

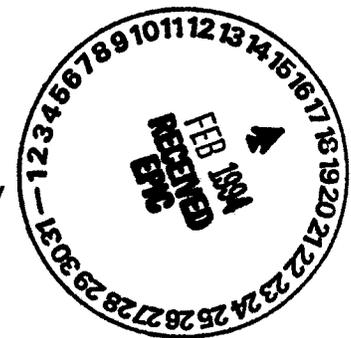
OPERATION AND MAINTENANCE MANUAL

for

**TEMPORARY SANITARY WASTEWATER HOLDING
SYSTEM FOR CONSTRUCTION MANAGEMENT SUPPORT
TRAILERS FOR THE EFFLUENT TREATMENT FACILITY**

Prepared by
Kaiser Engineers Hanford Company

OMM-500



***KAISER ENGINEERS
HANFORD***

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WHC Program/Project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	J. J. Noble	8/25/93
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A. K. Vogt <i>[Signature]</i>	8/23/93
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Responsible Manager (Printed/Signature)	Date
J. J. Noble <i>[Signature]</i>	8/23/93

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Stamp is required before release. Release is contingent upon resolution of mandatory comments.



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23

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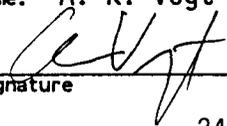
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Reason	Disp.									Reason	Disp.
		Cog. Eng. A. K. Vogt	<i>[Signature]</i>	8/20/93	LV-94						
		Cog. Mgr. J. J. Noble	<i>[Signature]</i>	8/20/93	LV-94						
		QA									
		Safety									
		Env. K. A. Giese	<i>[Signature]</i>	9/16/93							

18. Signature of EDT Originator <i>[Signature]</i> Date: 8/20/93	19. Authorized Representative Date for Receiving Organization	20. Cognizant/Project Engineer's Manager <i>[Signature]</i> Date: 8/20/93	21. DOE APPROVAL (if required) Ltr. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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7. Abstract
 This document is the Operation and Maintenance Manual for submittal to the Washington State Department of Health as required by the Washington State Code 246-272.

8. ~~PURPOSE AND USE OF DOCUMENT - This document was prepared for use within the U.S. Department of Energy and its contractors. It is to be used only to perform, direct, or integrate work under U.S. Department of Energy contracts. This document is not approved for public release until reviewed.~~

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10. RELEASE STAMP

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PUBLIC RELEASE

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11-17-93

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BY WMC

DATE NOV 22 1993

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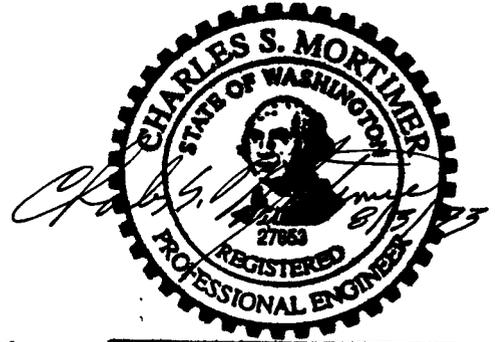
9. Impact Level 4E

APPROVAL:

Kaiser Engineers Hanford Company

Charles S. Mortimer
Charles S. Mortimer, Project Engineer

8-3-93
Date



EXPIRES 5/27/94

Westinghouse Hanford Company

CVH
Projects

8/11/93
Date

KA Miree
Environmental

8/12/93
Date

[Signature]
Sanitary Systems Maintenance

8/12/93
Date

Compliance with this document is required to meet Washington Administrative Code (WAC) 246-272 criteria. Any changes to this document must have the concurrence of the Washington State Department of Health and the Kaiser Engineers Hanford Company Project Engineer.

TABLE OF CONTENTS

INTRODUCTION 1

SYSTEM DESCRIPTION 1

SYSTEM OPERATION 1

PERIODIC INSPECTION 2

APPENDIX

- Appendix A. Site Plan
- Appendix B. Pumping Contract
- Appendix C. Memorandum of Understanding
- Appendix D. Certification of Inspection and
Installation of Larger Onsite Sewage Systems
- Appendix E. Leak Test Certification

INTRODUCTION

This manual was prepared to provide detailed information for the operation and maintenance of the sanitary wastewater holding system. The manual sets forth the standard operating procedures which include type and frequency of required maintenance. Procedures to follow for a system failure are also included.

SYSTEM DESCRIPTION

The sanitary wastewater holding system consists of two holding tanks, two alarm systems, and appurtenances necessary to provide a functional system. The daily design flow to each holding tank is 210 gal. The system is located as shown on the Site Plan (see Appendix A).

SYSTEM OPERATION

Normal Operating Conditions

Raw sewage enters the holding tanks through the upstream collection system. Scheduled pumping occurs every Tuesday and Friday.

Off-Normal Operating Conditions

An accumulation of more than 840 gal of effluent in a holding tank will produce an alarm signal. The signal is a local audible alarm and a light located in each trailer. Continued filling of the holding tank will activate a second alarm signal signifying the need for immediate notification to the Sanitary Systems Maintenance organization to pump the system. When the second alarm activates, a reserve capacity remains in the tank to prevent overflow of the wastewater into the environment.

The first alarm signal may be caused by either or both of two events: an excessive use of the sanitary facilities in the trailer (e.g., extra personnel present for meetings) or a slip in the pumping schedule. Corrective action should commence as follows:

- Determine which event occurred.
- Determine if the daily wastewater load exceeds the design predictions

- Based on the results of the above determinations, correct the off-normal events as follows:
 - Note the occurrence of the alarm in the log.
 - Note the apparent reason for the occurrence.
 - If the event was an anomaly to the normal operation, take no further action.
 - If the event occurred due to additional personnel occupying the trailer, increase the pumping frequency to prevent a reoccurrence.

The second alarm signal is probably the result of a slip in the pumping schedule. Correction is accomplished by maintain the prescribed pumping schedule. It is possible that an extreme load was placed on the system in a very short period of time. Advanced planning for such an event would preclude a future occurrence.

Any "off-normal" event shall be reported immediately to the Washington State Department of Health, 924 West Sinto, Spokane, WA 99201-2595, telephone (509) 456-2490.

PERIODIC INSPECTION

Regular inspection of key system components is necessary to ensure the system integrity for the system design life. These periodic inspections are recorded on the an INSPECTION RECORD FORM (see Figure 1). The inspection points are described as follows:

INSPECTION RECORD FORM

Component/Task	Frequency	Date	Date	Date
Alarm Panel				
Check Float Switch Operation				
Manually Operate Controls	Monthly			
Holding Tank				
Volume Pumped (estimate)	Every Pump			
Manhole Seal	Monthly			
Check Inlets and Outlets	Annually			

FIGURE 1

Alarm Panel

Float Switch Operation: Manually rotate both float switches to verify that the contacts make and break in accordance with their design function. Recover each float switch by reaching into the holding tank with a hooked rod and raise each float high enough to trip the corresponding alarm signal.

- The lower float activates the normal operating level signal
- The upper float activates the high liquid level signal

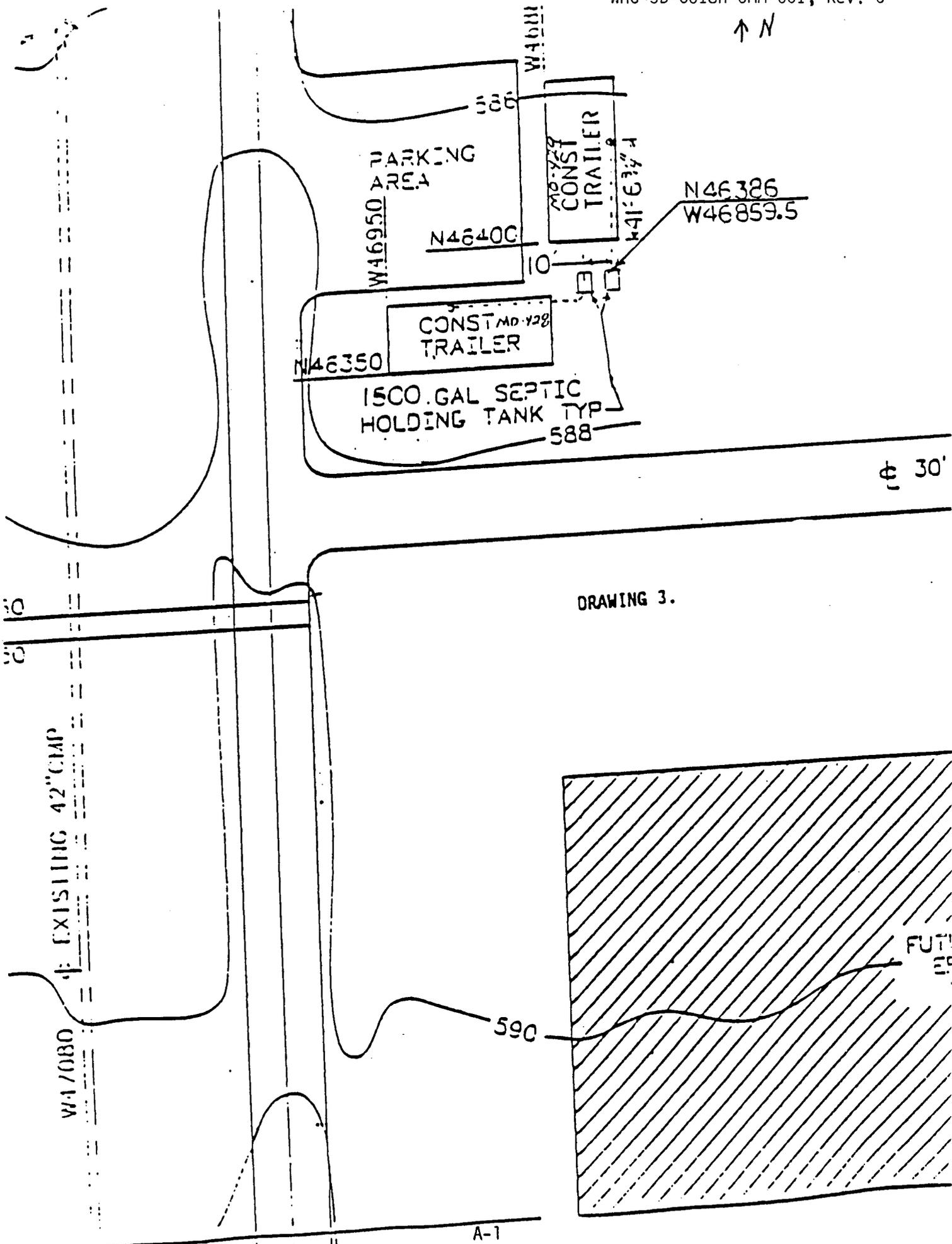
Holding Tank

Manhole Seal: Visually inspect seal for damage or foreign material which would affect seal function.

Submit the completed "Inspection Record" form quarterly to the Washington State Department of Health, 924 West Sinto, Spokane, WA 99201-2595.

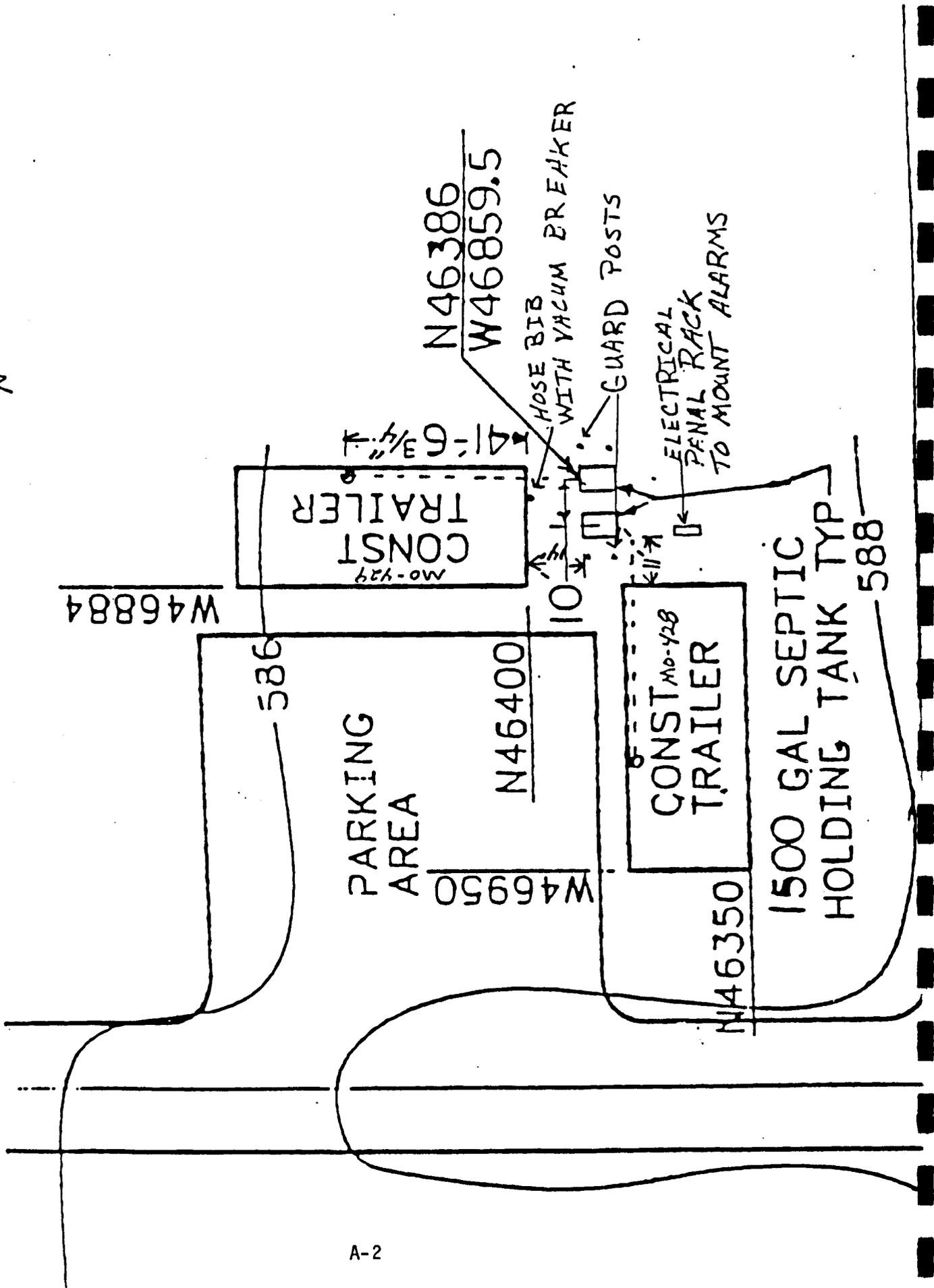
Appendix A

Site Plan



DRAWING 3.

SET BACKS



Appendix B
Pumping Contract



Westinghouse
Hanford Company

WHC-SD-C018H-OMM-001, Re: **Internal**
Memo

From: Evaporator Condensate Treatment Project
Phone: 376-2352 L4-94
Date: June 28, 1993
Subject: SEPTIC HOLDING TANK PUMP OUT SUPPORT

24350-AKV93-001

To: J. S. Stair S4-61
cc: J. J. Noble L4-94
K. A. Giese H6-25
AKV File/LB L4-94

This letter is to secure your organization's support for routine pumping of the Project C-018H, 242-A Evaporator/PUREX Plant Process Condensate Treatment Facility (ETF), construction trailers septic holding tanks. The ETF trailers are numbers MO-428 and MO-429.

The ETF construction trailers are located outside of the northeast corner 200 East Area fence, just north of Liquid Effluent Retention Facility and east of Gate 810. Attached is a map showing the exact location of the construction trailers. Two 1500 gallon holding tanks are located behind the trailers.

As per our previous discussions, the schedule needs to provide pump out twice a week, Tuesdays and Fridays are preferred.

The charge code for this work is A93172. Pumping support is required to begin the week of June 28, 1993 and continue until June 1994.

Concurrence by you for this support is required to meet the requirements of the Washington State Department of Health. Please signify your ability to support this activity by signing below.

If you have any questions please call me at 376-2352.

A. K. Vogt, Project Engineer
Evaporator Condensate Treatment Project

Imh

Attachment

J. S. Stair, Manager
Sanitary Systems Maintenance

Date: 7/9/93

Appendix C

Memorandum of Understanding

HOLDING TANK SEWAGE SYSTEM MEMORANDUM OF UNDERSTANDING
BETWEEN
THE UNITED STATES DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE;
AND
THE WASHINGTON STATE DEPARTMENT OF HEALTH

This Memorandum of Understanding (MOU) is between the United States, acting through the U.S. Department of Energy, Richland Operations Office (hereinafter referred to as RL) and the Washington State Department of Health (hereinafter referred to as the DOH), as the Washington State Department of Ecology designee.

RL is the owner of the Hanford Site. It is the goal of the RL to conduct operations at the Hanford Site in full compliance with applicable environmental and public health requirements.

DOH has agreed to approve the use of septic holding tanks to support construction/decommissioning activities on the Hanford Site. During the operation and maintenance of the septic holding tanks, a potential exists for the uncontrolled discharge/release of raw sewage. Such a discharge could result in: 1) the contamination of surface and groundwater, and 2) the exposure of site employees and the public to raw sewage.

It is the objective of the parties to this MOU to establish and implement appropriate procedures to assure that correct design, installation, and management requirements are in place. To achieve and maintain these requirements, the parties to this MOU understand agree that:

1. The septic holding tank systems on the Hanford Site shall be designed, constructed, and managed in accordance with Washington State Administrative Code (WAC) Chapter 246-272 and the design, operation, and maintenance information contained in the "Guidelines for Holding Tank Sewage Systems" provided by the DOH Environmental Health Programs Technical Review Committee, dated December 1991. RL shall be responsible for submitting plans for construction and management of such systems to DOH for review and approval consistent with requirements of WAC Chapter 246-272.

2. RL will assure that oversight and management activities conducted by contractors and/or consultants shall include compliant operation and maintenance of the temporary septic holding tank systems pursuant to WAC 246-272 and the "Guidelines for Holding Tank Sewage Systems" as provided in paragraph one (1).

RL shall provide a copy of this MOU and relevant attachments, if any, to each of its contractors, subcontractors, and/or consultants affected by its terms. Copies of this MOU shall be made available to all other contractors and subcontractors retained to perform work under this MOU. RL shall provide notice of this MOU to any successor in interest prior to any transfer of ownership or operation.

This MOU shall not be modified except by mutual agreement of the parties identified below. Modification requests to the MOU shall be sent to the following points of contact:

DOE-RL: Annabelle L. Rodriguez, Environmental Assurance Permits, and Policy
U.S. Department of Energy, Richland Operations Office
P.O. 550
Richland, Washington 99352

DOH: George Schlender, Larger On-Site Sewage System Programs
State of Washington, Department of Health
924 West Sinto
Spokane, Washington 99201

This Memorandum of Understanding shall be effective when signed by the two parties, may be amended by mutual agreement, and be terminated upon 30 days written notice by either party.

UNITED STATES DEPARTMENT OF ENERGY


James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy

11/18/93
Date

WASHINGTON STATE DEPARTMENT OF HEALTH


Eric Stagle, Assistant Secretary
for Environmental Health Programs

11-2-93
Date

Appendix D

Certification of Inspection and Installation of Larger Onsite Sewage Systems

CERTIFICATION OF INSPECTION AND INSTALLATION OF LARGER ON-SITE SEWAGE SYSTEMS

The following regulation applies: WAC 246-272-080- Within sixty days following the completion of and prior to the use of any project or portion thereof for which plans and specifications have received the approval of the Secretary, certification shall be made to the Secretary and signed by a professional engineer that the project was inspected by him or his authorized agent and that it was constructed in accordance with the plans and specifications approved by the Secretary.

Instructions:

- (a) If a project is being completed in stage construction, attach a map and description of project being certified as completed as approved on date given below.
- (b) As future portions of staged construction projects are completed, each must be certified as required by WAC 246-272-080.
- (c) Additional certification forms are available upon request from DOH offices listed below.

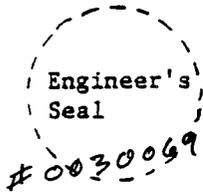
U. S. Dept. of Energy
 Name of Sewer System
Richland Field Office - MS A5-15
 Mailing Address
Richland WA 99352
 City State Zip

Date Plans and Specifications
 Approved by Department of Health
June 15, 1993
 Date Project or Portions Thereof
 Completed

PROJECT NAME AND DESCRIPTIVE TITLE:

"Effluent Treatment Facility (Project C-018H) Support Trailers" Sewage Holding Tank System, Plans, Specifications and Preliminary Report, Design Flow 210 GPD Per System (Two Systems) Total Design Flow 420 GPD

The undersigned engineer or his authorized agent has inspected the above-described project, which as to layout, size and type of pipe, valves and materials, and other designed physical facilities has been constructed in accordance with the plans and specifications approved by the Secretary, Department of Health, and in the opinion of the engineer, the installation and testing of the system was carried out in accordance with the specifications approved by the Secretary for the project.



Jeffrey W. Farrow
 Engineer
8-25-93
 Date

Please return completed form to _____ office checked below.

Seattle Regional Office
 Health Services Division
 Water Supply and Waste Section
 Smith Tower, Mail Stop B 17-9
 Seattle, Washington 98104

Olympia Regional Office
 Health Services Division
 Water Supply and Waste Section
 Mail Stop LD-11
 Olympia, Washington 98504

Spokane Regional Office
 West 924 Sinto
 Spokane, Washington 99201

SPOKANE COUNTY

Appendix E
Leak Test Certification

LEAK TEST VERIFICATION
ETF CONSTRUCTION TRAILERS RELOCATABLE
LATRINE FACILITY SEWAGE HOLDING TANKS

On June 21 through June 22, 1993, a leak test was performed on the ETF Construction Trailers' sewage holding tanks. The tanks are corrugated polyethylene units.

Each tank was tested to its capacity, a volume of approximately 1500 gallons. This level provides a 630 gallon buffer above the high level alarm. The tank installation was observed by Tom Hemken, of the Department of Health, during a site inspection.

The test level was established at 2:00 p.m., on June 21, 1993, and was monitored periodically during the test period. The level remained unchanged throughout the test period, which ended at 2:00 p.m., on June 22, 1993, a total of 24 hours. No leaks from the tanks were observed during this period.

The tanks are considered watertight.

J. W. Faunce P.E.

J.W. Faunce
August 27, 1993

0030069