PUBLIC HEARING

Re: The Niagra Falls Storage Site
Draft Environmental Impact Statement

Meeting held at the Main Auditorium,
Federal Building, Richland, Washington,

on

Monday, September 24, 1984,

at

7:30 p.m.

Moderator: Ms. Judy Tokarz, Department of Energy

Panel Members: Mr. Lowell Campbell, Department of Energy
Mrs. Pamela Merry-Libby, Argonne National Laboratory

September 24, 1984

Richland, Washington

P R O C E E D I N G S

MS. TOKARZ: Good evening. My name is Judy Tokarz. I am a senior external affairs specialist for the U. S. Department of Energy's Richland Operations Office. I will be Moderator for this public hearing in connection with the Draft Environmental Impact Statement of long-term management of radioactive wastes and residues at the Niagra Falls Storage Site.

This public hearing is being convened on September 24, 1984, at 7:30 p.m. at the Federal Building in Richland, Washington.

We appreciate each of you taking the time to come and join us this evening.

The Draft Environmental Impact Statement which is the subject of this public hearing assesses the environmental impacts of various alternative wastes and residues now stored at the Niagra Falls Storage Site near Lewiston, New York. Among the alternatives being considered are to ship the materials to the DOE Hanford Site for long-term storage. Although ongoing interim remedial actions have been taken at the New York storage site to improve containment of the wastes and residues, DOE must decide how to manage these radioactive wastes

for the long term.

Under the National Environmental Policy Act, the U. S. Department of Energy is required to consider the impacts of its proposed action on the quality of the environment.

On October 19, 1983, a public scoping meeting was held in Oak Ridge to obtain public comment and suggestions on topics or concerns which should be considered in preparing a draft environmental impact statement. A draft environmental impact statement is subject to review or comment by appropriate Federal, state and local environmental agencies and the public. Copies of the Draft Environmental Impact Statement have been distributed to Federal, state and local agencies and to various organizations in New York, Tennessee and Washington states.

To assist in obtaining comments, DOE has conducted public hearings in Lewiston, New York and Oak Ridge, Tennessee and is conducting this public meeting in Richland. After such comments are received, a final impact statement will be prepared which will consider comments received on the Draft and indicate how any significant issues raised during the review process have been resolved. All comments made at this hearing plus any written statements received by DOE by October 9,

1984, will appear in the transcript. Written and oral comments will receive equal consideration.

Copies of the Draft Environmental Impact Statement have been placed in the Public Library in Richland and the public reading room in the Hanford Science Center. Copies of the transcript of this public hearing will be available at these same locations.

Persons wishing to make comments at this hearing were invited to register in advance. Persons who have not submitted a written request in advance may register at the desk at the entrance of this auditorium. Each speaker will be given 15 minutes to give their comments. Copies of the Draft Environmental Impact Statement are available at the -- are available at the sign-up desk.

You may also indicate on the registration sheet at the sign-up desk if you would like to receive a copy of the final Environmental Impact Statement.

I would like to state again that the purpose of this public hearing is to receive public comments on the Draft Environmental Impact Statement prepared for the long-term management of radioactive wastes and residues at the Niagra Falls Storage Site. The hearing will not be conducted as an evidentiary hearing, and those who choose to make statements will not be questioned except as needed by the Moderator for

clarification.

We are not here today to explain or justify the Draft Environmental Impact Statement but to see that everyone who wishes to comment has an opportunity to do so in an atmosphere that encourages maximum public participation.

I will now introduce the members of our panel. They are Mr. Lowell Campbell, Deputy Director of Technical Services Division at the Department of Energy, Oak Ridge Operations Office, and Mrs. Pamela Merry-Libby, Niagra Falls Storage Site Project Leader for the Argonne National Laboratory.

Mr. Campbell will present a brief description of the Niagra Falls Storage Site, and then Mrs. Libby, Merry-Libby will provide a review of the national Environmental Policy Act. I will then call the members of the public who have registered to speak in the order in which they have signed up.

MR. CAMPBELL: Good evening, ladies and gentlemen. I'd like to give you a brief summary of the Niagra Falls Storage Site Project. I'd like to cover the purpose of the Environmental Impact Statement, the background of the project, the Department of Energy's long-range plans, and finally, the alternatives that the Department of Energy considered.

The purpose of the National Environmental Policy Act is to ensure that environmental factors are included in Federal government's decision-making process. The purpose of doing the Environmental Impact Statement for the Niagra Falls Storage Site is to evaluate environmental impacts of options for long-term management of the waste at the Niagra Falls Storage Site and to provide a basis for judgment concerning environmental advantages and disadvantages of options for the final record of decision.

DOE decision-making process for the Niagra Falls Storage Facility Site, in the beginning we decided that an environmental impact statement was needed. We then published a Notice of Intent in the Federal Register. We did that in February of last year.

Then we went to the scoping process which also started with a public meeting in February, and then we had another public meeting in October of 1983, and then we obtained written comments and oral comments during this scoping process which brings us to today.

We have published a Draft Environmental Impact Statement. We are having public review and comments, meetings which are public hearings. We have had one at the Niagra Falls Storage Site in Lewiston, New York. We had one in Oak Ridge, Tennessee, and we are having

a third one here tonight.

We have approximately 45 days for public review and comment, and then we will publish a final environmental impact statement, and right now we are scheduled to do that by the end of this year.

Again, we will have a public review period, have another 30 days for the review. We will obtain other input from other agencies in the government and the states. We will hopefully have a record of decision early next year.

Once we have a record of decision, we will proceed with the chosen alternative through the detailed design and engineering, and then we will follow it with the remedial action.

Very briefly, I'd like to give you some background of the Niagra Falls Storage Site. It's about a 190 acre DOE-owned site which is fenced with limited access, and it's part of a former 1500 acre Manhattan Engineering District Site which was part of the former Lake Ontario Works -- Excuse me, the former Lake Ontario Ordinance Works.

Starting back in 1944, the site was used for storage of residues which resulted from processing uranium ores. The Federal government now owns these wastes and residues stored at the Niagra Falls Storage Site. There is

approximately 15,000 cubic yards of residue stored at Niagra Falls, and approximately 240,000 cubic yards of waste stored at the Niagra Falls Storage Site.

This just shows the location of the site. It's near Lewiston, New York, and we have designated Niagra Falls Storage Site. Next diagram, please.

This is to give you an indication, after we have done the interim remedial action, to obtain control of the site, we have a waste containment area. All the waste and residues will be stored in this waste containment area as you can see on this site.

To repeat, our long-term plans are to complete the Environmental Impact Statement. The Department of Energy then would make a record of decision. We would prepare a detailed design and engineering for the selected alternative, and then we would accomplish the remedial action. Next diagram.

We have essentially looked at four alternatives. The first alternative is no action alternative which is when we have done the interim cleanup and store it in the dike-kept containment area. We would simply maintain and provide surveillance and maintenance.

The second alternative is simply to upgrade the containment for long-term storage with either the residues as they are or modified form of the residues.

The third alternative is one that we want to talk about here tonight. The residues and wastes could be moved to Richland. The residues and wastes could be moved to Oak Ridge, Tennessee.

And the fourth alternative which is a subset of this alternative would be only move the residues to Richland, Washington or Oak Ridge, Tennessee and leave the waste at the Niagra Falls Storage Site or dispose of the wastes in the ocean.

Could we see the diagram that shows the location? This is the location of the alternative we are looking at here at the Hanford in the 200 area.

Now, Ms. Merry-Libby will give you a summary of the analysis of the Draft Environmental Impact Statement.

MRS. MERRY-LIBBY: Hi. I am Pamela Merry-Libby, and I am from Argonne National Laboratory. We were a contractor -- are a contractor to the Department of Energy. We provided the technical analyses done during the Environmental Statement.

Before I get into too much detail, I want to emphasize, there is two kinds of materials at the site. The residues are a much more radioactive than wastes. These are the residues from the pitch-blend ores, and they have like an average radium concentration of about 67,000 ppm per gram whereas the wastes are simply

slightly contaminated soils that have been dug out of ditches and from nearby properties and are piled up essentially on top of the residues -- on top. The residues are a very small percentage of the volume but represent most of the radioactivity at the site.

The conceptual design for this interim storage, no-action alternative is shown in this figure. The cap on this, for this design basically you will notice there is a .9 meters, three foot layer of clay. Now, in the Environmental Statement, a key section is Section 2. That is what is called the heart of the EIS. This is the comparison of alternatives, and this is the summary of all the major impacts that we analyzed, and in a form that compares one alternative to the other.

Of course, there is a lot more detail of the affected environment on each of the three sites, at most of the sites, and there is great detail on each of the different subject matters in terms of environmental consequences as risks, and also in the appendices there is even more detail on engineering, transportation, things like that.

A quick review of the alternatives. Alternative 3-A is where both waste and residues would be brought to Hanford. 4-A and 4-B is where the residues only would be brought to Hanford.

To bring everything to Hanford, the residues would have to be packaged. They have to have packaging, and some of them maybe even shielding in order to protect the public and the workers handling and transporting the residues. The wastes, however, are not even considered radioactive under the transportation regulations, and they would be shipped in bulk.

For our analysis, we assumed bulk on large dump trucks. However, we also looked at various options that included train transport all or part of the way.

When they were brought to the Hanford Site -- well, first of all, it would be a long way to come out here. That's shown in this slide. The burial area that was used for analysis is an extension of an existing waste management area on the Hanford Site. We call it the 218 West 5 area which is just off of the 200 West area.

The method of burial would be similar to the practices that are currently used at the site. One additional note is the layer of rock, this riprap layer, this was also assumed for the conceptual designs for the long-term management at Niagra Falls with the improved type cap and also for the alternative at Oak Ridge. Basically this is a layer to inhibit intrusion by people, plants, animals down into the contaminated materials.

The fourth alternatives, quick review, where the waste would either remain at Niagra Falls or be taken to an ocean disposal site off the coast of New Jersey and the residues would be packaged, transported and then brought to Hanford or Oak Ridge.

Now, we had to do the analysis and break up the time frame because what could be one alternative could be worse than another if you looked at simply the impacts of digging it up, transporting it, reburying it and then it could flip-flop and look different if you looked at potential long-term impacts such as contamination of ground water or potential loss of containment, so we looked at an action period of roughly about ten years, what we call the maintenance and monitoring period.

Now, this is based on EPA mill tailings regulations which state that for these types of materials, that is, materials that are contaminated with naturally occurring radionuclides, you should have containment for at least 200 years to the extent reasonably practical for -- reasonably achievable -- I can't remember which, for another 800 years up to a 1000 years, and of course, one had the question, well, what if -- what happens beyond that, and we said well, what happens if you have loss of all controls such as you don't monitor; you don't maintain; you don't even control the land use, then what

if you simply had a partial loss of controls where you still controlled the land, but you didn't let severe erosive use of that land, but you didn't necessarily maintain the cap or monitor the ground water. All right.

I apologize for some of these. They are hard to read, but if you happened to notice when you came up, you can pick up a copy of these slides out on the desk in the lobby.

I have underlined those alternatives where the materials would be brought to Hanford. This is non-radiologic health impact. They are primarily associated with transporting the waste. This is injuries and death both to the people that are driving the vehicles and to members of the public who are involved in the accidents. Clearly, if you bring all the materials out to Hanford, you can have up to, say, four deaths and 66 injuries. This is based on highway statistics.

If you bring the residues, you lower that by about 10 percent -- to about 10 percent because you are just simply not transporting as much material.

The occupational injuries and deaths can also be very high if you have to move all the materials, up to, say, 100 injuries, and this is just based on the specific activities that people would be involved in and some

statistical information on the kinds of injury rates you could expect for those kinds of occupations.

One of the key impacts we looked at was radiological impacts. Of course, we had to look at various pathways to man, how things could be released, where, what kinds of exposures you could get, what devastations you could have to people and then translate that into health effects, and of course, we were concerned about both the general public and workers, and within the general public, individuals who could receive higher doses as well as a general population dose, and of course, we had to look at all sites, transportation routes, and we had to look at all three time periods.

Now, in the action period, and these impacts, if you look, are much higher than the long-term impacts for several hundred years, and this is primarily a result of moving the residues, particularly because that's where most of the activity is. Any of those alternatives whereby you removed the materials from the Niagra Falls Site to the Hanford Site, you can have some expectation of risk of fatal cancer and genetic defects, but it's all very, very low.

One of the long-term considerations, of course, is loss of control, and one way to lose control is to have that cap of materials removed. We looked at two

extremes of land use. These turned out to be the two primary factors that will control this radiological loss. There is others that we discussed as well, and we assumed -- It's agricultural for Hanford. That's just a generic term. Actually, we assumed intensive grazing out here and natural vegetation. It doesn't make much difference. You have much higher erosion rates out here than you do out East, but at any rate, the cap would last at least that 1000 years that the EPA regulations state.

A key pathway to people from this material is the radon gas that is emitted, and at Hanford, because of the dryer climate, the materials allow radon gas to pass through more easily, and therefore, for all the Hanford alternatives, you clearly have a much higher release rate of this radon gas, and if you lose control, when you start eroding that cap, you can really start increasing the radon emission rates.

Now, just as a point in time, we looked at radiological impacts in terms of cases per million persons per year at the year 1000. We don't know what the relative populations at these sites will be a 1000 years from now, so we just took a million people and placed them around the sites and looked at comparative bases.

If you had equal populations at all those sites,

at Hanford, because of a higher radon release, you have a higher impact, but it is still a very low impact, and particularly low when you consider the health effects one might expect simply because of natural radiation.

Another consideration was contamination of ground water, particularly at the two humid sites. At Hanford, this is not a problem. We put a theoretical well right on site next to the contaminated areas and did a dispersion analysis, and at that year 1000, that key point in terms of the mill tailings regulations, there still was not any contamination in that well, and it took 35,000 years to reach maximum concentration. This was for radium 226.

We looked at several other impacts such as a resident intruder. This was a scenario whereby it was assumed that a person built a house on top of these materials when you lost control some day and had a garden, drank the water, and clearly wherever the residues are, this person would receive a very high dose.

Various site integrity considerations such as flooding, and out here particularly the severe erosion and drought, slope and cover failure wasn't so much of a problem out here because you use the trench design rather than the mounded design, ecological impacts such as effects of plant roots and animal contamination, and

for instance, then we thought well, because you have a dry climate, the plant and animal species are adapted to those conditions and tend to go deep, and therefore, you have almost as much problem here in the long term as you would out east in the humid climate.

Other impacts such as impacts on marine environment, and of course, the key thing here was how much of this material could get in fish and man could possibly ingest it. Basically, it boiled down to, because of the location of this disposal site, in an area that there is not very many fish, and using even a hypothetical case, if one of those fish swims back to New York where there is commerical fishing and a person eats it, it simply raises the radium content in that fish .000-some percent above what's already in that fish naturally.

Socioeconomic impacts, several things, including, I would point out historic culture resources, the site at Hanford would probably have to be looked at in terms of potential historic resources from old Indian cultures.

Institutionals, this is just a generic areas such as regulation. Right now, for instance, you can't really dispose of the stuff in the ocean, and those regulations would have to be forthcoming. You would have to have some Congressional action, for instance, in order to get funding to do any of these alternatives.

We also looked at other options, different ways of retrieving packaging, loading the material, modifying the different -- modifying the residues so they wouldn't be as -- the radon emission rates wouldn't be as high and they wouldn't be as leachable. Different containment options, basic modification to designs, we looked at as well as completely different kinds of designs.

I mentioned before transportation modes such as train, and of course, different transportation routes. Basically the route we used for the analysis was interstates with the least population along the route integrated over that distance.

Now, all this information, comparison, the different options, all the different kinds of impacts, the three different time periods and wherever possible, if we identified an impact, we tried to identify the potential measure that the Department could use to try to reduce that impact, and all this information then will go to the DOE decision-maker in making a decision on how to manage these wastes and residues for the long term.

That's it.

MS. TOKARZ: We have two pre-registered speakers this evening. One is representing the Hanford Oversight Committee, and the other, Tri-City Nuclear Industrial

Council.

Would Mr. Larry Caldwell, representing the Hanford Oversight Committee, please come forward for comments?

MR. CALDWELL: Here (indicating)?

MS. TOKARZ: Either place.

MR. CALDWELL: Are you the hearing officer (indicating)? You are the hearing officer (indicating)?

MS. TOKARZ: Moderator.

MR. CALDWELL: Is this all right? Is this working?

I just have a short statement I want to read into the record and will be forwarding the specific concerns regarding the Draft of the Environmental Impact Statement before the closing period of October 9.

MRS. MERRY-LIBBY: Is this working (indicating)?

MS. TOKARZ: Could we switch microphones?

MR. CALDWELL: Is it working now? Okay.

I just have a short statement I want to make on the record, and our group will be forwarding specific concerns regarding the Draft before the closing date of October 9.

My name is Larry Caldwell, and I reside at Richland, and I am here tonight representing the Hanford Oversight Committee. It's an educational non-profit, state-chartered corporation representing a broad cross section of the citizens of this region.

We are much alarmed by the nuclear programs going on at Hanford, and we are particularly concerned about the massive interment and misinterment of nuclear waste at the Hanford Site.

The proposal by DOE to dump additional waste and residues from the Niagra Falls Storage Site at Hanford has further alarmed us.

The Manhattan Engineering District was not formed to win the war for Washington state alone. The fruits of victory over the Axis powers were enjoyed by all of the states and regions. Therefore, the burdens, we sincerely believe, should be shared in an equitable manner.

Just because the Reservation is owned by the Federal government, that is, DOE, and is eagerly receptive to all things nuclear, does not justify dumping all the country's nuclear waste at Hanford. There are many, many sites in the U.S. suitable for long-term storage of these lethal wastes, and DOE should be actively hoarding these areas for terminal storage and wastes similar to materials located at Niagra Falls.

The people of the Northwest are tired of acting as the nation's garbage dump and will not stand for DOE's de facto designation of Hanford as the nuclear sacrifice area.

We do not want the Niagra Falls wastes or residues. We want Hanford cleaned up.

Thank you.

MS. TOKARZ: Thank you.

The next pre-registered commentor is Mr. Robert Ferguson, President of the Tri-City Nuclear Industrial Council.

MR. FERGUSON: Thank you, Coordinator?

MS. TOKARZ: Moderator.

MR. FERGUSON: Moderator. Thank you, Moderator.

Members of the panel, before -- I do have a statement on behalf of the Tri-City Nuclear Industrial Council, but before I make that statement, for the record, I would like to comment that I spent about ten years of my professional career at Argonne National Laboratory and at ORSORC (phonetically), and I do respect the integrity of the analysis, but I would suggest that for the benefit of the public, in presenting some of the information, for instance, on radon, that you equate that with the radon that exists in mines in Montana where people pay to go sit there for some perceived benefit of health just so the public might have some perspective of the dose that is calculated and how that does relate to common doses that people experience in their everyday living.

For the record, my name is Bob Ferguson, and I am President of the Tri-City Nuclear Industrial Council. I would like to thank you for the opportunity to comment on behalf of the Council on the Draft Environmental Impact Statement, the long-term management of existing radioactive wastes and residue at the Niagra Falls Storage Site.

The Tri-City Nuclear Industrial Council is an organization of business, industrial, professional leaders and organizations dedicated to fostering the growth, prosperity and a better lifestyle for this region.

For the past 20 years we have been the recognized leader in the economic development of Hanford and the Tri-Cities.

One of our responsibilities is to work with the local Department of Energy office on important issues that affect our community and the nation. We want to do our full part to carry out the mandate established by Congress through the Economic Waste Policy Act as it is clearly in the national interest.

We here in the Tri-Cities and in particular the people of Hanford are working hard to meet our commitment to that process. However, we don't believe that the state of Washington should be the disposal site for all

radioactive wastes, and therefore, strongly, and I'd like to reiterate, strongly oppose the transfer of this waste from the Niagra Falls Storage Site.

We feel strongly that other regions, too, should bear a similar obligation to assume their fair share of responsibility.

Equally pertinent, we believe, is the fact that of the nine alternatives presented in the Environmental Impact Statement, the Hanford disposal easily stands out as the most expensive and impractical. The costs and logistics are overwhelming. The summary of the Environmental Impact Statement plainly states this fact. Transferring the waste to Hanford would require that 16,000 truckloads of for the most part very low level contaminated dirt be transported nearly 3,000 miles across the continent over a five year period at a cost of up to 260 million dollars.

With the current concern as great as it is over reduction of the Federal deficit and the tremendous need for effective and efficient use of Federal funds, an expenditure of over a quarter of a billion dollars when compared to the much smaller costs of other workable alternatives would be in our opinion a gross insult to the American taxpayers.

To proceed with the alternatives involving Hanford

disposal of the Niagra Falls Storage Site wastes and residues, when these could be readily disposed of in the vicinity or general region of their present location, is in our opinion neither intelligent nor in the best interests of our country.

We want to emphasize that our position is not based on safety concerns. We are confident that the waste could be safely transported to Hanford for disposal. However, we do believe that the disposal of radioactive wastes should be a regionally-shared responsibility and that the people of the state of Washington have a legitimate concern that our state will become the sole disposal site for all radioactive wastes. Accepting the Hanford alternatives for the Niagra Falls waste could be a step in our opinion in that direction.

We need intelligent funding and planning in order to maintain the important defense and energy-related programs at Hanford so that we can do our part to effectively serve the security and energy needs of the nation. The limited Hanford waste management resources, both financially and technically, should continue to be applied to solving Hanford's problems: Developing new waste management technology and receiving for disposal of the wastes for which the Hanford Site is uniquely qualified by virtue of location, access or

special capability. The Niagra Falls Storage Site wastes and residues do not meet any of these criteria, and as such, we are totally against the alternatives.

I thank you on behalf of the Council for the opportunity to express to you the position and views of the Tri-City Nuclear Industrial Council. I am speaking on behalf of our membership, a true cross section of the cities of Kennewick, Pasco and Richland, and I assure you that our track record is quite good on those things both that we favor and those things that we oppose.

Thank you very much.

MS. TOKARZ: Thank you.

The floor is now open for any additional commentors.

We appear not to have any additional commentors right at this time. We will keep the meeting open until 8:30 in case we should have someone that should arrive a little later, so we have about 20 minutes.

(Recess.)

MS. TOKARZ: It is now 8:30. Do we have any other commentors?

The meeting is adjourned. Thank you.

(End of proceedings.)

C E R T I F I C A T E

I, VICKIE WHITE, do hereby certify that these proceedings were taken in Stenotypy by me at the time and place aforesaid and were thereafter reduced to typewritten form; that the foregoing is a true and correct transcript of the proceedings therein had.

IN WITNESS WHEREOF, I have affixed my signature this 1st day of October, 1984.

Vickie White

Vickie White, Notary Public in and for the State of Washington, residing in the City of Pasco.

My commission expires December 30, 1987.

REFERENCES

1. U.S. Department of Energy. "Guidelines for Residual Radioactive Materials at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites," Final Draft, Oak Ridge, TN, November 1984.

2. New York Compilation of Rules and Regulations, Title 6, Chapter 360. "Solid Waste Management Facilities," Section 360.8(c)(12)(i)(e), effective March 9, 1982.

3. Bechtel National, Inc. Waste Containment Design Report for the Niagara Falls Storage Site, Draft, Oak Ridge, TN, June 1984.