SEP 30 1997

21

ENGINEERING DATA TRANSMITTAL

Page 1 of 1 KN

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No 613045

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17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)																							
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN												
1	1	Design Authority, J. R. Kriskovich	<i>J. R. Kriskovich</i>	6-30-97	S1-56	1	2	T. D. Kaiser	<i>T. D. Kaiser</i>	7/10/97	T4-07												
		Design Agent,				1	1	M. A. Butterworth	<i>M. A. Butterworth</i>		T2-10												
1	1	Cog. Eng., O. D. Nelson	<i>O. D. Nelson</i>	7/16/97	S2-24	4	1	E. M. Greager	<i>E. M. Greager</i>		H6-36												
1	1	Cog. Mgr. E. M. Veith	<i>E. M. Veith</i>	8/1/97	S1-55	1	1	D. J. Carrell	<i>D. J. Carrell</i>		R1-51												
1	1	D. W. Crass	<i>D. W. Crass</i>	8/1/97	S8-68																		
1	1	D. J. Saueressig	<i>D. J. Saueressig</i>	7/16/97	S8-05																		
1	1	G. D. Johnson	<i>G. D. Johnson</i>	8/1/97	S7-14																		
18. G. E. Parnick Signature of EDT Originator Date 8-27-97						19. D. W. Crass Authorized Representative for Receiving Organization Date 8/27/97						20. E. M. Veith Design Authority Cognizant Manager Date 8/27/97						21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments					

Engineering Task Plan for Five Portable Exhausters

G. Eric Rensink

WHC, Richland, WA 99352

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Abstract: This is the Engineering Task Plan (ETP) for fabricating, three 500 cfm portable exhausters and two 1000 cfm portable exhausters. As needed, the exhausters will be installed on single shell tanks (SSTs) to ventilate tanks during salt well pumping operations.

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Karen L. Noland 9/30/97
Release Approval Date

Approved for Public Release

ENGINEERING TASK PLAN
FOR
FIVE PORTABLE EXHAUSTERS

Prepared by:

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Remote Sensing and Sampling Equipment Engineering

Approved by:
Dennis Crass
Project Manager
TWRS Safety Upgrade Projects

Date: 18 Aug 97

Approved by:
E. M. Veith
Project Engineer

Date: 8/27/97

Approved by:
Gerald Johnson
Program Manager
Safety Issue Resolution

Date: 8/27/97

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1.0 INTRODUCTION

Exhausters will be employed to ventilate certain single-shell tanks (SSTs) during salt well pumping campaigns. Active ventilation is necessary to reduce the potential flammable gas inventory (LANL 1996a) in the dome space that may accumulate during steady-state conditions or during/after postulated episodic gas release events. The tasks described in this plan support the activities required to fabricate and test three 500 cfm portable exhausters in the 200 W area shops, and to procure, design, fabricate and test two 1000 cfm units. Appropriate Notice of Construction (NOC) radiological and toxic air pollutant permits will be obtained for the portable exhausters.

The portable exhauster design media to be employed to support this task was previously developed for the 241-A-101 exhauster. The same design as A101 will be fabricated with only minor improvements to the design based upon operator input/lessons learned. The safety authorization basis for this program effort will follow SAD 36 (LANL 1996b), and each tank will be reviewed against this SAD for changes or updates.

The 1000 cfm units will be designed by the selected offsite contractor according to the specification requirements in WHC-S-0490. The offsite units have been specified to utilize as many of the same components as the 500 cfm units to ensure a more cost effective operation and maintenance through the reduction of spare parts and additional procedures.

2.0 SCOPE

The scope of work includes all activities described by this Engineering Task Plan (ETP), required to complete design modifications (as needed), fabrication, acceptance testing, field installation design, storage planning, operational testing support, procedure modification, and turnover for three 500 cfm portable exhausters. Existing design media for the 500 cfm exhauster's include, 1) technical basis documents; LANL (1996a) and Rensink (1996), 2) functions and requirements document; WHC (1996c), 3) and drawings; WHC (1996e), WHC (1996f), WHC (1996g), WHC (1996h) and WHC (1996i). The overall safety designation for the subject portable exhausters was determined to be safety significant according to the requirements specified in WHC (1996a).

The 1000 cfm exhausters are governed by the specification and work scope described in WHC-S-0490. The work scope shall consist of conceptual design and trade studies identifying design features that drive the system cost and manufacturing complexity, interfaces, layouts, and appropriate analyses for all systems/components. The conceptual design shall address all of the specification requirements, verification testing and technical issues shall be identified and evaluated in a conceptual design review and report. The final design will include all design activities required to complete all design documentation and analyses, including detail and assembly drawings in sufficient detail to determine interfaces, assembly, and disassembly sequences. The fabrication by the selected contractor will include equipment procurement, component fabrication, assembly and fabrication inspection. The Acceptance Test Procedure (ATP) shall be conducted at the contractor's

facility and include a complete system-level test as identified in the verification matrix of specification WHC-S-0490.

The installation support efforts center around the preparation of a generic (NOC) document for both radiological and toxic air pollutants, installation Engineering Change Notice (ECN's) and procurement of the material for construction of the portable exhauster's installation. This effort does not cover any support to prepare work packages or conduct the field installations. The Operational Test Procedure (OTP) testing support by the Portable exhauster team will commence after completion of the installations by the Saltwell Program's craft personnel. All work package development, and operational efforts will be the responsibility of the Saltwell Pumping Program.

Assumptions for Cost and Schedule

1. The ATP is the final activity that will be performed by the TWRS Safety Upgrades Project. The OTP and installation efforts shall be supported but shall be funded and all other ABU checklist items shall be funded and directed by the Saltwell Stabilization Program office.
2. Maintenance procedures, Preventative Maintenance System (PMS), H-14 labeling, training or other support are not funded as part of the scope of the TWRS Safety Upgrades Project.
3. The installation design efforts were for three single tank installation ECN's. The scope of work to be performed by the TWRS Safety Upgrades Project does not include engineering tasks or hardware procurement for exhausting dual tanks with one exhauster.
4. The Scope of the TWRS Safety Upgrades Project includes only the preparation of applicable generic NOC radiological and toxic permits.
5. The TWRS Safety Upgrades Project assumed the utilization of experienced shop personnel for on site fabrication to reduce engineering follow requirements.
6. The 500 cfm portable exhauster design will be identical to the 241-A-101 exhauster, with minor Lessons Learned upgrades. The new off site design of the 1000 cfm portable exhauster will be similar to existing 500 cfm design in electronic and instrumentation and control configurations.
7. The off site procurement unit cost was assumed to be 250K, with provisions for a CAM and GEMS system installed.
8. The off site fabrication activity will produce 2 units.
9. The Saltwell Stabilization program shall identify tank and riser locations by no later than 06-26-97 to avoid delaying design and fabrication schedules.
10. No concrete or similar constructed pads are included at the installation sites for each of the 500 and 1000 cfm exhausters.

11. All electrical and support lines shall be above grade.
12. All risers used to ventilate the waste tank shall be 12 inches in diameter.
13. Gaseous Effluent Monitoring System (GEMS) will utilize an existing turn key NESHAP compliant system. No upgrading or redesign of this system is required. The TWRS Safety Upgrades Project shall fund minor modifications to adapt the GEMS to the existing exhaust design.

3.0 SYSTEM DESCRIPTION

3.1 500 CFM Exhauster

Each of the three 500 cfm portable exhausters shall consist of a ventilation train and associated control system mounted onto a support frame. The ventilation train for each exhauster shall consist of a heater, prefilter, two stages of HEPA filtration, exhaust fan and exhaust stack. Each exhauster shall be equipped with a Programmable Logic Controller (PLC). The function of the control system shall enable proper operation of the exhauster and alert personnel of alarm situations. Each exhauster shall have the capability of being moved from one location to another through the use of a crane and transport truck.

3.2 1000 CFM Exhauster

Each of the two 1000 cfm portable exhausters shall consist of a demister, a heater, prefilter, two stages of HEPA filtration, exhaust fan and exhaust stack. Each exhauster shall be equipped with a Programmable Logic Controller (PLC). The function of the control system shall enable proper operation of the exhauster and alert personnel of alarm situations. Each exhauster shall have the capability of being moved from one location to another through the use of a crane and transport truck.

4.0 WORK SCOPE TABLE

ORGANIZATION	GENERAL RESPONSIBILITIES & TASK COMMENTS	DELIVERABLE
<p>TWRS Engineering</p> <p>Lead, E. M. Veith NUMATEC - Cog, Eng., O. D. Nelson</p>	<p>TWRS Safety Upgrades Project has overall responsibility for directing and completing design modifications, fabrication, acceptance testing, field installation or storage, operational testing, procedure modification/support and turnover for three 500 cfm portable exhausters. TWRS Engineering also will conduct the management and review of the two off site 1000 cfm design and fabrication efforts.</p> <p>TWRS Engineering shall ensure that the State of Washington Department of Ecology's and Washington State Department of Health's application for Notice of Construction (NOC) is submitted on schedule.</p> <p>Cog. engineer shall approving mechanical designs and redline changes and ensure designs are screened for unresolved safety questions. TWRS Safety Upgrades Project shall provide funding for USQ evaluations if required.</p> <p>Cog. engineer shall update Vendor Information files if required.</p> <p>Cog. engineer shall generate 500 /1000 cfm portable exhauster storage instructions if required.</p> <p>Cog. engineer shall generate and approve mechanical equipment procurement requisitions.</p> <p>Cog. engineer shall generate acceptance test procedure ATP, acceptance test report ATR and approve operational test report. Review and approve off site contractor ATP and ATR prepared by TWRS Engineering.</p> <p>Cog. engineer shall generate mechanical installation designs for 5 tanks identified by Saltwell Stabilization Program and insure designs are screened for unreviewed safety questions. TWRS Safety Upgrades Project shall provide funding for design installation related USQ evaluations if required.</p> <p>The cog engineer shall provide technical support during portable exhauster, fabrication, installation, acceptance testing, operational testing and turnover (ABU). Turnover shall be performed as specified by WHC (1996K).</p>	<p>Ensure mechanical design drawings are as-built following fabrication and are revised to accurately reflect fabricated hardware.</p> <p>Ensure final mechanical design drawing(s) or ECN's are prepared for exhauster installation.</p> <p>Provide USQ data.</p> <p>Generate and approve mechanical procurement requisitions.</p> <p>Provide ATP.</p> <p>Provide ATR.</p>
<p>TWRS HVAC Design Authority</p> <p>LMHC, HVAC Design Authority, J. R. Kriskovich</p>	<p>Has the overall responsibility for reviewing and approving all design media pertaining to the 500 /1000 cfm portable exhausters.</p> <p>The design authority shall approve the ABU checklist items identified in Appendix B.</p> <p>Shall review designs for Unreviewed Safety Questions if required.</p>	<p>Review design media.</p> <p>Support USQ evaluation if required.</p>
<p>Analytical Services Flour Daniel Northwest R. B. Pan</p>	<p>Analytical Services shall provide engineering design support. Analytical Services shall be responsible for providing Cog Engineer assistance in generating and approving design media.</p>	<p>Provide cog engineer support if required.</p>

ORGANIZATION	GENERAL RESPONSIBILITIES & TASK COMMENTS	DELIVERABLE
<p>Engineering Support Manager G. Dunford Engineer, T. Kaiser Safety, L. S. Krogsrud QA, T. J Volkman</p>	<p>Engineering Support is responsible for providing instrument, electrical, safety and quality engineering support for both 500 and 1000 cfm units.</p> <p>The I&C engineer shall generate fabrication design media (i.e., electrical and instrument drawings, electrical and instrument component procurement requisitions, ATP instructions, exhauster storage instructions).</p> <p>I&C engineer shall approve 500 cfm/1000 cfm electrical and instrument designs and approve drawing redline changes and ensure designs are screened for unresolved safety questions. TWRS Equipment Engineering shall provide funding for USQ evaluations if required.</p> <p>The I&C engineer shall generate installation design media (i.e., electrical and instrument drawings, electrical and instrument component procurement requisitions, ATP instructions, exhauster storage instructions for both 500 and 1000 cfm units. The I&C engineer shall ensure designs are screened for unresolved safety questions. TWRS Equipment Engineering shall provide funding for USQ evaluations if required.</p> <p>I&C engineer shall approve (not prepare) preventative maintenance procedures, operating procedures, and test plans for operational testing.</p> <p>I&C engineer shall approve preventative Maintenance and Surveillance PM/S data sheets.</p> <p>I&C engineer shall provide support during ATP and operational testing.</p> <p>In addition, safety and quality engineers will provide oversight support of design media as required (i.e., drawings, procurement requisitions, procedures, test procedures etc.)</p>	<p>Ensure electrical and instrumentation design drawings are as-built following fabrication and are revised to accurately reflect fabricated hardware.</p> <p>Ensure final electrical design drawing(s) or ECN's are prepared for exhauster installation.</p> <p>Provide USQ data.</p> <p>Generate and approve electrical and instrument procurement requisitions.</p> <p>Provide ATP data.</p>
<p>Environmental Permits/Policy Manager, D. Carrell</p>	<p>Submit State of Washington, Depart of Ecology & Department of Health, application for Notice of Construction (NOC) permit.</p> <p>An application shall be produced for each exhauster and submitted a minimum of 30 days prior to placing the portable exhausters in service.</p> <p>Provide Air Permitting Documents Provide engineering review of design media if required.</p>	<p>Produce NOC.</p> <p>Produce air permits.</p>
<p>Air and Water Permits Manager, E. M. Greager</p>	<p>Provide engineering review of design media if required.</p>	<p>Provide engineering support.</p>
<p>Facility Configuration Management and Integration Mgr. R. L. Nelson</p>	<p>Facility Configuration Management and Integration shall develop component labeling data for input on H-14 drawings and provide and install component labels. TWRS Equipment Engineering will provide design media required to perform this task.</p>	<p>Produce component labels and install.</p>
<p>TWRS Design Services Manager, H. L. Humphreys</p>	<p>Provides fabrication and field installation design support</p>	<p>Provide mechanical and electrical drawings and provide designer support.</p>

ORGANIZATION	GENERAL RESPONSIBILITIES & TASK COMMENTS	DELIVERABLE
<p>Site Fabrication Services</p> <p>Mgr, M: A Butterworth Supervisor, L. Mercer</p>	<p>Site Fabrication Services shall provide fabrication support (i.e., job package development, material procurement (short lead items), craftsmen, QC inspection and acceptance testing (ATP) craft support) and fabrication materials.</p> <p>Portable exhausters shall be fabricated in accordance with the instructions provided by supplied drawings and the instructions specified in the fabrication work control job package (s). Developmental control requirements will be implemented during fabrication to control changes (if required) to supplied drawings per the requirements specified in WHC (1996b) EP-2.4. Design changes (if any) shall be approved by the cog engineers and so noted on the drawings prior to field application.</p> <p>ATP shall be performed as specified by the ATP procedure, ATP work control job package instructions, and guidance provided by cognizant engineer. The objective of the test is to demonstrate that the portable exhauster and supporting components will operate within the acceptance criteria.</p> <p>Shop shall provided QC inspector to support as built activity.</p> <p>Shop shall provide NEC inspector and insure NEC inspection is complete for each exhauster prior to initial portable exhauster start up.</p>	<p>Fab & Test Exhauster 1.</p> <p>Fab & Test Exhauster 2.</p> <p>Fab & Test Exhauster 3.</p>
<p>West Tank Farm Transition Projects</p> <p>Stabilization Activity Mgr., D. J. Saueressig</p>	<p>Stabilization Activity shall provide installation support (i.e., job package development, craftsmen, portable exhauster transportation from fab shop to field, QC inspection, Safety engineering, Quality engineering, Operational testing, HPT's, Operators, Industrial Hygienist, PIC, and Vent & Balance).</p> <p>Stabilization Activity shall provide support for operational test. Stabilization Activity shall perform operational tests per the instructions specified by test procedures and supporting test procedure job packages.</p> <p>Exhauster installation shall be performed as specified by the installation design and the work instructions provide by the installation work package(s).</p> <p>Stabilization Activity shall accept equipment (500 cfm portable exhausters) for beneficial Use. ABU preparation and gathering of signatures is the responsibility of Flammable Gas Project.</p>	<p>Install Exhauster 1 & Test.</p> <p>Install Exhauster 2 & Test.</p> <p>Install Exhauster 3 & Test.</p> <p>Install Exhauster 4 & Test.</p> <p>Install Exhauster 5 & Test.</p>
<p>Procedures Mgr., T. M. Horner</p>	<p>Develop test plan for operational testing.</p> <p>The existing portable exhauster design will be modified (see Section 1.0 of this ETP) . The modifications will be implemented in the designs for all three exhausters. Design media will be assessed to determine if changes are required in existing plant operating procedures and preventative maintenance procedures.</p>	<p>Test plan for operational test.</p> <p>Plant Operating Procedures.</p> <p>Preventative Maintenance Procedures.</p> <p>Preventative maintenance and surveillance data cards.</p>

ORGANIZATION	GENERAL RESPONSIBILITIES & TASK COMMENTS	DELIVERABLE
<p>Remote Sensing and Sampling Equipment Engineering</p> <p>Mgr., C. E. Hanson Eng., G. E. Rensink</p> <p>Eng., B. A. Vickstrom</p>	<p>Provide field engineering fab support.</p> <p>Plant Forces Work Review (PFWR) is not required for the portable exhauster fabrication and installation task describe herein. The exhausters will be portable and as such do not require PFWR because they are not considered facility modifications. Justification documenting this action is located in Appendix C.</p> <p>The task plan will be developed following the guidance specified in WHC (1996j) regarding work plans.</p> <p>Generate procurement requisitions for Long lead portable exhauster material</p>	<p>Provide PFWR.</p> <p>Provide ETP.</p> <p>Provide fab Support.</p>

5.0 SCHEDULE

See schedule in Appendix A. The schedule covers the fabrication and installation of three portable exhausters and the offsite design and fabrication of two 1000 cfm units. Portable exhauster installation completion dates are dependent on completion of installation work by the Saltwell Stabilization Program.

6.0 COST ESTIMATE

The funding provided for this task is identified in the attached MYPP found in Appendix A.

7.0 REFERENCES

WHC-S-0490, Specification for a Portable Exhauster System for Waste Tank Ventilation

LANL, 1996a, *Issues Associated With The Use Of AN Exhauster During Saltwell Pumping Activities In Single-Shell Tanks That Are On The Flammable Gas Watch List*, TSA10-CN-WT-SA-TH-107 Rev. 0, Los Alamos National Laboratory (Nuclear Systems Design and Analysis Group), Los Alamos, New Mexico

LANL, 1996b, *A Safety Assessment For Salt Well Jet Pumping Operations In Tank 241-A-101: Hanford Site, Richland Washington*, WHC-SD-WM-SAD-036 Rev. 0, Los Alamos National Laboratory, Los Alamos, New Mexico for Westinghouse Hanford Company, Richland, Washington

Rensink, G. E., 1996, *Technical Basis For Portable Exhausters To Support Salt Well Pumping Of Single-Shell Tanks*, WHC-SD-WM-TI-734, Rev.0, Westinghouse Hanford Company, Richland, Washington

WHC, 1996a, *Non Facility Safety Analysis Manual*, WHC-CM-4-46, Rev. 18, Westinghouse Hanford Company, Richland, Washington

WHC, 1996b, *Standard Engineering Practices*, WHC-CM-6-1, Rev. 68, Westinghouse Hanford Company, Richland, Washington

WHC, 1996c, *Functional Requirements for portable exhauster system to be used during saltwell pumping operations*, WHC-SD-WM-DB-035, Rev. 0, Westinghouse Hanford Company, Richland, Washington

WHC, 1996d, *Engineering Task Plan for 500 cfm Portable Exhausters (Engineering Design and Fabrication)*, WHC-SD-WM-ETP-180, Rev. 1, Westinghouse Hanford Company, Richland, Washington

WHC, 1996e, H-14-100737, Rev. 0, *500 cfm Portable Exhauster*, Westinghouse Hanford Company, Richland, Washington

WHC, 1996f, H-14-100763, Rev. 0, *500 cfm Portable Exhauster Skid Details*, Westinghouse Hanford Company, Richland, Washington

WHC, 1996g, H-14-100764, Rev. 0, *Electrical Exhauster Skid One Line Diagram*, Westinghouse Hanford Company, Richland, Washington

WHC, 1996h, H-14-100765, Rev. 0, *Electrical Exhauster Skid Elevation*, Westinghouse Hanford Company, Richland, Washington

WHC, 1996i, H-14-100766, Rev. 0, *Electrical Exhauster Skid Details*, Westinghouse Hanford Company, Richland, Washington

WHC, 1996j, *Engineering Practice Guidelines*, WHC-IP-1026, Rev. 13, Westinghouse Hanford Company, Richland, Washington

WHC, 1996k, Westinghouse Hanford Company TWRS Administration, WHC-IP-0842, Volume IV, Engineering, Section 3.12, Rev. 1, *Acceptance of Structures Systems and Components for Beneficial Use*, Westinghouse Hanford Company, Richland, Washington

APPENDIX A
Schedule and Cost Estimate

Activity ID	Activity Description	FDS1	FDS2	FDS3	FDS4	Budgeted cost
PORTABLE EXHAUSTERS FOR SOPS						
FG91200	FY96 DOE FIN PLAN CARRYOVER (CENRTC)	N2	1	DD	12	1,334,000.00
FGR4240	2ND EXHAUSTER PROCMT AND FAB CYCLE (CENRTC)	N2	1	DD	01	749,998.00
FGR4340	3RD EXHAUSTER PROCMT AND FAB CYCLE (CENRTC)	N2	1	DD	01	749,998.00
FGR4440	4TH EXHAUSTER PROCMT AND FAB CYCLE (CENRTC)	N2	1	DD	01	749,998.00
FGR4540	5TH EXHAUSTER PROCMT AND FAB CYCLE (CENRTC)	N2	1	DD	01	322,004.40
FGR4640	6TH EXHAUSTER PROCMT AND FAB CYCLE (CENRTC)	N2	1	DD	01	322,004.40
FGR4862	COMPLETE FY97 EXHAUSTER SCOPE	N2	1	DD	01	0.00

Activity ID	Activity Description	FDS1	FDS2	FDS3	FDS4	Budgeted cost
FGR4005	CPT TURNOVER OF A101 SST EXHAUSTER (NO RESOURCE)	N2	1	D4	12	0.00
FGR4010	COMPLETE TURNOVER OF A101 SST EXHAUSTER	N2	1	D4	12	0.00
FGR4020	PROVIDE 5 PORT EXHAUSTERS FOR FG SSTs	N2	1	D4	12	0.00
FGR4200	2ND - 4TH EXHAUSTER PROGRAM MGMT SUPPORT	N2	1	D4	12	86,408.40
FGR4500	5TH - 6TH EXHAUSTER PROGRAM MGMT SUPPORT	N2	1	D4	12	86,408.40

Program/Project Title: TWRS Portable Exhausters

DOCUMENTATION REQUIRED FOR ACCEPTANCE FOR BENEFICIAL USE

DESCRIPTION	RESPONSIBILITY	DESCRIPTION	RESPONSIBILITY
EN INEERIN		DP	
☐ Engineering Task Plan	Veith	☐ Software Configuration Mgmt Plan	Veith
☐ Activity Schedule	Veith	☒ System Requirements Spec	Veith
☐ Final Safety Analysis Report	N/A	☒ Software Design Description	Veith
☒ Interim Safety Basis - update	Saueressig	☒ Software Validation/Verification	Veith
☒ Safety Assessment	Saueressig	☐ _____	
☒ Safety Equipment List	Veith	TRAINING	
☒ Operational Safety Requirements - or update existing	Saueressig	☐ Training Plan	N/A
☒ Operational Safety Document(s) - or update existing	Saueressig	☐ Training Manuals	N/A
☒ Design Criteria	Veith	☐ Training to Operating Crews	N/A
☒ System Design Description	Veith	☐ Training to Maintenance Crews	N/A
☐ Test Plan/Specifications	N/A	☐ Training Mock-Up	N/A
☒ Acceptance Test Procedures and Final Test Report	Veith	☐ _____	
☐ Operational Test Procedures and Final Test Report	N/A	OPERATIONS/MAINTENANCE	
☐ Environmental Impact Statement	N/A	☐ Operating and Maintenance Manuals	N/A
☐ Environmental Report	N/A	☐ Operating Procedures	N/A
☐ Environmental Permit	N/A	☐ Surveillance Procedures	N/A
☐ Hazardous Waste Disposal Plan/Procedures	N/A	☐ Calibration Procedures	N/A
		☐ Preventative Maintenance Proc.	N/A
☐ Solid Waste Disposal Plan/Procedure	N/A	☐ Repair/Maintenance Procedures	N/A
☒ Stress/Seismic Analysis	Veith	☐ Functional Check Procedures	N/A
☒ Stress/Design Report	Veith	☐ PM/S Datasheets	N/A
☒ Design Specifications/Report	Veith	☐ _____	
☐ Equipment Specifications	N/A	☐ _____	
☐ Procurement Specifications	N/A	☐ _____	
☐ Construction Specification	N/A	QUALITY ASSURANCE	
☐ Essential Material Specifications	N/A	☐ Inspection Plan	N/A
☒ Final Design Drawings	Veith	☐ QAPP	N/A
☐ Installation Drawings	N/A	☐ QAP P	N/A
☐ Installation Work Plan	N/A	☐ _____	
☒ As-built Drawings	Veith	PROCUREMENT	
☒ Interface Control Drawings	Veith	☒ Vendor Information Files	Veith
☒ IEFD Drawings	Veith	☒ Comprehensive Equip. List	Veith
☒ Systems Drawings	Veith	☐ Spare Parts List	N/A
☐ Drawing Tree	N/A	☐ Spare Parts in Stock	N/A
☒ Incorporate Outstanding Project Generated ECNs	Veith	☐ _____	
☐ _____		☐ _____	
☐ _____			
☐ _____			

DON'T SAY IT --- Write It!

DATE: September 30, 1997

TO: Gary D. Maxwell

B2-64

FROM: G. Eric Rensink

S2-24

Telephone: 373-4681

cc: K. E. Carpenter S2-24
O. D. Nelson S2-24
E. M. Veith H5-68

SUBJECT: Plant Forces Work Review (PFWR) and Saltwell Portable Exhausters

Gary,

Currently we are in the planning stages of a task to fabricate and install three 500 cfm portable exhausters. The exhausters will be employed to ventilate single-shell tanks (SST's) during salt well pumping. The exhausters may conceivably be installed in a signal location for a duration of one to three years.

The ventilation train for each exhauster will consist of a heater, prefilter, two stages of HEPA filtration, exhaust fan and exhaust stack. Each exhauster will be equipped with a programmable logic controller (PLC). The function of the control system is to enable proper operation of the exhauster and alert personnel of alarm situations. The components mentioned above are mounted to a support frame "skid" constructed of carbon steel channel. The skids will be equipped with four leveling jacks. The jacks will be employed to level the skid on uneven terrain. A complete exhauster package measures approximately 22' long by 6' wide. Lifting lugs are mounted to each the skid which provides the capability of moving exhausters from one location to another through the use of a crane and transport truck.

Tasks associated with the temporary installation of a portable exhauster to a tank includes; 1) supplying the unit with 480 volt power, 2) connecting the inlet of the exhauster to a tank riser (spool piece), 3) connecting portable exhauster condensate drain lines (spool pieces) to a tank riser 4) and installing heat trace on the condensate drain lines.

It is my understanding, from earlier discussions with you, that a Plant Forces Work Review (PFWR) would not be required for this task because portable

equipment temporarily installed within a system is not to be interpreted as a facility modification.

Please provide your written thoughts concerning this issue. I would like to add this information to my 500 cfm portable exhauster fabrication and installation engineering task plan, provided a PFWR is indeed not warranted. It will provide traceability indicating that the PFWR was addressed for the task described therein. Hopefully, there is enough information furnished above for you to express your decision.

Thanks
Eric

10/9/96

Eric, thanks for the information.

The aforementioned regarding the fabrication and installation of a portable exhauster mounted on a skid to support salt well pumping, does not come under the constraints of the Davis-Bacon Act.

The Department of Energy Acquisition and Regulations (commonly known as the DEARS is used as the criteria base for the DOE, Labor Standards Board to make decisions on PFWRs) states, "shop fabrication" and "portable equipment" is not applicable to the Davis-Bacon Act. This applies to equipment being used to support operational type activities that doesn't have any construction activities associated with it, and is not a logical part of a construction project. Therefore, no PFWR is required and this work belongs to Plant Forces.

This portable piece of equipment could have been procured, fabricated off-site, delivered to Hanford, placed in the farms, and plugged into an existing power source. Instead Tank Farms decided to fabricate the equipment on-site instead of procuring it off-site, and this is their prerogative.

However, if this work at any time requires excavation, new conduit runs or concrete poured to support the skid then a PFWR would be required.

If you have any questions feel free to call me on 376-1676.

Thanks again Eric for the complete information.

Gary Maxwell
FDH, Davis-Bacon Administrator

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