E-0043

^Solid Waste EIS - DOE

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Sent: Tuesday, June 10, 2003 4:59 PM

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Subject: Revised Draft HSW EIS; Comments of Government Accountability Project

Dear Michael Collins:

The Government Accountability Project hereby submits its comments on the Department of Energy's "Revised Draft Hanford Site solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement" (DOE/EIS-0286D2) published in March 2003. GAP thanks DOE for withdrawing and reissuing the Draft HSW EIS, however the revised draft is still inadequate. The Revised Draft Hanford Solid Waste Environmental Impact Statement should be withdrawn and rewritten to consider, address, and analyze all of the comments contained in the attached PDF document named "06.10.03 GAP's Comments on revised HSW EIS."

Sincerely Yours,

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June 10, 2003

Mr. Michael S. Collins
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RE: Comments on Revised Draft HSW EIS

Dear Mr. Collins:

The Government Accountability Project hereby submits its comments on the Department of Energy's "Revised Draft Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement" (DOE/EIS-0286D2) published in March 2003. GAP thanks DOE for withdrawing and reissuing the Draft HSW EIS, however the revised draft is still inadequate. The revised Draft Hanford Solid Waste Environmental Impact Statement should be withdrawn and rewritten to consider, address, and analyze all of the comments detailed below. 1

I. INTEREST OF THE COMMENTOR

statement

The Government Accountability Project (GAP) is a public interest watchdog organization with offices in Washington, D.C. and Seattle, Washington. The mission of GAP is to protect the public interest and promote government and corporate accountability by advancing occupational free speech, defending whistleblowers and empowering citizen activists. We also advise public agencies and legislative bodies about management policies and practices that help government deal more effectively with substantive information and concerns, while protecting the jobs and identities of those who provide this critical information.

GAP has monitored and commented on activities at the U.S. Department of Energy Hanford Site since 1987. GAP has represented dozens of Hanford whistleblowers, has members on the Hanford Advisory Board, serves on the Hanford Joint Council, and has engaged the DOE and its contractors in litigation, when necessary.

II. FUNDAMENTAL OBJECTION TO DOE'S PLAN TO TURN HANFORD INTO THE NATION'S RADIOACTIVE WASTE DUMP

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2 As a policy matter, the Government Accountability Project fundamentally objects to the Department of Energy's implicit view that the Hanford Site is the national government's nuclear trash can in the desert. Hanford already struggles to deal with the mountains and oceans of high-level nuclear waste in the weapons complex. It has the largest volume of contaminated soils. It has the largest volume of contaminated groundwater. Over the past 50 years, some 440 billion gallons of contaminated liquids were directly
44 disposed in the ground - enough to create a poisonous lake the size of Manhattan 120 feet deep. This alone makes Hanford the most contaminated zone in the Western Hemisphere. Hanford has the largest volume of buried transuranic wastes - long-lived deadly wastes including plutonium, a speck of which is considered lethal if inhaled.

3 It is a gross understatement to state that Hanford is an environmental crisis in its own right, a public health menace of the first magnitude, and a gigantic dirty bomb ready to detonate over the populations of a three-state area. The DOE euphemistically refers to the Hanford Site as a "cleanup site," but the truth of the matter is writ large in these
45 draft documents - DOE does not intend to clean up Hanford, but rather intends to dump even more waste there from around the country - and walk away.

The revised draft Hanford Solid Waste EIS (HSW EIS) adds insult to injury. The fish in the Hanford Reach are already the most chemically-contaminated in the entire
46 Columbia River system. The fish are so poisonous that the EPA reports that tribal peoples suffer a cancer risk of 1 in 50 simply from consuming these fish. Tribal children eating fish from the Hanford Reach have risks of immune-diseases and central nervous system disorders that are over 100 times greater than for non-Indian children, according to the EPA.

III. INADEQUATE NEPA COMPLIANCE

4 The HSW EIS is not compliant with the National Environmental Policy Act (NEPA) and fails to address adequately the following legally mandated compliance issues.

A. The Waste Management Programmatic EIS

5 The HSW EIS is based on a flawed and discredited study, the Waste Management Programmatic Environmental Impact Statement (WM PEIS). The WM PEIS contains insufficient analysis. DOE stated on page 1-42 of that study that "DOE still does not have sufficient information on the volume or contaminant composition of [the ER transferred wastes] to perform a meaningful impact evaluation at this time," and "very
47 little information is available to DOE about the composition of environmental wastes. This prevents the Department from evaluating the impacts of managing these wastes at

6 this time." Also, because the PEIS did not contain analysis of the impacts of RCRA and CERCLA ER wastes, the PEIS is not an authority for decisions regarding these wastes.

48 Public comment on the PEIS reveals that the states, Tribes, and other stakeholders were dissatisfied with the analysis supporting the decision to select Hanford as a disposal site for imported waste.

statement In a February 15, 1996, front-page investigative report by the USA TODAY newspaper entitled, *The $59 Million Lemon: Is this nuclear waste study worth the paper its written on?*, the WM PEIS was described "so flawed, so incomplete and so irrelevant that the Energy Department need at least three more studies to fill in the gaps," and as "a comedy of errors or a tragedy of errors." Larry Cornett, a scientist who worked on preparing the WM PEIS referred to it as "grossly misleading." Cornett, a whistleblower who prevailed in court, was laid off by the project contractor after raising technical concerns. "They wasted a lot of taxpayers' money," said Cornett.

statement Cornett was not alone. In 1994, four scientists involved with the WM PEIS had complained about the study, leading DOE to ask the EPA to review the matter. In their report, EPA reviewers warned of "obvious weaknesses that should be dealt with if the end product is to be credible."

statement According to the USA TODAY report, "the EPA team attributed most problems to controversial 'policy decisions' to exclude certain information from the study. But DOE didn't reverse the most controversial decision – the move to exclude any detailed analysis of what to do with waste that will be generated by cleaning up polluted sites." Likewise, Stephan Schwartz, a Brookings Institute scholar, predicted "if they can't get their act together in terms of planning how to deal with this problem, how can they tackle the problem." He was right; the EIS does not adequately deal with the waste management problem.

statement The HSW EIS repeatedly references the more general and woefully inadequate WM PEIS. Such transparent cross-referencing by the DOE to the WM PEIS, an extremely flawed document that even its own authors could not countenance, does not tackle the problem of waste management in any scientifically sound way and is simply another act in this tragedy of errors.

statement

B. Incorporating Documents by Reference

7 NEPA mandates that "no material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment." 40 CFR § 1502.21. DOE has failed to follow this requirement.

7 DOE should provide pinpoint citations for many references. For example, on page 2.9 DOE states that the HSW EIS does not discuss TRU disposal via rail because such an evaluation can be found in the Waste Isolation Pilot Plant Supplemental Environmental Impact Statement II (WIPP SEIS), (DOE 1997b). The WIPP SEIS is comprised of three separate volumes and two supplements. DOE should direct the HSW EIS reader to the appropriate volume(s) and page(s) where the evaluation can be found. Further, DOE should at least summarize the WIPP SEIS evaluation on which DOE now relies.

8 The EIS reference list should summarize and discuss the underlying assumptions, definitions, and prior documentation behind the referenced documents, which may be different than the assumptions made in the HSW EIS. Any conflicting assumptions should be pointed out and addressed.

49 Further, DOE has provided Internet addresses for only some of the referenced documents. DOE has shown that providing Internet addresses for referenced documents is reasonable by providing such addresses for some documents. Therefore, DOE should provide Internet addresses for all referenced documents.

C. Quantity of Waste

duplicates

Environmental impact statements should present scientifically defensible predictions of the impacts resulting from the proposed federal action. Without an accurate and comprehensive inventory of both present and expected values of hazardous and radiological waste at Hanford, the HSW EIS' predictions are not scientifically defensible. Without a complete inventory, the HSW EIS in legally inadequate.

The HSW EIS evaluated three waste volumes for waste type analyzed; a Hanford Only waste volume, which excludes future offsite waste volumes, and Lower Bound and Upper Bound waste volumes, which is meant to project the volume of waste present when combining future waste shipments to Hanford with that that is present currently .

9 The Hanford Only waste volumes should account for all waste currently at the Hanford Site, including but not limited to: 1) high-level tank wastes; 2) spent reactor cores (Navy and otherwise); 3) wastes in the PUREX tunnels; 4) waste in closed buildings; 5) wastes in the soils of Hanford; 6) wastes in the groundwater of Hanford; 7) wastes in the sediment of Hanford; 8) wastes in the biota of Hanford; and 9) all other sources of waste within the limits of Hanford.. Any and all analysis based on a Hanford Only waste volume that does not include all the waste currently at the Hanford Site is inaccurate and incomplete. After accounting for all waste at Hanford, DOE should use the revised Hanford Only waste volume in the analysis.

Given the scope of the HSW EIS, not considering certain waste is ethically misleading and scientifically inappropriate. Also, not considering certain waste because data on

the waste is not readily available is scientifically inappropriate and a regulatory violation.

50 The single value used for the Hanford Only waste volume neglects the fact that not even DOE knows the true volume of waste currently at the Hanford Site. DOE states on page S.34 of the HSW EIS summary that "[w]aste site inventories, both in terms of chemical and radioactive contaminants, are not precisely known..." DOE should give a detailed quantitative breakdown of how DOE chose to use this single value for the Hanford Only waste volume. Additionally, DOE should provide a quantitative analysis throughout the HSW EIS using not only this single value, but also additional estimated values to account for the fact that DOE does not know the actual volume of waste currently at the Hanford Site.

10 The HSW EIS also fails to give an exact quantity of waste that would be imported. Instead, it gives lower and upper boundaries. This quantification is error because

1) each extreme of these ranges could produce very different environmental impacts;
2) there is no clear estimate of pre-1970 TRU waste;
3) the EIS is vague about what "suspect" TRU encompasses; and
4) the EIS should specify whether waste generated from tank remediation is included in the estimates.

The EIS should 1) pinpoint the exact quantity and source of each type of waste to be disposed at Hanford; 2) state explicitly the relative proportions of waste going to Nevada Test Site versus the Hanford Site; and 3) elaborate on the nature of "suspect" TRU.

Also, the HSW EIS fails to include an inventory or classification of several radionuclides that occur in sufficient quantity to be 'of interest' (ex: iodine-129). The draft HSW EIS is not complete without this data.

11 The HSW EIS is not compliant with NEPA because it exceeds the scope of the EIS established in the scoping period. 40 CFR § 1502.7(a)(2) and 1508.25. The volume of off-site waste is greater in the draft EIS than in the scoping period.

52 The complete waste inventory should be presented in a temporal format to show the movement of waste from one storage status to another, the waste imports and exports from Hanford, the effect of treatment on the inventory, and the cumulative environmental releases over time. Such inventory should include: 1) identification of the waste by IUPAC nomenclature and CAS number - wastes not in pure form should identify both chemical and/or radiological constituents of the waste; 2) location of the waste by latitude/longitude, by plane coordinates, and by DOE location names/numbers; 3) mass of the identified waste or waste constituent at each location in

52 kilograms; 4) density of the identified waste or waste constituent at each location in grams/cubic centimeter; 5) activity of the identified waste or waste constituent at each location in grays; 6) storage status of identified waste or waste constituent at each location in terms of "contained-retrievable waste," "contained-non-retrievable waste," or "non-contained waste" (waste already in the environment).

D. Proposed Alternatives

The alternatives presented in the HSW EIS should more fully represent the spectrum of possible actions.

1) No Action Alternative

The HSW EIS does not contain a true, quantified "no action" alternative, which would be a scenario of *zero* importation of offsite-generated LLW and MLLW. Such an
12 omission violates NEPA and makes it impossible to gauge the true impacts of the alternatives. Though the HSW EIS does offer a Hanford only waste scenario, it is only as a point of qualitative comparison - and is not an actual, quantitatively analyzed alternative. A real no action alternative would assume that without the site specific HSW EIS, the WM-PEIS could not be implemented and thus 70,000 truckloads of new
53 waste could not be imported into Hanford. The real impact of DOE's plan to import more waste to Hanford can be shown only by quantitatively and comprehensively comparing a) no importation of waste (the no action alternative) with b) importation and disposition of new waste.

2) Unlined Trenches

All action alternatives continue disposing MLLW in unlined trenches until they are
13 completely filled before even beginning construction of new disposal facilities. The continued use of unlined trenches cannot reasonably be considered as an option since disposing of MLLW in unlined trenches is illegal. The disposal of MLLW in unlined trenches should cease immediately. Alternatives that assume no further disposal in
54 unlined trenches are needed. Unlined trenches are a major contributing source of pollution to the Hanford Reach. One could not legally dispose of kitchen garbage in unlined trenches.

3) Immobilized Low-Activity Waste (ILAW)

All alternatives in the HSW EIS assume that all of the ILAW will be vitrified. Yet the DOE no longer plans to vitrify the overwhelming majority of ILAW, and instead plans to mix it with concrete (grout) and use other "alternative" technologies. The failure to
14 incorporate alternative technologies is a glaring omission, as vitrification (glassification) is presumed to immobilize the waste for thousands of years, while grout will only hold for up to 30 years, and probably less. Therefore, all of DOE's analyses fail to consider the reality of the waste they are adding to the ground, rendering all alternatives and the cumulative impact sections invalid.

15 In selecting Alternative D as the preferred alternative, DOE should state 1) the cost savings of Alternative D over the other alternatives; 2) the land use savings of Alternative D over the other alternatives; 3) the risks associated with Alternative D over the other alternatives; and 4) the environmental advantages and disadvantages of Alternative D over the other alternatives.

5) Additional Considerations

16 The alternatives should also encompass:

- Mounded soil covering the trenches, which would shed rainwater and create less leachate;
- Alternative cap types that will reduce the risk of human, animal, or plant intrusion;
- Concentration limits for radionuclides;
- Independent regulation of LLW disposal as an alternative;
- Megatrench disposal analysis that covers ILAW
- An alternative that charges generators the long-term, fully burdened costs of storage, treatment, or disposal;
- An alternative that shows the unlined burial grounds as closed.
- The storage and disposal of TRU waste in the event that the Waste Isolation Pilot Plant (WIPP) does not accept waste within the scope of the HSW EIS or does not open by 2005.

E. Groundwater Impact Analysis

17 1) The EIS should disclose impacts to groundwater and human health at the point of compliance for waste management units. Lines of analysis at 1 km do not provide adequate analysis. DOE should analyze the potential impacts at the edge of, and under, the disposal sites in the vadose zone and groundwater, as well as potential worst case impacts from overlapping releases.

18 2) DOE may not irreversibly and irretrievably commit groundwater. Groundwater is a state resource, not a federal resource. DOE should design a facility to prevent the release of contaminants to the soil and groundwater.

19 3) There are conflicting statements about groundwater plumes from disposal sites. For examples, see summary pages 32, 35, 36, and 37.

20 4) All action alternatives are predicted to contaminate groundwater that flows to the Columbia River. Additional alternatives that do not contaminate groundwater that flows to the Columbia River should also be quantitatively analyzed, and strong mitigation measures reducing or

20 contaminate groundwater that flows to the Columbia River should also be quantitatively analyzed, and strong mitigation measures reducing or stopping the contamination should be added to all the present action alternatives.

F. Cumulative Impact Analysis

21 In order to predict cumulative impacts accurately, it is necessary to examine not only the particular waste to be imported, but also the impacts of the new waste *when combined with* waste already existing at the burial grounds. Therefore, the necessary precursor to an accurate cumulative impact analysis is an understanding of what waste already exists at Hanford. However, there is no such inventory of existing waste at Hanford. The EIS should integrate and consider the cumulative impacts of all Hanford waste decisions.

statement 22 The perilous nature of Hanford clean-up is discussed in a December, 2001, Office of Inspector General Special Report, which reveals severe problems with DOE's waste inventory practices. According to the report, DOE could not fully account for nuclear materials loaned or leased to domestic licensees: substantial amounts of nuclear materials were identified as located at two licensed facilities that later tuned out not to exist; several licensed facilities were shown to have negative balances that were not logical; and incomplete records and information on nuclear materials were provided by DOE to licensees. The OIG report called for more action by DOE to prevent such occurrences in the future. GAP requests that DOE immediately create an accurate inventory of all nuclear waste currently stored and disposed of at the Hanford site.

Other considerations that should be included in the cumulative impact analysis are:

55 1) Analysis of high level tanks, K-Basin sludge, reactor components, naval reactor compartments disposal, and existing pre-1970 TRU waste in the burial grounds, PUREX tunnels;

56 2) Analysis of the fact that the maximum containment levels are exceeded in all action alternatives or the cumulative impact of this upon existing contamination at Hanford;

23 3) Analysis of groundwater impact by all radionuclides "due to uncertainties in the inventory and modeling approach." These uncertainties need to be addressed, and a cumulative impact analysis of the impact on the groundwater by all radionuclides should be performed.

24 4) Analysis of the transportation of an estimated 70,000 truckloads of radioactive and chemically toxic waste from across the country that analyzes all the routes within each

24 state in which the waste will pass, including but not limited to detours due to construction, weight limitations, weather, and potential terrorism.

25 5) Analysis of the cost of waste imports in light of the Hanford site cleanup budget. Will waste import detract from actual Hanford clean-up?

26 6) Analysis of the possibility that the Yucca Mountain facility may not accept the cesium-strontium capsules for disposal. DOE admits that the disposal path for these capsules has not been determined, and merely assumes the disposition to be Yucca Mountain. The EIS should quantitatively analyze and report on alternative disposal paths so the reader can understand the impact in the event that these capsules are not disposed at Yucca Mountain. Further, Yucca Mountain could fill up quickly with commercial HLW, leaving no room for the cesium-strontium capsules or Hanford waste assumed to be disposed there.

G. Transportation Analysis

27 The HSW EIS failed to do an adequate impact analysis of transportation. There was no delineation of routes beyond Washington or Oregon, no plans to minimize risks to the people in towns en route; no analysis of transportation vehicles as possible terrorist targets; no analysis regarding DOE's consideration of rail as an alternative method of transporting waste; and no analysis regarding the possibility that Yucca Mountain may not accept the cesium-strontium capsules or the Hanford waste destined to go there.

57 Remarkably, in light of the tragic events of September 11, 2001, the EIS failed to consider the possibility of terrorist attacks on the transporting vehicles. In a recent report, the Office of Inspector General noted that the DOE "[should maintain] the strictest possible control over [nuclear] materials that could, in the wrong hands, threaten national security." DOE should heed the advice contained in the OIG report. In the wrong hands, this waste material could be used against the United States, with deadly results. Such scenarios should be addressed in the HSW EIS.

28 The EIS failed to look at other routes such as those required by detours. There are recent detours along the Columbia Gorge because of weight restrictions, which should be addressed in the transportation analysis.

58 DOE is considering using rail as an alternative method of transporting waste. The present EIS should quantitatively analyze the impact of shipment of waste, the construction of a spur or development of an intermodal transfer capability if needed to ship waste by rail, rather than deferring the needed analysis to future National Environmental Policy Act reviews. The analysis should include all potential impacts of construction, accidents, and terrorism.

29 Further, the trucks that were analyzed for accident scenarios were trucks designed to hold high level waste. Those are not the types of trucks that will be transporting the LLW, and MLLW, and TRU addressed by the HSW EIS. Without an analysis that considers the consequences of an accident involving these less protective trucks, the transportation analysis is invalid.

H. Public Health Analysis

30 The Public Health prediction methods used by the HSW EIS are not professionally accepted methods. The Emergency Response Planning Guides (ERPGs) used in the HSW EIS were intended to set exposure limits, not predict public health impacts. The ERPGs have never gained any acceptance for prediction of public health impacts. Additionally, ERPG guidelines have been developed for fewer than 100 chemicals. The use of ERPGs in the HSW EIS is scientifically inappropriate and ethically misleading.

31 Second, in order to measure properly the public health impacts resulting from potential exposures to cancer causing hazardous chemicals and radionuclides, the professionally recognized EPA methodology utilizing cancer potency factors should be used in the HSW EIS. This methodology has been used extensively and is the most widely accepted method of predicting potential cancer impacts by risk assessment professionals and toxicologists. Further, the HSW EIS should consider the Washington Model Toxics Control Act risk standards for radionuclides, and the state and federal anti-degradation standards, when measuring public health impacts.

32 Third, to measure public health impacts resulting from potential exposures to disease causing chemicals and radionuclides, the professionally recognized EPA methodology utilizing reference dose values should be used. This is the most extensively used and widely accepted method used by risk assessment professionals and toxicologists.

33 Fourth, the EIS should quantitatively analyze all possible air and noise quality impacts compared to current air and noise quality. Instead the EIS merely states that certain standards have not been exceeded. To show quantitative impact, the EIS should quantitatively compare present noise and air quality to that of the noise and air quality of the alternatives.

s t a t e m e n t The above referenced EPA methods require scientific estimates of potential exposures. These estimates should be based upon an accurate scientific inventory of hazardous and radioactive wastes, which is lacking in the HSW EIS. The HSW EIS should incorporate a scientific inventory of hazardous and radioactive waste to support the prediction of public health impacts.

I. Ecological Impact Analysis

34 The EIS has not assessed short and long-term ecological impacts. It should analyze and discuss impact on fish, including salmon, as well as for other endangered species and the rest of the ecosystem. Merely listing the species present at the site is not analysis. Further, the conditions have not been updated since the Hanford fire. Also, Shrub-steppe habitat is an ecological resource. Since all present alternatives presents an ecological resource impact to Shrub-steppe habitat, additional alternatives that do not present this impact, or lower this impact, should be quantitatively analyzed.

J. Present form of EIS not User-Friendly

A purpose of the HSW EIS is to help those with an interest in Hanford Site, the public and the workers among others, fully understand the consequences of DOEs proposal. This purpose can only be fulfilled by user-friendly data and a summary with a table of contents that is keyed for easy reference to the corresponding text of the full EIS.

For example, figure S.8 of the summary lumps existing disposal facilities with the proposed disposal facilities, combines key storage facilities with key processing facilities. Further, this figure shows only *key* storage and processing facilities, rather than *all* storage and processing facilities for proposed actions. This graphic should differentiate between the different types of facilities and further differentiate those facilities by the alternative with which it is associated.

59 A second example is table S.2, which claims to show *the range* of impacts during the operational period. The EIS should make clear that this range is not all inclusive, but merely an approximation.

A third example is also found in table S.2. There the EIS states the 'number' of latent cancer fatalities in the public, while stating the 'probability' of latent cancer fatalities in non-involved workers. The actual number and the overall probability are important to the readers understanding; Each should be reported for both the public data and the worker data. The HSW EIS should compare 'apples to apples,' not 'apples to oranges.' Forcing the reader to do math in order to accurately compare data is not user-friendly. Further, DOE should state the data regarding latent cancer fatalities in involved workers at all. DOE should state the actual number and overall probability of latent cancer fatalities of involved workers in order for the reader to fully understand the consequences of DOE's proposal.

A fourth example is table S.3. There the EIS states the 'chances in a million' of a fatality to a lifetime onsite resident gardener, while stating the fatality data to a lifetime onsite resident gardener with a sauna/sweat lodge in terms of seven different denominators, none of which are 'chances in a million:' 'chances in 2000,' 'chances in 400,' 'chances in

300,' 'chances in 200,' 'chances in 100,' 'chances in 50,' 'chances in 10.' This is another 'apples to oranges' comparison. When the 'chances in 10' data is converted to 'chances in a million' data, the reader would see that in the Upper Bound range of waste volume, there '100,000 chances in a million' that a fatality to a lifetime onsite resident gardener
59 with a sauna/sweat lodge would occur in the 200 area.

DOE provided Internet addresses to only some, but not all, for the documents incorporated by reference. DOE should provide an internet address in the reference list for all references. Additionally, the reference list should direct the reader to the page number(s) within the HSW EIS where the document is referenced, and provide a short summary of the reference's use in this EIS.

K. Environmental Justice Issues

Since DOE recognizes that area C may contain archeological sites, DOE should provide quantitative analysis of area C alternatives that present a lower risk of potential cultural
60 resource impacts. DOE should also acknowledge that construction would be halted not simply until a professional evaluation was made, but until a non-biased professional evaluation was made that either determined that their would be no cultural resource impact or would provide a mitigation strategy satisfactory to all involved parties.

DOE should recognize that the impacts of sauna/sweat lodge scenario shown in table S.3 will likely have a disproportional impact on Native Americans. This is an environmental justice impact and should be quantitatively analyzed and reported on as
61 such for all alternatives. Native Americans residing in the areas near the Hanford Site use saunas/sweat lodges as part of their cultural and religious practices and traditions. Additionally, all possible impacts on Native American populations who by treaty right may enter the Hanford Site should be analyzed quantitatively separate from the analysis of impacts on 'intruders' and the general public within the Hanford Site vicinity.

Additionally, many Native American populations may by treaty right enter the
35 Hanford Site. Therefore, they are not 'intruders.' Impacts on these specific populations should be analyzed quantitatively separate from the analysis of impacts on 'intruders' and the general public within the Hanford Site vicinity.

36 Finally, DOE's consultation with Tribes and other state and federal agencies has been inadequate, as has DOE's consultation with the general public.

IV. NEGLECTED CONSIDERATIONS

62 The HWS EIS neglects to consider many necessary issues, including how best to analyze the impact of the imported waste and even what waste is under DOE's jurisdiction.

A. Waste Streams

1) The HSW EIS analyzes the disposal of mixed low-level waste (MLLW) without a prior decision by the State of Washington to dispose of MLLW at Hanford. As per the Resource Conservation and Recovery Act (RCRA), the State of Washington has jurisdiction over the disposal of MLLW because of its hazardous waste properties. Thus, the HSW EIS should be limited to evaluating only the short-term storage and treatment of MLLW, not the disposal of MLLW. GAP urges the State of Washington to refuse to permit the DOE increase the volume of MLLW disposed of at Hanford beyond what was decided for Hanford cleanup;

2) The EIS should compare disposal of LLW/MLLW at different sites;

3) The EIS should compare disposal of Hanford-only versus off-site waste;

63 4) The EIS' scope should include all previously buried and newly generated solid waste;

5) The EIS should assess the difference in impacts between disposal of low and high volumes of waste;

6) The EIS should address the hazardous waste component of

   i. The quantity of waste that will remain at Hanford,
   ii. The quantity of waste that Hanford will export,
   iii. The quantity of new waste that Hanford will accept;

7) The EIS should analyze the lack of plans to retrieve or mitigate the impacts from TRU waste buried before 1970;

8) The EIS should analyze the impacts of hazardous waste buried with various forms of radioactive waste (e.g. lead shielding);

9) The EIS should analyze the decision to move one-half of the waste out of the Central Waste Complex; and

10) The EIS should include liquid effluent retention facility waste contributions from the waste treatment plant.

B. Tri-Party Agreement

64 1) The draft EIS should consider the delay to the construction of TRU processing facilities required under Tri-Party Agreement (TPA) Milestone 91. The draft EIS also should consider the impact from delayed/lesser TRU waste retrieval and the impacts of importing TRU.

2) Processing and handling of offsite wastes should not delay processing of Hanford wastes.

C. Mitigation Measures not Adequately Analyzed and Considered

37 The HSW EIS lists some possible mitigation measures, but does not adequately analyze or consider them. Merely stating that "any mitigation plan(s), if necessary, would be prepared after the Record(s) of Decision is published" is not enough. DOE is presently able to quantitatively analyze the specific actions needed to redue or avoid potential environmental impacts for each of the alternatives, and should include this analysis within the HSW EIS analysis.

65 What are soil fixants and what are the potential short and long-term hazards and/or risks associated with fixants? What specific fixants is DOE considering? Any hazards and/or risks associated with fixants should be included within this HSW EIS.

66 Measures such as establishing easements and deed restrictions or zoning and land-use restrictions have the potential for environmental impact; ecological, geological, and socio-economic to name just a few. Mitigation measures and activities should be quantitatively analyzed within the HSW EIS.

38 The Department's list of typical long-term stewardship activities provides no terrorism prevention activities. This is unacceptable.

D. Funding for Long-Term Stewardship Not Considered

39 Any plan to clean up nuclear waste in incomplete without a long-term stewardship plan. The HSW EIS fails to address the need for an ongoing, long-term funding mechanism in order to ensure that long-term stewardship continues for hundreds of years into the future.

67 The nuclear waste at Hanford has an average half-life of 3,000 years, and therefore, "clean-up" at best means "safe storage." Long-term stewardship that extends over the next several centuries and millennia is necessary to ensure that the storage is safe and that human health and the environment are protected.

68 Because the risks of nuclear waste release are so great, long-term stewardship is necessary regardless of where or how the waste is stored. At risk are natural resources such as the coastal oceans (fed by rivers running through the Savannah River Site and Hanford), irrigated farm lands, groundwater aquifers, and fisheries. Human health risks include increased incidence and severity of cancer and other diseases. For example, just one nuclear weapon processing site has the potential to induce cancer in every person currently on the planet, 208 million times over. The impacts on the regions designated as "national sacrifice areas" and their buffer zones also should be considered.

statement The need for environmental stewardship at nuclear weapons production sites and the gross inefficiencies of the DOE in several of their clean up projects has also been noted by the US DOE Office of Inspector General and Office of Audit Service. In a December, 2001, Special Report by these offices, it was revealed that an audit of DOE found that there was no comprehensive approach to maximize waste disposal. This has resulted in unused capacity and increased risk. The Special Report calls for more efficient and responsive environmental clean-up effort and warned that the OIG would continue to monitor the DOE in these regards.

E. Costs

40 1) GAP agrees with the Hanford Advisory Board's advice that DOE should consider a cost method whereby the generators of the imported waste pay the cost of treatment and disposal of their waste. If the costs are covered by money designated for Hanford cleanup, then the cleanup necessarily will suffer and might not meet the Tri-Party Agreement milestones or other compliance requirements.

69 2) The EIS should include accurate, full life-cycle costs of storage and disposal.

3) Hanford funds should not be used to pay for or subsidize the treatment or disposal from other sites.

F. Accident Analysis and Emergency Planning

70 1) The HSW EIS only considers an earthquake accident scenario. There should be analysis of other emergencies, such as terrorist attacks, especially along transportation routes.

71 2) The HSW EIS accident analysis should include chemical waste and should not assume that all wastes are treated within land disposal restrictions.

41 3) The HSW EIS acknowledges that the local jurisdictions that would likely be the first to respond to a radiological emergency, yet fails to state quantitatively the who, what, when, and how regarding the DOE and the federal government's response if and when an emergency occurs.

G. Analysis Based on Generalities and Assumptions

72 Much of the EIS is based on generalities and assumptions. One example is that the EIS uses that assumption that the WIPP will receive remote-handled waste "within the 2005 timeframe." An accurate analysis cannot be performed without a more accurate date. Further, all possible impacts cannot be quantitatively determined without an analysis of other possible dates, including the possibility that the plant will not accept the waste at all.

73 Another example is the assumption that active institutional controls will be absent 100 years after site closure, and that caps and covers will not be maintained, and monitoring will not be performed. These assumptions set a dangerous precedent, regardless of what DOE claims the federal government intends to do. HSW EIS analysis requires accurate, quantitative data so that truly informed choices can be made. A full, quantitative EIS analysis is required on the issues of site closure and active institutional control stoppage. No assumptions can be made regarding those issues without a full quantitative EIS analysis. If DOE wishes to continue using this 'assumption' within the present HSW EIS, then DOE should treat this 'assumption' as separate action alternative, and give it full, quantitative EIS analysis now.

74 Also, the current "Upper Bound" (larger than expected estimate of the maximum expected volume of waste to be managed) potentially conceals, masks, or minimizes differences between and among the analyzed alternatives. EPA requires that site specific parameters be used in models. DOE should quantitatively analyze the alternatives using an accurate estimate (what DOE truly expects, explaining how it came to this expectation) of the maximum and minimum expected volumes to be managed.

42 The HSW EIS should analyze the uncertainty of its analysis. Merely discussing the parametric sensitivity of the models is not a substitute for uncertainty analysis. Further, the large changes in results between the first 25 model runs and the runs DOE chose to use in support of the HSW EIS add to the uncertainty and should be disclosed.

75 The HSW EIS states that DOE did not address the many "areas of controversy" identified during the public interaction process merely because "they reflect either differing points of views or uncertainties." Page S.42. Areas of controversy, whether resolved or not, should be accounted for within the HSW EIS quantitative analysis. Ignoring points of view different from that held by DOE is unacceptable. Accounting

75 for areas of controversy within the EIS provides the reader with a more accurate picture of the many issues presented by the proposed actions.

VII. CONCLUSION

43 In conclusion, the Hanford Site should be cleaned up and restored. This vision is not realized by dumping more waste and piling more radioactive and toxic junk on top of an already severely contaminated site. The Government Accountability Project calls upon the Department of Energy to abandon its plans to make Hanford even dirtier, and to get on with the job of the cleanup as agreed to in the compliance agreements and as stipulated by law. This begins by performing scientifically justifiable and legally compliant environmental impact statements. The Revised Draft Hanford Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement is inadequate. The revised Draft Hanford Solid Waste Environmental Impact Statement should be withdrawn and rewritten (not supplemented!) to consider, address, and analyze all of the comments detailed above.

Sincerely yours,

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