

DEPARTMENT OF ENERGY
AGENCY: Department of Energy.

52 FR 31508

August 20, 1987

Civilian Radioactive Waste Management; Calculating Nuclear Waste Fund Disposal Fees for Department of Energy Defense Program Waste

ACTION: Notice.

SUMMARY: The Department of Energy (DOE), Office of Civilian Radioactive Waste Management (OCRWM) gives public notice of its approach to interpreting the requirement under the Nuclear Waste Policy Act of 1982 for allocating the costs of developing, constructing, and operating repositories under that Act between atomic energy defense wastes and commercial high-level spent fuel (*42 U.S.C. 10107(b)(2)*). The costs resulting from permanent disposal of high-level radioactive wastes from atomic energy defense activities are to be paid by the Department into the Nuclear Waste Fund. This notice presents the Department's method for calculating the appropriate allocation of costs for the disposal of Defense High-Level Waste (DHLW). Actual monies to pay such costs into the Nuclear Waste Fund must be appropriated by the Congress. The Department intends to incorporate the method adopted here in the DHLW disposal agreement between OCRWM and the Department's Office of Defense Programs, and to use this method to formulate future requests for appropriations for funds to pay into the Nuclear Waste Fund to cover the costs of disposal of wastes from atomic energy defense activities. This notice also includes the Department's response to comments received on the Notice of Inquiry published in the Federal Register on December 2, 1986, "Calculating Nuclear Waste Fund Disposal Fees for DOE Defense Program Waste; Inquiry and Request for Public Comment" (*41 FR 43566*). Sample calculations of DHLW cost shares using the new method are included. The Department will refine these calculations as the program matures.

DATE: August 20, 1987.

FOR FURTHER INFORMATION CONTACT: Ronald A. Milner, Director, Financial Management and Analytical Services Division, Office of Civilian Radioactive Waste Management, Department of Energy, Room GB-270, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586-9173.

TEXT: SUPPLEMENTARY INFORMATION: The Department of Energy (DOE), Office of Civilian Radioactive Waste Management (OCRWM), today gives public notice of its approach to interpreting the requirement under the Nuclear Waste Policy Act of 1982 (NWPA) (Pub. L. 97-425) to allocate the costs of developing, constructing, and operating repositories under the Act between disposal of high-level radioactive waste from atomic energy defense activities and disposal of high-level radioactive waste and spent fuel from civilian nuclear activities. The purpose of this notice is to set forth the methodology that the Department intends to implement for such allocation of costs to permit calculation of defense high-level waste (DHLW) disposal fees that are to be paid by the Department from appropriations from general revenues to the Nuclear Waste Fund (NWF) established under the NWPA. Sample DHLW cost share calculations using this methodology are included in this notice. This notice also responds to public comments provided on the Federal Register notice of December 2, 1986, "Calculating Nuclear Waste Fund Disposal Fees for DOE Defense Program Waste; Inquiry and Request for Public Comment." A schedule for payment of fees by the Department is not set forth in this notice. A Memorandum of Agreement between the Department's Office of Defense Programs (DP) and OCRWM is currently under preparation. This agreement will provide the basis for the amount of funds to be requested in DP's budget requests, as well as other details related to the DHLW fee. Funds to pay fees for disposal of DHLW must be appropriated by Congress.

I. Background

Just prior to the passage of the NWPA in 1983, Congress directed the President to prepare a report which would describe plans for the permanent disposal of high-level and transuranic wastes (TRU) resulting from atomic energy defense activities. The report (The Defense Waste Management Plan, DOE/DP-0015) was submitted to Congress in

June 1983. This report communicated the Department's strong commitment to the objective of ending interim storage and achieving permanent disposal by immobilizing and preparing DHLW and TRU for disposal in a geologic repository. Since FY 1983, Congress has provided approximately \$1.5 billion for these DP activities. Construction of waste immobilization facilities is now under way at the Defense Waste Processing Facility located at the Department's Savannah River site. Construction is also under way of the Waste Isolation Pilot Plant in New Mexico for the demonstration of the disposal of TRU.

The NWPA establishes a schedule for the siting, construction, and operation of repositories to permanently dispose of high-level radioactive waste and spent nuclear fuel (SNF). As required by section 8(b)(2) of the NWPA, the use of disposal capacity of the facilities to be developed under the NWPA for the disposal of high-level radioactive wastes from atomic energy defense activities was evaluated. Based upon this evaluation and the Department's recommendation, the President found no basis for the establishment of a separate repository for the permanent disposal of DHLW. Upon notification of this determination on April 30, 1985, the Secretary of Energy became obligated under section 8(b)(2) of the NWPA to "proceed promptly with arrangement for the use of one or more of the repositories to be developed under subtitle A of title I for the disposal of such waste. Such arrangements shall include the allocation of costs of developing, constructing, and operating this repository or repositories." The costs resulting from permanent disposal of DHLW are to be paid by the Federal Government into the NWF established under section 302 of the NWPA.

Although Congress directed that payments for the disposal of DHLW be made by the Federal Government into the NWF, it did not provide for a specific fee such as the 1 mill/kilowatt-hour mandated for civilian spent fuel nor did it appropriate money for payment into the NWF. From 1983 to the end of FY 1986, utilities under contract with the Department have paid over \$1.2 billion in ongoing fees into the NWF for SNF disposal. In addition, more than \$1.4 billion has been paid as a one-time fee for SNF that had been generated prior to April 7, 1983.

On December 2, 1986, the Department published in the Federal Register a Notice of Inquiry and Request for Public Comment entitled "Calculating Nuclear Waste Fund Disposal Fees for DOE Defense Program Waste." In this Notice of Inquiry (NOI), the Department analyzed the following options for calculating the DHLW disposal fee: (1) Option I, a fee that equals the total cost of disposing of DHLW by OCRWM ("full cost recovery using sharing formulas"), (2) Option II, a fee based upon 1 mill per kilowatt-hour electric-generation equivalent for the defense reactor operations that produce these wastes ("1-mill electric-generation equivalent fee"), and (3) Option III, under which defense and civilian fees equal a fraction of the combined-repository program costs which is the same as that sector's fraction of the sum of the evaluated costs for separate repository programs ("cost shares proportional to avoided costs"). The Department identified as a preferred approach Option I, "full cost recovery using sharing formulas," since it would provide the best assurance that both civilian and defense waste generators would pay their full fair shares of costs for the OCRWM disposal system, thereby avoiding subsidies from one group of waste generators to another. Members of the public were requested to submit written comments, including suggestions for modification of the preferred approach, to assist the Department in developing a sound approach to interpreting provisions of the NWPA applicable to calculating fees for disposal of DHLW.

In summary, the purpose of this notice is to satisfy the requirement in section 8(b)(2) of the NWPA to establish a method for allocating costs for disposal of DHLW. The Department intends to apply this method in the future when concluding the intra-agency arrangements and when formulating appropriations requests for funds to cover the costs of disposal of DHLW. The Department concluded that public participation in its formulation of the method was desirable and incorporated public involvement into this process by:

1. Publishing a Notice of Inquiry in the Federal Register soliciting public comments;
2. Considering the comments submitted on the NOI;
3. Publishing a Notice describing a revised method in the Federal Register together with responses to comments received on the NOI; and
4. Committing to public notice and solicitation of public comments on any significant discretionary changes to the methodology.

II. Reponse to Comments on the Federal Register Notice of December 2, 1986

In response to the Department's Notice of Inquiry and Request for Comments, twenty-six letters were received from individual electric utilities, utility groups, Governmental agencies, and members of the public. All comments received have been carefully reviewed. These comments can be summarized under five general issues. The following sections contain summaries of the comments related to each of the five issues and the Department's responses to these comments.

A. Fairness Issues: Equity and Potential Cross-subsidization

Many of the commenters expressed concern about equity in the sharing of costs between defense and civilian waste disposers, given the potential for cross-subsidization between the civilian and defense waste generators. The Department is also concerned with this potential. The method the Department intends to use to calculate the cost share for DHLW is designed to assure that each class of waste generator bears the full cost of disposal of its wastes so that there is no cross-subsidization between civilian and defense waste generators. The Department is responsible for protecting the interests of both the ratepayer paying for disposal of civilian high-level radioactive waste and spent nuclear fuel and the taxpayer paying for DHLW disposal. The Department believes that the general approach embodied in the full-cost recovery method (Option I proposed in the earlier notice) does allocate the cost of the OCRWM program between civilian and defense high-level waste generators so that these generators pay only for their respective estimated shares of total program costs. Option I, as modified and presented in this notice, allocates total OCRWM cost on the basis of direct costs for each waste type and estimates of the fair shares of common costs as explained in Section III of this notice. The Department has examined the cost elements and has identified factors that reflect appropriate shares of each cost element for each waste type requiring disposal. The Department believes that this approach is the best way to ensure that costs are shared fairly.

B. Procedural Issues

1. Lack of Substantive Rulemaking. Many of those who responded to the NOI argued that the Department should initiate a substantive rulemaking to establish the DHLW fee calculation method by a procedure which would comply with the Administrative Procedure Act (*5 U.S.C. 553*). The comments also urged the Department to go beyond the fee calculation methodology and cover a variety of issues related to formulation of the intra-agency agreement between OCRWM and DP.

The preference of some who responded with a call for substantive rulemaking is partly attributable to the omission by the Department of an explicit commitment in the NOI to respond to the comments and to explain refinements to the calculation methodology. Today's notice does respond to relevant comments and clearly sets forth the method that the Department intends to use in fulfilling the statutory requirement to allocate the costs resulting from the disposal of DHLW. Although the method is subject to further development, the Department will not make significant discretionary changes without seeking and responding to relevant public comments. The NOI, the comments, and today's notice form a record of the development of the Department's interpretation.

In issuing an NOI and responding to public comment in the Federal Register the Department has gone beyond what is legally required. The procedures that the Department has followed are generally consistent with its previously expressed belief that rulemaking-type procedures are the best method of involving the public in the development of program policies (*48 FR 16597*, April 18, 1983). However, they were devised to take account of the fact that, under section 8(b)(2), the Department is not engaged in an activity which has a direct, binding, regulatory impact on the public and there is no need for the more involved procedures of substantive rulemaking under *5 U.S.C. 553* which are time-consuming and constrain communication with the public. Like interagency agreements, agreements between offices of the same agency are ordinarily concluded without soliciting public comment or substantive rulemaking under *5 U.S.C. 553*.

Some reviewers felt that the Department failed to furnish sufficient information on the proposed method to permit a determination that an equitable sharing of costs can take place. In the NOI, an address and phone number were provided for those members of the public that wanted additional information. Additional information, including cost estimates more detailed than those published in the NOI, was put on file in the Public Documents room of the Department's Headquarters (Forrestal) building. This notice is structured to include a significantly higher level of

detail, especially on the method for determining the DHLW cost share, than was available at the time of publication of the referenced NOI. The Department intends to incorporate future estimates of the DHLW cost share in future issues of the annual fee adequacy report, Nuclear Waste Fund Fee Adequacy: An Assessment, and total systems life cycle cost studies, Analysis of the Total System Life Cycle Cost for the Civilian Radioactive Waste Management Program.

2. Use of an Independent Contractor. Several respondents suggested the use of an independent contractor, i.e., a contractor agreeable to both the Department and the affected utilities, to develop the cost estimates and calculation method to be used in DHLW fee payment determinations. Congress assigned the responsibility for allocating costs of repositories to the Department in the NWPA. The Department has elected to involve the public in determining a methodology for allocating such cost. This public involvement is similar to that of the rulemaking process (see discussion under B.1., above). The Department has fully considered public comments in the preparation of this notice and feels that the substantial delay in establishing the fee that would result if an independent contractor were involved is not justified. The contractor would only be able to develop basic information on options for calculating and paying the fee with which the Department is already familiar. The remaining activities of implementing the fee and recommending the appropriation of funds can only be performed by the Department.

C. Fee Payment Issues

1. Timing. Some commenters were concerned with the fact that no DHLW disposal fee payment has been made to the NWF and that no payment schedule, with attendant penalties, was included in the NOI. Funding of the costs of disposal of DHLW by payment into the NWF must be addressed by Congress during the normal budgetary and appropriation process. An intra-agency agreement (e.g., a Memorandum of Agreement) between DP and OCRWM is in preparation. This agreement will provide the basis for the amount of funds to be requested in the future DP budget requests, as well as other details related to the DHLW fee. The Department recognizes that the process of establishing the DHLW cost share and payments is lengthy. The Department intends that the time value of money will be included in calculating budget requests for the DHLW fee payments to compensate for delays in DHLW fee payments beyond the time when OCRWM incurs costs, shared or direct, for DHLW disposal. It is recognized that OCRWM has already made substantial outlays for development and evaluation (D&E) activities for which DP has a proportional obligation. The Department intends to consider the adequacy of the civilian and defense fees independently so the delay in defense waste disposal payments will have absolutely no impact on the civilian fee.

Several commenters recommended that the timing of DHLW payments should closely parallel civilian payments, thereby closely tying the payment of the DHLW fee to the generation of fission products. It is believed that strict parallelism between the terms of the civilian waste disposal contracts and the payments made for disposal of DHLW is unnecessary because of the NWPA requirement that the Federal Government pay the full cost of DHLW disposal. The purpose of assessing a fee based on nuclear electric generation was to ensure that the beneficiaries of nuclear electricity would pay for any resulting waste disposal. This fee was also easily included in a consistent manner in the existing rate structures of utilities. As stated, the Department intends to calculate the cost of DHLW disposal by the full-cost recovery method. The timing of payment of DHLW fees will have no effect on the civilian fee since the adequacy of the two fees is determined independently. If, for example, the cost for civilian waste disposal were shown to be greater than (or less than) expected civilian fee revenues plus the earnings on the resulting funds, the civilian fee would be increased (or decreased) regardless of the balance in the NWF for the disposal of DHLW.

2. Potential Premium of Disposal Fees Over Fees Required to Cover Waste Generators' Costs. Some respondents expressed the opinion that, since the current civilian waste disposal fee may provide a margin of fee collections in excess of those required to cover civilian waste disposal costs over the life of the program, such a margin should be collected for the disposal of DHLW.

In view of the current preconceptual design phase of OCRWM planning, uncertainty over the locations and design of the major OCRWM facilities, and the resulting large range of uncertainty in the resulting cost projections, it is by no means clear that such a premium exists in the current civilian fee structure. In addition, there is a major difference between the terms under which civilian and defense waste disposal costs are to be financed. The standard contract for spent nuclear fuel disposal contains a provision that, once the fee is paid for specific spent fuel, the utility paying the fee has no further financial responsibility for the disposal of this fuel. Ultimate costs of the potentially century-long OCRWM program are currently unknown, and significantly better cost estimates may be unavailable until the actual locations of the repositories are known -- which may be late in the life of many of the current nuclear electric generating

units. Under the NWPA, the Department is to pay the full costs of DHLW disposal into the NWF. This is interpreted to mean that retroactive charges can be used, if required, to fully cover the costs of DHLW disposal. The charging of a premium in excess of the amount now estimated to be required to cover potential escalating costs of DHLW disposal is not necessary since the full costs of DHLW disposal must eventually be paid into the NWF by the Federal Government.

In summary, the terms of the standard contract for disposal of spent fuel could potentially shift significant financial risk to OCRWM and/or future nuclear powerplant operators if large cost overruns occur after much of the existing nuclear generating capacity is retired. This is not the case for DHLW because it is clear that financial responsibility for DHLW disposal rests with the Department.

D. Waste Quantity and Delivery Schedule Issues

1. Waste Quantities. Some reviewers expressed concern that the forecast assumptions used for spent fuel bias the calculation toward a lower DHLW fee. Reviewers suggested that the Department should use a lower projection of spent fuel generation in estimating DHLW costs since the Energy Information Administration upper reference case generation forecast may be high and DHLW estimates may be low. Lower SNF projections would result in a larger DHLW cost share.

OCRWM has historically used the upper reference case (mid-case) SNF forecast because of its effect on the design of facilities and on operational logistics. The Department will continue to use these estimates for design purposes, but it has and will continue to evaluate the effects of other forecasts on fee adequacy. The ultimate DP cost share will be based upon the actual quantities emplaced. Current estimates of quantities are for planning purposes only. The method that the Department intends to use for determining the defense and civilian cost shares incorporates the effects of varying civilian waste and DHLW quantities and delivery schedules. (The effects of alternative SNF forecasts are illustrated in section III of this notice.) OCRWM will continue to conduct waste volume studies and will recommend adjustments during the annual fee adequacy assessment when necessary. The Department intends to make retroactive charges or rebates to reflect any resulting changes in the DP cost share.

The Department recognizes that there are also uncertainties in the DHLW forecast. The base case, described in "A Perspective on Methods to Calculate A Fee for Disposal of Defense High-Level Waste in Combined (Civilian/Defense) Repositories," DOE/RL-86-10, is used for the cost estimates included in this notice. (The base case includes: Savannah River DHLW in 7,000 canisters; Hanford DHLW (without single-shell-tank waste) in 1,500 canisters; Idaho DHLW (with extra volume reduction) in 6,000 canisters; and non-site-specific DHLW from future production in 1,500 canisters.) Two documents currently in preparation will provide an improved basis for future forecasts. These documents are the "Hanford Defense Waste -- Environmental Impact Statement" and "Idaho Chemical Processing Plant High-Level Waste Management Strategy Plan," both scheduled for completion in 1987. Using these and other documents, the Department will update the DHLW estimate in Integrated Data Base, DOE/RW-0006.

This update will be the formal reference for the DHLW quantity used in OCRWM's 1988 total system life cycle cost and fee adequacy reports. All three documents will be updated annually. Because the waste volume forecasts and DHLW fee calculations will be updated annually, and estimates of retroactive charges will be included as a basis for the request for appropriations, if needed, the DHLW cost share will reflect its full fair share of OCRWM costs.

2. Delivery Schedule for DHLW. A few reviewers were concerned that there was no DHLW delivery schedule included in the NOI. For planning purposes, OCRWM publishes illustrative delivery schedules in the OCRWM Mission Plan and amendments. The most recent one is an illustrative waste acceptance schedule contained in the OCRWM Mission Plan Amendment, DOE/RW-0128, published in June 1987. This schedule shows DHLW deliveries starting at 400 metric tons of uranium equivalent per year in 2008.

E. Fee Calculation Method Issues

1. Options in the Previous Notice of Inquiry. As noted above, the NOI published by the Department in the Federal Register on December 2, 1986, "Calculating Nuclear Waste Fund Disposal Fees for DOE Defense Program Waste; Notice of Inquiry and Request for Public Comment," DOE presented three alternative approaches to determining the DHLW disposal fee: (I) a fee that equals the total cost of disposing of DHLW by OCRWM ("full cost recovery using sharing formulas"), (II) a fee based upon 1 mill per kilowatt-hour electric-generation equivalent for the defense reactor

operations that produce these wastes ("1-mill electric-generation equivalent fee"), and (III) defense and civilian fees equal to a fraction of the combined-repository program costs which is the same as each sector's fraction of the sum of the estimated costs for separate repository programs ("cost shares proportional to avoided costs").

The Department proposed using Option I because it seemed most consistent with the intent of the NWSA that both civilian and defense waste generators would pay their full shares of actual costs for the OCRWM disposal system so that there would be no subsidy from or to the waste generators that use OCRWM facilities. In addition, it was expected that this method of fee assessment would provide an additional incentive for overall nuclear waste disposal efficiency since DP would consider the likely impacts of DHLW preparation and handling on OCRWM costs and, therefore, on the costs of disposing of DHLW. Many reviewers supported the selection of Option I or a modification thereof.

Option II was rejected by the Department as likely to produce revenues that would be insufficient to cover DHLW disposal costs. Most reviewers agreed that Option II was not appropriate. Option III was rejected by the Department because it would allocate costs on the basis of the estimated costs of facilities that would not be constructed and might lead to a systematic overassessment of fees on a waste generator that is responsible for smaller amounts of high-level nuclear wastes. A few reviewers indicated a preference for Option III or for an incorporation of its principle of avoided costs into Option I.

2. Alternative Method. A number of respondents, including the Edison Electric Institute, suggested a method that is similar to Option I, but uses different cost sharing factors. This method of cost allocation would assign costs to three categories: (1) Direct costs, those specific to either DHLW or SNF, (2) common costs that are shared using physical factors such as piece count or mined volume, and (3) common fixed costs that are shared on the basis of the number of separate repositories avoided, that is, charged 1/3 to DHLW and 2/3 to SNF. This split of fixed costs is based on the assumption that if separate repositories were constructed, one of them would accommodate DHLW and two would handle civilian high-level waste and SNF.

The principal differences between this proposal and the proposal favored in the NOI are in the method for sharing common fixed costs (which are mostly D&E costs) and in the classification of some repository costs as common costs to be shared in the same manner as D&E costs. However, the proposal for a three-way classification of costs has considerable merit. The Department believes that cost elements which cannot be shown to be direct costs should be allocated to the extent possible, based upon the physical parameters that cause the cost variation. However, there are certain cost items, primarily D&E items, for which no such relationship to physical parameters has been identified. The Department believes that these costs, referred to as "common unassigned costs," should be allocated on the same basis as the relative shares of assignable costs. To assign such costs based upon any one physical parameter would require an arbitrary selection of one of those parameters. To assign such costs on the basis of the number of avoided repositories would ignore information that more accurately reflects the relative levels of activity supported by the facilities and activities that are paid for with common fixed costs. By using the ratio of assignable costs for one class of waste generator to total assignable costs as a basis for cost sharing, the allocation of this major portion of costs is really "cost based" since assignable costs already reflect sharing on the basis of direct costs and several physical parameters that are related to costs. This method is further discussed in Section III of this notice.

3. Other Issues. A few reviewers were concerned about the provisions for credits that might be made for work done by DP. The issue of credits was first addressed in 10 CFR Part 961, which describes the standard contract for civilian fee. Relative to the civilian fee, the Department stated that it will "recognize that other types of credits may become appropriate" and will consider them in the future. To parallel the civilian fee, the NOI noted that "If appropriate, the DHLW fee will reflect credit for activities carried out or contributions made by the Department's Office of Defense Programs (DP) to the extent that they reduce the cost of OCRWM activities." Potential credits may be discussed in more detail in the Memorandum of Agreement between OCRWM and DP that is now in preparation. The Department is willing to consider credits for both civilian and defense activities, where appropriate, under a fair and equitable arrangement.

A few reviewers stated that repository-specific allocation factors should be used in determining cost shares. The Department agrees with this comment and has used this suggestion in the modified method described in Section III of this notice and in its estimates of DHLW cost shares for the different disposal program scenarios that are presented as examples in this notice. In addition, the cost estimates used in this notice are based on the assumption that the total quantities of civilian wastes and DHLW are split proportionally between the first and second repositories. For example,

if 60 percent of the civilian wastes is disposed of in the first repository, then 60 percent of DHLW is also disposed of in the first repository. This assumption assures that neither waste generator is penalized with a larger common unassigned cost share due to disproportionate waste splits between the two repositories. All the allocation factors will be examined during future fee adequacy assessments for any changes.

A few respondents expressed the opinion that DHLW should be allocated a higher share of costs at the basalt site because of the possibility of rising marginal costs for disposal at this potential repository site. Unless there is evidence otherwise, it seems apparent that, if a repository site were subject to marginal costs that increase as waste quantities increase, the rising marginal costs would be present regardless of the type of waste added to the repository. If DHLW were not placed in the basalt repository, an equivalent amount of civilian waste would replace it. Since it would be impossible to assign higher marginal costs solely to either class of waste, there is no reason that either DHLW or SNF should be charged a differentially higher cost share.

Some reviewers expressed concern that the repository pairs used in the NOI were indicative of the preselection of these sites as final choices for the OCRWN repositories. As noted on p. 43567 in the NOI, the pairs of repositories used in the cost estimates were chosen for illustrative purposes only. In particular, the second repository cost estimates for crystalline rock repositories were not used in the NOI because they were not considered to be as accurate as the estimates for a salt repository. Thus, the examples used in the NOI were selected because they made use of the cost estimates that were believed to be the most reliable at the time of the preparation of the NOI. They reflect no prejudgment as to site selection. To avoid this misconception in this notice, examples have been selected based on modifications to cases taken from the 1987 Total System Life Cycle Cost report. These examples represent the high-cost and low-cost repository pair.

III. Cost Allocation Method

This section describes the Department's planned method for allocating the life-cycle costs of the radioactive waste management system to civilian and defense waste generators. This method is a revision of the preferred alternative (Option I) outlined in the Federal Register notice of December 2, 1986.

This revision incorporates changes made to the TSLCC accounting structure and changes made as a result of public comments in response to the NOI. The following changes in the cost accounting structure were required to utilize the TSLCC cost estimates:

1. The latest estimates of program repository costs are much more detailed than estimates used in the NOI. The cost allocation scheme is applied to the detailed accounts, rather than to summary accounts considered earlier. This change increases the precision of the cost allocation.
2. The latest estimates of program D&E costs were divided into several categories to more precisely predict the defense cost share. Different formulae are used to allocate the Monitored Retrievable Storage Facility D&E, waste package D&E, transportation D&E, Government administration, and all other D&E costs. The previous method, in the NOI, allocated the difference of the total D&E cost less the MRS D&E cost.

Similarly, other revisions in the method were adopted in response to comments received from NOI reviewers:

1. There is a choice of three cost account designations now as opposed to two in the NOI. The three categories are direct costs, common variable costs, and common unassigned costs, thus permitting a more equitable cost allocation.
2. The current method utilizes the program MRS facility cost estimate, which, in total, is a civilian cost, as a part of the civilian assigned costs used to compute the cost factor for sharing unassigned Government administration D&E costs.

The cost allocation methodology uses a combination of directly assignable costs and cost-sharing formulae applied to cost accounts contained in OCRWM's annual analysis of total system life-cycle costs. Each life-cycle cost account is grouped in one of three cost categories: direct costs (assignable), common variable costs (assignable), and common unassigned costs. Within each of these categories, costs are allocated to DHLW and civilian wastes on different bases.

Total cost is partitioned into assignable cost and unassigned cost. The total assignable cost is the sum of the direct costs and common variable costs.

The direct costs are incurred solely for the disposal of either DHLW or civilian wastes and are allocated in total to defense or civilian waste generators. For example, DHLW transportation and DHLW waste package fabrication are allocated to defense waste generators as direct costs, while costs for facilities and activities attributed solely to civilian waste disposal are also allocated as direct costs to the civilian waste generators.

For the repository cost components of the TSLCC, common variable costs are allocated to both DHLW and civilian waste generators on the basis of cost sharing factors developed from relevant physical parameters, such as repository excavation required and number of waste packages for each type of waste.

The following cost sharing factors are used for allocation of common variable repository costs:

Piece count: The ratio of the number of DHLW disposal packages in the repository to the total number of disposal packages in the repository.

WHB#1 piece count: The ratio of the number of DHLW disposal packages processed in waste handling building #1 to the total number of disposal packages processed in waste handling building #1.

WHB#2 piece count: The ratio of the number of DHLW disposal packages processed in waste handling building #2 to the total number of disposal packages processed in waste handling building #2.

Areal Dispersion: The ratio of the repository disposal area required for DHLW disposal to the total disposal area. This may be measured by the proportion of the mined volume in the disposal areas that is attributed to DHLW.

The above fractions represent the DHLW portion of the cost in a common variable cost account, while the remaining cost in the account represents the civilian waste portion. Each repository has its own unique set of physical parameters, which will vary depending on its capacity and waste characteristics. Therefore, cost sharing factors must be developed for each of the two repositories in any case considered.

The common unassigned costs are the remaining components of the life-cycle cost which cannot be directly allocated or cannot be allocated based on cost sharing factors developed from relevant physical parameters. These costs are unassigned because there is no reason to believe that they are a function of any readily determined system parameter. The costs in a common unassigned account are allocated to both defense and civilian waste generators in proportion to their respective shares of the appropriate assignable cost categories. As the program progresses, it may be possible to allocate some of the unassigned costs either directly or by some physical parameter.

The following table summarizes the Department's planned classification of cost accounts for cost sharing:

COST ALLOCATION BASIS	
Cost account	Allocation basis
Development and Evaluation:	
D&E for MRS	Direct cost (civilian).
Civilian Waste Package D&E.	Direct cost (civilian).
Transportation and System Integration D&E.	Common unassigned, based on assignable transportation costs.
Other Repository D&E.	Common unassigned cost, based on assignable cost of

Government Administration.	repositories 1 & 2. Common unassigned cost, based on total assignable cost.
Repositories #1 and #2: Management and Integration.	Common unassigned cost, based on assignable repository cost.
Site Preparation	Common unassigned cost, based on assignable repository cost.
Waste Handling Building #1.	Common variable, WHB#1 piece count.
Waste Handling Building #2.	Common variable, WHB#2 piece count.
Other Waste Handling.	Common variable, piece count.
Balance of Plant: Facilities for Change House, Explosives, Compressed Air and Steam, Cooling, Excavated Material and Backfill. Packing Facility	Common variable, areal dispersion.
All other	Common variable, piece count.
Surface Shaft Facilities: Waste Facility	Common unassigned cost based on assignable repository cost.
All Other	Common variable, piece count.
Shaft/Ramps -- Underground Waste Handling	Common variable, areal dispersion.
All Other	Common variable, piece count.
Subsurface Excavations: Development and Emplacement/ Retrieval Operations,	Common variable, areal dispersion.
	Direct cost (civilian).

Spent Fuel Facility. Transport, and Emplacement DHLW Facility. Transport, and Emplacement Other Waste Facility. Transport, and Emplacement:	Direct cost (DHLW).
Boreholes	Common variable, piece count.
Waste Removal	Common variable, piece count.
Backfill: Waste Handling	Common variable, piece count.
All Other	Common variable, areal dispersion.
Underground Service Systems.	Common variable, areal dispersion.
Waste Package Fabrication: Spent Fuel, Spent Fuel Hardware, WVHLW * and CHLW *.	Direct cost (civilian).
DHLW All Other	Direct cost (DHLW). Common variable, piece count.
Transportation	Direct cost (civilian and DHLW portions).
MRS	Direct cost (civilian).

* WVHLW = West Valley high-level waste.

* CHLW = civilian high-level waste.

The cost allocation methodology proceeds in a stepwise fashion following designation of cost accounts into the categories as shown above. First, direct costs are allocated for all cost accounts. Second, cost sharing factors for common variable costs are computed. Third, common variable cost allocation is performed. Fourth, common unassigned costs are calculated for each repository and the common unassigned costs for D&E based on the proportions of previously calculated assigned costs.

The allocation of costs is complete when the civilian and DHLW share totals are computed as the sum of their respective direct, common variable, and common unassigned costs.

Several cases were chosen to demonstrate the cost allocation method summarized above. These cases are used for illustrative purposes and do not reflect any prejudgment of site selection. The cases consider two combinations of repository sites and two projections of SNF.

The life-cycle cost estimates used in the sample cases are modified estimates prepared for OCRWM's 1987 TSLCC analysis. The estimates were modified to reflect a change in the assumption that assigns the quantity of DHLW

between the first and second repositories. The TSLCC analysis estimates were based on the assumption that 4,000 metric ton uranium (MTU) equivalent of DHLW is emplaced in each repository for all cases. In contrast, the following results are based on a DHLW assignment of 4,876 MTU-equivalent and 3,124 MTU-equivalent to the first and second repositories, respectively, in the upper reference case as well as 6,350 MTU equivalent and 1,650 MTU equivalent to the first and second repositories, respectively, in the no new orders case. This approach provides for a consistent proportion of defense waste in both repositories. The cost changes are minor in the upper reference case, while cost changes in the no new orders case show savings due to more efficient use of the first repository facilities. The final determination of cost shares will be based on the actual amounts of each type of waste emplaced in each repository.

The following table summarizes the total system costs and DHLW cost shares in the improved performance system scenario for the high cost (basalt/hard rock) and low cost (tuff/salt) repository combinations in the high SNF generation (upper reference with increased burnup) and low SNF generation (no new orders with increased burnup) projection cases. The table provides a comparison of the adjusted system costs with system costs estimated for the 1987 TSLCC analysis. Cost differences are due to the DHLW quantity assignment assumptions to each repository.

SUMMARY OF IMPROVED PERFORMANCE SYSTEM COST ALLOCATION				
[Billions of 1986 Dollars]				
Case	Total system cost '87- TSLCC	Adjust- ed *	DHLW cost	share DHLW (per-cent)
EIA No New Orders (with increased burnup):				
Basalt/Hard Rock	36.07	35.76	6.10	17.1
Tuff-Salt	29.87	29.52	5.74	19.4
EIA Upper Reference (with increased burnup):				
Basalt/Hard Rock	38.22	38.25	5.51	14.4
Tuff/Salt	32.07	32.03	5.17	16.1

* 1987 TSLCC estimates were adjusted to account for different assignment of DHLW to each repository.

A breakdown of the costs allocated to civilian wastes and DHLW for the upper reference case with increased burnup, high cost repository pair (basalt/hard rock) is contained in the Appendix.

IV. Future Actions Relating to the Cost Allocation Methodology

As noted above, information on the determination of the DHLW cost share based on this methodology will be included in future issues of the annual OCRWM fee adequacy report and the TSLCC analysis. Actual appropriation of funds to cover these costs will be requested through the budget and appropriation procedures.

A Memorandum of Agreement between OCRWM and DP is in preparation. This Memorandum is intended to include both the agreed cost-sharing methodology and more detail on intended DHLW disposal fee payment calculations. It is the Department's intention to publish this Agreement, for information purposes, in the Federal Register.

Issued in Washington, DC, August 13, 1987.

Ben C. Rusche,

Director, Office of Civilian Radioactive Waste Management.

[FR Doc. 87-19065 Filed 8-19-87; 8:45 am]

BILLING CODE 6450-01-C

Appendix -- Defense High-Level Waste Disposal: Sample DHLW Cost-Share Calculations

This Appendix contains summaries of the calculations for the defense waste disposal cost share for the four cases shown in section III of the body of the text. Also included is a detailed spreadsheet that shows costs at the most detailed level that was used in making cost allocations for the projection case using the no new orders nuclear electric (and spent fuel) generation scenario with an Improved Performance System (i.e., including an MRS facility) for the high-cost repository pair (a basalt first repository and hard rock (crystalline) second repository).

Summary Tables. Summary tables are included for the following cases: no new orders case with basalt and hard rock (crystalline) repositories (Table A1); upper reference ("reference") case with basalt and hard rock repositories (Table A2); no new orders case with tuff and salt repositories (Table A3); and reference case with tuff and salt repositories (Table A4).

In the upper portions of these tables, the allocations of costs for transportation, repositories, D&E, and MRS are given, together with the defense shares (as percentages) of the common assignable (direct plus common variable) costs, common unassigned costs, and total costs. The defense shares of these cost elements reflect the sharing arrangement given in the body of the text. Transportation is a direct cost. Repository unassigned cost is allocated in proportion to repository assignable cost shares for each repository. Within D&E, MRS and waste package costs are direct civilian costs. Transportation and systems integration D&E costs are allocated in accordance with shares of transportation costs. Other repository D&E is shared on the basis of the total assignable cost share for repositories 1 and 2 combined. Government administration is shared on the basis of the defense share of the total assigned costs. MRS is a direct civilian cost.

The lower portion of the summary tables show the total repository cost allocation to defense and civilian waste generators by repository cost sharing factor. For common assignable costs, the total repository cost allocated by the four sharing factors shown for each repository is multiplied by the respective defense sharing factor ("percentage") to yield the respective total defense repository cost allocations given in the last three columns. Defense wastes' total assignable (common assignable plus direct) repository cost share is used as the sharing factor for allocating common unassigned repository costs.

Detailed Repository Breakdown. The detailed repository cost breakdown is shown in Table A5 for the basalt (Hanford) and representative hard rock (crystalline) repository pair. Column headings indicate the bases for allocating assignable costs as well as the total cost for each element in the cost accounting structure (the cost elements are shown as the row titles) and total assignable cost ("subtotal") for these elements.

BILLING CODE 6450-01-M

Table A1
No New Orders, Basalt and Hard Rock
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE: NNO-EXTENDED, IMPROVED
REP.: BASALT/HARD ROCK

TSLCC COST COMPONENT	TOTAL	ASSIGNABLE COSTS			
	COST	TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$1,779	\$1,779	\$1,474	\$304	17.11%
REPOSITORY 1	\$10,583	\$8,828	\$7,090	\$1,737	19.68%
REPOSITORY 2	\$6,132	\$4,734	\$3,854	\$880	18.60%
SUBTOTAL REPOSITORY	\$16,715	\$13,562	\$10,944	\$2,618	19.30%
D&E:					
MRS	\$125	\$125	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$396	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$234	\$234	\$0	0.00%
Trans/Syst Int	\$1,080	\$0	\$0	\$0	0.00%
Other Repository	\$10,373	\$0	\$0	\$0	0.00%
Government Admin	\$2,452	\$0	\$0	\$0	0.00%

	\$14,659	\$755	\$755	\$0	0.00%
SUBTOTAL	\$33,153	\$16,095	\$13,173	\$2,922	18.15%
MRS	\$2,602	\$2,602	\$2,602	\$0	0.00%
TOTAL	\$35,755	\$18,697	\$15,775	\$2,922	15.63%

Table A1
No New Orders, Basalt and Hard Rock
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE:NNO-EXTENDED, IMPROVED
REP.: BASALT/HARD ROCK

TSLCC COST COMPONENT	COMMON UNASSIGNED COSTS			
	TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$0	\$0	\$0	0.00%
REPOSITORY 1	\$1,756	\$1,410	\$345	19.68%
REPOSITORY 2	\$1,398	\$1,138	\$260	18.60%
SUBTOTAL REPOSITORY	\$3,153	\$2,548	\$605	19.20%
D&E:				
MRS	\$0	\$0	\$0	0.00%
Waste Pkg.-1	\$0	\$0	\$0	0.00%
Waste Pkg.-2	\$0	\$0	\$0	0.00%
Trans/Syst Int	\$1,080	\$895	\$185	17.11%
Other Repository	\$10,373	\$8,370	\$2,002	19.30%
Government Admin	\$2,452	\$2,069	\$383	15.63%
	\$13,905	\$11,335	\$2,570	18.48%
SUBTOTAL	\$17,058	\$13,883	\$3,176	18.62%
MRS	\$0	\$0	\$0	0.00%
TOTAL	\$17,058	\$13,883	\$3,176	18.62%

Table A1
No New Orders, Basalt and Hard Rock
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE:NNO-EXTENDED, IMPROVED
REP.: BASALT/HARD ROCK

TSLCC COST COMPONENT	TOTAL COST ALLOCATION		
	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$1,474	\$304	17.11%
REPOSITORY 1	\$8,500	\$2,083	19.68%
REPOSITORY 2	\$4,992	\$1,140	18.60%
SUBTOTAL REPOSITORY	\$13,492	\$3,223	19.28%
D&E:			
MRS	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$0	0.00%
Trans/Syst Int	\$895	\$185	17.11%
Other Repository	\$8,370	\$2,002	19.30%
Government Admin	\$2,069	\$383	15.63%
	\$12,089	\$2,570	17.53%

SUBTOTAL	\$27,056	\$6,097	18.39%
MRS	\$2,602	\$0	0.00%
TOTAL	\$29,658	\$6,097	17.05%

REPOSITORY COST BREAKDOWN	TOTAL COSTS			REPOSITORY 1 COST FACTORS		
	REPOS. 1	REPOS. 2	TOTAL	DHLW/TOTAL	= FACTOR	
(Waste Packages or Thous. Tons)						
COMMON VARIABLE:						
PIECE COUNT:						
TOTAL PIECE COUNT	\$1,217	\$506	\$1,723	12,700	56,055	22.66%
WHB#1 PIECE COUNT	\$0	\$0	\$0	0	0	0.00%
WHB#2 PIECE COUNT	\$744	\$842	\$1,586	12,700	56,055	22.66%
AREAL DISPERSION	\$3,400	\$2,529	\$5,930	2,477	16,342	15.16%
DIRECT:						
CIVILIAN	\$2,689	\$673	\$3,362			0.00%
DEFENSE	\$778	\$184	\$961			100.00%
SUBTOTAL ASSIGNABLE	\$8,828	\$4,734	\$13,562			19.68%
COMMON UNASSIGNED	\$1,756	\$1,398	\$3,153			
TOTAL	\$10,583	\$6,132	\$16,715			

REPOSITORY COST BREAKDOWN	REPOSITORY 2 COST FACTORS			DEFENSE COSTS		
	DHLW/TOTAL			REPOS.		
TOTAL	= FACTOR			REPOS. 1	2	
(Waste Packages or Thous. Tons)						
COMMON VARIABLE:						
PIECE COUNT:						
TOTAL PIECE COUNT	3,300	11,412	28.92%	\$276	\$146	\$422
WHB#1 PIECE COUNT	0	0	0.00%	\$0	\$0	\$0
WHB#2 PIECE COUNT	3,300	11,412	28.92%	\$169	\$243	\$412
AREAL DISPERSION	644	5,305	12.14%	\$515	\$307	\$822
DIRECT:						
CIVILIAN			0.00%	\$0	\$0	\$0
DEFENSE			100.00%	\$778	\$184	\$961
SUBTOTAL ASSIGNABLE			18.60%	\$1,737	\$880	\$2,618
COMMON UNASSIGNED				\$345	\$260	\$605
TOTAL				\$2,083	\$1,140	\$3,223

Table A2

Reference, Basalt and Hard Rock
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE: UP. REF., EXTENDED, IMPROVED
REP.: BASALT/HARD ROCK

TSLCC COST COMPONENT	TOTAL		ASSIGNABLE COSTS		
	COST	TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$2,099	\$2,099	\$1,781	\$318	15.13%
REPOSITORY 1	\$10,531	\$8,751	\$7,382	\$1,369	15.64%
REPOSITORY 2	\$8,151	\$6,503	\$5,411	\$1,092	16.79%
SUBTOTAL REPOSITORY	\$18,681	\$15,254	\$12,794	\$2,461	16.13%
D&E:					
MRS	\$125	\$125	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$396	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$234	\$234	\$0	0.00%
Trans/Syst Int	\$1,080	\$0	\$0	\$0	0.00%
Other Repository	\$10,373	\$0	\$0	\$0	0.00%
Government Admin	\$2,532	\$0	\$0	\$0	0.00%
	\$14,739	\$755	\$755	\$0	0.00%
SUBTOTAL	\$35,520	\$18,108	\$15,330	\$2,778	15.34%
MRS	\$2,729	\$2,729	\$2,729	\$0	0.00%
TOTAL	\$38,249	\$20,837	\$18,059	\$2,778	13.33%

Table A2
Reference, Basalt and Hard Rock
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE: UP. REF., EXTENDED, IMPROVED
REP.: BASALT/HARD ROCK

TSLCC COST COMPONENT	COMMON UNASSIGNED COSTS			
	TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$0	\$0	\$0	0.00%
REPOSITORY 1	\$1,779	\$1,501	\$278	15.64%
REPOSITORY 2	\$1,648	\$1,371	\$277	16.79%
SUBTOTAL REPOSITORY	\$3,427	\$2,872	\$555	16.19%
D&E:				
MRS	\$0	\$0	\$0	0.00%
Waste Pkg.-1	\$0	\$0	\$0	0.00%
Waste Pkg.-2	\$0	\$0	\$0	0.00%
Trans/Syst Int	\$1,080	\$917	\$163	15.13%
Other Repository	\$10,373	\$8,699	\$1,673	16.13%
Government Admin	\$2,532	\$2,195	\$338	13.33%
	\$13,985	\$11,811	\$2,174	15.55%
SUBTOTAL	\$17,412	\$14,683	\$2,729	15.68%
MRS	\$0	\$0	\$0	0.00%
TOTAL	\$17,412	\$14,683	\$2,729	15.68%

Table A2
Reference, Basalt and Hard Rock

DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE: UP. REF., EXTENDED, IMPROVED
REP.: BASALT/HARD ROCK

TOTAL COST ALLOCATION			
TSLCC COST COMPONENT	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$1,781	\$318	15.13%
REPOSITORY 1	\$8,883	\$1,647	15.64%
REPOSITORY 2	\$6,782	\$1,368	16.79%
SUBTOTAL REPOSITORY	\$15,666	\$3,016	16.14%
D&E:			
MRS	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$0	0.00%
Trans/Syst Int	\$917	\$163	15.13%
Other Repository	\$8,699	\$1,673	16.13%
Government Admin	\$2,195	\$338	13.33%
	\$12,565	\$2,174	14.75%
SUBTOTAL	\$30,012	\$5,508	15.51%
MRS	\$2,729	\$0	0.00%
TOTAL	\$32,742	\$5,508	14.40%

REPOSITORY COST BREAKDOWN COMMON VARIABLE:	TOTAL COSTS			REPOSITORY 1 COST FACTORS DHLW/TOTAL = FACTOR (Waste Packages or Thous. Tons)			
	REPOS. 1	REPOS. 2	TOTAL				
PIECE COUNT:							
TOTAL PIECE COUNT	\$1,192	\$724	\$1,916	9,752	54,031	18.05%	
WHB#1 PIECE COUNT	\$0	\$0	\$0	0	0	0.00%	
WHB#2 PIECE COUNT	\$757	\$1,020	\$1,777	9,752	54,031	18.05%	
AREAL DISPERSION	\$3,428	\$2,810	\$6,238	1,902	16,413	11.59%	
DIRECT:							
CIVILIAN	\$2,755	\$1,599	\$4,354			0.00%	
DEFENSE	\$620	\$350	\$970			100.00%	
SUBTOTAL ASSIGNABLE	\$8,751	\$6,503	\$15,254			15.64%	
COMMON UNASSIGNED	\$1,779	\$1,648	\$3,427				
TOTAL	\$10,531	\$8,151	\$18,681				

REPOSITORY COST BREAKDOWN COMMON VARIABLE:	REPOSITORY 2 COST FACTORS DHLW/TOTAL = FACTOR (Waste Packages or Thous. Tons)			DEFENSE COSTS REPOS. 1 REPOS. 2 TOTAL		
PIECE COUNT:						
TOTAL PIECE COUNT	6,248	25,727	24.29%	\$215	\$176	\$391
WHB#1 PIECE COUNT	0	0	0.00%	\$0	\$0	\$0

WHB#2 PIECE COUNT	6,248	25,727	24.29%	\$137	\$248	\$384
AREAL DISPERSION	1,218	10,760	11.32%	\$397	\$318	\$715
DIRECT:						
CIVILIAN			0.00%	\$0	\$0	\$0
DEFENSE			100.00%	\$620	\$350	\$970
SUBTOTAL ASSIGNABLE			16.79%	\$1,369	\$1,092	\$2,461
COMMON UNASSIGNED				\$278	\$277	\$555
TOTAL				\$1,647	\$1,368	\$3,016

Table A3
No New Orders, Tuff and Salt
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE:NNO-EXTENDED, IMPROVED
REP.: TUFF/SALT

TSLCC COST COMPONENT	TOTAL COST	ASSIGNABLE COSTS			
		TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$1,810	\$1,810	\$1,508	\$302	16.67%
REPOSITORY 1	\$5,471	\$3,847	\$2,952	\$895	23.28%
REPOSITORY 2	\$5,048	\$3,565	\$2,731	\$834	23.41%
SUBTOTAL REPOSITORY	\$10,520	\$7,412	\$5,682	\$1,730	23.34%
D&E:					
MRS	\$125	\$125	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$396	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$234	\$234	\$0	0.00%
Trans/Syst Int	\$1,080	\$0	\$0	\$0	0.00%
Other Repository	\$10,373	\$0	\$0	\$0	0.00%
Governmnt Admin	\$2,347	\$0	\$0	\$0	0.00%
	\$14,554	\$755	\$755	\$0	0.00%
SUBTOTAL	\$26,884	\$9,977	\$7,945	\$2,032	20.36%
MRS	\$2,638	\$2,651	\$2,651	\$0	0.00%
TOTAL	\$29,522	\$12,627	\$10,596	\$2,032	16.09%

Table A3
No New Orders, Tuff and Salt
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE:NNO-EXTENDED, IMPROVED
REP.: TUFF/SALT

TSLCC COST COMPONENT	COMMON UNASSIGNED COSTS			
	TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$0	\$0	\$0	0.00%
REPOSITORY 1	\$1,624	\$1,246	\$378	23.28%
REPOSITORY 2	\$1,483	\$1,136	\$347	23.41%
SUBTOTAL REPOSITORY	\$3,107	\$2,382	\$725	23.34%
D&E:				
MRS	\$0	\$0	\$0	0.00%
Waste Pkg.-1	\$0	\$0	\$0	0.00%
Waste Pkg.-2	\$0	\$0	\$0	0.00%

Trans/Syst Int	\$1,080	\$900	\$180	16.67%
Other Repository	\$10,373	\$7,952	\$2,421	23.34%
Government Admin	\$2,347	\$1,970	\$378	16.09%
	\$13,800	\$10,821	\$2,979	21.58%
SUBTOTAL	\$16,907	\$13,203	\$3,704	21.91%
MRS	(\$12)	\$0	\$0	0.00%
TOTAL	\$16,895	\$13,203	\$3,704	21.92%

Table A3

No New Orders, Tuff and Salt

DEFENSE WASTE COST ALLOCATION CALCULATION

(MILLIONS OF 1986 DOLLARS)

CASE: NNO-EXTENDED, IMPROVED

REP.: TUFF/SALT

	TOTAL COST ALLOCATION		
TSLCC COST COMPONENT	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$1,508	\$302	16.67%
REPOSITORY 1	\$4,198	\$1,274	23.28%
REPOSITORY 2	\$3,867	\$1,182	23.41%
SUBTOTAL REPOSITORY	\$8,064	\$2,455	23.34%
D&E:			
MRS	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$0	0.00%
Trans/Syst Int	\$900	\$180	16.67%
Other Repository	\$7,952	\$2,421	23.34%
Government Admin	\$1,970	\$378	16.09%
	\$11,576	\$2,979	20.46%
SUBTOTAL	\$21,149	\$5,735	21.33%
MRS	\$2,651	\$0	0.00%
TOTAL	\$23,799	\$5,735	19.43%

REPOSITORY COST BREAKDOWN COMMON VARIABLE:	TOTAL COSTS			REPOSITORY 1 COST FACTORS		
	REPOS. 1	REPOS. 2	TOTAL	DHLW/TOTAL	= FACTOR	(Waste Packages or Thous. Tons)
PIECE COUNT:						
TOTAL PIECE COUNT	\$658	\$221	\$879	12,700	49,192	25.82%
WHB#1 PIECE COUNT	\$0	\$0	\$0	0	0	0.00%
WHB#2 PIECE COUNT	\$706	\$1,361	\$2,067	12,700	49,192	25.82%
AREAL DISPERSION	\$1,785	\$1,298	\$3,083	2,862	14,869	19.25%
DIRECT:						
CIVILIAN	\$499	\$525	\$1,024			0.00%
DEFENSE	\$200	\$160	\$360			100.00%
SUBTOTAL ASSIGNABLE	\$3,847	\$3,565	\$7,412			23.28%
COMMON UNASSIGNED	\$1,624	\$1,483	\$3,107			
TOTAL	\$5,471	\$5,048	\$10,520			

REPOSITORY COST BREAKDOWN COMMON VARIABLE:	REPOSITORY 2 COST FACTORS			DEFENSE COSTS		
	DHLW/TOTAL = FACTOR (Waste Packages or Thous. Tons)			REPOS. 1	REPOS. 2	TOTAL
PIECE COUNT:						
TOTAL PIECE COUNT	3,300	9,555	34.54%	\$170	\$76	\$246
WHB#1 PIECE COUNT	0	0	0.00%	\$0	\$0	\$0
WHB#2 PIECE COUNT	3,300	9,555	34.54%	\$182	\$470	\$652
AREAL DISPERSION	974	9,897	9.84%	\$343	\$128	\$471
DIRECT:						
CIVILIAN			0.00%	\$0	\$0	\$0
DEFENSE			100.00%	\$200	\$160	\$360
SUBTOTAL ASSIGNABLE			23.41%	\$895	\$834	\$1,730
COMMON UNASSIGNED				\$378	\$347	\$725
TOTAL				\$1,274	\$1,182	\$2,455

Table A4
Reference, Tuff and Salt
DEFENSE WASTE COST ALLOCATION CALCULATION
(MILLIONS OF 1986 DOLLARS)

CASE:UP. REF., EXTENDED, IMPROVED
REP.: TUFF/SALT

TSLCC COST COMPONENT	TOTAL COST	ASSIGNABLE COSTS			
		TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$2,172	\$2,172	\$1,866	\$306	14.08%
REPOSITORY 1	\$5,508	\$3,854	\$3,149	\$705	18.28%
REPOSITORY 2	\$7,011	\$5,239	\$4,205	\$1,035	19.75%
SUBTOTAL REPOSITORY	\$12,519	\$9,093	\$7,354	\$1,739	19.13%
D&E:					
MRS	\$125	\$125	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$396	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$234	\$234	\$0	0.00%
Trans/Syst Int	\$1,080	\$0	\$0	\$0	0.00%
Other Repository	\$10,373	\$0	\$0	\$0	0.00%
Government Admin	\$2,427	\$0	\$0	\$0	0.00%
	\$14,634	\$755	\$755	\$0	0.00%
SUBTOTAL	\$29,325	\$12,019	\$9,974	\$2,045	17.01%
MRS	\$2,708	\$2,708	\$2,708	\$0	0.00%
TOTAL	\$32,033	\$14,728	\$12,683	\$2,045	13.88%

Table A4
Reference, Tuff and Salt

DEFENSE WASTE COST ALLOCATION CALCULATION

(MILLIONS OF 1986 DOLLARS)

CASE:UP. REF., EXTENDED, IMPROVED

REP.: TUFF/SALT

COMMON UNASSIGNED COSTS

TSLCC COST COMPONENT	TOTAL	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$0	\$0	\$0	0.00%
REPOSITORY 1	\$1,654	\$1,352	\$302	18.28%
REPOSITORY 2	\$1,772	\$1,422	\$350	19.75%
SUBTOTAL REPOSITORY	\$3,426	\$2,773	\$652	19.04%
D&E:				
MRS	\$0	\$0	\$0	0.00%
Waste Pkg.-1	\$0	\$0	\$0	0.00%
Waste Pkg.-2	\$0	\$0	\$0	0.00%
Trans/Syst Int	\$1,080	\$928	\$152	14.08%
Other Repository	\$10,373	\$8,389	\$1,984	19.13%
Government Admin	\$2,427	\$2,090	\$337	13.88%
	\$13,880	\$11,407	\$2,473	17.82%
SUBTOTAL	\$17,306	\$14,180	\$3,125	18.06%
MRS	\$0	\$0	\$0	0.00%
TOTAL	\$17,306	\$14,180	\$3,125	18.06%

Table A4

Reference, Tuff and Salt

DEFENSE WASTE COST ALLOCATION CALCULATION

(MILLIONS OF 1986 DOLLARS)

CASE:UP. REF., EXTENDED, IMPROVED

REP.: TUFF/SALT

TOTAL COST ALLOCATION

TSLCC COST COMPONENT	CIVILIAN	DEFENSE	DEF %
TRANSPORTATION	\$1,866	\$306	14.08%
REPOSITORY 1	\$4,501	\$1,007	18.28%
REPOSITORY 2	\$5,626	\$1,384	19.75%
SUBTOTAL REPOSITORY	\$10,127	\$2,391	19.10%
D&E:			
MRS	\$125	\$0	0.00%
Waste Pkg.-1	\$396	\$0	0.00%
Waste Pkg.-2	\$234	\$0	0.00%
Trans/Syst Int	\$928	\$152	14.08%
Other Repository	\$8,389	\$1,984	19.13%
Government Admin	\$2,090	\$337	13.88%
	\$12,161	\$2,473	16.90%
SUBTOTAL	\$24,155	\$5,170	17.63%
MRS	\$2,708	\$0	0.00%
TOTAL	\$26,863	\$5,170	16.14%

REPOSITORY 1 COST

FACTORS

DHLW / TOTAL

TOTAL COSTS

REPOSITORY COST BREAKDOWN	REPOS. 1	REPOS. 2	TOTAL	= FACTOR (Waste Packages or Thous. Tons)		
COMMON VARIABLE:						
PIECE COUNT:						
TOTAL PIECE COUNT	\$645	\$236	\$881	9,752	47,108	20.70%
WHB#1 PIECE COUNT	\$0	\$0	\$0	0	0	0.00%
WHB#2 PIECE COUNT	\$724	\$1,752	\$2,475	9,752	47,108	20.70%
AREAL DISPERSION	\$1,815	\$1,683	\$3,498	2,198	15,299	14.37%
DIRECT:						
CIVILIAN	\$510	\$1,256	\$1,767			0.00%
DEFENSE	\$161	\$312	\$473			100.00%
SUBTOTAL ASSIGNABLE	\$3,854	\$5,239	\$9,093			18.28%
COMMON UNASSIGNED	\$1,654	\$1,772	\$3,426			
TOTAL	\$5,508	\$7,011	\$12,519			

REPOSITORY COST BREAKDOWN COMMON VARIABLE:	REPOSITORY 2 COST FACTORS			DEFENSE COSTS		
	DHLW / TOTAL = FACTOR (Waste Packages or Thous. Tons)			REPOS. 1	REPOS. 2	TOTAL
	PIECE COUNT:					
TOTAL PIECE COUNT	6,248	21,586	28.94%	\$133	\$68	\$202
WHB#1 PIECE COUNT	0	0	0.00%	\$0	\$0	\$0
WHB#2 PIECE COUNT	6,248	21,586	28.94%	\$150	\$507	\$657
AREAL DISPERSION	1,843	21,127	8.72%	\$261	\$147	\$408
DIRECT:						
CIVILIAN			0.00%	\$0	\$0	\$0
DEFENSE			100.00%	\$161	\$312	\$473
SUBTOTAL ASSIGNABLE			19.75%	\$705	\$1,035	\$1,739
COMMON UNASSIGNED				\$302	\$350	\$652
TOTAL				\$1,007	\$1,384	\$2,391

Table A5
Repository Cost Breakdown, Basalt and Hard Rock Repositories

CASE: UP. REF	DHLW FACTOR		DESIGNATION			
NEW DHLW, IMPROVED, FIRST	(INPUT DATA)					
SITE: HANFORD	17-Jul-87					
ACCOUNT	COST	ACCOUNT	TITLE	TOTAL	WH8#1	WH8#2
					PIECE	PIECE
01000		SUPPORT	CONTRACTOR	\$111.86		
01010		License	Application	\$33.56	0	0
01020		Other		\$78.30	0	0
02000		ARCHITECT-ENGINEER		\$638.62		
02010		License	Application	\$261.97	0	0
02020		Final Procurement and	Construction	\$152.82	0	0
02030		Title III		\$23.83	0	0

03000	CONSTRUCTION MANAGEMENT	\$318.01	0	0	0
04000	CONSULTANTS	\$5.07	0	0	0
05000	PERFORMANCE CONFIRMATION PROGRAM	\$45.00	0	0	0
07000	REPOSITORY LAND AQUISITION	\$0.00	0	0	0
00000	MANAGEMENT AND INTEGRATION	\$918.56			
11000	EMPLOYEE TRANSPORTATION	\$0.00	0	0	0
12000	ON-SITE	\$128.64			
12010	Roads	\$10.35	0	0	0
12020	Rail	\$5.99	0	0	0
12030	Communications	\$11.28	0	0	0
12040	Clearing	\$0.92	0	0	0
12050	Grading	\$7.80	0	0	0
12060	Landscaping	\$0.37	0	0	0
12070	Drainage Control	\$1.13	0	0	0
12080	Fencing	\$1.47	0	0	0
12090	Utilities	\$81.54	0	0	0
12100	Other	\$7.78	0	0	0
13000	OFF-SITE	\$27.19			
13010	Roads	\$1.96	0	0	0
13020	Rail	\$5.04	0	0	0
13030	Communications	\$0.00	0	0	0
13040	Drainage	\$0.00	0	0	0
13050	Utilities	\$20.19	0	0	0
13060	Other	\$0.00	0	0	0
14000	MONUMENTS	\$17.77	0	0	0
10000	SITE PREPARATION	\$173.60			
21000	WASTE HANDLING FACILITY	\$798.49			
21100	Waste Handling Building 1:	\$0.00			
21102	Building/Structures	\$0.00	0	1	0
21103	Hot Cell	\$0.00	0	1	0
21104	Utilities	\$0.00	0	1	0
21105	HVAC	\$0.00	0	1	0
21106	Handling/Packaging Equipment	\$0.00	0	1	0
21107	Support Facilities	\$0.00	0	1	0
21200	Waste Handling Building 2:	\$756.67			
21202	Building/Structures	\$590.57	0	0	1
21203	Hot Cell	\$16.98	0	0	1
21204	Utilities	\$46.19	0	0	1
21205	HVAC	\$48.53	0	0	1
21206	Handling/Packaging Equipment	\$40.85	0	0	1
21207	Support Facilities	\$13.56	0	0	1
21500	Other	\$41.82			
21501	Site-Generated Radwaste Treatment	\$0.00	1	0	0
21502	Vehicle Wash Facility	\$0.00	1	0	0
21503	Decontamination Building	\$0.00	1	0	0
21504	Performance Confirmation Facility	\$0.00	1	0	0
21505	Radwaste Storage	\$30.14	1	0	0
21506	Transfer Corridors	\$6.38	1	0	0
21507	Turntable	\$1.75	1	0	0
21508	Waste Shaft Staging Facility	\$3.54	1	0	0
22000	BALANCE OF PLANT	\$1,445.27			
22010	Health/Medical Facilities	\$45.94	0	0	0
22020	Fire Protection Facilities	\$53.70	0	0	0
22030	Security Facilites	\$207.44	0	0	0

22040	Maintenance Facilities	\$100.59	0	0	0
22050	Administration/Personnel Facilities	\$357.94	0	0	0
22060	Training/Mockup Facility	\$18.95	0	0	0
22070	Warehouse and Receiving	\$25.07	0	0	0
22080	Visitors Center Facility	\$11.50	0	0	0
22090	Backup Power Generation	\$45.87	0	0	0
22100	Change Room Facility	\$8.15	0	0	0
22110	Explosive Storage Facility	\$0.13	0	0	0
22120	Compressed Air and Steam Facility	\$0.00	0	0	0
22130	Cooling Tower and Chilled Water Facility	\$218.43	0	0	0
22140	Excavated Material Storage and Handling	\$88.74			
22141	Surface Exc.Mat. Storage and Handling	\$88.74	0	0	0
22142	Offsite Excavated Material Disposal	\$0.00	0	0	0
22150	Fuel Storage Facility	\$0.00	0	0	0
22160	Chemical Storage Facility	\$0.00	0	0	0
22170	Lab and Testing Facilities	\$64.91	0	0	0
22180	Potable Water Facility	\$12.77	0	0	0
22190	Sewage Treatment Facility	\$10.47	0	0	0
22200	Backfill Facility	\$42.14	0	0	0
22210	Packing Facility	\$105.01	1	0	0
22220	Control and Monitoring Facility	\$18.17	0	0	0
22230	Standard Equipment	\$9.37	0	0	0
22240	Other	\$0.00	0	0	0
23000	SURFACE SHAFT FACILITIES	\$451.20			
23010	Men and Materials Facility	\$100.39	0	0	0
23020	Waste Facility	\$44.78	1	0	0
23030	Excavated Material Handling Facility	\$50.55	0	0	0
23040	Development Intake Facilities	\$27.61	0	0	0
23050	Confinement Intake Facilities	\$16.10	0	0	0
23070	Development Exhaust Facilities	\$10.16	0	0	0
23080	Confinement Exhaust Facilities	\$193.09	0	0	0
23100	Exploratory Shaft Facility - 1	\$3.79	0	0	0
23110	Exploratory Shaft Facility - 2	\$4.73	0	0	0
23120	Other Facility	\$0.00	0	0	0
20000	SURFACE FACILITIES	\$2,694.96			
30010	Men and Materials Access (Shaft)	\$179.49	0	0	0
30020	Waste Handling Access (Shaft or Ramp)	\$251.19	1	0	0
30030	Exc.Mat. Handling Access (Shaft or Ramp)	\$185.40	0	0	0
30040	Development Intake Access (Shafts)	\$22.940	0	0	0

30050	Confinement Intake Access (Shafts)	\$335.11	0	0	0
30070	Development Exhaust Access (Shafts)	\$232.29	0	0	0
30080	Confinement Exhaust Access (Shafts)	\$322.20	0	0	0
30100	Exploratory Shaft - 1	\$0.00	0	0	0
30110	Exploratory Shaft - 2	\$0.00	0	0	0
30120	Other	\$0.00	0	0	0
30000	SHAFTS/RAMPS - UNDERGROUND	\$1,735.07			
41000	DEVELOPMENT	\$1,500.04			
41010	Common Facility (Shaft Pillar) Excavation	\$62.99	0	0	0
41020	Spent Fuel Facility Excavation	\$408.18	0	0	0
41030	DHLW Facility Excavation	\$100.47	0	0	0
41040	Other Waste Facility (Boreholes)	\$663.32	1	0	0
41060	Excavated Material Handling	\$134.25	0	0	0
41070	General Maintenance	\$130.83	0	0	0
42000	EMPLACEMENT/RETRIEVAL OPERATIONS	\$531.33			
42010	Spent Fuel Waste Transport and Emplacement	\$366.09	0	0	0
42020	DHLW Transport and Emplacement	\$144.99	0	0	0
42030	Other Waste Transport and Emplacement	\$0.00	0	0	0
42040	Waste Removal	\$20.25	1	0	0
43000	BACKFILL	\$165.24			
43010	Men and Materials Access (Shaft)	\$9.23	0	0	0
43020	Waste Handling Access (Shaft or Ramp)	\$16.50	1	0	0
43030	Muck Handling Access (Shaft or Ramp)	\$9.00	0	0	0
43040	Development Intake Access (Shafts)	\$12.53	0	0	0
43050	Confinement Intake Access (Shafts)	\$17.96	0	0	0
43070	Development Exhaust Access (Shafts)	\$13.02	0	0	0
43080	Confinement Exhaust Access (Shafts)	\$18.18	0	0	0
43100	Exploratory Shaft - 1	\$2.31	0	0	0
43110	Exploratory Shaft - 2	\$6.43	0	0	0
43120	Other Shaft	\$0.00	0	0	0
43300	Development Areas	\$60.07	0	0	0
40000	SUBSURFACE EXCAVATIONS	\$2,196.61			
51000	SUPPORT SYSTEM FACILITIES	\$407.63	0	0	0
52000	UTILITIES	\$94.78	0	0	0
53000	MONITORING	\$200.79	0	0	0
50000	UNDERGROUND SERVICE SYSTEMS	\$703.19			
61000	SPENT FUEL	\$1,632.65			
61010	Intact PWR	\$342.31	0	0	0
61020	Intact BWR	\$114.67	0	0	0
61030	Consolidated PWR	\$702.80	0	0	0

61040	Consolidated BWR	\$472.86	0	0	0
62000	DHLW	\$374.77	0	0	0
63000	OTHER WASTE	\$396.77			
63010	Spent Fuel Hardware	\$336.51	0	0	0
63020	Performance Confirmation	\$48.73	1	0	0
63030	WVHLW and CHLW	\$11.53	0	0	0
63040	Contact-Handled	\$0.00	1	0	0
60000	WASTE PACKAGE FABRICATION	\$2,404.19			
99999	TOTAL REPOSITORY	\$10,826.19			
	TOTAL REPOSITORY LESS L.A.D.	\$10,530.66			
	MANAGEMENT AND INT.				
01000	SUPPORT CONTRACTOR	\$111.86			
01010	License Application	\$34.42	0	0	0
01020	Other	\$77.44	0	0	0
02000	ARCHITECT-ENGINEER	\$478.04			
02010	License Application	\$285.63	0	0	0
02020	Final Procurement and Construction	\$166.62	0	0	0
02030	Title III	\$25.80	0	0	0
03000	CONSTRUCTION MANAGEMENT	\$381.60	0	0	0
04000	CONSULTANTS	\$3.90	0	0	0
05000	PERFORMANCE CONFIRMATION PROGRAM	\$45.00	0	0	0
07000	REPOSITORY LAND AQUISITION	\$23.40	0	0	0
00000	MANAGEMENT AND INTEGRATION	\$1,043.81			
11000	EMPLOYEE TRANSPORTATION	\$0.00	0	0	0
12000	ON-SITE	\$98.55			
12010	Roads	\$7.85	0	0	0
12020	Rail	\$4.80	0	0	0
12030	Communications	\$7.95	0	0	0
12040	Clearing	\$0.86	0	0	0
12050	Grading	\$7.18	0	0	0
12060	Landscaping	\$0.36	0	0	0
12070	Drainage Control	\$1.04	0	0	0
12080	Fencing	\$1.38	0	0	0
12090	Utilities	\$60.33	0	0	0
12100	Other	\$6.79	0	0	0
13000	OFF-SITE	\$40.85			
13010	Roads	\$2.27	0	0	0
13020	Rail	\$21.39	0	0	0
13030	Communications	\$0.00	0	0	0
13040	Drainage	\$0.00	0	0	0
13050	Utilities	\$17.19	0	0	0
13060	Other	\$0.00	0	0	0
14000	MONUMENTS	\$17.77	0	0	0
10000	SITE PREPARATION	\$157.17			
21000	WASTE HANDLING FACILITY	\$1,043.96			
21100	Waste Handling Building 1:	\$0.00			
21102	Building/Structures	\$0.00	0	1	0
21103	Hot Cell	\$0.00	0	1	0
21104	Utilities	\$0.00	0	1	0
21105	HVAC	\$0.00	0	1	0
21106	Handling/Packaging Equipment	\$0.00	0	1	0
21107	Support Facilities	\$0.00	0	1	0
21200	Waste Handling Building 2:	\$1,020.45			
21202	Building/Structures	\$742.97	0	0	1
21203	Hot Cell	\$28.61	0	0	1

21204	Utilities	\$56.84	0	0	1
21205	HVAC	\$75.87	0	0	1
21206	Handling/Packaging Equipment	\$91.59	0	0	1
21207	Support Facilities	\$24.57	0	0	1
21500	Other	\$23.51			
21501	Site-Generated Radwaste Treatment	\$0.00	1	0	0
21502	Vehicle Wash Facility	\$0.00	1	0	0
21503	Decontamination Building	\$0.00	1	0	0
21504	Performance Confirmation Facility	\$0.00	1	0	0
21505	Radwaste Storage	\$13.32	1	0	0
21506	Transfer Corridors	\$5.82	1	0	0
21507	Turntable	\$1.12	1	0	0
21508	Waste Shaft Staging Facility	\$3.26	1	0	0
22000	BALANCE OF PLANT	\$1,117.04			
22010	Health/Medical Facilities	\$34.34	0	0	0
22020	Fire Protection Facilities	\$42.27	0	0	0
22030	Security Facilities	\$162.93	0	0	0
22040	Maintenance Facilities	\$72.02	0	0	0
22050	Administration/Personnel Facilities	\$292.33	0	0	0
22060	Training/Mockup Facility	\$14.78	0	0	0
22070	Warehouse and Receiving	\$20.12	0	0	0
22080	Visitors Center Facility	\$6.44	0	0	0
22090	Backup Power Generation Facility	\$43.02	0	0	0
22100	Change Room Facility	\$7.66	0	0	0
22110	Explosive Storage Facility	\$0.12	0	0	0
22120	Compressed Air and Steam Facility	\$0.00	0	0	0
22130	Cooling Tower and Chilled Water Facility	\$197.86	0	0	0
22140	Excavated Material Storage and Handling	\$57.16			
22141	Surface Exc.Mat. Storage and Handling	\$57.16	0	0	0
22142	Offsite Excavated Material Disposal	\$0.00	0	0	0
22150	Fuel Storage Facility	\$0.00	0	0	0
22160	Chemical Storage Facility	\$0.00	0	0	0
22170	Lab and Testing Facilities	\$38.82	0	0	0
22180	Potable Water Facility	\$9.49	0	0	0
22190	Sewage Treatment Facility	\$5.57	0	0	0
22200	Backfill Facility	\$30.65	0	0	0
22210	Packing Facility	\$56.71	1	0	0
22220	Control and Monitoring Facility	\$17.73	0	0	0
22230	Standard Equipment	\$7.04	0	0	0
22240	Other	\$0.00	0	0	0
23000	SURFACE SHAFT FACILITIES	\$387.48			
23010	Men and Materials Facility	\$74.97	0	0	0
23020	Waste Facility	\$32.39	1	0	0
23030	Excavated Material Handling Facility	\$32.46	0	0	0
23040	Development Intake Facilities	\$27.54	0	0	0

23050	Confinement Intake Facilities	\$17.75	0	0	0
23070	Development Exhaust Facilities	\$9.55	0	0	0
23080	Confinement Exhaust Facilities	\$185.01	0	0	0
23100	Exploratory Shaft Facility - 1	\$3.44	0	0	0
23110	Exploratory Shaft Facility - 2	\$4.37	0	0	0
23120	Other Facility	\$0.00	0	0	0
20000	SURFACE FACILITIES	\$2,548.48			
30010	Men and Materials Access (Shaft)	\$154.86	0	0	0
30020	Waste Handling Access (Shaft or Ramp)	\$216.50	1	0	0
30030	Exc.Mat. Handling Access (Shaft or Ramp)	\$159.95	0	0	0
30040	Development Intake Access (Shafts)	\$198.15	0	0	0
30050	Confinement Intake Access (Shafts)	\$288.64	0	0	0
30070	Development Exhaust Access (Shafts)	\$200.62	0	0	0
30080	Confinement Exhaust Access (Shafts)	\$277.58	0	0	0
30100	Exploratory Shaft - 1	\$0.00	0	0	0
30110	Exploratory Shaft - 2	\$0.00	0	0	0
30120	Other	\$0.00	0	0	0
30000	SHAFTS/RAMPS - UNDERGROUND	\$1,496.30			
41000	DEVELOPMENT	\$940.44			
41010	Common Facility (Shaft Pillar) Excavation	\$86.94	0	0	0
41020	Spent Fuel Facility Excavation	\$290.47	0	0	0
41030	DHLW Facility Excavation	\$44.94	0	0	0
41040	Other Waste Facility (Boreholes)	\$314.99	1	0	0
41060	Excavated Material Handling	\$107.06	0	0	0
41070	General Maintenance	\$96.05	0	0	0
42000	EMPLACEMENT/RETRIEVAL OPERATIONS	\$260.24			
42010	Spent Fuel Waste Transport and Emplacement	\$178.51	0	0	0
42020	DHLW Transport and Emplacement	\$64.90	0	0	0
42030	Other Waste Transport and Emplacement	\$0.00	0	0	0
42040	Waste Removal	\$16.83	1	0	0
43000	BACKFILL	\$132.35			
43010	Men and Materials Access (Shaft)	\$8.06	0	0	0
43020	Waste Handling Access (Shaft or Ramp)	\$14.41	1	0	0
43030	Muck Handling Access (Shaft or Ramp)	\$7.86	0	0	0

43040	Development Intake Access (Shafts)	\$10.97	0	0	0
43050	Confinement Intake Access (Shafts)	\$15.66	0	0	0
43070	Development Exhaust Access (Shafts)	\$11.39	0	0	0
43080	Confinement Exhaust Access (Shafts)	\$15.87	0	0	0
43100	Exploratory Shaft - 1	\$2.31	0	0	0
43110	Exploratory Shaft - 2	\$6.43	0	0	0
43120	Other Shaft	\$0.00	0	0	0
43300	Development Areas	\$39.38	0	0	0
40000	SUBSURFACE EXCAVATIONS	\$1,333.03			
51000	SUPPORT SYSTEM FACILITIES	\$267.93	0	0	0
52000	UTILITIES	\$79.05	0	0	0
53000	MONITORING	\$126.42	0	0	0
50000	UNDERGROUND SERVICE SYSTEMS	\$473.40			
61000	SPENT FUEL	\$1,091.22			
61010	Intact PWR	\$145.29	0	0	0
61020	Intact BWR	\$76.46	0	0	0
61030	Consolidated PWR	\$591.55	0	0	0
61040	Consolidated BWR	\$277.92	0	0	0
62000	DHLW	\$240.12	0	0	0
63000	OTHER WASTE	\$87.32			
63010	Spent Fuel Mardware	\$38.59	0	0	0
63020	Performance Confirmation	\$48.73	1	0	0
63030	WVHLW and CHLW	\$0.00	0	0	0
63040	Contact-Handled	\$0.00	1	0	0
60000	WASTE PACKAGE FABRICATION	\$1,418.66			
99999	TOTAL REPOSITORY	\$8,470.84			
	TOTAL REPOSITORY LESS L.A.D. MANAGEMENT AND INT.	\$8,150.79			

Table A5

Repository Cost Breakdown, Basalt and Hard Rock Repositories
DHLW FACTOR DESIGNATION

CASE: UP. REF. NEW DHLW, IMPROVED, FIRST		(INPUT DATA)			
SITE: HANFORD		AREAL DEDICATED TO			
ACCOUNT	COST ACCOUNT TITLE	DISP.	CIVIL.	DHLW	SHARED
01000	SUPPORT CONTRACTOR				
01010	License Application	0	0	0	1
01020	Other	0	0	0	1
02000	ARCHITECT-ENGINEER				
02010	License Application	0	0	0	1
02020	Final Procurement and Construction	0	0	0	1
02030	Title III	0	0	0	1
03000	CONSTRUCTION MANAGEMENT	0	0	0	1
04000	CONSULTANTS	0	0	0	1
05000	PERFORMANCE CONFIRMATION PROGRAM	0	0	0	1
07000	REPOSITORY LAND AQUISITION	0	0	0	1

00000	MANAGEMENT AND INTEGRATION				
11000	EMPLOYEE TRANSPORTATION	0	0	0	1
12000	ON-SITE				
12010	Roads	0	0	0	1
12020	Rail	0	0	0	1
12030	Communications	0	0	0	1
12040	Clearing	0	0	0	1
12050	Grading	0	0	0	1
12060	Landscaping	0	0	0	1
12070	Drainage Control	0	0	0	1
12080	Fencing	0	0	0	1
12090	Utilities	0	0	0	1
12100	Other	0	0	0	1
13000	OFF-SITE				
13010	Roads	0	0	0	1
13020	Rail	0	0	0	1
13030	Communications	0	0	0	1
13040	Drainage	0	0	0	1
13050	Utilities	0	0	0	1
13060	Other	0	0	0	1
14000	MONUMENTS	0	0	0	1
10000	SITE PREPARATION				
21000	WASTE HANDLING FACILITY				
21100	Waste Handling Building 1:				
21102	Building/Structures	0	0	0	0
21103	Not Cell	0	0	0	0
21104	Utilities	0	0	0	0
21105	NVAC	0	0	0	0
21106	Handling/Packaging Equipment	0	0	0	0
21107	Support Facilities	0	0	0	0
21200	Waste Handling Building 2:				
21202	Building/Structures	0	0	0	0
21203	Not Cell	0	0	0	0
21204	Utilities	0	0	0	0
21205	NVAC	0	0	0	0
21206	Handling/Packaging Equipment	0	0	0	0
21207	Support Facilities	0	0	0	0
21500	Other				
21501	Site-Generated Radwaste Treatment	0	0	0	0
21502	Vehicle Wash Facility	0	0	0	0
21503	Decontamination Building	0	0	0	0
21504	Performance Confirmation Facility	0	0	0	0
21505	Radwaste Storage	0	0	0	0
21506	Transfer Corridors	0	0	0	0
21507	Turntable	0	0	0	0
21508	Waste Shaft Staging Facility	0	0	0	0
22000	BALANCE OF PLANT				
22010	Health/Medical Facilities	0	0	0	1
22020	Fire Protection Facilities	0	0	0	1
22030	Security Facilities	0	0	0	1
22040	Maintenance Facilities	0	0	0	1
22050	Administration/Personnel Facilities	0	0	0	1
22060	Training/Mockup Facility	0	0	0	1
22070	Warehouse and Receiving	0	0	0	1

22080	Visitors Center Facility	0	0	0	1
22090	Backup Power Generation Facility	0	0	0	1
22100	Change Room Facility	1	0	0	0
22110	Explosive Storage Facility	1	0	0	0
22120	Compressed Air and Steam Facility	1	0	0	0
22130	Cooling Tower and Chilled Water Facility	1	0	0	0
22140	Excavated Material Storage and Handling				
22141	Surface Exc.Mat. Storage and Handling	1	0	0	0
22142	Offsite Excavated Material Disposal	1	0	0	0
22150	Fuel Storage Facility	0	0	0	1
22160	Chemical Storage Facility	0	0	0	1
22170	Lab and Testing Facilities	0	0	0	1
22180	Potable Water Facility	0	0	0	1
22190	Sewage Treatment Facility	0	0	0	1
22200	Backfill Facility	1	0	0	0
22210	Packing Facility	0	0	0	0
22220	Control and Monitoring Facility	0	0	0	1
22230	Standard Equipment	0	0	0	1
22240	Other	0	0	0	1
23000	SURFACE SHAFT FACILITIES				
23010	Men and Materials Facility	1	0	0	0
23020	Waste Facility	0	0	0	0
23030	Excavated Material Handling Facility	1	0	0	0
23040	Development Intake Facilities	1	0	0	0
23050	Confinement Intake Facilities	1	0	0	0
23070	Development Exhaust Facilities	1	0	0	0
23080	Confinesent Exhaust Facilities	1	0	0	0
23100	Exploratory Shaft Facility - 1	1	0	0	0
23110	Exploratory Shaft Facility - 2	1	0	0	0
23120	Other Facility	1	0	0	0
20000	SURFACE FACILITIES				
30010	Men and Materials Access (Shaft)	1	0	0	0
30020	Waste Handling Access (Shaft or Ramp)	0	0	0	0
30030	Exc.Mat. Handling Access (Shaft or Ramp)	1	0	0	0
30040	Development Intake Access (Shafts)	1	0	0	0
30050	Confinement Intake Access (Shafts)	1	0	0	0
30070	Development Exhaust Access (Shafts)	1	0	0	0

30080	Confinement Exhaust Access (Shafts)	1	0	0	0
30100	Exploratory Shaft - 1	1	0	0	0
30110	Exploratory Shaft - 2	1	0	0	0
30120	Other	1	0	0	0
30000	SHAFTS/RAMPS - UNDERGROUND				
41000	DEVELOPMENT				
41010	Common Facility (Shaft Pillar) Excavation	1	0	0	0
41020	Spent Fuel Facility Excavation	0	1	0	0
41030	DHLW Facility Excavation	0	0	1	0
41040	Other Waste Facility (Boreholes)	0	0	0	0
41060	Excavated Material Handling	1	0	0	0
41070	General Maintenance	1	0	0	0
42000	EMPLACEMENT/RETRIEVAL OPERATIONS				
42010	Spent Fuel Waste Transport and Emplacement	0	1	0	0
42020	DHLW Transport and Emplacement	0	0	1	0
42030	Other Waste Transport and Emplacement	0	1	0	0
42040	Waste Removal	0	0	0	0
43000	BACKFILL				
43010	Men and Materials Access (Shaft)	1	0	0	0
43020	Waste Handling Access (Shaft or Ramp)	0	0	0	0
43030	Muck Handling Access (Shaft or Ramp)	1	0	0	0
43040	Development Intake Access (Shafts)	1	0	0	0
43050	Confinement Intake Access (Shafts)	1	0	0	0
43070	Development Exhaust Access (Shafts)	1	0	0	0
43080	Confinement Exhaust Access (Shafts)	1	0	0	0
43100	Exploratory Shaft - 1	1	0	0	0
43110	Exploratory Shaft - 2	1	0	0	0
43120	Other Shaft	1	0	0	0
43300	Development Areas	1	0	0	0
40000	SUBSURFACE EXCAVATIONS				
51000	SUPPORT SYSTEM FACILITIES	1	0	0	0
52000	UTILITIES	1	0	0	0
53000	MONITORING	1	0	0	0
50000	UNDERGROUND SERVICE SYSTEMS				
61000	SPENT FUEL				
61010	Intact PWR	0	1	0	0
61020	Intact BWR	0	1	0	0
61030	Consolidated PWR	0	1	0	0
61040	Consolidated BWR	0	1	0	0
62000	DHLW	0	0	1	0
63000	OTHER WASTE				
63010	Spent Fuel Hardware	0	1	0	0

21206	Handling/Packaging Equipment	0	0	0	0
21207	Support Facilities	0	0	0	0
21500	Other				
21501	Site-Generated Radwaste Treatment	0	0	0	0
21502	Vehicle Wash Facility	0	0	0	0
21503	Decontamination Building	0	0	0	0
21504	Performance Confirmation Facility	0	0	0	0
21505	Radwaste Storage	0	0	0	0
21506	Transfer Corridors	0	0	0	0
21507	Turntable	0	0	0	0
21508	Waste Shaft Staging Facility	0	0	0	0
22000	BALANCE OF PLANT				
22010	Health/Medical Facilities	0	0	0	1
22020	Fire Protection Facilities	0	0	0	1
22030	Security Facilities	0	0	0	1
22040	Maintenance Facilities	0	0	0	1
22050	Administration/Personnel Facilities	0	0	0	1
22060	Training/Mockup Facility	0	0	0	1
22070	Warehouse and Receiving	0	0	0	1
22080	Visitors Center Facility	0	0	0	1
22090	Backup Power Generation Facility	0	0	0	1
22100	Change Room Facility	1	0	0	0
22110	Explosive Storage Facility	1	0	0	0
22120	Compressed Air and Steam Facility	1	0	0	0
22130	Cooling Tower and Chilled Water Facility	1	0	0	0
22140	Excavated Material Storage and Handling				
22141	Surface Exc. Mat. Storage and Handling	1	0	0	0
22142	Offsite Excavated Material Disposal	1	0	0	0
22150	Fuel Storage Facility	0	0	0	1
22160	Chemical Storage Facility	0	0	0	1
22170	Lab and Testing Facilities	0	0	0	1
22180	Potable Water Facility	0	0	0	1
22190	Sewage Treatment Facility	0	0	0	1
22200	Backfill Facility	1	0	0	0
22210	Packing Facility	0	0	0	0
22220	Control and Monitoring Facility	0	0	0	1
22230	Standard Equipment	0	0	0	1
22240	Other	0	0	0	1
23000	SURFACE SHAFT FACILITIES				
23010	Men and Materials Facility	1	0	0	0
23028	Waste Facility	0	0	0	0
23030	Excavated Material Handling Facility	1	0	0	0
23040	Development Intake Facilities	1	0	0	0
23050	Confinement Intake Facilities	1	0	0	0

23070	Development Exhaust Facilities	1	0	0	0
23080	Confinement Exhaust Facilities	1	0	0	0
23100	Exploratory Shaft Facility - 1	1	0	0	0
23110	Exploratory Shaft Facility - 2	1	0	0	0
23120	Other Facility	1	0	0	0
20000	SURFACE FACILITIES				
30010	Men and Materials Access (Shaft)	1	0	0	0
30020	Waste Handling Access (Shaft or Ramp)	0	0	0	0
30030	Exc. Mat. Handling Access (Shaft or Ramp)	1	0	0	0
30040	Development Intake Access (Shafts)	1	0	0	0
30050	Confinement Intake Access (Shafts)	1	0	0	0
30070	Development Exhaust Access (Shafts)	1	0	0	0
30080	Confinement Exhaust Access (Shafts)	1	0	0	0
30100	Exploratory Shaft - 1	1	0	0	0
30110	Exploratory Shaft - 2	1	0	0	0
30120	Other	1	0	0	0
30000	SHAFTS/RAMPS - UNDERGROUND DEVELOPMENT				
41000	DEVELOPMENT				
41010	Common Facility (Shaft Pillar) Excavation	1	0	0	0
41020	Spent Fuel Facility Excavation	0	1	0	0
41030	DHLW Facility Excavation	0	0	1	0
41040	Other Waste Facility (Boreholes)	0	0	0	0
41060	Excavated Material Handling	1	0	0	0
41070	General Maintenance	1	0	0	0
42000	EMPLACEMENT/RETRIEVAL OPERATIONS				
42010	Spent Fuel Waste Transport and Emplacement	0	1	0	0
42020	DHLW Transport and Emplacement	0	0	1	0
42030	Other Waste Transport and Emplacement	0	1	0	0
42040	Waste Removal	0	0	0	0
43000	BACKFILL				
43010	Men and Materials Access (Shaft)	1	0	0	0
43020	Waste Handling Access (Shaft or Ramp)	0	0	0	0
43030	Muck Handling Access (Shaft or Ramp)	1	0	0	0
43040	Development Intake Access (Shafts)	1	0	0	0

43050	Confinement Intake Access (Shafts)	1	0	0	0
43070	Development Exhaust Access (Shafts)	1	0	0	0
43080	Confinement Exhaust Access (Shafts)	1	0	0	0
43100	Exploratory Shaft - 1	1	0	0	0
43110	Exploratory Shaft - 2	1	0	0	0
43120	Other Shaft	1	0	0	0
43300	Development Areas	1	0	0	0
40000	SUBSURFACE EXCAVATIONS				
51000	SUPPORT SYSTEM FACILITIES	1	0	0	0
52000	UTILITIES	1	0	0	0
53000	MONITORING	1	0	0	0
50000	UNDERGROUND SERVICE SYSTEMS				
61000	SPENT FUEL				
61010	Intact PWR	0	1	0	0
61020	Intact BWR	0	1	0	0
61030	Consolidated PWR	0	1	0	0
61040	Consolidated BWR	0	1	0	0
62000	DHLW	0	0	1	0
63000	OTHER WASTE				
63010	Spent Fuel Mardware	0	1	0	0
63020	Performante Confirmation	0	0	0	0
63030	WYHLW and CHLW	0	1	0	0
63040	Contact-Handled	0	0	0	0
60000	WASTE PACKAGE FABRICATION				
99999	TOTAL REPOSITORY TOTAL REPOSITORY LESS L.A.D. MANAGEMENT AND INT.				

DEFENSE SHARE:
DHLW COST:

Table A5

Repository Cost Breakdown, Basalt and Hard Rock Repositories

CASE: UP. REF. NEW DHLW, IMPROVED,

FIRST

SITE: HANFORD

ACCOUNT	COST	ACCOUNT TITLE	TOTAL PIECE	ASSIGNABLE		AREAL DISPER.
				WHB\$1 PIECE	WHB\$2 PIECE	
01000		SUPPORT CONTRACTOR	\$0.00	\$0.00	\$0.00	\$0.00
01010		License Application	\$0.00	\$0.00	\$0.00	\$0.00
01020		Other	\$0.00	\$0.00	\$0.00	\$0.00
02000		ARCHITECT-EMSINEER	\$0.00	\$0.00	\$0.00	\$0.00
02010		License Application	\$0.00	\$0.00	\$0.00	\$0.00
02020		Final Procurement and Construction	\$0.00	\$0.00	\$0.00	\$0.00
02030		Title III	\$0.00	\$0.00	\$0.00	\$0.00
03000		CONSTRUCTION MANAGEMENT	\$0.00	\$0.00	\$0.00	\$0.00
04000		CONSULTANTS	\$0.00	\$0.00	\$0.00	\$0.00
05000		PERFORMANCE CONFIRMATION PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00
07000		REPOSITORY LAND AQUISITION	\$0.00	\$0.00	\$0.00	\$0.00

00000	MANAGEMENT AND INTEGRATION	\$0.00	\$0.00	\$0.00	\$0.00
11000	EMPLOYEE TRANSPORTATION	\$0.00	\$0.00	\$0.00	\$0.00
12000	ON-SITE	\$0.00	\$0.00	\$0.00	\$0.00
12010	Roads	\$0.00	\$0.00	\$0.00	\$0.00
12020	Rail	\$0.00	\$0.00	\$0.00	\$0.00
12030	Communications	\$0.00	\$0.00	\$0.00	\$0.00
12040	Clearing	\$0.00	\$0.00	\$0.00	\$0.00
12050	Grading	\$0.00	\$0.00	\$0.00	\$0.00
12060	Landscaping	\$0.00	\$0.00	\$0.00	\$0.00
12070	Drainage Control	\$0.00	\$0.00	\$0.00	\$0.00
12080	Fencing	\$0.00	\$0.00	\$0.00	\$0.00
12090	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
12100	Other	\$0.00	\$0.00	\$0.00	\$0.00
13000	OFF-SITE	\$0.00	\$0.00	\$0.00	\$0.00
13010	Roads	\$0.00	\$0.00	\$0.00	\$0.00
13020	Rail	\$0.00	\$0.00	\$0.00	\$0.00
13030	Communications	\$0.00	\$0.00	\$0.00	\$0.00
13040	Drainage	\$0.00	\$0.00	\$0.00	\$0.00
13050	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
13060	Other	\$0.00	\$0.00	\$0.00	\$0.00
14000	MONUMENTS	\$0.00	\$0.00	\$0.00	\$0.00
10000	SITE PREPARATION	\$0.00	\$0.00	\$0.00	\$0.00
21000	WASTE HANDLING FACILITY	\$41.82	\$0.00	\$756.67	\$0.00
21100	Waste Handling Building 1:	\$0.00	\$0.00	\$0.00	\$0.00
21102	Building/Structures	\$0.00	\$0.00	\$0.00	\$0.00
21103	Hot Cell	\$0.00	\$0.00	\$0.00	\$0.00
21104	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
21105	HVAC	\$0.00	\$0.00	\$0.00	\$0.00
21106	Handling/Packaging Equipment	\$0.00	\$0.00	\$0.00	\$0.00
21107	Support Facilities	\$0.00	\$0.00	\$0.00	\$0.00
21200	Waste Handling Building 2:	\$0.00	\$0.00	\$756.67	\$0.00
21202	Building/Structures	\$0.00	\$0.00	\$590.57	\$0.00
21203	Hot Cell	\$0.00	\$0.00	\$16.98	\$0.00
21204	Utilities	\$0.00	\$0.00	\$46.19	\$0.00
21205	HVAC	\$0.00	\$0.00	\$48.53	\$0.00
21206	Handling/Packaging Equipment	\$0.00	\$0.00	\$40.85	\$0.00
21207	Support Facilities	\$0.00	\$0.00	\$13.36	\$0.00
21500	Other	\$41.82	\$0.00	\$0.00	\$0.00
21501	Site-Generated Radvaste Treatment	\$0.00	\$0.00	\$0.00	\$0.00
21502	Vahicle Wash Facility	\$0.00	\$0.00	\$0.00	\$0.00
21503	Decontasination Building	\$0.00	\$0.00	\$0.00	\$0.00
21504	Performance Confirnation Facility	\$0.00	\$0.00	\$0.00	\$0.00
21505	Radvaste Storage	\$30.14	\$0.00	\$0.00	\$0.00
21506	Transfer Corridors	\$6.38	\$0.00	\$0.00	\$0.00
21507	Turntable	\$1.75	\$0.00	\$0.00	\$0.00
21508	Waste Shaft Staging Facility	\$3.54	\$0.00	\$0.00	\$0.00
22000	BALANCE OF PLANT	\$105.01	\$0.00	\$0.00	\$357.59
22010	Health/Medical Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22020	Fire Protection Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22030	Security Facilites	\$0.00	\$0.00	\$0.00	\$0.00
22040	Maintenance Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22050	Administration/Personnel Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22060	Training/Mockup Facility	\$0.00	\$0.00	\$0.00	\$0.00
22070	Warehouse and Receiving	\$0.00	\$0.00	\$0.00	\$0.00

22080	Visitors Center Facility	\$0.00	\$0.00	\$0.00	\$0.00
22090	Backup Power Generation Facility	\$0.00	\$0.00	\$0.00	\$0.00
22100	Change Room Facility	\$0.00	\$0.00	\$0.00	\$8.15
22110	Explosive Storage Facility	\$0.00	\$0.00	\$0.00	\$0.13
22120	Compressed Air and Steam Facility	\$0.00	\$0.00	\$0.00	\$0.00
22130	Cooling Tower and Chilled Water Facility	\$0.00	\$0.00	\$0.00	\$218.43
22140	Excavated Material Storage and Handling	\$0.00	\$0.00	\$0.00	\$88.74
22141	Surface Exc.Mat. Storage and Handling	\$0.00	\$0.00	\$0.00	\$88.74
22142	Offsite Excavated Material Disposal	\$0.00	\$0.00	\$0.00	\$0.00
22150	Fuel Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22160	Chemical Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22170	Lab and Testing Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22180	Potable Water Facility	\$0.00	\$0.00	\$0.00	\$0.00
22190	Sevage Treatment Facility	\$0.00	\$0.00	\$0.00	\$0.00
22200	Backfill Facility	\$0.00	\$0.00	\$0.00	\$42.14
22210	Packing Facility	\$105.01	\$0.00	\$0.00	\$0.00
22220	Control and Monitoring Facility	\$0.00	\$0.00	\$0.00	\$0.00
22230	Standard Equipment	\$0.00	\$0.00	\$0.00	\$0.00
22240	Other	\$0.00	\$0.00	\$0.00	\$0.00
23000	SURFACE SHAFT FACILITIES	\$44.78	\$0.00	\$0.00	\$406.42
23010	Men and Materials Facility	\$0.00	\$0.00	\$0.00	\$100.39
23020	Waste Facility	\$44.78	\$0.00	\$0.00	\$0.00
23030	Excavated Material Handling Facility	\$0.00	\$0.00	\$0.00	\$50.55
23040	Development Intake Facilities	\$0.00	\$0.00	\$0.00	\$27.61
23050	Confinement Intake Facilities	\$0.00	\$0.00	\$0.00	\$16.10
23070	Development Exhaust Facilities	\$0.00	\$0.00	\$0.00	\$10.16
23080	Confinement Exhaust Facilities	\$0.00	\$0.00	\$0.00	\$193.09
23100	Exploratory Shaft Facility - 1	\$0.00	\$0.00	\$0.00	\$3.79
23110	Exploratory Shaft Facility - 2	\$0.00	\$0.00	\$0.00	\$4.73
23120	Other Facility	\$0.00	\$0.00	\$0.00	\$0.00
20000	SURFACE FACILITIES	\$191.62	\$0.00	\$756.67	\$764.00
30010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$0.00	\$179.49
30020	Waste Handling Access (Shaft or Ramp)	\$251.19	\$0.00	\$0.00	\$0.00
30030	Exc.Mat. Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$0.00	\$185.40
30040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$229.40
30050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$335.11
30070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$232.29

30080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$322.20
30100	Exploratory Shaft - 1	\$0.00	\$0.00	\$0.00	\$0.00
30110	Exploratory Shaft - 2	\$0.00	\$0.00	\$0.00	\$0.00
30120	Other	\$0.00	\$0.00	\$0.00	\$0.00
30000	SHAFTS/RAMPS - UNDERGROUND	\$251.19	\$0.00	\$0.00	\$1,483.89
41000	DEVELOPMENT	\$663.32	\$0.00	\$0.00	\$328.07
41010	Common Facility (Shaft Pillar) Excavation	\$0.00	\$0.00	\$0.00	\$62.99
41020	Spent Fuel Facility Excavation	\$0.00	\$0.00	\$0.00	\$0.00
41030	DHLW Facility Excavation	\$0.00	\$0.00	\$0.00	\$0.00
41040	Other Waste Facility (Boreholes)	\$663.32	\$0.00	\$0.00	\$0.00
41060	Excavated Material Handling	\$0.00	\$0.00	\$0.00	\$134.25
41070	General Maintenance	\$0.00	\$0.00	\$0.00	\$130.83
42000	EMPLACEMENT/RETRIEVAL OPERATIONS	\$20.25	\$0.00	\$0.00	\$0.00
42010	Spent Fuel Waste Transport and Emplacement	\$0.00	\$0.00	\$0.00	\$0.00
42020	DHLW Transport and Eaplacement	\$0.00	\$0.00	\$0.00	\$0.00
42030	Other Waste Transport and Eaplacement	\$0.00	\$0.00	\$0.00	\$0.00
42040	Waste Reaoval	\$20.25	\$0.00	\$0.00	\$0.00
43000	BACKFILL	\$16.50	\$0.00	\$0.00	\$148.74
43010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$0.00	\$9.23
43020	Waste Handling Access (Shaft or Ramp)	\$16.50	\$0.00	\$0.00	\$0.00
43030	Muck Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$0.00	\$9.00
43040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$12.53
43050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$17.96
43070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$13.02
43080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$18.18
43100	Exploratory Shaft - 1	\$0.00	\$0.00	\$0.00	\$2.31
43110	Exploratory Shaft - 2	\$0.00	\$0.00	\$0.00	\$6.43
43120	Other Shaft	\$0.00	\$0.00	\$0.00	\$0.00
43300	Development Areas	\$0.00	\$0.00	\$0.00	\$60.07
40000	SUBSURFACE EXCAVATIONS	\$700.07	\$0.00	\$0.00	\$476.81
51000	SUPPORT SYSTEM FACILITIES	\$0.00	\$0.00	\$0.00	\$407.63
52000	UTILITIES	\$0.00	\$0.00	\$0.00	\$94.78
53000	MONITORING	\$0.00	\$0.00	\$0.00	\$200.79
50000	UNDERGROUND SERVICE SYSTEMS	\$0.00	\$0.00	\$0.00	\$703.19
61000	SPENT FUEL	\$0.00	\$0.00	\$0.00	\$0.00
61010	Intact PWR	\$0.00	\$0.00	\$0.00	\$0.00
61020	Intact BWR	\$0.00	\$0.00	\$0.00	\$0.00
61030	Consolidated PWR	\$0.00	\$0.00	\$0.00	\$0.00
61040	Consolidated BWR	\$0.00	\$0.00	\$0.00	\$0.00
62000	DHLW	\$0.00	\$0.00	\$0.00	\$0.00
63000	OTHER WASTE	\$48.73	\$0.00	\$0.00	\$0.00
63010	Spent Fuel Hardware	\$0.00	\$0.00	\$0.00	\$0.00

63020	Performance Confirmation	\$48.73	\$0.00	\$0.00	\$0.00
63030	WVHLW and CHLW	\$0.00	\$0.00	\$0.00	\$0.00
63040	Contact-Handled	\$0.00	\$0.00	\$0.00	\$0.00
60000	WASTE PACKAGE FABRICATION	\$48.73	\$0.00	\$0.00	\$0.00
99999	TOTAL REPOSITORY	\$1,191.60	\$0.00	\$756.67	\$3,427.89
	TOTAL REPOSITORY LESS L.A.D	\$1,191.60	\$0.00	\$756.67	\$3,427.89
	MANAGEMENT AND INT.				
		18.05%	0.00%	18.05%	11.59%
		\$215.07	\$0.00	\$136.57	\$397.24
01000	SUPPORT CONTRACTOR	\$0.00	\$0.00	\$0.00	\$0.00
01010	License Application	\$0.00	\$0.00	\$0.00	\$0.00
01020	Other	\$0.00	\$0.00	\$0.00	\$0.00
02000	ARCHITECT-ENGINEER	\$0.00	\$0.00	\$0.00	\$0.00
02010	License Application	\$0.00	\$0.00	\$0.00	\$0.00
02020	Final Procurement and Construction	\$0.00	\$0.00	\$0.00	\$0.00
02030	Title III	\$0.00	\$0.00	\$0.00	\$0.00
03000	CONSTRUCTION MANAGEMENT	\$0.00	\$0.00	\$0.00	\$0.00
04000	CONSULTANTS	\$0.00	\$0.00	\$0.00	\$0.00
05000	PERFORMANCE CONFIRMATION PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00
07000	REPOSITORY LAND AQUISITION	\$0.00	\$0.00	\$0.00	\$0.00
00000	MANAGEMENT AND INTEGRATION	\$0.00	\$0.00	\$0.00	\$0.00
11000	EMPLOYEE TRANSPORTATION	\$0.00	\$0.00	\$0.00	\$0.00
12000	ON-SITE	\$0.00	\$0.00	\$0.00	\$0.00
12010	Roads	\$0.00	\$0.00	\$0.00	\$0.00
12020	Rail	\$0.00	\$0.00	\$0.00	\$0.00
12030	Communications	\$0.00	\$0.00	\$0.00	\$0.00
12040	Clearing	\$0.00	\$0.00	\$0.00	\$0.00
12050	Grading	\$0.00	\$0.00	\$0.00	\$0.00
12060	Landscaping	\$0.00	\$0.00	\$0.00	\$0.00
12070	Drainage Control	\$0.00	\$0.00	\$0.00	\$0.00
12080	Fencing	\$0.00	\$0.00	\$0.00	\$0.00
12090	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
12100	Other	\$0.00	\$0.00	\$0.00	\$0.00
13000	OFF-SITE	\$0.00	\$0.00	\$0.00	\$0.00
13010	Roads	\$0.00	\$0.00	\$0.00	\$0.00
13020	Rail	\$0.00	\$0.00	\$0.00	\$0.00
13030	Communications	\$0.00	\$0.00	\$0.00	\$0.00
13040	Drainage	\$0.00	\$0.00	\$0.00	\$0.00
13050	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
13060	Other	\$0.00	\$0.00	\$0.00	\$0.00
14000	MONUMENTS	\$0.00	\$0.00	\$0.00	\$0.00
10000	SITE PREPARATION	\$0.00	\$0.00	\$0.00	\$0.00
21000	WASTE HANDLING FACILITY	\$23.51	\$0.00	\$1,020.45	\$0.00
21100	Waste Handling Building 1:	\$0.00	\$0.00	\$0.00	\$0.00
21102	Building/Structures	\$0.00	\$0.00	\$0.00	\$0.00
21103	Hot Cell	\$0.00	\$0.00	\$0.00	\$0.00
21104	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
21105	HVAC	\$0.00	\$0.00	\$0.00	\$0.00
21106	Handling/Packaging Equipment	\$0.00	\$0.00	\$0.00	\$0.00
21107	Support Facilities	\$0.00	\$0.00	\$0.00	\$0.00
21200	Waste Handling Building 2:	\$0.00	\$0.00	\$1,020.45	\$0.00
21202	Building/Structures	\$0.00	\$0.00	\$742.97	\$0.00
21203	Hot Cell	\$0.00	\$0.00	\$28.61	\$0.00
21204	Utilities	\$0.00	\$0.00	\$56.84	\$0.00
21205	HVAC	\$0.00	\$0.00	\$75.87	\$0.00

21206	Handling/Packaging Equipment	\$0.00	\$0.00	\$91.59	\$0.00
21207	Support Facilities	\$0.00	\$0.00	\$24.57	\$0.00
21500	Other	\$23.51	\$0.00	\$0.00	\$0.00
21501	Site-Generated Radwaste Treatment	\$0.00	\$0.00	\$0.00	\$0.00
21502	Vehicle Wash Facility	\$0.00	\$0.00	\$0.00	\$0.00
21503	Decontamination Building	\$0.00	\$0.00	\$0.00	\$0.00
21504	Performance Confirmation Facility	\$0.00	\$0.00	\$0.00	\$0.00
21505	Radwaste Storage	\$13.32	\$0.00	\$0.00	\$0.00
21506	Transfer Corridors	\$5.82	\$0.00	\$0.00	\$0.00
21507	Turntable	\$1.12	\$0.00	\$0.00	\$0.00
21508	Waste Shaft Staging Facility	\$3.26	\$0.00	\$0.00	\$0.00
22000	BALANCE OF PLANT	\$56.71	\$0.00	\$0.00	\$293.44
22010	Health/Medical Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22020	Fire Protection Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22030	Security Facilites	\$0.00	\$0.00	\$0.00	\$0.00
22040	Maintenance Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22050	Administration/Personnel Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22060	Training/Mockup Facility	\$0.00	\$0.00	\$0.00	\$0.00
22070	Warehouse and Receiving	\$0.00	\$0.00	\$0.00	\$0.00
22080	Visitors Center Facility	\$0.00	\$0.00	\$0.00	\$0.00
22090	Backup Power Generation Facility	\$0.00	\$0.00	\$0.00	\$0.00
22100	Change Room Facility	\$0.00	\$0.00	\$0.00	\$7.66
22110	Explosive Storage Facility	\$0.00	\$0.00	\$0.00	\$0.12
22120	Compressed Air and Steam Facility	\$0.00	\$0.00	\$0.00	\$0.00
22130	Cooling Tower and Chilled Water Facility	\$0.00	\$0.00	\$0.00	\$197.86
22140	Excavated Material Storage and Handling	\$0.00	\$0.00	\$0.00	\$57.16
22141	Surface Exc.Mat. Storage and Handling	\$0.00	\$0.00	\$0.00	\$57.16
22142	Offsite Excavated Material Disposal	\$0.00	\$0.00	\$0.00	\$0.00
22150	Fuel Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22160	Chemical Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22170	Lab and Testing Facilities	\$0.00	\$0.00	\$0.00	\$0.00
22180	Potable Water Facility	\$0.00	\$0.00	\$0.00	\$0.00
22190	Sewage Treatment Facility	\$0.00	\$0.00	\$0.00	\$0.00
22200	Backfill Facility	\$0.00	\$0.00	\$0.00	\$30.65
22210	Packing Facility	\$56.71	\$0.00	\$0.00	\$0.00
22220	Control and Monitoring Facility	\$0.00	\$0.00	\$0.00	\$0.00
22230	Standard Equipment	\$0.00	\$0.00	\$0.00	\$0.00
22240	Other	\$0.00	\$0.00	\$0.00	\$0.00
23000	SURFACE SHAFT FACILITIES	\$32.39	\$0.00	\$0.00	\$355.09
23010	Men and Materials Facility	\$0.00	\$0.00	\$0.00	\$74.97
23020	Waste Facility	\$32.39	\$0.00	\$0.00	\$0.00
23030	Excavated Material Handling Facility	\$0.00	\$0.00	\$0.00	\$32.46
23040	Developement Intake Facilities	\$0.00	\$0.00	\$0.00	\$27.54
23050	Confinement Intake Facilities	\$0.00	\$0.00	\$0.00	\$17.75

23070	Development Exhaust Facilities	\$0.00	\$0.00	\$0.00	\$9.55
23080	Confinement Exhaust Facilities	\$0.00	\$0.00	\$0.00	\$105.01
23100	Exploratory Shaft Facility - 1	\$0.00	\$0.00	\$0.00	\$3.64
23110	Exploratory Shaft Facility - 2	\$0.00	\$0.00	\$0.00	\$4.37
23120	Other Facility	\$0.00	\$0.00	\$0.00	\$0.00
20000	SURFACE FACILITIES	\$112.62	\$0.00	\$1,020.45	\$648.53
30010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$0.00	\$154.86
30020	Waste Handling Access (Shaft or Ramp)	\$216.50	\$0.00	\$0.00	\$0.00
30030	Exc.Mat. Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$0.00	\$159.95
30040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$198.15
30050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$288.64
30070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$200.62
30080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$277.58
30100	Exploratory Shaft - 1	\$0.00	\$0.00	\$0.00	\$0.00
30110	Exploratory Shaft - 2	\$0.00	\$0.00	\$0.00	\$0.00
30120	Other	\$0.00	\$0.00	\$0.00	\$0.00
30000	SHAFTS/RAMPS - UNDERGROUND	\$216.50	\$0.00	\$0.00	\$1,279.80
41000	DEVELOPMENT	\$314.99	\$0.00	\$0.00	\$290.04
41010	Common Facility (Shaft Pillar) Excavation	\$0.00	\$0.00	\$0.00	\$86.94
41020	Spent Fuel Facility Excavation	\$0.00	\$0.00	\$0.00	\$0.00
41030	DHLW Facility Excavation	\$0.00	\$0.00	\$0.00	\$0.00
41040	Other Waste Facility (Boreholes)	\$314.99	\$0.00	\$0.00	\$0.00
41060	Excavated Material Handling	\$0.00	\$0.00	\$0.00	\$197.06
41070	General Maintenance	\$0.00	\$0.00	\$0.00	\$96.05
42000	EMPLACEMENT/RETRIEVAL OPERATIONS	\$16.83	\$0.00	\$0.00	\$0.00
42010	Spent Fuel Waste Transport and Emplacement	\$0.00	\$0.00	\$0.00	\$0.00
42020	DHLW Transport and Emplacement	\$0.00	\$0.00	\$0.00	\$0.00
42030	Other Waste Transport and Emplacement	\$0.00	\$0.00	\$0.00	\$0.00
42040	Waste Removal	\$16.83	\$0.00	\$0.00	\$0.00
43000	BACKFILL	\$14.41	\$0.00	\$0.00	\$117.94
43010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$0.00	\$8.06
43020	Waste Handling Access (Shaft or Ramp)	\$14.41	\$0.00	\$0.00	\$0.00
43030	Muck Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$0.00	\$7.86
43040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$10.97

43050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$0.00	\$15.66
43070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$11.39
43080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$0.00	\$15.87
43100	Exploratory Shaft - 1	\$0.00	\$0.00	\$0.00	\$2.31
43110	Exploratory Shaft - 2	\$0.00	\$0.00	\$0.00	\$6.43
43120	Other Shaft	\$0.00	\$0.00	\$0.00	\$0.00
43300	Development Areas	\$0.00	\$0.00	\$0.00	\$39.38
40000	SUBSURFACE EXCAVATIONS	\$346.23	\$0.00	\$0.00	\$407.98
51000	SUPPORT SYSTEM FACILITIES	\$0.00	\$0.00	\$0.00	\$267.93
52000	UTILITIES	\$0.00	\$0.00	\$0.00	\$79.05
53000	MONITORING	\$0.00	\$0.00	\$0.00	\$126.42
50000	UNDERGROUND SERVICE SYSTEMS	\$0.00	\$0.00	\$0.00	\$473.40
61000	SPENT FUEL	\$0.00	\$0.00	\$0.00	\$0.00
61010	Intact PWR	\$0.00	\$0.00	\$0.00	\$0.00
61020	Intact BWR	\$0.00	\$0.00	\$0.00	\$0.00
61030	Consolidated PWR	\$0.00	\$0.00	\$0.00	\$0.00
61040	Consolidated BWR	\$0.00	\$0.00	\$0.00	\$0.00
62000	DHLW	\$0.00	\$0.00	\$0.00	\$0.00
63000	OTHER WASTE	\$48.73	\$0.00	\$0.00	\$0.00
63010	Spent Fuel Mardware	\$0.00	\$0.00	\$0.00	\$0.00
63020	Performance Confirmation	\$48.73	\$0.00	\$0.00	\$0.00
63030	WYHLW and CHLW	\$0.00	\$0.00	\$0.00	\$0.00
63040	Contact-Handled	\$0.00	\$0.00	\$0.00	\$0.00
60000	WASTE PACKAGE FABRICATION	\$48.73	\$0.00	\$0.00	\$0.00
99999	TOTAL REPOSITORY	\$724.07	\$0.00	\$1,020.45	\$2,809.72
	TOTAL REPOSITORY LESS L.A.D. MANAGEMENT AND INT.	\$724.07	\$0.00	\$1,020.45	\$2,809.72
		24.29%	0.00%	24.29%	11.32%
		\$175.85	\$0.00	\$247.82	\$318.05

Table A5

Repository Cost Breakdown, Basalt and Hard Rock Repositories

CASE: UP. REF. NEW		ASSIGNABLE			UNASSIGNED
OHLW, IMPROVED, FIRST		DIRECT	DIRECT	SUBTOTAL	TOTAL
SITE: HANFORD		CIVILIAN	DEFENSE		
ACCOUNT	COST ACCOUNT TITLE				
01000	SUPPORT CONTRACTOR	\$0.00	\$0.00	\$0.00	\$111.86
01010	License Application	\$0.00	\$0.00	\$0.00	\$33.56
01020	Other	\$0.00	\$0.00	\$0.00	\$78.30
02000	ARCHITECT-ENGINEER	\$0.00	\$0.00	\$0.00	\$438.62
02010	License Application	\$0.00	\$0.00	\$0.00	\$261.97
02020	Final Procureaent and Construction	\$0.00	\$0.00	\$0.00	\$152.82
02030	Title III	\$0.00	\$0.00	\$0.00	\$23.83
03000	CONSTRUCTION MANAGEMENT	\$0.00	\$0.00	\$0.00	\$318.01
04000	CONSULTANTS	\$0.00	\$0.00	\$0.00	\$5.07
05000	PERFORMANCE CONFIRMATION PROGRAM	\$0.00	\$0.00	\$0.00	\$45.00
07000	REPOSITORY LAND AQUISITION	\$0.00	\$0.00	\$0.00	\$0.00
00000	MANAGEMENT AND INTEGRATION	\$0.00	\$0.00	\$0.00	\$918.56

11000	EMPLOYEE TRANSPORTATION	\$0.00	\$0.00	\$0.00	\$0.00
12000	ON-SITE	\$0.00	\$0.00	\$0.00	\$128.64
12010	Roads	\$0.00	\$0.00	\$0.00	\$10.35
12020	Rail	\$0.00	\$0.00	\$0.00	\$5.99
12030	Communications	\$0.00	\$0.00	\$0.00	\$11.28
12040	Clearing	\$0.00	\$0.00	\$0.00	\$0.92
12050	Grading	\$0.00	\$0.00	\$0.00	\$7.80
12060	Landscaping	\$0.00	\$0.00	\$0.00	\$0.37
12070	Drainage Control	\$0.00	\$0.00	\$0.00	\$1.13
12080	Fencing	\$0.00	\$0.00	\$0.00	\$1.47
12090	Utilities	\$0.00	\$0.00	\$0.00	\$81.54
12100	Other	\$0.00	\$0.00	\$0.00	\$7.78
13000	OFF-SITE	\$0.00	\$0.00	\$0.00	\$27.19
13010	Roads	\$0.00	\$0.00	\$0.00	\$1.96
13020	Rail	\$0.00	\$0.00	\$0.00	\$5.04
13030	Communications	\$0.00	\$0.00	\$0.00	\$0.00
13040	Drnsinage	\$0.00	\$0.00	\$0.00	\$0.00
13050	Utilities	\$0.00	\$0.00	\$0.00	\$20.19
13060	Other	\$0.00	\$0.00	\$0.00	\$0.00
14000	MONUMENTS	\$0.00	\$0.00	\$0.00	\$17.77
10000	SITE PREPARATION	\$0.00	\$0.00	\$0.00	\$173.60
21000	WASTE HANDLING FACILITY	\$0.00	\$0.00	\$798.49	\$0.00
21100	Waste Mandling Building 1:	\$0.00	\$0.00	\$0.00	\$0.00
21102	Building/Structures	\$0.00	\$0.00	\$0.00	\$0.00
21103	Mot Cell	\$0.00	\$0.00	\$0.00	\$0.00
21104	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
21105	HYAC	\$0.00	\$0.00	\$0.00	\$0.00
21106	Handling/Packaging Equipment	\$0.00	\$0.00	\$0.00	\$0.00
21107	Support Facilities	\$0.00	\$0.00	\$0.00	\$0.00
21200	Waste Mandling Building 2:	\$0.00	\$0.00	\$756.67	\$0.00
21202	Building/Structures	\$0.00	\$0.00	\$590.57	\$0.00
21203	Mot Cell	\$0.00	\$0.00	\$16.98	\$0.00
21204	Utilities	\$0.00	\$0.00	\$46.19	\$0.00
21205	HYAC	\$0.00	\$0.00	\$48.53	\$0.00
21206	Handling/Packaging Equipment	\$0.00	\$0.00	\$40.85	\$0.00
21207	Support Facilities	\$0.00	\$0.00	\$13.56	\$0.00
21500	Other	\$0.00	\$0.00	\$41.82	\$0.00
21501	Site-Generated Radvaste Treatment	\$0.00	\$0.00	\$0.00	\$0.00
21502	Vehicle Wash Facility	\$0.00	\$0.00	\$0.00	\$0.00
21503	Decontamination Building	\$0.00	\$0.00	\$0.00	\$0.00
21504	Performance Confirmation Facility	\$0.00	\$0.00	\$0.00	\$0.00
21505	Radwaste Storage	\$0.00	\$0.00	\$30.14	\$0.00
21506	Transfer Corridors	\$0.00	\$0.00	\$6.38	\$0.00
21507	Turntable	\$0.00	\$0.00	\$1.75	\$0.00
21508	Waste Shaft Staging Facility	\$0.00	\$0.00	\$3.54	\$0.00
22000	BALANCE OF PLANT	\$0.00	\$0.00	\$462.60	\$982.67
22010	Health/Medical Facilities	\$0.00	\$0.00	\$0.00	\$45.94
22020	Fire Protection Facilities	\$0.00	\$0.00	\$0.00	\$53.70
22030	Security Facilites	\$0.00	\$0.00	\$0.00	\$207.44
22040	Maintenance Facilities	\$0.00	\$0.00	\$0.00	\$100.59
22050	Administration/Personnel Facilities	\$0.00	\$0.00	\$0.00	\$357.94
22060	Training/Mockup Facility	\$0.00	\$0.00	\$0.00	\$18.95
22070	Warehouse and Receiving	\$0.00	\$0.00	\$0.00	\$25.07
22080	Visitors Center Facility	\$0.00	\$0.00	\$0.00	\$11.50

22090	Backup Power Generation Facility	\$0.00	\$0.00	\$0.00	\$45.87
22100	Change Room Facility	\$0.00	\$0.00	\$8.15	\$0.00
22110	Explosive Storage Facility	\$0.00	\$0.00	\$0.13	\$0.00
22120	Compressed Air and Steam Facility	\$0.00	\$0.00	\$0.00	\$0.00
22130	Cooling Tower and Chilled Water Facility	\$0.00	\$0.00	\$218.43	\$0.00
22140	Excavated Material Storage and Handling	\$0.00	\$0.00	\$88.74	\$0.00
22141	Surface Exc. Mat. Storage and Handling	\$0.00	\$0.00	\$88.74	\$0.00
22142	Offsite Excavated Material Disposal	\$0.00	\$0.00	\$0.00	\$0.00
22150	Fuel Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22160	Chemical Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22170	Lab and Testing Facilities	\$0.00	\$0.00	\$0.00	\$64.91
22180	Potable Water Facility	\$0.00	\$0.00	\$0.00	\$12.77
22190	Sevage Treatment Facility	\$0.00	\$0.00	\$0.00	\$10.47
22200	Backfill Facility	\$0.00	\$0.00	\$42.14	\$0.00
22210	Packing Facility	\$0.00	\$0.00	\$105.01	\$0.00
22220	Control and Monitoring Facility	\$0.00	\$0.00	\$0.00	\$18.17
22230	Standard Equipment	\$0.00	\$0.00	\$0.00	\$9.37
22240	Other	\$0.00	\$0.00	\$0.00	\$0.00
23000	SURFACE SHAFT FACILITIES	\$0.00	\$0.00	\$451.20	\$0.00
23010	Men and Materials Facility	\$0.00	\$0.00	\$100.39	\$0.00
23020	Waste Facility	\$0.00	\$0.00	\$44.78	\$0.00
23030	Excavated Material Handling Facility	\$0.00	\$0.00	\$50.55	\$0.00
23040	Development Intake Facilities	\$0.00	\$0.00	\$27.61	\$0.00
23050	Confinement Intake Facilities	\$0.00	\$0.00	\$16.10	\$0.00
23070	Development Exhaust Facilities	\$0.00	\$0.00	\$10.16	\$0.00
23080	Confinement Exhaust Facilities	\$0.00	\$0.00	\$193.09	\$0.00
23100	Exploratory Shaft Facility - 1	\$0.00	\$0.00	\$3.79	\$0.00
23110	Exploratory Shaft Facility - 2	\$0.00	\$0.00	\$4.73	\$0.00
23120	Other Facility	\$0.00	\$0.00	\$0.00	\$0.00
20000	SURFACE FACILITIES	\$0.00	\$0.00	\$1,712.29	\$982.67
30010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$179.49	\$0.00
30020	Waste Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$251.19	\$0.00
30030	Exc.Mat. Mandling Access (Shaft or Ramp)	\$0.00	\$0.00	\$185.40	\$0.00
30040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$229.40	\$0.00
30050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$335.11	\$0.00
30070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$232.29	\$0.00
30080	Confinement Exhaust Access	\$0.00	\$0.00	\$322.20	\$0.00

	(Shafts)				
30100	Exploratory Shaft - 1	\$0.00	\$0.00	\$0.00	\$0.00
30110	Exploratory Shaft - 2	\$0.00	\$0.00	\$0.00	\$0.00
30120	Other	\$0.00	\$0.00	\$0.00	\$0.00
30000	SHAFTS/RAMPS - UNDERGROUND	\$0.00	\$0.00	\$1,735.07	\$0.00
41000	DEVELOPMENT	\$408.18	\$100.47	\$1,500.04	\$0.00
41010	Common Facility (Shaft Pillar) Excavation	\$0.00	\$0.00	\$62.99	\$0.00
41020	Spent Fuel Facility Excavation	\$408.18	\$0.00	\$408.18	\$0.00
41030	DHLW Facility Excavation	\$0.00	\$100.47	\$100.47	\$0.00
41040	Other Waste Facility (Boreholes)	\$0.00	\$0.00	\$663.32	\$0.00
41060	Excavated Material Handling	\$0.00	\$0.00	\$134.25	\$0.00
41070	General Maintenance	\$0.00	\$0.00	\$130.83	\$0.00
42000	EMPLACEMENT/RETRIEVAL OPERATIONS	\$366.09	\$144.99	\$331.33	\$0.00
42010	Spent Fuel Waste Transport and Emplacement	\$366.09	\$0.00	\$366.09	\$0.00
42020	DHLW Transport and Emplacement	\$0.00	\$144.99	\$144.99	\$0.00
42030	Other Waste Transport and Emplacement	\$0.00	\$0.00	\$0.00	\$0.00
42040	Waste Rcaoval	\$0.00	\$0.00	\$20.25	\$0.00
43000	BACKFILL	\$0.00	\$0.00	\$165.24	\$0.00
43010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$9.23	\$0.00
43020	Waste Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$16.50	\$0.00
43030	Muck Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$9.00	\$0.00
43040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$12.53	\$0.00
43050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$17.96	\$0.00
43070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$13.02	\$0.00
43080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$18.18	\$0.00
43100	Exploratory Shaft - 1	\$0.00	\$0.00	\$2.31	\$0.00
43110	Exploratory Shaft - 2	\$0.00	\$0.00	\$6.43	\$0.00
43120	Other Shaft	\$0.00	\$0.00	\$0.00	\$0.00
43300	Development Areas	\$0.00	\$0.00	\$60.07	\$0.00
40000	SUBSURFACE EXCAVATIONS	\$774.28	\$245.46	\$2,196.61	\$0.00
51000	SUPPORT SYSTEM FACILITIES	\$0.00	\$0.00	\$407.63	\$0.00
52000	UTILITIES	\$0.00	\$0.00	\$94.78	\$0.00
53000	MONITORING	\$0.00	\$0.00	\$200.79	\$0.00
50000	UNDERGROUND SERVICE SYSTEMS	\$0.00	\$0.00	\$703.19	\$0.00
61000	SPENT FUEL	\$1,632.65	\$0.00	\$1,632.65	\$0.00
61010	Intact PWR	\$342.31	\$0.00	\$342.31	\$0.00
61020	Intact BWR	\$114.67	\$0.00	\$114.67	\$0.00
61030	Consolidated PWR	\$702.80	\$0.00	\$702.80	\$0.00
61040	Consolidated BWR	\$472.86	\$0.00	\$472.86	\$0.00
62000	DHLW	\$0.00	\$374.77	\$374.77	\$0.00
63000	OTHER WASTE	\$348.04	\$0.00	\$396.77	\$0.00
63010	Spent Fuel Hardware	\$336.51	\$0.00	\$336.51	\$0.00
63020	Performance Confirmation	\$0.00	\$0.00	\$48.73	\$0.00

63030	WVHLW and CHLW	\$11.53	\$0.00	\$11.53	\$0.00
63040	Contact-Handled	\$0.00	\$0.00	\$0.00	\$0.00
60000	WASTE PACKAGE FABRICATION	\$1,980.69	\$374.77	\$2,404.19	\$0.00
99999	TOTAL REPOSITORY	\$2,754.96	\$620.23	\$8,751.36	\$2,074.83
	TOTAL REPOSITORY LESS L.A.D	\$2,754.96	\$620.23	\$8,751.36	\$1,779.31
	MANAGEMENT AND INT.				
		0.00%	100.00%	15.64%	15.64%
		\$0.00	\$620.23	\$1,369.11	\$278.36
01000	SUPPORT CONTRACTOR	\$0.00	\$0.00	\$0.00	\$111.86
01010	License Application	\$0.00	\$0.00	\$0.00	\$34.42
01020	Other	\$0.00	\$0.00	\$0.00	\$77.44
02000	ARCHITECT-ENGINEER	\$0.00	\$0.00	\$0.00	\$478.04
02010	License Application	\$0.00	\$0.00	\$0.00	\$285.63
02020	Final Procurement and Construction	\$0.00	\$0.00	\$0.00	\$166.62
02030	Title III	\$0.00	\$0.00	\$0.00	\$25.80
03000	CONSTRUCTION MANAGEMENT	\$0.00	\$0.00	\$0.00	\$381.60
04000	CONSULTANTS	\$0.00	\$0.00	\$0.00	\$3.90
05000	PERFORMANCE CONFIRMATION PROGRAM	\$0.00	\$0.00	\$0.00	\$45.00
07000	REPOSITORY LAND AQUISITION	\$0.00	\$0.00	\$0.00	\$23.40
00000	MANAGEMENT AND INTEGRATION	\$0.00	\$0.00	\$0.00	\$1,043.81
11000	EMPLOYEE TRANSPORTATION	\$0.00	\$0.00	\$0.00	\$0.00
12000	ON-SITE	\$0.00	\$0.00	\$0.00	\$98.55
12010	Roads	\$0.00	\$0.00	\$0.00	\$7.85
12020	Rail	\$0.00	\$0.00	\$0.00	\$4.80
12030	Communications	\$0.00	\$0.00	\$0.00	\$7.95
12040	Clearing	\$0.00	\$0.00	\$0.00	\$0.86
12050	Grading	\$0.00	\$0.00	\$0.00	\$7.18
12060	Landscaping	\$0.00	\$0.00	\$0.00	\$0.36
12070	Drainage Control	\$0.00	\$0.00	\$0.00	\$1.04
12080	Fencing	\$0.00	\$0.00	\$0.00	\$1.38
12090	Utilities	\$0.00	\$0.00	\$0.00	\$60.33
12100	Other	\$0.00	\$0.00	\$0.00	\$6.79
13000	OFF-SITE	\$0.00	\$0.00	\$0.00	\$40.85
13010	Roads	\$0.00	\$0.00	\$0.00	\$2.27
13020	Rail	\$0.00	\$0.00	\$0.00	\$21.39
13030	Communications	\$0.00	\$0.00	\$0.00	\$0.00
13040	Drainage	\$0.00	\$0.00	\$0.00	\$0.00
13050	Utilities	\$0.00	\$0.00	\$0.00	\$17.19
13060	Other	\$0.00	\$0.00	\$0.00	\$0.00
14000	MONUMENTS	\$0.00	\$0.00	\$0.00	\$17.77
10000	SITE PREPARATION	\$0.00	\$0.00	\$0.00	\$157.17
21000	WASTE HANDLING FACILITY	\$0.00	\$0.00	\$1,043.96	\$0.00
21100	Waste Handling Building 1:	\$0.00	\$0.00	\$0.00	\$0.00
21102	Building/Structures	\$0.00	\$0.00	\$0.00	\$0.00
21103	Hot Cell	\$0.00	\$0.00	\$0.00	\$0.00
21104	Utilities	\$0.00	\$0.00	\$0.00	\$0.00
21105	HVAC	\$0.00	\$0.00	\$0.00	\$0.00
21106	Handling/Packaging Equipment	\$0.00	\$0.00	\$0.00	\$0.00
21107	Support Facilities	\$0.00	\$0.00	\$0.00	\$0.00
21200	Waste Handling Building 2:	\$0.00	\$0.00	\$1,020.45	\$0.00
21202	Building/Structures	\$0.00	\$0.00	\$742.97	\$0.00
21203	Hot Cell	\$0.00	\$0.00	\$28.61	\$0.00
21204	Utilities	\$0.00	\$0.00	\$56.84	\$0.00
21205	HVAC	\$0.00	\$0.00	\$75.87	\$0.00
21206	Handling/Packaging Equipment	\$0.00	\$0.00	\$91.59	\$0.00

21207	Support Facilities	\$0.00	\$0.00	\$24.57	\$0.00
21500	Other	\$0.00	\$0.00	\$23.51	\$0.00
21501	Site-Generated Radwaste Treatment	\$0.00	\$0.00	\$0.00	\$0.00
21502	Vehicle Wash Facility	\$0.00	\$0.00	\$0.00	\$0.00
21503	Decontamination Building	\$0.00	\$0.00	\$0.00	\$0.00
21504	Performance Confirmation Facility	\$0.00	\$0.00	\$0.00	\$0.00
21505	Radwaste Storage	\$0.00	\$0.00	\$13.32	\$0.00
21506	Transfer Corridors	\$0.00	\$0.00	\$6.82	\$0.00
21507	Turntable	\$0.00	\$0.00	\$1.12	\$0.00
21508	Waste Shaft Staging Facility	\$0.00	\$0.00	\$3.26	\$0.00
22000	BALANCE OF PLANT	\$0.00	\$0.00	\$350.16	\$766.88
22010	Health/Medical Facilities	\$0.00	\$0.00	\$0.00	\$34.34
22020	Fire Protection Facilities	\$0.00	\$0.00	\$0.00	\$42.27
22030	Security Facilites	\$0.00	\$0.00	\$0.00	\$162.93
22040	Maintenance Facilities	\$0.00	\$0.00	\$0.00	\$72.02
22050	Administration/Personnel Facilities	\$0.00	\$0.00	\$0.00	\$292.33
22060	Training/Mockup Facility	\$0.00	\$0.00	\$0.00	\$14.78
22070	Warehouse and Receiving	\$0.00	\$0.00	\$0.00	\$20.12
22080	Visitors Center Facility	\$0.00	\$0.00	\$0.00	\$6.44
22090	Backup Power Generation Facility	\$0.00	\$0.00	\$0.00	\$43.02
22100	Change Room Facility	\$0.00	\$0.00	\$7.66	\$0.00
22110	Explosive Storage Facility	\$0.00	\$0.00	\$0.12	\$0.00
22120	Compressed Air and Steam Facility	\$0.00	\$0.00	\$0.00	\$0.00
22130	Cooling Tower and Chilled Water Facility	\$0.00	\$0.00	\$197.86	\$0.00
22140	Excevated Material Storage and Handling	\$0.00	\$0.00	\$57.16	\$0.00
22141	Surface Exc.Mat. Storage and Handling	\$0.00	\$0.00	\$57.16	\$0.00
22142	Offsite Excavated Material Disposal	\$0.00	\$0.00	\$0.00	\$0.00
22150	Fuel Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22160	Chemical-Storage Facility	\$0.00	\$0.00	\$0.00	\$0.00
22170	Lab and Testing Facilities	\$0.00	\$0.00	\$0.00	\$38.82
22180	Potable Water Facility	\$0.00	\$0.00	\$0.00	\$9.49
22190	Sewage Treatment Facility	\$0.00	\$0.00	\$0.00	\$5.57
22200	Backfill Facility	\$0.00	\$0.00	\$30.65	\$0.00
22210	Packing Facility	\$0.00	\$0.00	\$56.71	\$0.00
22220	Control and Monitoring Facility	\$0.00	\$0.00	\$0.00	\$17.73
22230	Standard Equipment	\$0.00	\$0.00	\$0.00	\$7.04
22240	Other	\$0.00	\$0.00	\$0.00	\$0.00
23000	SURFACE SHAFT FACILITIES	\$0.00	\$0.00	\$387.48	\$0.00
23010	Men and Materials Facility	\$0.00	\$0.00	\$74.97	\$0.00
23020	Waste Facility	\$0.00	\$0.00	\$32.39	\$0.00
23030	Excevated Material Handling Facility	\$0.00	\$0.00	\$32.46	\$0.00
23040	Developement Intake Facilities	\$0.00	\$0.00	\$27.54	\$0.00
23050	Confinement Intake Facilities	\$0.00	\$0.00	\$17.75	\$0.00
23070	Developement Exhaust	\$0.00	\$0.00	\$9.55	\$0.00

	Facilities				
23080	Confinement Exhaust Facilities	\$0.00	\$0.00	\$185.01	\$0.00
23100	Exploratory Shaft Facility - 1	\$0.00	\$0.00	\$3.44	\$0.00
23110	Exploratory Shaft Facility - 2	\$0.00	\$0.00	\$4.37	\$0.00
23120	Other Facility	\$0.00	\$0.00	\$0.00	\$0.00
20000	SURFACE FACILITIES	\$0.00	\$0.00	\$1,781.60	\$766.88
30010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$154.86	\$0.00
30020	Waste Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$216.50	\$0.00
30030	Exc.Mat. Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$159.95	\$0.00
30040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$198.15	\$0.00
30050	Confinement Intake Access (Shafts)	\$0.00	\$0.00	\$288.64	\$0.00
30070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$200.62	\$0.00
30080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$277.58	\$0.00
30100	Exploratory Shaft - 1	\$0.00	\$0.00	\$0.00	\$0.00
30110	Exploratory Shaft - 2	\$0.00	\$0.00	\$0.00	\$0.00
30120	Other	\$0.00	\$0.00	\$0.00	\$0.00
30000	SHAFTS/RAMPS - UNDERGROUND	\$0.00	\$0.00	\$1,496.30	\$0.00
41000	DEVELOPMENT	\$290.47	\$44.94	\$940.44	\$0.00
41010	Common Facility (Shaft Pillar) Excavation	\$0.00	\$0.00	\$86.94	\$0.00
41020	Spent Fuel Facility Excavation	\$290.47	\$0.00	\$290.47	\$0.00
41030	DHLW Facility Excavation	\$0.00	\$44.94	\$44.94	\$0.00
41040	Other Waste Facility (Boreholes)	\$0.00	\$0.00	\$314.99	\$0.00
41060	Excavated Material Handling	\$0.00	\$0.00	\$107.06	\$0.00
41070	General Maintenance	\$0.00	\$0.00	\$96.05	\$0.00
42000	EMPLACEMENT/RETRIEVAL OPERATIONS	\$178.51	\$64.90	\$260.24	\$0.00
42010	Spent Fuel Waste Transport and Explacement	\$178.51	\$0.00	\$178.51	\$0.00
42020	DHLW Transport and Explacement	\$0.00	\$64.90	\$64.90	\$0.00
42030	Other Waste Transport and Explacement	\$0.00	\$0.00	\$0.00	\$0.00
42040	Waste Removal	\$0.00	\$0.00	\$16.83	\$0.00
43000	BACKFILL	\$0.00	\$0.00	\$132.35	\$0.00
43010	Men and Materials Access (Shaft)	\$0.00	\$0.00	\$8.06	\$0.00
43020	Waste Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$14.41	\$0.00
43030	Muck Handling Access (Shaft or Ramp)	\$0.00	\$0.00	\$7.86	\$0.00
43040	Development Intake Access (Shafts)	\$0.00	\$0.00	\$10.97	\$0.00
43050	Confinement Intake Access	\$0.00	\$0.00	\$15.66	\$0.00

	(Shafts)					
43070	Development Exhaust Access (Shafts)	\$0.00	\$0.00	\$11.39	\$0.00	
43080	Confinement Exhaust Access (Shafts)	\$0.00	\$0.00	\$15.87	\$0.00	
43100	Exploratory Shaft - 1	\$0.00	\$0.00	\$2.31	\$0.00	
43110	Exploratory Shaft - 2	\$0.00	\$0.00	\$6.43	\$0.00	
43120	Other Shaft	\$0.00	\$0.00	\$0.00	\$0.00	
43300	Development Areas	\$0.00	\$0.00	\$39.38	\$0.00	
40000	SUBSURFACE EXCAVATIONS	\$468.98	\$109.84	\$1,333.03	\$0.00	
51000	SUPPORT SYSTEM FACILITIES	\$0.00	\$0.00	\$267.93	\$0.00	
52000	UTILITIES	\$0.00	\$0.00	\$79.05	\$0.00	
53000	MONITORING	\$0.00	\$0.00	\$126.42	\$0.00	
50000	UNDERGROUND SERVICE SYSTEMS	\$0.00	\$0.00	\$473.40	\$0.00	
61000	SPENT FUEL	\$1,091.22	\$0.00	\$1,091.22	\$0.00	
61010	Intact PWR	\$145.29	\$0.00	\$145.29	\$0.00	
61020	Intact BWR	\$76.46	\$0.00	\$76.46	\$0.00	
61030	Consolidated PWR	\$591.55	\$0.00	\$591.55	\$0.00	
61040	Consolidated BWR	\$277.92	\$0.00	\$277.92	\$0.00	
62000	DHLW	\$0.00	\$240.12	\$240.12	\$0.00	
63000	OTHER WASTE	\$38.59	\$0.00	\$87.32	\$0.00	
63010	Spent Fuel Hardware	\$38.59	\$0.00	\$38.59	\$0.00	
63020	Performance Confirmation	\$0.00	\$0.00	\$48.73	\$0.00	
63030	WYHLW and CHLW	\$0.00	\$0.00	\$0.00	\$0.00	
63040	Contact-Handled	\$0.00	\$0.00	\$0.00	\$0.00	
60000	WASTE PACKAGE FABRICATION	\$1,129.81	\$240.12	\$1,418.46	\$0.00	
99999	TOTAL REPOSITORY	\$1,598.79	\$349.96	\$6,502.98	\$1,967.86	
	TOTAL REPOSITORY LESS L.A.D.	\$1,598.79	\$349.96	\$6,502.98	\$1,647.81	
MANAGEMENT AND INT.						
		0.00%	100.00%	16.79%	16.79%	
		\$0.00	\$349.96	\$1,091.68	\$276.62	
