54	L	D002
PA-C015	TECHNETIUM WASTE - Liquid	1807.2	1.80	L	D002 D007
PA-C018	MISC. REACTIVE MATERIALS- Solid Labpack	105.4	0.20	S	D003
PA-B024	MISC. CHROMATE-BEARING WASTE - Solids	4190.2	5.44	S	D007
PA-G024	MISC. CHROMATE-BEARING WASTE - Labpacks	1116.1	1.24	S	D007
PA-I030	MISC. LEAD-BEARING WASTE - Lab Waste Samples	768.4	1.20	S	D008
PA-C033	MISC. MERCURY-BEARING WASTES - Metal Debris	178.5	0.63	S	D009 U151
PA-H033	MISC. MERCURY-BEARING WASTES - Labpacks	109.2	0.40	S	D009
PA-I033	MISC. MERCURY-BEARING WASTES - Labpacks	166.2	0.47	L	U151 D009
PA-N038	SPENT SOLVENT SOLIDS - Hetero Debris	214.5	0.60	S	F00
PA-O038	SPENT SOLVENT SOLIDS - Labpacks	84.6	0.31	S	F001 D007 D009
PA-D039	TRICHLOROETHYLENE - HOC Organic Sludges	3285.6	3.20	L	D040
PA-W047	PENTACHLOROPHENOL	108.5	0.20	L	F027 D037
PA-E048	MISC. DISCARDED LABORATORY CHEMICALS - Unk Solid	26.1	0.04	S	D002
PA-F048	MISC. DISCARDED LABORATORY CHEMICALS - Asbestos Debris	123	0.20	S	U080
PA-H048	MISC. DISCARDED LABORATORY CHEMICALS - Lab Waste	103	0.52	S	U228 D040
PA-H049	MISC. TCLP WASTES - Soil Waste	0.9	0.01	S	D001
PA-J049	MISC. TCLP WASTES - Carbon Filters	310	0.32	S	D040
PA-L049	MISC. TCLP WASTES - Organic Chemicals	35.8	0.07	L	D026 D025

Table 10. Ash Receivers

WS	Name	kg	m^3	L/S	EPA Codes
PA-W021	ASH RECEIVERS	91972.1	459.24	S	D004 D007
		91972.1	459.2		

Table 11. The DOE-PGDP Waste Targeted for Surface Radiological Characterization

WS	Name	kg	m^3	L/S	EPA Codes
PA-Q001	MISC. FLAMMABLE MATERIALS - Compressed Gas	46.1	0.22	S	D001 D003
PA-A004	DISCARDED BATTERIES - Lead	940.5	1.84	S	D002 D008
PA-B004	DISCARDED BATTERIES - Cadmium	390.3	0.40	S	D006 D002 D008
PA-C004	DISCARDED BATTERIES - Mercury	1869.2	2.76	S	D006 D002 D008 D009 D011
PA-D004	DISCARDED BATTERIES - Other	173.8	0.35	S	D001 D003 D002 D006 D008
PA-D033	MISC. MERCURY-BEARING WASTES - Fluor Light bulbs	11623	42.74	S	D009 D006 D008
PA-A051	AEROSOL CANS	4969	14.94	S	D001 D003
PA-B051	AEROSOL CANS - containing 1,1,1 Trichlor	40.7	0.20	S	D001 D003 U226
PA-C052	WASTE OILS	22971.8	26.23	L	D018 D006 D007 D011 D008
		43024.4	89.68		