



Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

0022770

AUG 14 1992

92-RPB-189

Mr. Jim Prudente  
Unit Supervisor  
Non-Point Water Quality  
State of Washington Department of Ecology  
106 South Sixth Avenue  
Yakima, Washington 98902-3387

Dear Mr. Prudente:

WATER QUALITY STANDARDS MODIFICATION REQUEST - 300 AREA TREATED EFFLUENT  
DISPOSAL FACILITY

Based on your guidance provided in a telephone conversation (Telecon 81173-92-079, Enclosure 1) with Mr. J. J. Luke, Westinghouse Hanford Company, this letter is being used in lieu of the Water Quality Standards Modification Request Application. The responses to your questions provided in the telephone conference are located in the Enclosure 2 to this letter. This request is to allow for the construction of an outfall in the Columbia River. This new outfall will serve the 300 Area Treated Effluent Disposal Facility (TEDF).

Within the 300 Area are laboratories, office buildings, and support facilities including a powerhouse, warehouses, and fabrication and maintenance shops. Industrial process effluents from these operations are currently discharged to the 300 Area Process Trenches. When operational, the 300 Area TEDF will provide for Best Available Treatment Economically Achievable of this effluent with subsequent disposal to the Columbia River. Operation of the 300 Area TEDF will meet Hanford Federal Facility Agreement and Consent Order Milestone M-17-09, "Complete Construction and Initiate Hot Startup of the 300 Area Treated Effluent Disposal System."

The 300 Area TEDF treatment train is shown on drawing PFD-1, which has been included with the enclosure. The influent consists of liquid effluent from heating and ventilation systems, floor drains, sinks, and process equipment. The average expected flowrate is approximately 300 gallons per minute.



AUG 14 1992

Mr. Prudente  
92-RPB-189

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Should you have any questions, please contact Mr. S. D. Stites of my staff on (509) 376-8566.

Sincerely,



R. D. Izatt, Program Manager  
Office of Environmental Assurance,  
Permits, and Policy

RPB:SDS

Enclosures:

1. Telecon 81173-92-079
2. Response to Questions
3. Drawings (3)

cc: D. B. Jansen, Ecology  
R. E. Lerch, WHC  
R. W. Oldham, WHC

Enclosure 1

## TELEPHONE CONFERENCE MEMORANDUM

Company: Westinghouse Hanford Company Address: Richland, Washington  
 [ ] INCOMING [X] OUTGOING DATE: July 7, 1992 TIME: 10:00 a.m.  
 WITH: Mr. Jim Prudente OF: Ecology PHONE: 509-575-2490  
 WITH: Mr. Jeff J. Luke OF: WHC PHONE: 376-8629

Copies to: \_\_\_\_\_ NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_

See Distribution Sheet

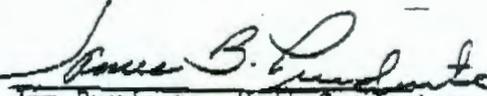
Subject: WATER QUALITY MODIFICATION REQUEST FOR PROJECT L-045H

Environmental Permits Section J. J. Luke  376-8629  
 Department Signature Telephone #

Summary of Conference:

Mr. Prudente was contacted for guidance regarding the format required by the Ecology, Water Quality Department, for a Water Quality Modification request. Mr. Prudente said that a one page form exists but he prefers not to use it. He requested that instead of using the form, the following information be provided:

- 1) Define "window" we will be in the river. As an example, February 1 to April 1.
  - State the approximate number of days we will actually be in the river creating turbidity during the above defined window.
- 2) Describe the nature of the work. This will include such information as size of pipe, width and depth of dredging work, how the pipe is anchored, and location of pipe and outfall.
- 3) Provide drawings, if available, of the pipe and outfall.

Concurrence:   
 Jim Prudente, Unit Supervisor  
 Non-Point Water Quality  
 Ecology, Yakima Office

**Enclosure 2**

**(RESPONSES TO QUESTIONS FOR WATER QUALITY MODIFICATION REQUEST  
300 AREA TREATED EFFLUENT DISPOSAL FACILITY)**

**RESPONSES TO QUESTIONS FOR WATER QUALITY MODIFICATION REQUEST  
300 AREA TREATED EFFLUENT DISPOSAL FACILITY**

1. Define "window" that construction activities will occur in the river. As an example, February 1 to April 1.
- State the approximate number of days construction activities in the river will create turbidity during the defined window.

Response: Construction is estimated to start on March 1, 1993, and be completed by August 1, 1994. During this time frame it is anticipated that approximately 44 days will be spent in the Columbia River installing the outfall.

2. Describe the nature of the work. This includes such information as size of pipe, width and depth of dredging work, how the pipe is anchored, and location of pipe and outfall.

Response: Referencing enclosed Drawing C-2, the outfall extends approximately 240 feet into the Columbia River based on the 'low pool' bank location. Coordinates for the outfall are:

**OUTFALL COORDINATES**

	DEGREES	MINUTES	SECONDS
LATITUDE	46	23	1
LONGITUDE	119	16	3

Referencing enclosed Drawing C-3, the outfall will consist of an eight inch diameter steel pipe encased in concrete. A minimum trench depth of 56 inches will be dug below the river bed with a corresponding minimum width of 44 inches. The trench will be backfilled with imported aggregate such that the top of the outfall pipe will be at least 36 inches below the original river bed. After the pipe is put in place, the trench will be backfilled with imported aggregate to a depth of approximately two feet below the original river bed. The remaining two feet of trench will then be filled with imported armor rock. The crane for constructing the outfall will be located on a floating barge.

3. Provide drawings, if available, of the pipe and outfall.

Response: Provided as Drawings PFD-1 (Process Flow Diagram), C-2 (Outfall Plan and Profile), and C-3 (Outfall Details).

Enclosure 3

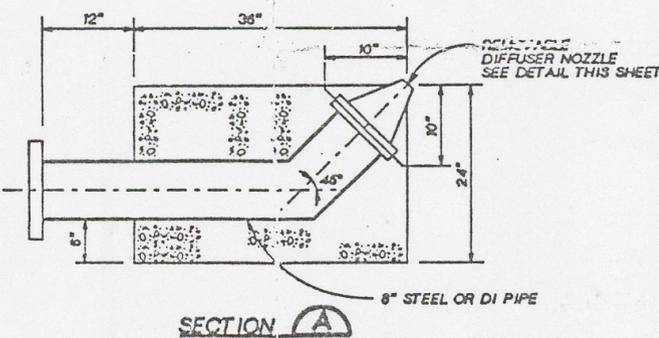
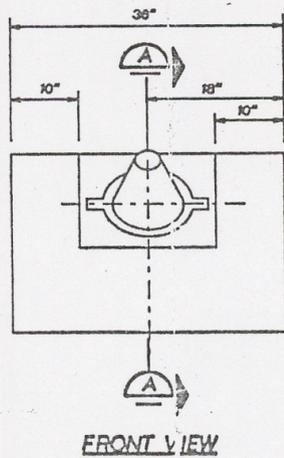
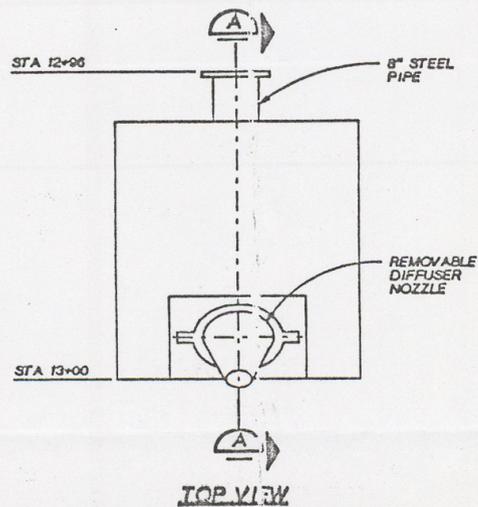
## CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
R. D. Izatt, RL	Jim Prudente, Ecology (Yakima)	Incoming:9203085 XRef:9255487D
Subject: WATER QUALITY STANDARDS MODIFICATION REQUEST - 300 AREA TREATED EFFLUENT DISPOSAL FACILITY		

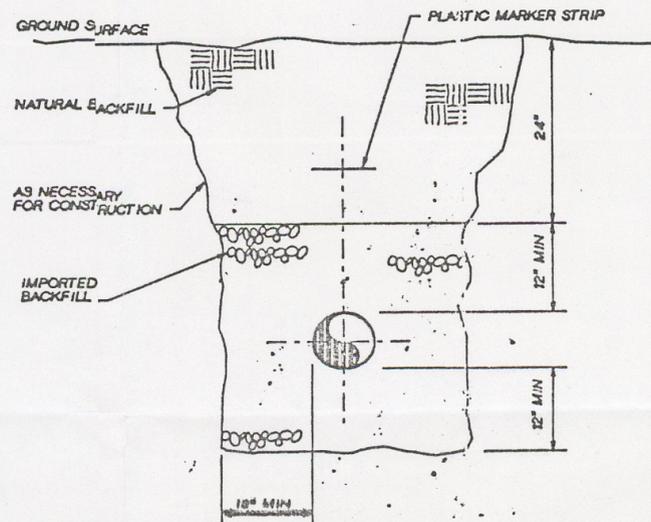
### INTERNAL DISTRIBUTION

Approval	Date	Name	Location	w/att
		Correspondence Control	A3-01	
		G. D. Carpenter	B2-16	
		C. K. DiSibio	B3-03	
		A. J. Diliberto	R1-48	
		C. J. Geier	B2-19	
		W. H. Hamilton	N3-10	
		J. S. Hill	H4-57	
		D. E. Kelley	R1-48	
		J. R. Kelly	N1-22	
		R. J. Landon	B2-19	
		R. E. Lerch, Assignee	B2-35	
		J. J. Luke	H4-57	
		P. J. Mackey	B3-15	
		H. E. McGuire, Level 1	B3-63	
		F. J. Muller	L4-78	
		R. W. Oldham	H4-57	
		S. M. Price	H4-57	
		L. Soler	B4-09	
		D. S. Takasumi	L4-78	
		T. J. Varljen	H5-27	
		T. B. Veneziano	B2-35	
		EDMC	H4-22	
		Project Files	R1-28	
		JSH/FILE/LB	H4-57	

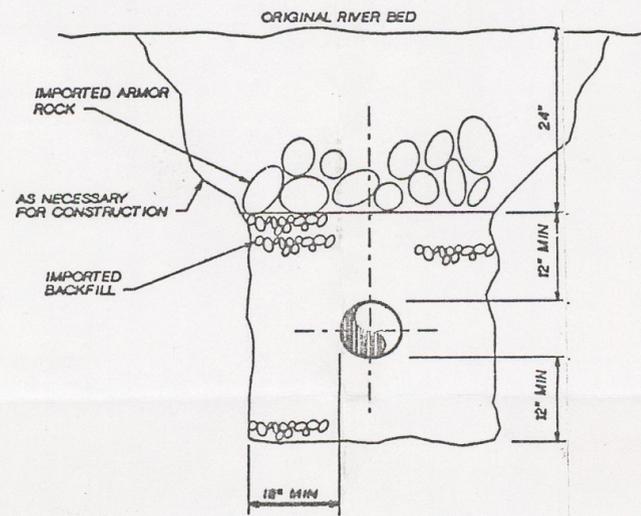




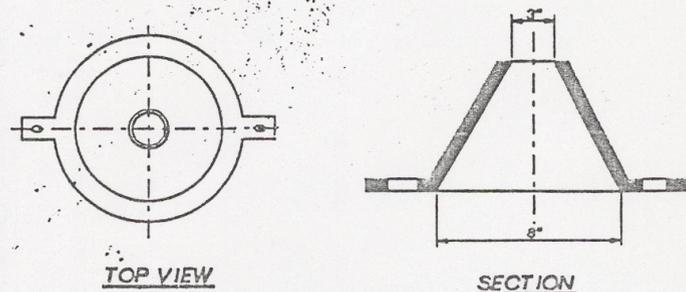
**OUTFALL DIFFUSER DETAIL**  
N.T.S.



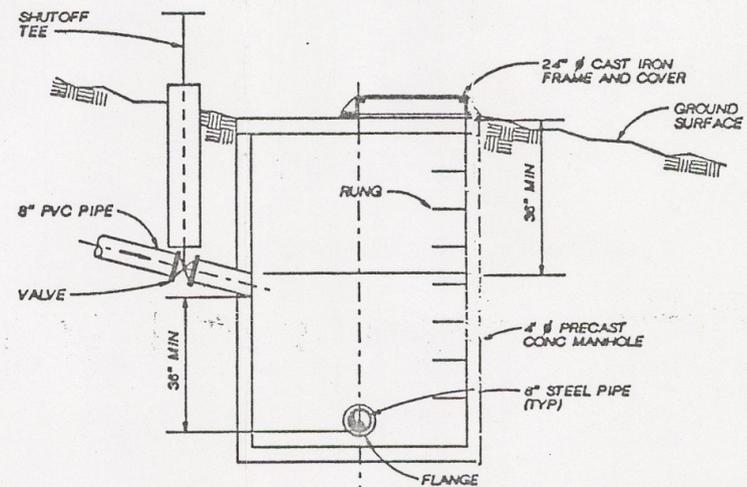
**LAND PIPELINE**  
**TYPICAL TRENCH SECTION**  
**STA. 0+00 TO STA. 21+73**  
N.T.S.



**RIVER PIPELINE**  
**TYPICAL TRENCH SECTION**  
**STA. 21+77 TO APPROX STA. 24+98**  
N.T.S.



**DIFFUSER NOZZLE DETAIL**  
N.T.S.



**FOAM BOX / PIGGING CHAMBER**  
**STA 21+75**  
N.T.S.

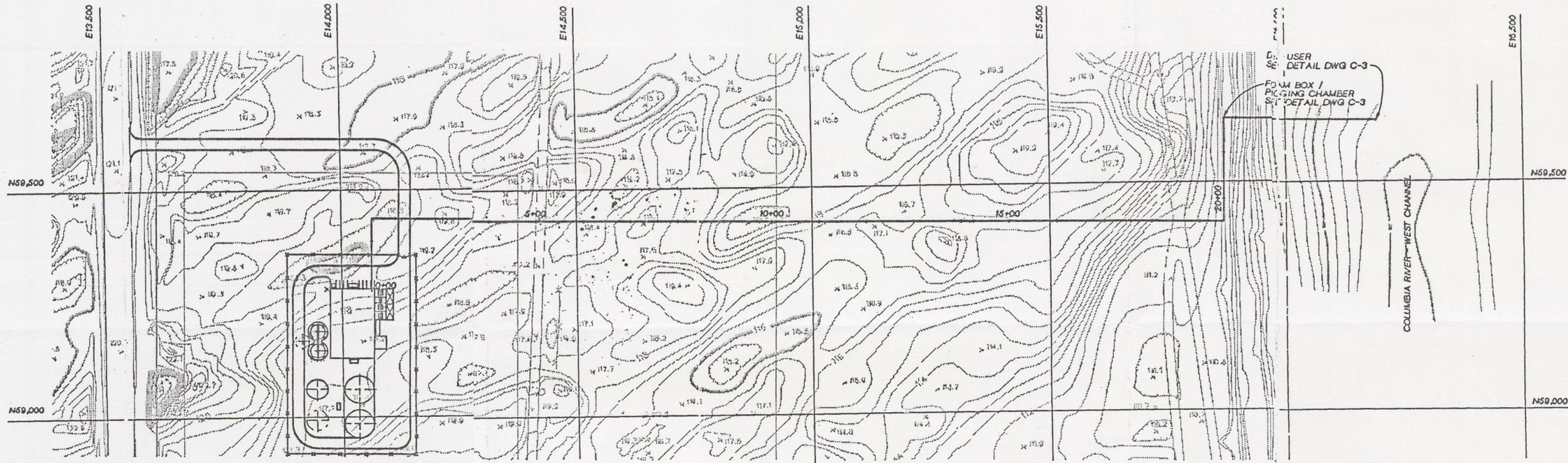


BY-DATE	BY-DATE	REV BY DATE	DESCRIPTION	REV

BY-DATE	BY-DATE	REV BY DATE	DESCRIPTION	REV

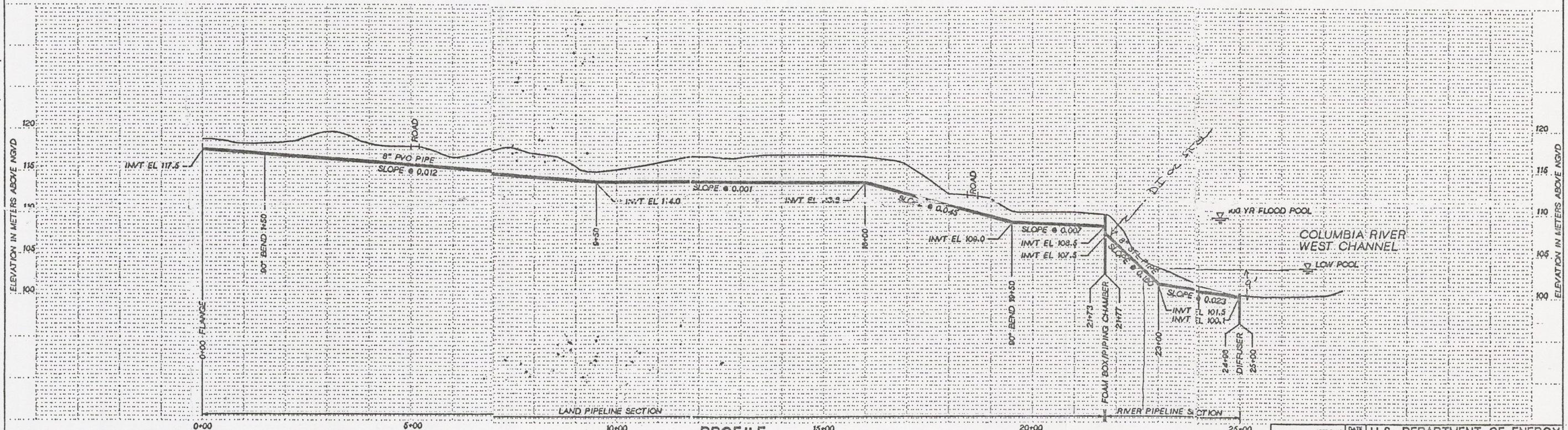
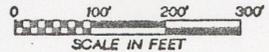
APPROVAL	DATE	U.S. DEPARTMENT OF ENERGY
BY		RICHLAND FIELD OFFICE
PROJ ENGR		CH2M HILL ENGINEERS
GA		
APPROVED BY		<b>OUTFALL DETAILS</b>
SAFETY		
APPROVED BY		PROJECT TITLE
CHECKED BY		L-043H 300 AREA TREATED EPL DISPL FACIL
BY		PROJ NO
DRAWN BY		SCALE AS NOTED
DESIGNED BY		BLDG
J.J. SCOTT	3-22-82	INDEX
		DRAWING NUMBER
		SHEET
		CP
		REV
		<b>C-3</b>

PRELIMINARY

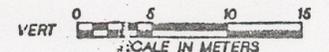
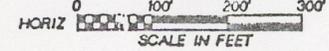


NOTES:  
 1. CONTOUR INTERNALS = 0.5 METERS.  
 2. COORDINATES ARE HANFORD PLANT COORDINATES.

**PLAN**



**PROFILE**



NUMBER	TITLE	REFERENCES	NEXT USED ON

BY-DATE	BY-DATE	BY-DATE	PREDESIGN	ISSUED	REV

APPROVAL DATE		U.S. DEPARTMENT OF ENERGY RICHLAND FIELD OFFICE CH2M HILL ENGINEERS	
BY	DATE	<b>OUTFALL PLAN AND PROFILE</b>	
PROJ ENGR			
QA		PROJECT TITLE L-042H 300 AREA TREATED EPL DISPL FACIL	
APPROVED BY		PROJ	JOB
SAFETY		SCALE	AS NOTED
APPROVED BY		BLDG	INDEX
CHECKED BY		DRAWING NUMBER	C-2
BY			
DESIGNED BY	C.J. BROWN		
DRAWN BY	J.L. SCOTT		

PRELIMINARY