^Solid Waste EIS - DOE

From: Heart of America Northwest [office@heartofamericanorthwest.org]
Sent: Wednesday, June 11, 2003 5:33 PM
To: hsweis@RL.gov
Subject: Heart of America Northwest comments on the Revised Draft hanford SWEIS

Dear Mr. Collins,

Attached are Heart of America Northwest's comments to the Revised Draft Hanford Site Solid (Radioactive & Hazardous) Waste Program Environmental. We have also attached two other significant documents (Heart of America Northwest's analysis of the USDOE LLBG Performance Assessment and Heart of America Northwest's comments on the CWWC WRAP DNS) that should be considered part of our comments to this EIS. We have also mailed you original attachments by USPS Express Mail that should also be considered part of our comments.

If you have any questions, please call us at (206) 382-1014.

thank you for your time.

Hyun Lee

Analysis of USDOE's "Performance Assessments" for Low-Level Radioactive Waste Burial Grounds

Gerald Pollet, JD; Executive Director, Heart of America Northwest

Statement on DOE Performance Assessments

USDOE relies upon two "Performance Assessments" for its analysis of the proposal to expand Hanford's Low-Level Burial Grounds to accommodate disposal of an additional 350,000 cubic meters of Low-Level Radioactive Waste in the unlined trenches that comprise the burial grounds.[i] The Performance Assessments are the critical documents underlying conclusory statements in the Hanford Site Solid Waste Environmental Impact Statement (HSWEIS), that the burial of additional waste would not have unacceptable impacts on human health and the environment. The Performance Assessments were published for the burial grounds in 200 West in June, 1995 and for 200 East Area in August, 1996. The documents were provided to Heart of America Northwest by Michael Collins, USDOE Program Manager for the Hanford Site Solid Waste Environmental Impact Statement (HSWEIS), because – while relied upon for analysis in the EIS – the documents are not available on the internet.

- It is necessary to review the Performance Assessments in order to independently assess the basis for USDOE's claims of low health risks from the proposal to more than double the total amount of radioactive waste buried in unlined soil trenches at Hanford. The unlined soil trenches have no leachate collection and inadequate groundwater monitoring.
- Claims related to health risks rely upon exposure scenarios for future users of the Hanford Site and Columbia River, that are found in the Performance Assessments.

Waste Quantity:

- More than double the total amount of radioactive waste buried in unlined soil trenches at Hanford:
  - Documentation: EIS Table 3.2 for LLW: "Previously buried waste" = 283,067 cubic meters

    "Upper Bound" proposed = 631,427
    Added Waste = 348,360

    However: cf: WMPEIS[ii] summary at 53 shows Hanford total "current inventory plus 20 years generation" = 89,000 cubic meters.
- 350,000 cubic meters LLW x 35.3 to get cubic feet = 12,355,000 cubic feet

Statement on DOE Performance Assessments

USDOE's Performance Assessments Use Criteria for Acceptable Health Impacts Which Exceed Legal Limits for Radiation Exposure and Health Risk to the Public:

- Washington State's Model Toxics Control Act (Chapter 70.95D, R.C.W.; and implementing regulations at Chapter 173-303 WAC) set applicable health based standards for public exposure to "hazardous substances" and carcinogens released from disposal sites. Included in hazardous substances are radionuclides.
- The State limits exposure, and requires cleanup, if exposure would result in a total carcinogen risk (from all sources at the site) greater than **one in one hundred thousand**. Thus, if more than one exposed person in one hundred thousand would get cancer, additional cleanup is required. (This is often expressed in scientific notation as 1E-5). The State limit applies at federal Superfund sites in Washington.
    - This is one additional cancer in the most sensitive exposed population, per 100,000 exposed; i.e., children or Native American children who consume large quantities of water and food from the site.
- United States Environmental Protection Agency (EPA) sets a more relaxed standard utilizing a risk range allowing between one additional fatal cancer per ten thousand and one in one hundred thousand. (1E-4 to 1E-5).[iii]
- USEPA has issued a formal opinion that exposure to 25 millirem per year of radiation from pollution at a federal Superfund site is not protective of human health or the environment, calling that level of exposure "unacceptably high" because it would result in 5 additional fatal cancers per ten thousand exposed adults (5E-4).[iv]
    - EPA has formally found that a proposal to allow 100 millirem exposure annually "could create unacceptable health risks to the public… and potentially result in the creation of new Superfund sites."[v]
    - The EPA and Washington State standards are applicable to the Hanford Low-Level Waste Burial Grounds because:
        1) The burial grounds have released wastes to the environment, and have illegally been used to dispose of hazardous wastes – subjecting them to RCRA and Washington Hazardous Waste Management Act requirements for permitting and remediation. Washington State utilizes the MTCA standard for RCRA permit actions – consistent with the philosophy that we should not create new Superfund sites requiring cleanup.
        2) The burial grounds are in the midst of the federal designated Superfund National Priority List site and MTCA designated site.

The USDOE's Performance Assessment – and Hanford Site Solid Waste EIS – are Based on Performance Objectives that "create unacceptable health risks to the public… and potentially result in the creation of new Superfund sites":

USDOE's Performance Assessment is based on the burial grounds meeting "Performance Objectives" that allow radiation doses of 25 mrem per year to the public and continuous exposure to 100 mrem per year of radiation following reasonably foreseeable intrusions into the waste sites. Doses of 500 mrem per year are considered acceptable by USDOE for a single exposure following intrusion.

1 Rather than designing the burial grounds to meet the applicable EPA and Washington State standards, USDOE sets "performance objectives" (which are not regulatory rules) in DOE Order 5820.2A for general public exposure from all pathways and post-intrusion exposures.[vi]

EPA has specifically called the 25 mrem per year annual exposure an "unacceptable health risk".[vii] This radiation dose is fifty times the allowable carcinogen risk under Washington's Model Toxics Control Act.

USDOE's performance objective for reasonably foreseeable continuous annual exposure after intrusion into the burial grounds results in 2 fatal cancers for every 1,000 adults exposed. It is now generally accepted that children are 5 to 8 times more susceptible to cancer from ionizing radiation exposure than adults. For children, post intrusion risk deemed acceptable under USDOE's performance objective could be as high as 1 in 100. (Washington State law sets the standard as 1 additional cancer in 100,000 from all carcinogens remaining on the site).

Statement on DOE Performance Assessments

USDOE's Performance Assessment Ignores the Disposal of Hazardous Wastes in the Low-Level Burial Grounds:

Extensive documentation exists of hazardous wastes disposed in the burial grounds.[viii]

The presence of non-radioactive hazardous wastes is highly significant because:

- Hazardous wastes migrating from the burial grounds create significant health and environmental risks – for the commercial Low-Level Waste Burial Grounds, Washington Ecology has documented releases of nonradioactive hazardous wastes other than radionuclides (there is also evidence of radionuclides reaching groundwater) have reached groundwater in less than forty years of operation, in concentrations exceeding Washington State cleanup standards and Safe Drinking Water Standards.
    - Some of the hazardous wastes disposed included liquids that will mobilize other wastes; or were wastes that would increase the corrosion of waste containers.
    - Some hazardous wastes disposed in the LLBG were explosive or flammable.

statement (contd)

- Hazardous wastes disposed in the burial grounds were often solvents and wastes that will serve to mobilize radionuclide contaminants, and dramatically increase the speed at which they travel to groundwater.
- Hazardous wastes change the ability of radionuclides to "sorb" to the soil, destroying the basis for USDOE's models that show limited radionuclide migration through soil to groundwater.

2 ***Incredibly, USDOE's Performance Assessment – relied upon for the HSWEIS – totally ignores the presence of hazardous wastes in the Low-Level Burial Grounds.***

The discovery in 2002 of Carbon Tetrachloride (CCL4) at 1,760 parts per million at a vent in Waste Management Area 4 of the Hanford Low-Level Burial Grounds shows the danger of relying upon a performance assessment that ignores the presence of non-radioactive hazardous wastes.

USDOE's Performance Assessment does not even reference standards for the burial grounds to meet for non-radioactive hazardous wastes.

Cumulative impacts, which the National Environmental Policy Act and State Environmental Policy Act require to be considered in an EIS, from the burial grounds already appear to exceed applicable standards from the Carbon Tetra-Chloride release – before considering additional releases from adding more waste to the LLBGs.

It must be noted that, even without considering the impact of hazardous wastes on the models used to predict contaminant transport and perform the risks assessments, the HSWEIS admits that radioactive Iodine 129 and Tritium contamination from the burial grounds will greatly exceed standards at a well one kilometer away from the burial grounds, and require restricting access to a large area (which two Native America Nations have treaty rights to utilize) for "thousands of years".

For the HSEWEIS, USDOE inexplicably only presents groundwater contamination data for a single well one kilometer away from the burial grounds – which is further than one kilometer from many of the burial grounds. No explanation is proffered for why or how this single point was chosen.

In discussing "parameters that could influence radionuclide groundwater concentrations", USDOE never mentions the potential for non-radioactive hazardous wastes to increase contaminant mobility.[ix]

Groundwater Standards for Radionuclides Are Shown to be Exceeded in the Performance Assessment:

Despite the Solid Waste EIS depicting groundwater results only for a single well in the 200 West Area (one kilometer away from the edge of the nearest burial ground), the Performance Assessment for 200 West clearly shows that for a well 100 meters from the burial grounds, the radiation doses from use of groundwater would exceed standards.

As noted earlier, the Maximum Concentration Limit (MCL) under the Safe Drinking Water Standard, utilized by EPA and Washington State for Superfund and MTCA standards, is based on a maximum dose of 4 mrem per year. At Table 4-22, USDOE provides "Radionuclide Dose Estimates for Groundwater Pathways"[x]. Doses exceeding 4 millirem per year are shown for:

3 C^{14}; Cl^{36}; Tc^{99}; I^{129}; Se^{79}; Np^{137}; Pa^{231}; U

The total cumulative dose – not shown in the Performance Assessment – from the groundwater pathways would equal >9E+4 mrem/year. The MCL standard would be 4E+1. In plain language, the MCL will be exceeded by three magnitudes.

statement

The HSWEIS, however, presents results solely for one well a full kilometer away from the burial grounds. The EIS shows MCLs violated for that well for only Iodine 129 and Tritium (H3). The reason for USDOE choosing to only present data for a well 1 kilometer away from the burial grounds appears to be to prevent disclosure of the excessive groundwater contamination that will occur from these burial grounds.

A final groundwater note: The majority of groundwater monitoring wells at the edge of the LLBGs are dry or out of compliance with RCRA requirements. A dry well can not find contamination in the aquifer. The Performance Assessment relies upon models, rather than actual data. The significance of this is shown by the investigation into the nearby Hanford commercial Low-Level Waste site run by US Ecology Corp.. For the EIS for relicensing that site, US Ecology relied upon the same model as USDOE used in the Performance Assessments for 200 East and West. As with the HSWEIS, little migration through soil was predicted and groundwater was not expected to be impacted. However, actual data from monitoring wells (starting in late 2000) conclusively revealed that hazardous substances had reached groundwater from the US Ecology burial grounds.

---

[i] "Performance Assessment for the Disposal of Low-Level Waste in the 200 West Burial Grounds", WHC-EP-0645, prepared for the U.S. Department of Energy by Westinghouse Hanford Company, June 1995; and, "Performance Assessment for the Disposal of Low-Level Waste in the 200 East Burial Grounds", WHC-SD-WM-TI-730, prepared for the U.S. Department of Energy by Westinghouse Hanford Company, August, 1996.

[ii] Waste Management Programmatic Environmental Impact Statement, USDOE, 1997.

[iii] "This guidance clarifies that cleanups of radionuclides are governed by the risk range for all carcinogens established in the NCP (National Contingency Plan) when ARARs are not available or are not sufficiently protective. That is to say, such cleanups should generally achieve risk levels in the 10^{-4} to 10^{-6} range." OSWER No. 9200.4-18; USEPA; August 22, 1997, at P.3.

[iv] "Analysis of what Radiation Dose Limit is Protective of Human Health at CERCLA Sites"; USEPA; August 20, 1997 at Page 7. EPA's limit is 10 millirem from a single source of airborne radionuclides for NESHAP; 4 millirem per year from groundwater and no more than 10 to 15 millirem from all sources would meet NCP requirements.

[v] U.S. Environmental Protection Agency; April 19, 1999; letter to Conference of Radiation Control Program Directors commenting on proposal to allow residual contamination levels resulting in 100 millirem per year of potential public exposure. The EPA cited the same concern for NRC's license termination rule. July 7, 2000.

[vi] USDOE Performance Assessment for 200 West Burial Grounds, Table S-1 at Page vi; see also same table in 200 East Assessment.

[vii] Id and EPA August 20, 1997, Op.Cit..

[viii] See Heart of America Northwest Reports available on our website:www.heartofamericanorthwest.org: "Washington Beware". USDOE has acknowledged prior disposal of hazardous wastes in a Part B RCRA application to Washington State. The Heart of America Northwest report conclusively shows that illegal disposal of hazardous wastes continued in the trenches after 1989.

[ix] SEE Performance Assessment for 200 West at 4.2.5

[x] Page 4-48; Assessment for 200 West.

Comments of Heart of America Northwest, and
Heart of America Northwest Research Center
Calling for Withdrawal of Washington Dept. of Ecology's Determination of NonSignificance (DNS)
For SEPA Review of the Hanford Central Waste Complex and Waste Receiving and Processing Facilities (CWC and WRAP):

4

The proposed Determination of Non-Significance violates Washington's currently stated policy that "prior to accepting more waste from across the nation, the State of Washington must be assured that current waste management activities at Hanford are protective of human health and the environment and compliant with state and federal regulations, and the Tri-Party Agreement (TPA)", and Washington State's conclusion that Hanford "continues to struggle to achieve and maintain compliance" – rendering it inappropriate to allow additional offsite wastes to come to Hanford at this time.[i] To implement Washington State's existing policy and conclusion about the status of compliance at Hanford, and concerns a) that offsite waste acceptance would negatively impact Hanford Clean-Up, and b) that storage and treatment of MW and TRU waste pose significant potential health and environmental impacts; Washington State must issue a Determination of Significance and only issue a RCRA permit after a full EIS is completed that addresses the issues noted below (including the very issues that Ecology has stated that USDOE has failed to address in the pending Hanford Site Solid Waste EIS).

statement

These comments supplement those comments previously submitted, including emailed comments to Tim Hill and other Ecology staff, which we requested to be part of the record on the DNS and on the RCRA permit.

The Determination of Non-Significance (DNS) flies in the face of USDOE's own admission that operation of the CWC and WRAP pose significant potential impacts on human health and the environment, reflected in the determination that their operation is within the scope of the Hanford Site Solid Waste EIS (HSWEIS). USDOE has not yet responded to public comment on the HSWEIS, and intends to reopen comment on that EIS. Therefore, issuance of a DNS is clearly in violation of SEPA standards.

Without the RCRA/WA Dangerous Waste Management Act permits (or incorporation of CWC and WRAP into the Hanford Site-Wide RCRA permit), USDOE can not undertake the underlying actions that create multiple health and environmental concerns, including the import of TRU and Mixed Wastes to Hanford from other USDOE facilities. SEPA requires review of the impacts of related actions that are dependent upon the underlying individual action under review (i.e., the issuance of the permit). This holds true for actions by other governmental entities, or the actions of the permittee, which could only occur if the permit is in place.

Ecology Comment on First Draft EIS

Washington Dept. of Ecology has issued formal comments on the HSWEIS stating formal concerns that potential significant adverse impacts to human health or the environment from actions related to operation of the CWC and WRAP, and specific proposed actions that rely on use of CWC and WRAP (such as the import of Trans-Uranic (TRU) wastes and Mixed Wastes (MW) to Hanford) are not adequately addressed in USDOE's Hanford Site Solid Waste EIS (HSWEIS).

Ecology Comments on Frist Draft EIS were Considered in Preparing Revised Draft EIS

These formal comments of Ecology on the HSWEIS establish that the Department of Ecology believes that there are potential significant impacts to human health and the environment from the proposed action and related actions:

1. "The Draft HSW-EIS does not evaluate treatment and storage of significant quantities of TRU wastes from other sites." Ecology comments on HSWEIS at P.2, August 21, 2002.
    a. USDOE has stated that it proposes that TRU waste would be stored and / or treated at CWC and WRAP.
    b. Ecology has failed to consider the reasonable alternative of limiting the CWC permit to preclude storage of TRU wastes, or the alternative of precluding storage of Remote Handled, Contact Handled and MW TRU from new offsite shipments.
    c. SEPA requires consideration of the reasonable alternatives to a proposed action, when the proposed action would have the potential for significant adverse impacts to human health or the environment.
    d. Storage of Remote Handled and MW TRU from offsite creates new hazards from both storage and in transport to Hanford, as well as from treatment. These hazards are unique to each waste type.
    e. USDOE has failed to detail in its permit application, despite requirements in the Washington Administrative Code for TSD units, the types, quantities and sources of proposed TRU waste shipments to Hanford. This provides Ecology with ample authority to include language precluding storage of offsite TRU, as does the requirement of SEPA to consider mitigation measures to prevent specific adverse impacts.
    f. Absent the ability to store MW and MWTRU in a permitted storage facility – of which CWC would be the only option, after Ecology takes the proposed action – USDOE would not be able to legally import MW and MWTRU to Hanford. The same is true for RH TRU, for which USDOE has said it will either store in CWC or in the Ecology Interim Status permit LLBG, where storage or placement of MW is not permissible.
    g. Ecology's statement that the HSWEIS fails to evaluate treatment and storage of significant quantities of TRU wastes from other sites demonstrates that Ecology views the import, storage and treatment of these wastes as posing potential for significant adverse impacts on human health and the environment. Issuing a permit for the facility, without precluding such storage of offsite wastes (which Ecology has full authority to do both as a mitigation measure under SEPA , and under authority pursuant to RCW 70.105), would therefore trigger a determination of significance and require a full EIS – as Ecology has demanded from USDOE for this very set of impacts!
2. Ecology comments on the HSWEIS note that "USDOE continues to struggle to achieve and maintain overall compliance with mixed waste management at Hanford, particularly with regard to characterization, storage, and treatment of mixed waste."
    a. Heart of America NW has repeatedly provided Ecology with documentation of improperly manifested and improperly characterized wastes that were sent to either the LLBG for burial or CWC for storage. Ecology has acknowledged that

these lapses in performance are serious – they also extend to characterization of the radionuclide content and hazard of wastes stored at CWC.

b. Ecology's admission that USDOE's ability to properly characterize, store and treat MW at Hanford, including CWC, are inadequate and do not demonstrate a strong record of compliance requires that the potential for such violations to occur, and their potential impacts and possible mitigation measures, be addressed in a full EIS. Ecology clearly raises this expectation of USDOE for its HSWEIS, and finds that USDOE has not provided this analysis. Therefore, Ecology must require this analysis in a full EIS pursuant to SEPA, before Ecology can issue a permit to allow USDOE to implement the proposed actions.

Ecology Comments on Frist Draft EIS were Considered in Preparing Revised Draft EIS

3. "Throughout the Draft HSW-EIS the text is incomplete or silent on RCRA regulatory authorities for waste management facilities, in particular with regard to the LLBG, but also to other facilities such as… CWC, WRAP… Waste management, permitting, closure and post-closure requirements for RCRA treatment, storage and disposal (TSDs) and waste management units are not identified…. Without clarity on RCRA applicability and extent, bounding conditions can not be properly established and thus alternatives can not be adequately evaluated."

   "The Draft HSW-EIS does not adequately address the regulatory requirements for modification of the Part B permits for Central Waste Complex (CWC)…and the Waste Receiving and Processing Plant (WRAP) Facility."

   "The Draft HSW-EIS does not address the regulatory requirements associated with mixed waste and mixed Transuranic waste storage and treatment at CWC, WRAP and T Plant."

   a. **The above statements of Ecology demonstrate that Ecology believes that an EIS is necessary to address the regulatory requirements for this very permit under consideration, and for which Ecology has proposed to issue a DNS**.
   b. The permit is silent regarding TRU storage and treatment, and the DNS fails to address the fact that Ecology believes that such storage and treatment has the potential for significant adverse impacts on human health and the environment.
   c. Treatment of TRU, previously proposed by USDOE and still under consideration, includes thermal treatment, which poses unique and high environmental and health impacts, which USDOE has formally recognized and entered into a consent order to consider alternatives. Many of the wastes in question include flammable materials, which were intended to expedite thermal treatment (incineration). This creates significant potential impacts, as does the acknowledged generation of flammable gases from stored wastes.

4. "The Draft HSW-EIS does not address the treatment requirements associated with mixed waste under Washington law (RCW 70.105.050)."
   a. Again, Ecology acknowledges the same point made in our comments that treatment requirements must be addressed under RCW 70.105, and that the treatment of MW, and MWTRU (or all TRU) has significant potential adverse impacts on human health and the environment.

Ecology Comments on Frist Draft EIS were Considered in Preparing Revised Draft EIS

5. USDOE has acknowledged that its proposed offsite treatment of MW is likely to not come to fruition, requiring "enhancement" of onsite treatment capacities or new onsite treatment capacities at CWC or WRAP. The permit mentions additional treatment capacity, but fails to address what treatment will be permitted. An EIS is required to address the potential impacts of treatment and all reasonable alternatives.
    a. In commenting on the HSWEIS, Ecology states that the EIS "analysis should include environmental and cost impacts" from new or enhanced treatment capacity.

6. Ecology has full authority to impose all appropriate measures to ensure safe handling and storage of waste currently at CWC and WRAP pending an EIS and revised permit, pursuant to our comments. At the same time, Ecology has full authority to bar the addition of offsite wastes to these facilities, whose purpose was to ensure storage and treatment capacity for Hanford Clean-Up generated wastes. It is inexplicable that these facilities were allowed to be constructed and operated to receive wastes – especially offsite wastes – without a RCRA permit being issued. USDOE delayed the issuance of the permit through its own appeal of permit conditions, while illegally proceeding to operate the facilities without a permit, including the receipt of offsite waste for which there was no exigent circumstance relating to safety at Hanford justifying receipt and storage without a permit.

    Under other circumstances, for another PLP, Ecology would be within its rights to require that the operator return all offsite waste from an unpermitted facility to the generators.

    USDOE should be informed by Ecology that it is fortunate that Ecology has not taken the action to require the return of all offsite waste to the generators from these unpermitted facilities, while Ecology undertakes a full SEPA review of the proposed permit with EIS, since the draft HSWEIS will not be adequate for SEPA purposes relevant to the issuance of the RCRA permits for these facilities.

At this time, SEPA and RCW 70.105 require issuance of a Determination of Probable Significant Impact and an EIS on the proposed permits and related actions (including cumulative impacts); or, modifications to the permits to bar offsite waste receipt, and major modifications as we suggested in our comments on the permits themselves (e.g., to eliminate authorization for any treatment that is not described, require a plan for treatment to prevent storage of flammable materials and generation of flammable gases, to require adequate characterization) to mitigate potential impacts.

The following is our original expression of concern over the permits and DNS, which we include for your review and reconsideration. At the time, we were willing to take a wait and see attitude whether USDOE's HSWEIS would be adequate to meet SEPA requirements for this set of permit modifications. However, Ecology''s own analysis of the draft HSWEIS clearly shows that the USDOE HSWEIS is not adequate for this purpose.

Statement on RCRA Permit Modification

-----Original Message-----
From: gerry-pollet [mailto:gerry-pollet@msn.com]
Sent: Friday, April 19, 2002 11:33 PM
To: Hill, Tim; Willey, Mary J.; Wuennecke, Mary Anne; Power, Max; Mears, David (ATG); Shorin III, Joseph (ATG); Dennis Faulk (E-mail); Turner, Joy
Cc: hoa; Betty Tabbutt (E-mail); Tom Carpenter; 'Todd Martin (E-mail) '; yvonne_t_sherman@rl.gov; Brown, Pamela; Ken Niles (E-mail); douglas.s.huston@state.or.us
Subject: Permit Modification Public Comment Period: SEPA issues; offsite waste related concerns

Dear Tim: Thank you for sending us the notice of the RCRA permit modification comment period.

We believe that the permit modification public comment period should not end before the comment period on the Solid Waste EIS. The issues are extensively related, and our ability to comment on the permit depends on the adequacy of the EIS and the information in the EIS. At this time, it is clear that the Hanford Solid Waste EIS will not meet legal adequacy requirements of Washington's State Environmental Policy Act (SEPA) - which requires full consideration and analysis of impacts and alternatives in an EIS. We urge you to communicate this to USDOE immediately, unless the RCRA permits preclude all offsite wastes from being accepted in the covered facilities.

Permit conditions for waste acceptance will have signficant impacts on human health and the environment, which will vary depending upon the types, quantities and generators of offsite waste being sent to the covered facilities - if the permit allows for any offsite generators to send waste to these facilities. Impacts from waste acceptance criteria will vary according to whether the other pending EISes and related decisions lead to the use of liners, leachate collection and adequate closure plans. Thus, it is not possible to comment upon the adequacy of the criteria in the permit without knowing the conditions relating to disposal in each of the relevant burial grounds. Nor is it possible to comment upon the adequacy of waste acceptance criteria and other conditions for the Central Waste Complex, without knowing the nature of the wastes to be shipped, and time periods that other wastes (including non-RCRA wastes, such as TRU, which could create significant impacts) will be stored. The impacts will also depend upon the abilities of offsite generators to comply with Washington State Dangerous Waste Management Act requirements and the permit conditions. The track record of the generators is, therefore, relevant. Thus, we need to see if the EIS addresses that record, or we will need to fully develop our comments on the record of illegal disposal and inadequate waste characterization, tracking and manifesting.

If the USDOE EIS is not legally adequate under State law, in regard to the issues raised above, then SEPA will require a separate State EIS. Related decisions can not be piecemealed to avoid full consideration of the environmental impacts of interrelated decisions. This principle applies even if some of the key decisions are by another governmental agency, which does not adequately consider and disclose impacts in its own EIS.

We have recently provided you with documents showing that USDOE-Richland was actively planning to accept Mixed Wastes of various types - including TransUranic wastes - at the facilities that would be covered by this RCRA permit modification. The Seattle Post-Intelligencer confirmed this week that USDOE was, indeed, actively pursuing this course of action - which would follow issuance of the Final EIS. However, the EIS is not likely to cover impacts of these wastes - including the impact of acceptance of these offsite wastes "taking priority" over Tri-Party Agreement activities (as stated in the Solid Waste Forecast documents).We have also documented extensive failures of offsite generators to characterize, track and manifest wastes in accordance with Washington State law and USDOE's own waste acceptance criteria.

In summary, we firmly believe that the comment period needs to be coextensive with the comment period on any relevant EIS - including the Hanford Solid Waste EIS. Secondly, we urge Ecology and the Attorney General's Office to inform USDOE that if the Solid Waste EIS fails to adequately disclose and consider impacts and alternatives, then the permits can not be modified without a separate Washington

Statement on RCRA Permit Modification

State SEPA EIS. Therefore, we urge you to inform USDOE that an adequate EIS must fully consider and disclose impacts of all specific waste streams and quantities proposed to be imported to Hanford for storage or burial (Washington State law and WAC requires closure plans revealing quantities and types of dangerous waste for permitting purposes), the use of liners in all burial grounds containing dangerous wastes, the record of generators and their abilities to properly characterize wastes, the subsidy of offsite waste acceptance with Hanford Clean-Up funding, and similar issues. The SEPA EIS must also consider the positive benefits of the RCRA permits limiting waste quantities for these facilities to those quantities and waste types forecast to be required from the cleanup of Hanford, and barring import of additional Mixed Wastes for disposal or long-term storage. The State is aware, as we are, that USDOE does not currently plan to cover these issues within the scope of its pending Draft Solid Waste EIS. Thus, the State should forcefully inform USDOE (after having said this with great patience for five years since the issuance of the Waste Management PEIS) that it will not permit the facilities without adequate SEPA analyses and public comment.

Sincerely yours,

Gerald Pollet,
Executive Director and General Counsel,
Heart of America Northwest and
Legal Advocates for Washington

PS: please include this letter as comment for the record on the permit modifications.

Dear Gerry,

Thank you for your note.

Key members of our permitting team are out of the office until May 6. I'll discuss extending the comment periods with them when they return. I'll let you know as soon as a decision is made.

The official notices must go out by the 2nd. They will give notice of 45 day comment periods for each modification. We will send a second round of notices should a decision be made to extend the comment periods.

I have forwarded your comments to Laura Ruud and Brenda Becker-Khaleel for inclusion in the record.

Thanks again.

Tim

---

[i] Washington Dept. of Ecology, August 21, 2002; "General Comments, Washington Department of Ecology, Draft Hanford Site Solid Waste Program Environmental Impact Statement"; at P. 4.

^Solid Waste EIS - DOE

From: gerry-pollet [gerry-pollet@msn.com]
Sent: Wednesday, June 11, 2003 6:32 PM
To: hsweis@RL.GOV
Cc: hoa
Subject: Appendix to Heart of America Northwest comments on Ground water monitoring

Michael Collins,
Document Manager
Revised Draft hanford Solid Waste EIS

Dear Michael,
Attached is the appendix on ground water monitoring to our main comments on the revised draft Hanford Solid Waste EIS. These comments elaborate on, and document, the comments in the main body of our comments and are a part of them. They also elaborate on and explain the power point presentation (slides copies sent to you in US Mail) on ground water issues that I made at the hearings.

Thank you,
Gerald Pollet
Heart of America Northwest
1305 Fourth Ave. #208
Seattle, WA 98101

email: office@heartofamericanorthwest.org
phone: 206-382-1014

Ground Water Monitoring Appendix
to Comments of
Heart of America Northwest and
Heart of America Northwest Research Center
on the revised draft Hanford Solid Waste EIS
June, 2003

- **The EIS fails to describe the characterization and monitoring needs to meet regulatory compliance, characterization, assessment and other pertinent data gaps for the assessment and associated implications.**
- **The EIS must assess current conditions and their impacts, along with the impacts of failing to be in compliance with ground water monitoring requirements.**
- **The EIS must consider reasonable plans for bringing the existing facilities, especially the Low-Level Burial Grounds, into compliance with Sections 3004 and 3005 of the Solid Waste Disposal Act and Washington State regulations.**

1 The current monitoring system does not meet RCRA and Washington regulatory compliance requirements. USDOE has been formally notified by Washington Ecology that there is a huge deficiency in the number of wells for the detection, delineation and assessment of ground water contamination from the burial grounds and nearby units. Curing these deficiencies would reuire installation of 100 to 200 additional ground water monitoring wells.

Simply put, you can not monitor ground water with wells that no longer reach ground water. Most of the wells around the LLBGs are dry or will be soon, and many of the remaining wells are not in the appropriate locations given changes in ground water flow, uncertainty in modeling and locations of hazardous waste disposal.

In the revised draft HSWESI, USDOE failed to mention the Notice of Deficiency (NOD) findings issued by Ecology for the LLBG Part B Permit Application (as mentioned in the Ground water portion of the main body of our comments), which included groundwater monitoring program deficiencies. Deficiency number 17 specifically identified a well spacing evaluation which indicated the need for additional wells at the Low-Level Waste Management Areas

The HSWEIS fails to consider the implications of the lack of adequate data on the inventory of waste through characterization. There is a total lack of inventory information on the chemical and hazardous waste in the burial grounds. As our attached "Review of the Performance Assessments for the Hanford Low-Level Burial Grounds" documents, USDOE has failed to consider the presence and releases of hazardous wastes. This results in the improper assessment of risk and impact to the environment. the use of the System assessment Capability model is belied by the little amount of information we do have on actual inventory of hazardous wastes and releases, which the model fails to predict. For instance, the model would not predict the documented releases and transport to ground

water of hazardous substances from the commercial low-level waste site and of carbon tetrachloride from LLWMA 4.

- **USDOE ignores RCRA closure, post closure and corrective action requirements for the entire burial grounds:**

The HSWEIS is required to consider the actual conditions and plans to remedy violations.
USDOE admitted in its Part A application that the entire Low-Level Burial Ground units are RCRA regulated: The entire LLBG are claimed by USDOE to have interim status as RCRA TSD unit (as per LLBG dangerous waste permit application, Form 3, Rev 12). Therefore, the entire RCRA TSD units are subject to RCRA closure, post-closure, and RCRA corrective action (where applicable) requirements of WAC 173-303. these are not addressed in the slightest in the RSHSWEIS.

1

In fact, the interim status for these units expired and they can not be said to have interim status as if permitted. 42 USC 6925(i)(2) and (3). The law requires the loss of interim status if the facility is not in compliance with all applicable ground water monitoring requirements. 42 USC 6925(i)(2)(B). USDOE has been formally notified that it lacks a compliant ground water monitoring system.

Therefore, the only legal action that the EIS can consider is the immediate cessation of disposal of wastes in the unlined Low-Level Burial Grounds – all f which lack legally compliant ground water monitoring systems. Furthermore, USDOE is obligated to propose actions and a plan to bring those monitoring systems into compliance, which we believe should take a maximum of two years from today.

-USDOE fails to address the requirements of WAC 173-303-400 for ground water monitoring at interim status units, which applies to the entire unit, as a land-based TSD. Further, this EIS must propose a reasonable plan and mitigation to bring the facility into compliance. Before more waste from offsite is added, these facilities must be brought into full compliance.

- **The revised draft HSWEIS Does Not Acknowledge information / or conditions on the suspected releases from the burial grounds (e.g. LLWMA 4, and the commercial US Ecology site) and deficiencies associated with existing groundwater monitoring network.**