



START

9513360.0133

0040214

Department of Energy

Richland Operations Office
P.O. Box 550
Richland, Washington 99352

FEB 07 1995

95-PCA-150

Mr. Steven M. Alexander
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West Fourth Avenue
Kennewick, Washington 99336

Dear Mr. Alexander:

REQUEST FOR WAIVER OF THE REQUIREMENT FOR A THREE STEP SUBMISSION OF DOCUMENTS FOR INDUSTRIAL FACILITIES (PROJECT L-070)

This submittal constitutes the request for waiver of the requirement for a three step submission of documents for industrial facilities, pursuant to Washington Administrative Code (WAC) 173-240-110(5), for Project L-070, 300 Area Process Sewer Piping Upgrade. The U.S. Department of Energy, Richland Operations Office (RL) further requests that the State of Washington Department of Ecology (Ecology) grant the waiver by the end of February 1995, in order to support the start of construction of the project. Project L-070 is a replacement piping system in the 300 Area which will collect process wastewater for conveyance to the 300 Area Treated Effluent Disposal System for treatment. The project itself does not entail treatment or disposal of wastewater.

RL previously requested a regulatory interpretation from Ecology regarding whether the engineering report and documentation defined by WAC 173-240 would be required for Project L-070. Ecology responded in a letter to Mr. James D. Bauer, RL, dated January 11, 1994, that they believed the required three-step submittal of an engineering report, plans, and specifications could be waived under WAC 173-240-110(5) provided RL submits an operation and maintenance manual and conceptual plans including the information required by WAC 173-240-130(2)(a), (e), (h), (i), (j), (n), (s), (u), (v), (w), and (x). 36899
28490

Enclosed is information from the Advanced Conceptual Design Report (ACDR) and the Project L-070 300 Area Sewer Upgrade Value Engineering Study (VE). Also provided as part of the enclosure is the State Environmental Policy Act Checklist for Project L-070. The information provided is intended to fulfill the requirements identified in Ecology's letter with the exception of an operations and maintenance manual which has not been prepared for the project. Ms. M. Selby, Ecology, indicated verbally that the operations and maintenance manual may not be required for Ecology to grant the waiver.



Mr. Steven M. Alexander
95-PCA-150

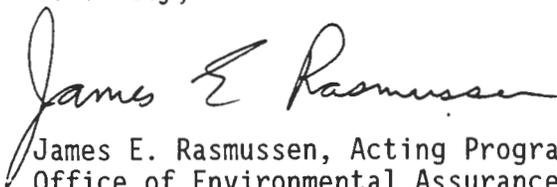
- 2 -

FEB 07 1995

Transmittal of these documents supports the Hanford Federal Facility Agreement and Consent Order Interim Milestones, M-17-06J, "Submit design documentation for the 300 Area process sewer piping replacement to EPA [U.S. Environmental Protection Agency] and Ecology by April 1995," and M-17-06K, "Replace the 300 Area process sewer piping beginning at five feet outside the contributor buildings and replacing the piping up to the interface point into the 300 Area Treated Effluent Disposal Facility by June 1997."

Should you have any questions, please contact me or Mr. R. N. Krekel of my staff on 376-4264.

Sincerely,



James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:RNK

Enclosure

cc w/encl:

EDMC, WHC

W. Burke, CTUIR

S. Burris, WHC

W. Dixon, WHC

R. Jim, YIN

D. Powaukee, NPT

M. Selby, Ecology

D. Sherwood, EPA

INFORMATION REQUIRED BY THE JANUARY 11, 1994 LETTER,
FROM THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
TO THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE

The following information is provided as required in the January 11, 1994, letter from Ms. M. A. Selby, State of Washington Department of Ecology (Ecology) to Mr. James D. Bauer, U.S. Department of Energy, Richland Operations Office (RL), in response to a request for regulatory interpretation from Mr. J. E. Turnbaugh, RL, regarding the submission of an engineering report for Project L-070.

WASHINGTON ADMINISTRATIVE CODE (WAC) 173-240-130(2)(a) - TYPE OF INDUSTRY

Nuclear

WAC 173-240-130(2)(e) - DESIGN DATA AND SIZING CALCULATIONS

The Advanced Conceptual Design Report (ACDR), WHC-SD-L070-ACDR-001, provides a conceptual description and plan of the project, but is not an engineering document, so is not based on calculation. Ecology has been informed that the ACDR has not been released for transmittal off the Hanford site. This is acceptable to Ecology as long as the ACDR is available for review at a specified location, and the sections that provide the information required by the January 11, 1994, letter from Ecology to RL are referenced.

The ACDR's principal use is to establish the budget and schedule for the project. ACDR Sections IV and VI describe the project scope, requirements, and assessments to which the project will comply. ACDR Section VII discusses the project uncertainties. ACDR Appendix K provides the conceptual drawings of the project. The ACDR may be reviewed at Mr. H. E. Wellsfry's Office (Trailer MO-264, in the first group of trailers at the south George Washington Way entrance to the 300 Area). Please call Mr. Wellsfry on 372-0812 to schedule review of this document. This information is currently being developed in definitive design and will be submitted with the plans and specifications to the U.S. Environmental Protection Agency and Ecology upon completion in accordance with the Hanford Federal Facility Agreement and Consent Order interim milestone M-17-06J (April 30, 1995).

WAC 173-240-130(2)(h) - MAPS AND LAYOUT

These are located in Appendix K of the ACDR.

WAC 173-240-130(2)(i) - BYPASS PROVISIONS

There are no bypass provisions. The process sewer is currently flowing at 150-180 gallons per minute (gpm). The Treated Effluent Disposal Facility (TEDF) sump can handle 1000 gpm for six hours or 800 gpm for fifteen hours. TEDF can process 300 gpm continuous flow. So rather than bypassing unusual flows, the system is sized to store the portion of flow greater than 300 gpm. The worst case flow is $200 + 180 \text{ gpm} = 380 \text{ gpm}$ for twelve hours and 280 gpm there after. Therefore, there is no anticipated need to bypass the process disposal system.

WAC 173-240-130(2)(j) - SPILL CONTROL

Spill control will be handled administratively as specified in:

WHC-IP-1000, "300 Area Liquid Effluent Facilities Administration," Section 3.3., "Waste Acceptance Criteria for the 300 Area Process Sewer System and the Treated Effluent Disposal Facility."

This document is available at the 300 Area TEDF and at the Westinghouse Hanford Company (WHC) Central files at 300 Area, Building 3706, Room 210.

WAC 173-240-130(2)(n) - RELATIONSHIP TO EXISTING FACILITIES

The attached index (Attachment 1) identifies the 62 buildings which are currently connected to the 300 area process sewer system, including the 26 buildings which will be disconnected under project L-070, "300 Area Process Sewer Piping Replacement."

WAC 173-240-130(2)(s) - OWNERSHIP, OPERATION, AND MAINTENANCE OF THE FACILITY

RL will own the facility, WHC will operate and maintain the facility for RL.

WAC 173-240-130(2)(u) - FUTURE PLANS

The system is being designed for 25 percent more flow capacity to meet future additions.

WAC 173-240-130(2)(v) - ALTERNATIVES CONSIDERED

Re-lining existing system, new vacuum, pressure and gravity flow systems were considered. The alternative chosen by the "Project L-070 300 Area Sewer Upgrade Value Engineering Study", WHC-SD-L070-ES-001, was replacement of the existing system with a new combination of vacuum, pressure and gravity systems.

WAC 173-240-130(2)(w) - TIMETABLE FOR CONSTRUCTION

Start: February 1995
Complete: December 1996

WAC 173-240-130(2)(x) - STATEMENT OF COMPLIANCE WITH STATE ENVIRONMENTAL
POLICY ACT (SEPA)/NATIONAL ENVIRONMENTAL POLICY ACT

A SEPA Checklist for the project is being submitted as Attachment 2 to this enclosure. An Environmental Assessment is currently under review by RL.

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
1	303-F J. A. Remaize	< 1 gpm	5 gpm	Will not be connected to Project L-070 Process Sewer.
2	303-J W. A. Hooper	0 gpm	0 gpm	PNL Building will not be connected to Project L-070 Process Sewer.
3	303-M J. A. Remaize	0 gpm	0 gpm	Will not be connected to Project L-070.
4	304 J. A. Remaize	0 gpm	0 gpm	Will not be connected to Project L-070.
5	305 W. H. Hays	< 1 gpm	20 gpm, f= 1/day, d= 1 hour	WHC Building will be connected to Project L-070 Process Sewer.
6	305-B W. A. Hooper	0 gpm	0 gpm	Will not be connected to Project L-070.
7	306 East J. C. Krogness	5 gpm (NE corner)	30 gpm, f= 1/day, d= 3 min	WHC Building will be connected to Project L-070.
8	306 West W. A. Hooper	10 gpm	100 gpm PS, f= 2/year, d= 24 hours	PNL Building will be connected to Project L-070.
9	308 J. M. Steffen	0 gpm	0 gpm	Will not be connected to Project L-070.
10	309 W. H. Hays	10 gpm 2 gpm 2 gpm	120 gpm sump f= 3/day, d= 10 min 4 gpm (east side), 4 gpm (east side),	WHC Building will be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
11	311 J. A. Remaize	0 gpm	0 gpm	Will not be connected to Project L-070.
12	313* J. A. Remaize	2 gpm	5 gpm (east) 5 gpm (southwest) Two common discharge points	Will not be connected to Project L-070.
13	314 W. A. Hooper	10 gpm 10 gpm	38 gpm (N) PS f= 1/hour, d= 5 min 10 gpm (W) PS f= continuous, d= n/a	PNL Building will be connected to Project L-070.
14	318 C. L. Nelson	2 gpm 10 gpm	2 gpm (N) PS f= continuous, d= n/a 60 gpm (SW) f= 1/hour, d= 5 min	Building will be connected to Project L-070.
15	320 C. L. Nelson	5 gpm 10 gpm	75 gpm (east), PS f= 1/hour, d= 5 min 60 gpm (W) PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
16	321* W. H. Hays	0 gpm	0 gpm	Will be not be connected to Project L-070.
17	323 C. J. Nichols	1 gpm	30 gpm (NE), PS f= 1/7 days, d= 5 hours	PNL Building will be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

95360.013

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
18	324 L.E. Maples	20 gpm (W) 0 gpm high bay 30 gpm (W)	80 gpm (W) RPS f= 1/hour, d= 5 min 200 gpm (NW) PS f= 1/year, d= 12 hours 60 gpm (W) PS, f= 1/hr, d= 5 min	PNL building will be connected to L-070.
19	325 P. J. Gaither	20 gpm	50 gpm RPS f= 1/30 min, d= 5 min.	PNL Building will be connected to Project L-070.
20	326 C. J. Nichols	15 gpm 10 gpm	30 gpm (S gravity) RPS f= 1/hour, d= 5 min 20 gpm (N gravity) PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
21	327 W. A. Hooper	20 gpm	50 gpm (SE) RPS southeast corner f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
22	329 C. J. Nichols	10 gpm 10 gpm	20 gpm (N) PS f= 1/hour, d= 5 min 10 gpm (N) to 326-RPS f= continuous, d= N/A	PNL Building will be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
23	331 R. M. Abraham	20 gpm 20 gpm	40 gpm (W) PS f= 1/hour, d= 5 min 30 gpm (E) PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
24	331-A R. M. Abraham	0 gpm	0 gpm PS	Building will not be connected to Project L-070.
25	331-D R. M. Abraham	1 gpm	10 gpm PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
26	331-E R. M. Abraham	1 gpm	10 gpm PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
27	331-J R. M. Abraham	0 gpm	0 gpm	PNL Building will not be connected to Project L-070.
28	333 J. A. Remaize	5 gpm	4 gpm (E) 2 gpm (SE) 4 gpm (W)	Will not be connected to Project L-070.
29	334 J. A. Remaize	0 gpm	0 gpm	Will not be connected to Project L-070.
30	335 J. W. Biglin	0 gpm	0 gpm	Will not be connected to Project L-070.
31	336 R. M. Abraham	1 gpm	30 gpm (W) PS f= 1/day, d= 4 hours	PNL Building will be connected to Project L-070.
32	337 R. M. Abraham	3 gpm	50 gpm PS f= 1/30 min, d= 5 min	PNL Building will be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

20250909

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
33	337-B A. S. Ikenberry	5 gpm	50 gpm f= 1/30 min, d= 5 min	PNL Building will be connected to Project L-070.
34	337-B High-bay W. H. Hays	5 gpm	100 gpm f= 6/day, d= 30 sec	WHC Building will be connected to Project L-070.
35	338 P. J. Dotson	5 gpm	20 gpm (south) d= 1 hr., f= 1/day, summer only.	KEH fabrication shop will be connected to Project L-070.
36	340 L. W. Roberts	2 gpm	5 gpm	Building will be connected to Project L-070.
37	382-B** J. L. Day	1 gpm	10 gpm (combined 4" & 12" discharge) d= unknown, f= seldom	Fire Pump house will be connected to Project L-070.
38	382 J. L. Day	10 gpm	10 gpm (gravity) d & f= continuous	WHC Building with two chlorine monitors will be connected to Project L-070.
39	382-C J. L. Day	2 gpm	10 gpm d= 1.67 hr, f= 1/3 yrs	Building will be connected to Project L-070 (tank discharge).
40	382-D J. L. Day	2 gpm	10 gpm d= 1.67 hr f= 1/3 yrs	Building will be connected to Project L-070 (tank discharge).

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
41	384 J. L. Day	2 gpm water softener 5 gpm blowdown 5 gpm other	5 gpm water softener, <i>d= Continuous,</i> <i>f= N/A</i> 35 gpm blowdown, <i>f= ?, d= 4.77 hrs</i> 30 gpm (cooling tower failure)	Building will be connected to Project L-070.
42	3100 A. S. Ikenberry	10 gpm	20 gpm PS <i>f= 1/hour, d= 5 min</i>	New PNL facility will be connected to Project L-070.
43	3705*** W. H. Hays	0 gpm	0 gpm	Will not be connected to Project L-070.
44	3706* W. H. Hays	10 gpm	20 gpm	Will not be connected to Project L-070.
45	3707-C W. H. Hays	0 gpm	0 gpm	Will not be connected to Project L-070.
46	3708 W. A. Hooper	10 gpm	25 gpm PS <i>f= 1/hour, d= 5 min</i>	PNL Building will be connected to Project L-070.
47	3709 W. H. Hays	5 gpm <i>f= 2/day</i> <i>d= 12 min</i>	10 gpm (north) <i>f= 3/year,</i> <i>d= 1.5 hours</i>	WHC Building will be connected to Project L-070. Eyewash and sink will operated 7:30-8:30 am and 3:30-4:00 pm.
48	3716 J. A. Remaize	0 gpm	0 gpm	Will not be connected to Project L-070.
49	3717 W. H. Hays	2 gpm	2 gpm	WHC Building will not be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
50	3717-B K. L. Chubb	< 1 gpm	3 gpm	Will not be connected to Project L-070.
51	3718-F L. W. Roberts	0 gpm	0 gpm	Will not be connected to Project L-070.
52	3720 C. J. Nichols	5 gpm 3 gpm 3 gpm	10 gpm (E) PS f= 1/hour, d= 5 min 10 gpm (E) PS f= 1/hour, d= 5 min 75 gpm (N) PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
53	3722 P. J. Dotson	0 gpm	0 gpm	Will not be connected to Project L-070.
54	3730 C. J. Nichols	5 gpm	10 gpm (N) Gravity f= 1/hour, d=5 min	PNL Building will be connected to Project L-070.
55	3732 W. H. Hays	0 gpm	0 gpm	Will not be connected to Project L-070.
56	3745-A R. M. Abraham	5 gpm	20 gpm (S) PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070.
57	3745-B R. M. Abraham	5 gpm	30 gpm (N) PS f= 1/hour, d= 5 min	PNL Building will be connected to Project L-070. Steam condensate.
58	3746-A R. M. Abraham	3 gpm	20 gpm (N) PS f= 1/hour, d= 5 min	PNL Labs will be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

253469.0000

ITEM #	BUILDING (BUILDING MANAGER)	Q (AVG) gpm	Q (MAX) gpm [d=DURATION, f=FREQUENCY]	RELATIONSHIP OF FACILITIES TO L-070 PROCESS SEWER
59	3802-A J. L. Day	1 gpm	5 gpm (intermediate)	Will not be connected to Project L-070.
60	3902-A J. L. Day	0 gpm	0 gpm	Will not be connected to Project L-070.
61	3902-B J. L. Day	0 gpm	0 gpm	Will not be connected to Project L-070.
62	350-A*** C. L. Nelson	5 gpm	10 gpm PS f= 1/2 hours, d= 20 min	PNL Paint Shop will be connected to Project L-070.

* POSSIBLE LISTING ON THE NATIONAL HISTORIC REGISTER
 ** NOT DESIGNED TO ALLOW FOR FIRE PUMP RELIEF VALVE FLOWS
 *** POSSIBLE CONNECTION DUE TO CITY OF RICHLAND CONDITION OF PRETREATMENT PERMIT

956666 11/12/02

9513560.0116

Attachment 2
SEPA Checklist
Page 1 of 21

**STATE ENVIRONMENTAL POLICY ACT (SEPA)
ENVIRONMENTAL CHECKLIST FORMS
FOR
PROJECT L-070, 300 AREA PROCESS SEWER
300 AREA, HANFORD SITE**

REVISION 0

JANUARY 1995

SEPA Checklist

Attachment 2
SEPA Checklist
Page 2 of 21

WASHINGTON ADMINISTRATIVE CODE
ENVIRONMENTAL CHECKLIST FORMS
[WAC 197-11-960]

A. BACKGROUND**1. Name of proposed project, if applicable:**

Project L-070, 300 Area Process Sewer Piping Upgrade
300 Area, Hanford Facility, Benton County, Richland, Washington.

2. Name of applicants:

U.S. Department of Energy, Richland Operations Office (RL).

3. Address and phone number of applicants and contact persons:

U.S. Department of Energy
Richland Operations Office
Richland, Washington 99352

Contact Persons:

James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits and Policy
(509) 376-5441

4. Date checklist prepared:

January 23, 1995

5. Agency requesting the checklist:

State of Washington
Department of Ecology
1315 W. 4th Avenue
Kennewick, Washington 99336

6. Proposed timing or schedule: (including phasing, if applicable):

Definitive design for the process sewer upgrade is scheduled to start in January 1995, and construction is scheduled to start later in the year. Construction is scheduled for completion by December 1996.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The 300 Area Process Sewer is discharging to the 300 Area Treated Effluent Disposal Facility (TEDF), which has been constructed and is operational. A separate project is being considered to connect the TEDF to the City of Richland Sewer System through a proposed tie line to the 300 Area Sanitary Sewer if agreement can be reached with the City. The 300 Area process wastewater would then be discharged to the City of Richland Publicly-Owned Treatment Works (POTW).

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

In accordance with DOE "National Environmental Policy Act Implementing Procedures" (10 Code of Federal Regulations 1021), an evaluation of potential environmental impacts associated with the proposed process sewer upgrade was prepared to comply with the *National Environmental Policy Act (NEPA) of 1969*. An Environmental Assessment (EA), *300 Area Process Sewer Piping Upgrade, and 300 Area TEDF Discharge to the City of Richland*, (DOE/EA-0980) has been prepared and is being reviewed by the DOE.

Two milestones for the *Hanford Federal Facility Agreement and Consent Order*, (Tri-Party Agreement) are to submit design documentation for the 300 Area Process Sewer Piping Replacement to the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology) by April 1995 (M-17-06J); and to replace the 300 Area Process Sewer Piping by June 1997 (M-17-06K).

General information about the Hanford Facility environment may be found in the *Hanford Site NEPA Characterization, PNL-6415, Rev. 6, Pacific Northwest Laboratory (PNL), Richland, Washington (PNL 1994)*.

9. Do you know whether applications are pending for government approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

The EPA has issued a National Pollutant Discharge Elimination System (NPDES) Permit to DOE for the 300 Area TEDF discharge to the Columbia River.

10. List any government approvals or permits that will be needed for your proposal, if known.

Under Washington Administrative Code (WAC) 173-240-110(1), the 300 Area Process Sewer would normally require submittal and approval of engineering reports and plans and specifications by Ecology prior to construction. A waiver is being requested under WAC 173-240-110(5) allowing submittal of conceptual plans and appropriate information from the engineering report. This checklist has been prepared for submittal with the *Request for Waiver of the Requirement For a Three Step Submission of Documents for Industrial Facilities (Project L-070)*.

A Notice of Construction (NOC) has been submitted to the Washington State Department of Health for construction and operation of the new 300 Area Process Sewer. A copy of the NOC has been sent to the EPA to satisfy National Emissions Standards for Hazardous Air Pollutants requirements. A copy of the NOC has also been sent to Ecology to satisfy New Source Review.

If the tie line from the TEDF to the City of Richland sewer system is constructed, the city would require DOE to submit a Waste Discharge Permit Application for Industrial Discharge to the City of Richland POTW.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

The proposed project would upgrade the 300 Area Process Sewer System by the construction and operation of a new combined gravity, vacuum, and pressurized process sewer collection system consisting of approximately 36 vacuum collection sumps with vacuum valve pits, several pressure pump stations, and approximately (29,200 feet) of buried polyvinyl chloride or similar pipe. Two buildings would also be built to house a main collection station and a satellite collection station.

The new collection system would be connected to approximately 36 of the existing buildings that still require active process sewer drains. The system would be designed for about 325 gallons per minute (gpm) flow, including extra capacity for connection of additional buildings as necessary and for future growth. The new system would start approximately five feet from each building where a vacuum collection sump and valve pit would be built. The new lines from the collection stations would use two to six inch diameter pipe installed at a depth of approximately four feet. The lines would feed to the satellite collection station and/or the main collection station.

The building at the main collection station would contain duplex vacuum pumps, a vacuum reservoir tank, a water collection tank, water discharge pumps, and monitoring instruments and controls. The satellite station would contain the same equipment with the exception of the vacuum pumps where vacuum is provided by the main collection station. Electrical power, operating controls, level switches, monitoring and alarm systems, and lighting at the collection stations would be part of the new system. Normally, the vacuum pumps would maintain a vacuum range of 16 to 20 inches of mercury within the entire collection system. The water collection tank from the main collection station would discharge through pressure pumps to the collection sump/lift station for the 300 Area TEDF (Waste Collection Sump No. 1) on the north end of the 300 Area. This sump/lift station is being constructed as part of the TEDF to accept the discharge from the existing process sewer.

The vacuum collection sumps would be utilized at buildings with low flow quantities and low head requirements to reach the main collection station. Pump lift stations would be installed at several building locations where higher flows are expected and higher pressure head is required to feed into the collection system.

The new vacuum collection sumps would, in most cases, be connected to the existing drain pipes from the buildings and would be gravity fed from the buildings. The new process sewer pipes would tie into the new vacuum collection stations. Each vacuum collection sump would contain a vacuum valve. Liquid level sensors within the sump would actuate the vacuum valve and cause it to open and close. The vacuum valve would remain open for four seconds, with about two seconds required to remove the liquid and two seconds for air intake, depending upon the size of the collection sump and the operating limits. Advantages of the vacuum system as compared to a pressure system are potentially less initial capital costs, fewer maintenance and operating requirements, a less complex system, and an environmentally safer system, because pipe breaks would not result in pressurized leakage of liquids into the soil.

Much of the excavation for collection sumps and trenching for the new pipe would involve digging through and eventual reconstruction of asphalt or concrete paving in roads, walkways, and parking lots. All trenching would be backfilled.

Most of the present process sewer system would be removed from service following completion of the new system. The only sections of the existing pipe to be removed by this project would be small sections of the lines adjacent to the buildings where the collection sumps would be built or at other locations where the pipes might interfere with trenching. Pipe removed from service would be drained and plugged where it is cut and left in place. Removal of the out-of-service pipe would not be part of this proposed action. The out-of-service pipe and any surrounding contaminated soil from leaks in the system would be included in the Remedial Investigation/Feasibility Study work plans for the 300 Area as part of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* program, and eventually disposed of as part of the remediation program.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit and plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The 300 Area is located in the southeast corner of the Hanford Site about one mile north of the City of Richland and is adjacent to the Columbia River. Most of the 300 Area is developed with buildings, roads, and pavement underlain by compacted sand and gravel-fill material. The work will be carried out in Sections 2 and 11, T 10 N, R 28 E (Willamette Baseline and Meridian).

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____.

The site is essentially flat.

- b. What is the steepest slope on the site (approximate percent slope)?

Approximately two percent

- c. **What general types of soils are found on the site? (for example, clay, sandy gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

The soils and shallow underlying materials within the 300 Area consist primarily of unconsolidated silty, sands and gravels with excellent drainage characteristics.

- d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

No

- e. **Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.**

Trenches will be excavated for the pipes and then backfilled with the excavated material following pipe installation.

- f. **Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Very little erosion is expected. Much of the excavation will be in paved or graveled areas, which will be restored following construction. Areas of vegetation will be reseeded.

- g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

40 percent

- h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Paved or graveled areas will be restored and vegetated areas will be revegetated.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.

There would be a slight potential for airborne emissions of radioactive or hazardous materials resulting from construction of the project. This potential for release would occur during the excavation and tie-in work to the existing drain lines at the 36 or more buildings to be connected to the new system and by excavation for the collection sumps and drain pipes. Particulate releases to the atmosphere would be limited to nonhazardous dust that would be generated for short periods as a result of project construction activities. Release of dust containing radionuclides or hazardous materials to the atmosphere would be strictly controlled.

There would be exhaust gases discharged to the atmosphere from vehicles and equipment used during construction, operation, and maintenance activities. There also would be relatively minor amounts of heat generated by construction equipment and by operating and maintenance equipment.

- b. Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.

None

- c. Proposed measures to reduce or control emissions or other impacts to the air, if any?

All excavation and pipe removal activities would be controlled by procedures and administrative controls that prevent the escape of hazardous airborne emissions. Procedures that might be employed to control airborne emissions would be the use of radiation monitoring and greenhouses with High-Efficiency Particulate Air (HEPA) filters as necessary during excavation and removal of old piping and contaminated soil, and stopping or limiting work during adverse wind and weather conditions. Nonhazardous dust from trenching and construction would be controlled by the use of raw water spraying as needed.

3. Water**a. Surface**

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The Columbia River is located on the east side of the 300 Area about 500 feet from the closest part of the project.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Wastewater from the process sewer will be discharged to the Columbia River after processing in the TEDF in accordance with an NPDES Permit from the EPA and certified by Ecology. The treated wastewater from the TEDF will be in compliance with the limitations listed in NPDES Permit Number WA-002591-7 for discharge to the Columbia River and will be in compliance with water quality standards for the State of Washington. The maximum permitted discharge rate is 325 gpm or 0.468 mgd.

b. Ground

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

None

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

c. Water Run-off (including storm water)

- 1) Describe the source of run-off (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

There will be no surface run-off resulting from the project.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

No

- d. **Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

Landscaped areas (shrubs and grass) disturbed within the 300 Area would be restored following completion of construction.

5. Animals

- a. **Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:**

birds: hawk, heron, eagle, songbirds, other:.....
 mammals: deer, bear, elk, beaver, other:.....Small mammals
 fish: bass, salmon, trout, herring, shellfish, other:.....

The typical insects, small birds, mammals, and reptiles that inhabit the rest of the Hanford Site are found here. The proposed action would take place in previously disturbed ground entirely within the 300 Area fence and would be expected to have very little impact on plant or animal life. Much of the work would be on or near paved or graveled areas and near buildings.

- b. **List any threatened or endangered species known to be on or near the site.**

No species of animal registered as rare, threatened, or endangered are known to depend on the habitats within the 300 Area. The proposed action would not be expected to affect any federally listed threatened or endangered species or its critical habitat.

- c. **Is the site part of a migration route? If so, explain.**

The Hanford Facility is a part of the broad Pacific Flyway for migratory waterfowl.

- d. **Proposed measures to preserve or enhance wildlife, if any:**

None

6. Energy and Natural Resources

- a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

Electricity will be used as the power source for pumps.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There would be a slight potential for airborne emissions of radioactive or hazardous materials resulting from construction of the project. This potential for release would occur during the excavation and tie-in work to the existing drain lines at the 36 or more buildings to be connected to the new system and by excavation for the collection sumps and drain pipes. Release of dust containing radionuclides or hazardous materials to the atmosphere would be strictly controlled.

- 1) Describe special emergency services that might be required.

Hanford Site security, fire response, and ambulance services are on call at all times in the event of an onsite emergency.

- 2) Proposed measures to reduce or control environmental health hazards, if any:

All excavation and pipe removal activities would be controlled by procedures and administrative controls that prevent the escape of hazardous airborne emissions. Procedures that might be employed to control airborne emissions would be the use of radiation monitoring and greenhouses with HEPA filters as necessary during excavation, removal of old piping and contaminated soil, and stopping or limiting work during adverse wind and weather conditions.

All excavation and removal of pipe, residual liquid, and contaminated soil would be controlled by approved radiological and industrial safety procedures and administrative controls that prevent or minimize worker exposure. Radiation monitoring of work areas, use of shielding or remote handling if found necessary, and limitations on individual exposure time would be used to limit worker exposure. Exposure of onsite personnel to radiation doses must be limited by safety procedures to As Low As Reasonably Achievable.

b. Noise

- 1) **What type of noise exists in the area, which may affect your project (for example: traffic, equipment, operation, other)?**

Normal traffic noise and noise from operating equipment.

- 2) **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Operation of construction equipment and a slight increase in traffic would cause slightly increased noise levels during daylight hours for a short period of time.

- 3) **Proposed measures to reduce or control noise impacts, if any:**

If necessary during construction, workers would wear hearing protection.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?**

The 300 Area is a part of the U.S. Government-owned Hanford Facility, which is used for the management of waste associated with the cleanup from past and/or present production of special nuclear materials and for energy research. Commercial activities on the Hanford Facility include a nuclear power plant, and a State of Washington-administered low-level radioactive waste burial area operated by US Ecology, Inc.

b. Has the site been used for agriculture? If so, describe.

No portion of the Hanford Site, including the site of the proposed sewer system upgrade, has been used for agricultural purposes since 1943.

c. Describe any structures on the site.

There are numerous buildings and other structures within the 300 Area used for past and present site missions. Two new buildings would also be built to house a central vacuum collection station and a satellite collection station for the project.

d. Will any structures be demolished? If so, what?

No existing structures will be demolished by the project.

e. What is the current zoning classification of the site?

The Hanford Site is zoned by Benton County as an Unclassified Use (U) district.

f. What is the current comprehensive plan designation of the site?

The 1985 Benton County Comprehensive Land Use Plan designates the Hanford Site as the "Hanford Reservation." Under this designation, land on the Site may be used for "activities nuclear in nature." Non-nuclear activities are authorized "if and when DOE approval for such activities is obtained."

g. If applicable, what is the current shoreline master program designation of the site?

DOE owns the Columbia River Shoreline to the "line of navigation" within the Hanford Site. The State of Washington owns the river bottom beyond the "line of navigation."

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

A portion of the project is located within 400 meters of the Columbia River, which places it within a "high-sensitivity" area for archeological resources. The possibility exists for encountering buried cultural strata or human remains. It was determined by the Hanford Cultural Resources Laboratory (HCRL) that there are no known cultural or historic properties in the proposed project area.

- i. Approximately how many people would reside or work in the completed project?

A crew of five workers would operate and maintain the system.

- j. Approximately how many people would the completed project displace?

None

- k. Proposed measures to avoid or reduce displacement impacts, if any:

None

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply. (See answer to checklist question B.8.f.).

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

- c. Proposed measures to reduce or control housing impacts, if any:

None

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The tallest structure would be a small building 15 to 20 feet high. It would probably be a prefabricated metal building.

- b. What views in the immediate vicinity would be altered or obstructed?

None.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

None

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Building and perimeter lighting will be provided at the two buildings to be built and would be used after dark.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

- c. What existing off-site sources of light or glare may affect your proposal?

None

- d. Proposed measures to reduce or control light and glare impacts, if any:

None

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Recreational boating and fishing are available on the nearby Columbia River.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

None

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any?

None

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No places or objects listed on, or proposed for, national, state, or local preservation registers are known to be on or next to the site. Additional information on the Hanford Site environment can be found in the environmental documents referred to in the answer to Checklist question A.8.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

A portion of the project is located within 400 meters of the Columbia River, which places it within a "high-sensitivity" area for archeological resources. The possibility exists for encountering buried cultural strata or human remains. It was determined by HCRL that there are no known cultural or historic properties in the proposed project area.

Additional information on the Hanford Site environment can be found in the environmental documents referenced in the answer to Checklist question A.8.

- c. Proposed measures to reduce or control impacts, if any:

Monitoring of excavation within the high-sensitivity area by an archeologist from the HCRL will be required. If any cultural remains are encountered, work in the vicinity of the discovery will be stopped until an HCRL archeologist has assessed the significance of the find and, if necessary, has arranged for mitigation of the impacts to the find.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The 300 Area is accessed via Stevens Drive to the north of Richland. Public access is restricted on site.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No. The nearest public transit stop is approximately two miles away.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

None

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

A few extra vehicle trips to the 300 Area would be generated during construction. The exact number is unknown.

- g. Proposed measures to reduce or control transportation impacts, if any:

None

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

None

- b. Proposed measures to reduce or control direct impacts on public services, if any:

None

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

Electricity, water, telephone, and sanitary sewer are available in the 300 Area.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity, which might be needed.

Hanford Site electrical service will be used for the pumping and vacuum collection stations.

SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.


James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
U.S. Department of Energy
Richland Operations Office

2/7/95
Date