



Tri-Party Agreement

HANFORD CLEANUP AGREEMENT QUARTERLY MEETINGS

FEBRUARY 5, 1992, 6:30 P.M.
PASCO, WASHINGTON

FEBRUARY 6, 1992, 6:30 P.M.
VANCOUVER, WASHINGTON



Welcome

Mary Getchell, Washington State Department of Ecology, opened the Hanford Cleanup Agreement Quarterly Meetings welcoming the public to their Quarterly Meeting. Getchell introduced key Ecology, U.S. Environmental Protection Agency and Department of Energy representatives at the meeting. She briefly discussed the meeting agenda, stressing the agenda was developed based upon prior public comments.

Opening Comments

Pasco:

Ron Izatt, Energy, welcomed the public to the meeting. Izatt gave an overview of the Hanford Federal Facility Agreement and Consent Order, commonly known as the Tri-Party Agreement or Hanford Cleanup Agreement.

The mission of the Agreement is to ensure the efficient, safe and timely cleanup of the nuclear and hazardous wastes produced and stored at Hanford for nearly 50 years. While achieving the goal of cleanup, guarding public health and the environment are of paramount importance.

Izatt discussed the meaning of "cleanup"--bringing Hanford into compliance with current State and Federal law. He stressed the job of cleaning up Hanford is massive--in terms of millions of gallons of waste, people and billions of dollars. He spoke of developing new cleanup technologies.

Izatt defined EPA and Ecology as the regulators and Energy as the implementors of the cleanup work. He talked about the difficulties in meeting the aggressive clean up schedules in the Agreement.

He highlighted recent successes of the Agreement.

Ecology and Energy signed a wastewater discharge Consent Order. The consent order requires tighter controls on the treatment, management and permitting of wastewater discharges. The Consent Order was a direct result of public comment. In the original Agreement, EPA and Ecology saw significant deficiencies with the management of wastewater discharges. The regulators insisted on stronger controls over the discharges.

Expedited Response Actions--or ERA's--are a method we were proud to employ in streamlining paperwork and moving ahead on the cleanup schedule. We got leaking barrels of hexone out of the ground, we dug up contaminated silt to protect groundwater, and we started removing carbon tetrachloride from the ground.

Izatt talked about the ERA's successes in making an impact on cleanup.

Izatt stressed the seriousness of the Agreement and highlighted the Agreement's milestones or schedules. He discussed the fact that the three parties have not met all of the milestones spelled out in the Agreement and that circumstances required changes in those schedules.

He spoke about recent discussions about the pretreatment of wastes and construction plans for the Hanford Waste Vitrification Plant. The vitrification plant will turn Hanford high level liquid wastes into glass. He said we are working toward an April 1992 construction start date and a December 1999 hot start of operations date. He said that the three parties are reexamining the pretreatment strategies.

Izatt stressed that the Quarterly Meeting is the public's meeting. He discussed that the format and topics for the meeting are based upon past public comments.

Vancouver:

Roger Stanley, Ecology, welcomed the public to their Hanford Cleanup Agreement Quarterly Meeting.

Stanley gave a brief overview describing the Hanford Federal Facility Agreement and Consent Order--commonly known as the Tri-Party Agreement or Hanford Cleanup Agreement. The Agreement was signed by Ecology, EPA and Energy in 1989.

The mission of the Hanford Cleanup Agreement is to ensure the efficient, safe and timely cleanup of nuclear and hazardous wastes which have been produced, disposed and stored at Hanford for nearly 50 years. And, in achieving this goal, it is of paramount importance to guard public health and the environment.

The Cleanup Agreement aims to clean up and bring the Hanford facility into compliance with state and federal environmental laws.

Bringing Hanford into compliance is a massive task--there are millions of gallons of waste, it will require many people, billions of dollars and the development of new technologies. Nothing of this scale has been done before.

Stanley described EPA and Ecology's roles as regulators of the Agreement and Energy as the "doers" or implementors of the cleanup work. He said the Agreement requires the three parties to work cooperatively to meet agreed upon schedules.

Stanley highlighted successes of the Agreement.

In December, Ecology and Energy signed a wastewater discharge Consent Order. The Consent Order implements an aggressive management, treatment, and permitting schedule for the 33 major waste streams discharging at Hanford today. A significant component of the Consent Order establishes the State's authority for regulating wastewater discharges under Washington State's water quality protection law.

Since the signing of the Agreement, both the public and the regulators called for stronger regulation measures for the wastewaters. The Consent Order and draft changes to Milestone 17--the TPA schedule which regulates wastewaters--are an answer to those concerns.

Stanley talked briefly about the Expedited Response Actions--ERA's--a method to streamline paperwork and move cleanup ahead of schedule.

Removing carbon tetrachloride from the ground is one successful ERA conducted at Hanford. We hope to make more use of the approach in the future.

Stanley called the Cleanup Agreement a process as well as an agreement.

We have not met all of the milestones as originally set forth in the Agreement. Changes have been made by the three parties as circumstances required. An example of that process is the consultation now underway about pretreatment of wastes and construction plans for the \$1.6 billion Hanford Waste Vitrification Plant.

Pretreatment is the process of separating the high-level and low-level wastes in Hanford's underground waste storage tanks. Vitrification is the process of transforming high-level radioactive waste into glass to be poured into canisters for permanent disposal.

Although we are moving ahead with construction of this plant on schedule, we are also reexamining the pretreatment strategy for the waste that will go into that plant. All parties agree that the pretreatment strategy envisioned when the Agreement was signed cannot be used.

In December high-level discussions, between the three parties concluded that the plant construction would begin in April of this year and that the "hot start" operations of the plant would begin in December of 1999.

The three parties concluded that B-Plant would not be used for pretreating wastes, because the plant is old and would have difficulty in meeting today's environmental standards.

Since December the three parties have continued talks to work toward the "hot start" date. One solid date resulting from those talks is May 1993--the pouring of the concrete foundation of the Vitrification Plant is scheduled to begin.

Another operation of pretreatment is sending the low-level wastes to grout--the process of transforming wastes into a cement-like substance. The next grout vault is planned to be poured in October of this year. The million gallon grout vaults are a final disposal of low level wastes at Hanford.

Stanley stressed that the meeting is the public's meeting.

The agenda is a direct result of previous public comments and inquiries. We encourage you to complete an evaluation form telling us your thoughts about the meeting.

The Hanford project managers, along with myself and other decision makers involved in the cleanup, factor your comments--that we hear tonight--into cleanup activity decisions.

Visual Overview of Hanford Cleanup

Ken Morgan, Energy, gave a slide presentation providing a visual overview of Hanford cleanup.

Meeting Format

Pasco:

Getchell discussed the meeting format. Explaining that small group discussions would provide the public with an opportunity to speak with the regulators and scientists involved in the cleanup. The public had an opportunity to move from group to group. Approximately half-way through the small group discussions, Getchell announced that the small group discussions would be concluding in approximately 30 minutes, and the public may want to take the opportunity to move to another group.

The four groups discussed pretreatment/vitrification, wastewater discharges, the Hanford Facility Wide Dangerous Waste Draft Permit, and Hanford general information. An Ecology, EPA or Energy presenter gave a brief overview of each topic. After each presentation, the public asked questions, stated concerns and exchanged information with Ecology, EPA, Energy and Westinghouse Hanford Company representatives.

Following is a summary of the issues discussed in each group. The indented material reflects information and answers presented by Ecology, EPA, Energy or Westinghouse staff representatives.

Pretreatment/Vitrification

Transportation:

Shielding as it pertains to transportation

The current plan is to interim store canisters underground, that storage will provide shielding. The shielding configuration planned for shipment containers is to be determined.

Glass Logs:

Stating glass logs is misleading

The preference is to call the structure glass canisters, because liquid molten glass will be poured into canisters.

The integrity of the glass logs

The canisters do contain fractures, they are brittle; void space in canisters for gases.

Geologic repository proposed for glass canisters is being considered in Nevada.

Cleanup Schedules:

Schedule driver of the December 1999 hot start date

The December 1999 date is the original Hanford Cleanup Agreement date determined.

DOE had proposed accelerating analyses to 1996 - What has changed?

Priorities to cleanup

Some of the factors are safety concerns, technical feasibility/development and projected as immediate needs.

Vitrification Plant:

Feasibility of April 1992 Hanford Waste Vitrification Plant construction date Hi-level discussions between the three parties said "yes". Three parties are closely examining/studying progressive dates.

- Vitrification Plant building structures are slated for 1993
- Excavation for building projected for 1993 or end of 1992. Concrete pouring for the foundation is scheduled for May 1993.

B Plant technically out of environmental compliance.

Following are some of the drawbacks with using B Plant for pretreatment.

- Piping not double wide
- Design pedigree difficult to meet standards
- Difficult for B Plant to meet today's compliance standards

Feed stream to vitrification plant

Program for pretreatment is being studied in three phases

- Sludge washing in-tank, projected to provide eight years of feed.
- Chemical processes, leaching
- Treatment vault for additional capabilities.

Tanks:

Single Shell Tank (SST) Waste retrieval decision deferred/being studied, evaluated.

Exploration/development technologies to stop SST leaking.

Tank characterization (process to determine the components in the tanks); what percentage of components are liquid?

The composition of each tank is unknown and being determined with characterization.

106 C is receiving liquid to cool water: 106 C is the only SST receiving additions; 106 C SST is one of the earliest tanks planned for remediation--removing materials from the tanks for treatment.

Analysis procedures used today may not work for all tanks.

What is the vision regarding resources for the tank characterization that is planned?

Triple-shifts in labs to accommodate for sample testing' hot cells availability is a high need.

Current sampling in 101SY: Double Shell Tank, known as the "burping" tank Hanford's 177 tanks are made of carbon steel. The new tanks planned for Hanford are projected to be a combination of carbon steel and stainless steel.

In-Situ Vitrification applicability to SST Waste treats: in-situ considered less developed than vitrification.

Cleanup Costs:

\$50 Billion large cleanup figure

How does the cost of cleanup relate to protecting human health and the environment?

Contaminant Migration:

Radioactivity migration to rivers

Plans to eliminate tank waste migration is under development. Some technologies being explored include

- freeze barrier
- program to pump liquid out of SST into Double Shell Tanks (DST) to minimize migration.

Well-drilling may be a catalyst for the migration of contaminants.

Grout:

Grout: long live transuranic elements; materials going into grout lower-level. The first grout vaults poured at Hanford, do not have high organic levels.

Composition of grout

Form of concrete. Fly ash is a major component.

Low-level material projected to be sent to grout.

Organic destruction methods

Most methods involve chemical oxidation

Some methods involve water or calcination

Incineration is not being considered

Scheduling of grout

Pouring of the second vault is scheduled for October 1992.

Wastewater Discharges

Current levels of contamination in direct discharges into river; especially sediments analysis (from past operations)

Lateral spread of ground contaminants

Process to identify how standards are established for transuranic wastes

Milestones addressing current wastewater discharges

The primary milestone scheduling the management, treatment and permitting of wastewater discharges is Milestone 17.

BAT (Best Available Technology) should include economic criteria

Cessation of liquid discharges to U-14 ditch would allow surface located contaminants to dry out and go airborne.

Processing 1800 M tons of nuclear fuel material will require start-up of Calcine Plant.

Off-site handling of laundry materials will transfer contaminants to another location.

Insertion of treated waters into groundwater can assist underground flows.

Is there a layer of stratified carbon tetrachloride below groundwater?

Hanford Facility Wide Draft Permit

Relationship between existing Environmental Impact Statements (EIS) and the permit.

The primary EIS for the permit is the Hanford 1987 site-wide EIS.

Permit Process: why is one being issued, rather than one for each unit, specifically WNP 2 (Washington Public Power Supply System Nuclear Plant).

One permit is being issued with general and standard conditions, then each treatment, storage and disposal unit at Hanford will be placed as modifications to the permit, with operating or closure specifics for each unit.

WNP 2 is applying for their own Dangerous Waste Permit.

Westinghouse and Battelle are being listed as co-permittee.

Contractor's liability may continue after contractor leaves.

What will be issued for public comment, what will not and why.

Penalties if permit is violated.

Budget relationship to permit.

How are units in interim status affected by Permit.

The vitrification plant permit - ability to start construction - affect on pre-treatment facility.

Hanford General Information

Wastewater Discharges:

Effluent (liquid) going into groundwater and possible affects of community's drinking water.

Thorough examination of groundwater; dollars allocated toward groundwater studies.

Surveying sediments near dams for radiation.

What is the depth of groundwater, beneath the soil?
 Contaminants may filter out in the soil before going to the groundwater.
 Contaminants in drinking water. Many people believe our drinking water is contaminated. Can't convince some people it's not contaminated.
 Farmers using water coming from Hanford site.

Land Use:

Future land use for Hanford. What goal does Hanford have for the land; what work will continue after the site has been cleaned up?

Future weapons production at Hanford and disenchantment with the waste cleanup.

"How clean is clean"

Citizens' group for future site use - where is the group; how and what are they doing? Possible interim plan before actual plan is complete.

External groups such as HEAL who have a say with the future use of Hanford.

Future site use group and how one becomes involved; who is involved already?

Public wants to be heard regarding future site use. They feel left out if they don't belong to a large group or don't yell the loudest.

Consideration of those that lived on the Hanford Site before the Manhattan Project, first before the external groups have a say. Original landowners should be a part of the future site use citizens' group.

Need public input before the EIS comes out for future site use.

Pretreatment/Vitrification:

How deep to go down for vitrifying waste.

Vitrification plant - operations at Savannah River.

Use of B Plant - what are the other options for pretreatment?

Funding:

Funding for environmental cleanup as it relates to other national priorities.
 Cleanup at other sites.

Grout:

Grout - what will happen to the (grout) waste in the future? Will it still be close to water?

More discussion of the grout process at the future meetings.

Public Participation:

Location for existing or other forms of communication to find out about Hanford Cleanup.

Public's questions and concerns need to be answered and addressed in an open and direct manner.

Need to communicate to public in a manner or level everyone can understand, too technical - impression Hanford is trying to hide something.

Schools and PTAs are good sources for Hanford to communicate their message.

Tremendous audience Hanford is missing. Need to educate about Hanford and radiation.

Hit a broad - base of subjects. Don't get too technical.
 Need to get the community involved to communicate about Hanford cleanup and let others know where they can get more information.
 Groups within the community, such as Autobahn Society, would like more information about the cleanup of Hanford. They would like to tell others about cleanup.
 Citizens should give general information about Hanford without getting into technical information.
 Put health monitoring in terms people can understand.

Other Issues:

Amount of spent fuel from N Reactor and how long it will take to treat and dispose of fuel?
 Bringing weapons from Umatilla to Hanford Site
 Westinghouse offers very little in the area of retraining in the environmental field. More needs to be done with retraining if Hanford is to clean up the site.

Vancouver:

The public attending the Vancouver meeting elected to participate in a large public meeting forum--discussing the evening's topics (Hanford Facility Wide Draft Permit; wastewater discharges; pretreatment/vitrification; and general Hanford cleanup issues) in a large session versus small group discussions.

An Ecology, EPA or Energy presenter gave a brief overview of each topic. After each presentation, the public asked questions and stated concerns.

Hanford Facility Wide Draft Permit

What does "permit" mean?
 Under who's authority is the permit issued? Who's responsible for the enforcement and oversight of the permit?
 The process lets government officials play "ring around the rosy". Everyone says a particular issue is not their responsibility, but another agency's responsibility.
 Until Washington has full authority over Energy, the feds still have all enforcement authority.
 What is the dispute resolution process?
 With so much waste already at the site, why is more being brought to Hanford? (i.e. submarine reactor compartments)
 Why can't cleanup go faster, given the amount of money being spent at the site?
 Why hasn't the public had any say in the issuance of the permit? It's already out without public comment?
 Concerns in this area are for the Columbia River. Hanford is a threat to us and we don't get to have a hearing to comment. We want a hearing here.
 Why aren't the tribes consulted in TPA issues, given how close the site is to reservations?

When will the tribes be involved in site selection decision making, such as on the MRS (Monitored Retrieval System) issue?
Store the waste on Reagan and Bush's land.

Wastewater Discharges

I understand that some of the waste streams won't be stopped until 1995 - or has that date changed?

Some will stop before then, but others must continue because they are important to cleanup work and safety issues.

Why can't you just stop them now?

Most buildings on-site are heated by steam in the 200 area. They need water to cool them and the water has to go somewhere. A framework for disposal is being developed. Disposal will involve knowing what is being released, in what amounts and where to try and limit the impact on currently contaminated areas.

How many streams are now operating? How many come from production?

Didn't know specifically how many are operating, but none are from production.

Has sufficient mapping been done to know where the groundwater is and where the contaminants are going?

Yes, but work is continuous. We can always know more.

Federal and state law says that wastewater has to be treated to be discharged. 300 yards away from the Columbia River Energy will discharge 210 million gallons of liquid water this year, with agreement from the state. This is going on top of current contamination and is spreading it to the Columbia. In 1960 the average measurement of Cobalt-60 in the river was five thousand times more downstream of the site than upstream. In March 1989, when the TPA was signed, the milestone stated that in December 1991 a waste treatment facility would be built to treat any wastewater discharges that might continue. Energy said funding was not available to build the facility, that the money had been used on other things. If Boeing can't dump waste water, why can Energy? PUREX will be started this year with cleanup funds. 85 million gallons of untreated wastes will go to Z-20. Nearly a billion gallons will be discharged. Pouring a billion gallons on top of what's already there will send more waste into the river faster. The deal was signed in secret, without Ecology going out and explaining it and gathering public comment. Seven million dollars were spent for road and lighting improvements in the area where work is being done on Star Wars research at the site, and 70 million on PUREX. All defense work.

In cleanup, three thousand units have to be brought to safety standards through decontamination and decommissioning. EIS proposed to take what's left of the reactors and move them to the 200 area. There is plutonium in facilities because they were shut down at various stages. That also left them in various states of safety. To clear out those facilities of plutonium left behind costs about 70 million dollars. The plutonium will not go to buttons, but will be stabilized through processing for safety. The ultimate end is to close the facilities, and destroy them if necessary.

70 million dollars has been budgeted specifically for PFP (Plutonium Finishing Plant). In September 1991, Ken Morgan said the mission documents for PFP were classified. Are they still? Will the resulting product be classified as waste, or weapons grade plutonium?

Plutonium is classified under the Atomic Energy Act, congress will decide the ultimate disposition.

When are you going to update information distributed to show things like the submarine reactors entering Hanford? They raise the level of waste at the site.

Long term storage is the only way to deal with some elements. They have been concentrated in dangerous amounts. Congress makes the decisions on where the storage should be. Either federal land must be used, or they have to condemn private land, and people don't like that.

Starting in-situ vitrification takes a lot of power. Where will it come from?

Energy will buy it, if the technology is chosen.

Will decontamination and decommissioning entail the restart of reactors or just change existing materials to a more stable form?

It will not start reactors. Only FFTF (Fast Flux Test Facility) is currently running on site, and it may close in April if different funding is not found.

I understand that some of the discharge is going straight into the soil.

There is no liner or anything? No lined trench or tank?

A piping system distributes the waste in a trench so it is not concentrated in one spot on the soil, but there is no lining. Energy has budgeted for four more tanks.

Is David Leroy associated with USDOE?

(No one knew the name.)

Pretreatment/Vitrification

Are the grout vaults earthquake proof?

Yes, they meet all federal standards. The waste tanks are not, and that's part of the reason that the waste needs to be removed.

Are the grout vaults able to withstand floods?

Yes, that was also taken into account in construction.

Doesn't cement disintegrate in about 50 years?

Cement is only part of the grout vault system. It is also made up of lining, etc. Also, the cement is of a different composition.

Isn't the half life of radioactivity much longer than 500 years?

The radioactive material going to grout is short-lived. Different types of radioactive material have different half lives. The longer-lived are going to vitrification.

Will bioremediation be considered or used?

In the soil, yes, but in the tanks probably no.

Will bioremediation be considered in managing leaks in tanks?

Perhaps, but more study is needed.

So the leaks won't be dealt with until the waste in the tanks is removed?

The plans are in review.

What is the capacity of the vitrification plant?

100kg per hour output, with ten tons of waste feed processed a day.

Hanford General Information

We appreciate the work you have done, but are still concerned about continued wastewater dumping into the soil with the problems already there. The time frame for cleanup and stopping the discharge is too long. Some people seem excluded from the process.

Yakimas are involved, as is Oregon.

Is Heart of America included in the process? They seem to have good input.

We meet with all interested groups on a regular basis and maintain contact.

We like having the regular watchdog meetings. We learn a lot. We don't like learning about things after the fact, like the wastewater consent order. There is no program in the country that is trying as hard to bring people into the decision making process. We do have an adversarial relationship, but do work together.

I appreciate all the people here, and I've learned a lot from talking to them. You need to have the hotel better informed about the meetings. I spoke with several hotel staff members who had no idea a meeting was occurring, when or where. Use the media better, find ways to force them to come to the meeting. Keep the citizen participation going. We need a meeting for Portland, having it in Vancouver breeds mistrust in Oregon.

Will there be another meeting in Vancouver in the next two years?

Yes, there is one in the area annually.

I want to see public hearings in Portland on all Energy issues (i.e. complex 21 hearings). How do we get a meeting in Portland?

Request one.

Conclusion/Wrap up

Pasco:

Issues discussed in the small group sessions were presented to the entire group. The public asked questions in the large group forum.

The meeting ended at 9:00 p.m.

Vancouver:

Thanks and appreciation was stated for the groups' participation.

The meeting ended at 9:00 p.m.