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Page 1 of 1

1. EDT No 611001

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) LEF Process Engineering	4. Related EDT No.: NA
5. Proj./Prog./Dept./Div.: LEF 200 Area TEDF	6. Cog. Engr.: A.F. Crane	7. Purchase Order No.: NA
8. Originator Remarks: <i>This Operational Test Report is for the performance results for the 200 Area TEDF Operational Test Procedure issued as OEP-68-011, a copy of which is attached.</i>		9. Equip./Component No.: NA
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		12. Major Assm. Dwg. No.: NA
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Document Title: 200 Area Treated Effluent Disposal Facility
Operational Test Report

Release Date: 3/7/95

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March 7, 1995

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Operational Test Report

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6. Author

Name: A.F. Crane

Signature

A.F. Crane 3-6-95

Organization/Charge Code 86230/A2107

7. Abstract

This document reports the results of the 200 Area Treated Effluent Disposal Facility (200 Area TEDF) operational testing activities. These completed operational testing activities demonstrated the functional, operational and design requirements of the 200 Area TEDF have been met.

8.

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200 AREA TREATED EFFLUENT DISPOSAL FACILITY
OPERATIONAL TEST REPORT

TABLE OF CONTENTS

1.0	PURPOSE	1
2.0	TEST PERFORMANCE	1
2.1	TEST EXCEPTIONS	1
2.2	TEST REVISIONS	3
3.0	OBSERVATIONS	4

APPENDICES

A	COMPLETED OPERATIONAL TEST PROCEDURE
B	TEST LOG
C	COMPLETED OPERATIONAL TEST SPECIFICATION
D	DISPOSITIONED TEST EXCEPTION LOGS
E	COMPLETED TEST EXCEPTION REPORTS

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29

200 AREA TREATED EFFLUENT DISPOSAL FACILITY
OPERATIONAL TEST REPORT

1.0 PURPOSE

This document reports the results of the 200 Area Treated Effluent Disposal Facility (200 Area TEDF) operational testing activities. These test activities were conducted according to the 200 Area TEDF Operational Test Procedure, OSP-68-011, to supplement the Acceptance Test Procedure activities conducted per WHC-SD-W049H-ATP-001, WHC-SD-W049H-ATP-002 and WHC-SD-W049H-ATP-003. The successful performance of these test activities has demonstrated the functional, design and operational requirements of the 200 Area TEDF have been met.

2.0 TEST PERFORMANCE

The completed Operational Test Procedure is contained in Appendix A while the Test Log is contained in Appendix B. The completed Operational Test Specification is provided in Appendix C. Section 2.1 identifies and reviews all test exceptions while Section 2.2 describes all Test Revisions written during the performance of the Operational Test Procedure. Dispositioned Test Exception Log sheets are contained in Appendix D and completed Test Exception Reports are contained in Appendix E.

2.1 TEST EXCEPTIONS

Twelve test exceptions were written during the performance of the Operational Test Procedure. They were as follows:

Test exception 01 was written when the closed position signals were not received at the Operator Control Station for valves 68A-V-04 and 68A-V-26. Testing continued and after the limit switches were readjusted, both valves were retested and verified to be functional according to the Operational Test Procedure requirements.

Test exception 02 was written after the pumps in both Stations 1 and 2 could not be started from either the Operator Control Station or the Local Control Units. Testing was put on hold until software problems were corrected. After correction of the software problems, testing was resumed and pump operations were performed according to the requirements of the Operation Test Procedure.

WHC-SD-LEF-OTR-001, Rev 0

Test exception 03 was written to remove the low level alarms LAL-68A004, -68A030, 68B004 and -68B022 from the software after it was identified the alarms were redundant in function with low level alarms LAL-68A005, -68A031, -68B005 and -68B023 due to the similarity of the functional set points. Testing was continued and the requirements to test the low level alarms LAL-68A004, -68A030, 68B004 and -68B022 were deleted from the Operational Test Procedure.

Test exception 04 was written to correct a typographical error in the acceptance criteria for the low level shutoff point initiated from level element LE-68B023. The acceptance criteria was corrected to read $10" \pm 1"$ from $12" \pm 1"$.

Test exception 05 was written to identify the electric check valve 68B-ECV-21 failed to close after pump 68B-P-B1 was shutdown from recirculation operations within Pump Station 2. This characteristic is within the design of the system as the valve requires back pressure to close. Back pressure will be provided during normal operations by the static system head from the discharge piping.

Test exception 06 was written to correct a typographical error in the acceptance criteria for the Automatic Transfer Switch voltage values. The acceptance criteria was corrected to read 464-496 VAC from 395-422 VAC.

Test exception 07 was written to correct a typographical error identifying redundant RCM-A and RCM-D circuit cards at the disposal system local control unit. The requirement to test the redundant RCM-A and RCM-D circuit cards at the disposal system local control unit was removed.

Test exception 08 was written to identify the failure of the Pump Station 2 generator to maintain continued operations. Work package EL-95-0010 was opened to complete the required repairs after which the generator was retested per the requirements of the Operational Test Procedure.

Test exception 09 was generated due to the failure of the Local Operator Interface at the Pump Station 2 local control unit. This failure was found to be due to a software problem. After resolution of the software problem, the system was retested per the requirements of the Operational Test Procedure to verify the Local Operator Interface readings.

Test exception 10 was written to identify the failure of the disposal system composite sampler 68C-SMPL-1 to take a sample and the failure of the disposal system flow meter to operate at lower flow rates. The sampler tubing was checked and the flow meter span recalibrated from 0-3000 gpm to 0-1500 gpm under work package EL-95-0004. After completion of the work package the sampler and flow meter were retested successfully in accordance with the requirements of the Operational Test Procedure.

Test exception 11 was written to identify the inability of the Monitor and Control System graphics to maintain continuous operations for periods longer than twenty four hours. After completion of software troubleshooting, the Monitor and Control System graphics were successfully operated for a ninety six hour period to validate the system capability to maintain continuous operations.

Test exception 12 was written to identify the Pump Station 2 pumps could not be operated continuously for periods longer than 35 minutes in the recirculation mode without tripping out on thermal overload which resulted in the generator being run without being under load for approximately twenty minutes of the three hour required run period. After analysis of current demands and system requirements, the thermal overloads for the pumps were increased by a factor of 1.2 to maintain pump operation for extended periods as part of work request EL-9500013. No retesting was performed as part of the Operational Test Procedure since the data gathered during the three hour generator operating period was sufficient to meet the intent of the Operational Test Procedure, which was to calculate the fuel consumption of the generator.

2.2 TEST REVISIONS

Four test revisions were written to the Operational Test Procedure which supported minimization of water discharged to the disposal ponds and retesting of the generator. Descriptions of the test revisions are as follows:

Test Revision A was written to allow the Person In Charge to equalize the levels between the two sides of the pump station wet well rather than add water from the water truck. This change was implemented to minimize the amount of water discharged to the disposal ponds and did not affect the intent of the Operational Test Procedure.

Test Revision B was written to allow the use of existing water within the pump station wet well to raise the level on one side of the pump station wet well utilizing water from the other side of the pump station wet well. This change was implemented to minimize the amount of water discharged to the disposal ponds and did not affect the intent of the Operational Test Procedure.

WHC-SD-LEF-OTR-001, Rev 0

Test Revision C was written to provide additional duplicate pages for recording of test data during reperformance of generator testing. This change did not affect the intent of the Operational Test Procedure.

Test Revision D was written to eliminate verification of redundant pump operation during generator retesting as the starting of the redundant pump had been previously verified during the earlier generator testing in accordance with the requirements of the Operational Test Procedure. This change did not affect the intent of the Operational Test Procedure.

3.0 OBSERVATIONS

Technical requirements for operational testing of the 200 Area TEF were defined by the 200 Area Treated Effluent Disposal Facility Operational Test Specification (WHC-SD-LEF-TS-001, Rev 2). These technical requirements were defined by the 200 Area Treated Effluent Disposal Facility Operational Test Specification (WHC-SD-LEF-TS-001, Rev 2) test requirements which are presented in Appendix A. Completion of these test requirements demonstrate the following:

Pump station #1 and associated support equipment operate both automatically and manually.

Pump station #2 and associated support equipment operate both automatically and manually.

Water is transported through the collection and transfer lines to the disposal ponds with no detectable leakage.

The disposal ponds accept flow from the transfer lines with all support equipment operating as designed.

The control systems operate and status the 200 Area TEF including monitoring of appropriate generator discharge parameters.

The results of the Operational Test Procedure coupled with the completed Acceptance Test Procedures have demonstrated satisfactory operability of the 200 Area TEF demonstrating the capabilities listed above as well as completing validation of Plant Operating Procedures, Component Index Data Sheet information and Calibration Procedures. All problems observed during testing have been satisfactorily resolved through resolution of the test exceptions.

WHC-SD-LEF-OTR-001, Rev 0

APPENDIX A
COMPLETED OPERATIONAL TEST PROCEDURE

200 AREA LIQUID EFFLUENT FACILITIES

200 AREA TEDF OPERATIONAL TEST PROCEDURE

OSP-68-011

REVISION NO. 0

EFFECTIVE DATE 1/25/95

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<p>Author/Cog. Engineer</p> <p><i>A.F. Crane</i> 1/25/95</p> <p>A.F. Crane</p> <p>Print Name/Signature</p>
--

APPROVAL DESIGNATOR ES

<p>PROCEDURE APPROVAL</p> <p>OPERATIONS MANAGER</p> <p><i>R.B. Wurz</i></p> <p>R.B. Wurz</p> <p>Print Name/Signature</p>
--

APPROVAL SIGNATURES

<p>Cognizant Manager</p> <p>Neal J. Sullivan <i>Neal J. Sullivan</i> 1/25/95</p> <p>N.J. Sullivan</p> <p>Print Name/Signature</p>	<p>Shift Manager</p> <p>TIM DALLAS <i>Tim Dallas</i></p> <p>Print Name/Signature</p>
<p>Environmental</p> <p>Dan Flyckt <i>Dan Flyckt</i></p> <p>D.L. Flyckt</p> <p>Print Name/Signature</p>	<p>Operator</p> <p>FRAN WOLFE <i>Fran Wolfe</i></p> <p>Print Name/Signature</p>
<p>Quality Assurance</p> <p>N/A</p> <p>Print Name/Signature</p>	<p>Safety</p> <p>David O. Hess <i>David O. Hess</i></p> <p>M.A. Treadway</p> <p>Print Name/Signature</p>
<p>Health Physics</p> <p>N/A</p> <p>Print Name/Signature/Organization</p>	<p>Maintenance</p> <p><i>A. Keith Yoakum</i></p> <p>A.K. Yoakum</p> <p>Print Name/Signature</p>

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OHF 50-100-001-001
 PAGE 6
 2-9-39

TEST INTERRUPTION FORM

Operational Test Procedure No.: _____
Test Interruption No.: _____

Reason for Interrupting Test Activity:

Originator _____ Title and Organization _____ Date _____

LEF Operations is authorized to suspend testing at:

Step _____, Page _____ of OTP No. _____.

Approved By: _____
Shift Operations Manager Date/Time _____

The interrupting condition has been resolved as follows:

Conditions to be met prior to test resumption (facility conditions, etc.):

Test Engineer _____ Date _____

PIC _____ Date _____

TEST INTERRUPTION RELEASE:

Shift Operations Manager _____ Date _____

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

SIGNATURE RECORD: By signing below, I attest that I am aware of and understand my duties and responsibilities as described in the Test Plan (WHC-SD-WM-TP-214) and this OTP, and as assigned by the PIC.

SIGNATURE	PRINTED NAME	TITLE	ORGANIZATION
<i>CA Wikstrom</i>	CA WIKSTROM	INST. TECH	MAINT
<i>DT Hembage</i>	DT Hembage	SrH Engineer	OPS
<i>TD Schildknecht</i>	TD SCHILDKNECHT	ELECT	MAINT
<i>AF Crane</i>	AF Crane	Cog	Proc. Eng.
<i>Gary Wolski</i>	GARY WOLSKI	Maint Eng	Maint
<i>DM McChae</i>	DM McChae	m/w	MAINT
<i>R F. Carrigan</i>	R F. Carrigan	NPO	OPS
<i>Garrett Meador</i>	GARRETT MEADOR	NPO	OPS
<i>Peggy Fiscus</i>	PEGGY FISCUS	NAA	OPS
<i>George F. Gilman</i>	GEORGE F. GILMAN	NPO	OPS
<i>JAMES W. Brooks</i>	JAMES W. BROOKS	NPO	OPS
<i>KD PRANT</i>	KD PRANT	NPO	OPS
<i>J.M. Petty</i>	J.M. PETTY	PIC	OPERATION
<i>LD Burton</i>	LD BURTON	NPO	OPS
<i>Bruce E. Godfrey</i>	BRUCE GODFREY	NPO	OPS

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 2 OF 4

SIGNATURE RECORD: By signing below, I attest that I am aware of and understand my duties and responsibilities as described in the Test Plan (WHC-SD-WM-TP-214) and this OTP, and as assigned by the PIC.

SIGNATURE	PRINTED NAME	TITLE	ORGANIZATION
ROBERT S. PAULINA	SHIFT ENGINEER	OPS / 86220
TIM DALLAS	Shift Manager	OPS 86220
ROBERT W. GOFFLAND	Nuclear Process Operator	ops / 86220
ALVIN E. ANDOR	NPO	OPS/86220
M W Hickey	NPO	Ops/86220
John V. Petty	NPO	ops/86220
John J. Ursic	NPO	ops/86220
Lisa L. Ingram	NPO	86220 ops/86220
Mary A. Garner	NPO	ops/86220
Shaaron J. Vermeulen	NPO	ops/86220
FRAN WOLFE	NPO	ops/86220
PHILIP HARRIS	NO	ops/86220
JEFF BAILEY	NO	ops/86220
Gennie HACK	NPO	OPS/86220
V.L. HENZEL	NPO	ops 86220

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SIGNATURE RECORD: By signing below, I attest that I am aware of and understand my duties and responsibilities as described in the Test Plan (WHC-SD-WM-TP-214) and this OTP, and as assigned by the PIC.

[illegible]

CONTROLLED COPY 1 OF 4

TEST EXCEPTION LOG

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
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Acronym List

ATP	Acceptance Test Procedure
ATS	Automatic Transfer Switch
ECV	Electric Check Valve
HVAC	Heating, Ventilation & Air Conditioning
LOI	Local Operator Interface
MCC	Motor Control Center
MCS	Monitor and Control System
OCS	Operator Control Station
OSP	Operating Special Procedure
OTP	Operational Test Procedure
PIC	Person-In-Charge
TEDF	Treated Effluent Disposal Facility

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

1.0 TITLE

200 Area TEDF Operational Test Procedure

2.0 PURPOSE

This test procedure will provide for completion of those technical requirements identified in the 200 Area Treated Effluent Disposal Facility Operational Test Specification (WHC-SD-LEF-TS-001, Rev 0). Those requirements include:

Pump station #1 and associated support equipment operate both automatically and manually.

Pump station #2 and associated support equipment operate both automatically and manually.

Water is transported through the collection and transfer lines to the disposal ponds with no detectable (visible) leakage.

The disposal ponds accept flow from the transfer lines with all support equipment operating as designed.

The control systems operate and status the 200 Area TEDF including monitoring of appropriate generator discharge parameters.

This procedure will also be used for validation of Plant Operating Procedures, Component Index Data Sheet information and Calibration Procedures as well as for hands on operator training. Monitor and Control System graphic interface/displays and will also be validated during testing activities. Unless otherwise stated, all actions will be performed and indications taken at the OCS unless otherwise stated.

3.0 PREREQUISITES

3.1 Pre-start Conditions

3.1.1 Indicating transmitters and instruments have current calibration stickers and are valved in properly per Appendix 1.

Signature: J. M. Kelly Date/Time: 1-30-95 / 1137
Person-In-Charge

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
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- 3.1.2 Controlling computer software is available for testing and the event printer is operational.

Signature: [Signature] Date/Time: 1-30-95/12:55
Cognizant Engineer

- 3.1.3 An approved Washington State Waste Discharge Permit Application for One Time/Limited Duration Discharge to Ground for the discharge of 160,000 gallons of raw water during the period of performance of this OTP is in force.

Signature: [Signature] Date/Time: 1-30-95/12:15
200 Area LEF Env. Compliance Officer

- 3.1.4 All ATPs have been completed.

WHC-SD-W049H-ATP-001: ATP for Project W-049H Disposal System
WHC-SD-W049H-ATP-002: ATP for Project W-049H Collection System
WHC-SD-W049H-ATP-003: Project W-049H Instrument & Control ATP

Signature: [Signature] Date/Time: 1-30-95/12:43
Cognizant Engineer

- 3.1.5 Insure arrangements have been made to provide water for testing activities.

Signature: [Signature] Date/Time: 1-30-95/12:13
Person-In-Charge

- 3.1.6 The PIC, the Test Engineer(s), and Test Operators have been indoctrinated in the requirements of this plan before conducting any test activities.

Signature: [Signature] Date/Time: 1-30-95/12:13
Person-In-Charge

- 3.1.7 At beginning of each shift, brief personnel involved in test, distribute data sheets as required, place personnel in position, and establish communications as required. All personnel participating in the performance of the OTP shall show completion of this requirement by signing the pre-job data sheet.

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
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- 3.1.8 All test personnel have completed the signature record sheet attesting that they are aware of and understand their duties and responsibilities as described in the Test Plan (WHC-SD-WM-TP-214) and this procedure, and as assigned by the PIC.

Signature: Jim Petty Date/Time: 1-30-95 / 1214
Person-In-Charge

- 3.1.9 System and equipment walkdowns have been completed by the Test Engineer to ensure all components are correctly configured to support beginning the test activities.

Signature: [Signature] Date/Time: 1-30-95 / 1215
Test Engineer

- 3.1.10 Qualified personnel per the Operational Test Plan for the 200 Area Liquid Effluent Facility (WHC-SD-WM-TP-214, Rev 0) have been designated to act as Person-In-Charge by the LEF Operations Manager.

Approved Person-In-Charge

Jim Petty

Tim Dallas

Signature: [Signature] Date/Time: 1/30/95
Operations Manager 1231

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

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- 3.1.11 Qualified personnel per the Operational Test Plan for the 200 Area Liquid Effluent Facility (WHC-SD-WM-TP-214, Rev 0) have been designated to act as Test Engineer(s) by the Manager, LEF Process Engineering.
Approved Test Engineer(s)

A.F. CraneD.T. HeimbergerR.S. Pavlina

Signature: [Signature] Date/Time: 1/30/95 (¹²⁴⁰~~1340~~ hr)
Manager, Process Engineering (12)

- 3.1.12 Obtain release from Operations management prior to beginning performance of this procedure.

Signature: [Signature] Date/Time: 1/30/95
Operations Manager 1215

- 3.1.13 All 200 Area TEDF operating special procedures have been validated prior to beginning performance of this procedure.

Signature: [Signature] Date/Time: 1/30/95
Operations Manager 1215

- 3.1.14 A Job Hazard Analysis has been completed prior to beginning performance of this procedure.

Signature: [Signature] Date/Time: 1/30/95
Operations Manager 1215

- 3.1.15 Obtain release from Operations management prior to beginning performance of this procedure.

Signature: [Signature] Date/Time: 1/30/95
Operations Manager 1215

200 AREA TEDF Operational Test Procedure

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4.0 PRECAUTIONS AND LIMITATIONS

4.1 If during performance of this procedure, any of the following conditions are found, immediately notify the Person-In-Charge:

- Any equipment malfunction which could prevent fulfillment of it's functional requirements.
- Personnel error or procedural inadequacy which could prevent fulfillment of procedural requirements.

The Person-In-Charge may choose to stop work and place equipment in a safe condition based on the significance of the malfunction, error or inadequacy.

4.2 Contact Person-In-Charge for additional instructions if changing plant conditions affect work or delays in work extend past end of shift.

4.3 If any waste is generated during performance of this instruction consult Facility/Plant/Area Hazardous Waste Coordinator for specific instructions to ensure compliance with WHC and DOE environmental standards, as applicable, for disposal.

4.4 Comply with WHC and plant/facility specific lock and tag or over-tagging requirements, as applicable.

4.5 Steps may be performed out of sequence as directed by the Person-In-Charge. If performance of any steps in this procedure is not required for procedure completion, the steps not performed shall be indicated as such by entering "N/A" in the appropriate signoff space and explained in the COMMENTS/REMARKS section.

200 AREA TEDF Operational Test Procedure
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- 4.6 All Measuring and Test Equipment (M&TE) used during performance of this procedure to collect qualitative data with the exception of timing devices shall meet the following requirements:
- Be within its current calibration cycle as evidenced by an affixed calibration label.
 - Be capable of desired range.
 - Have an accuracy consistent with state-of-the-art limitations:
 - equal to or greater than the input tolerance specified on the Data Sheet,
- 4.7 Timing measurements shall be made with commercially available time devices.
- 4.8 The Person-In-Charge has overall control of the testing process and change authorization for this procedure. They are responsible for running the test, data collection, and ensuring compliance with all requirements in this procedure.
- 4.9 All readings are to be taken and recorded for each location where the capability exists (i.e. local instrument, LOI, OCS).
- 4.10 To meet permitted discharge limits, total discharges to the disposal pond from all testing activities must be limited to less than 160,000 gallons as read at the disposal site flow transmitter (FE/FT-68C-003).

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.0 INSTRUCTIONS

NOTE

Signatures shall be provided confirming successful completion of a test activity. Should the test activity be repeated for training of operations personnel and/or validation of operating procedures, no additional signatures are required. Additionally, should the test activity be repeated for training of operations personnel and/or validation of operating procedures, no additional data collection is required.

NOTE

During the performance of this test procedure, document any needed procedure changes on the OSP being used. Document any abnormal/unexpected events and problems or comments on a Test Log sheet, Appendix 2. ~~At the discretion of the PIC, the pump station wet well~~

QAC 02/03/95

5.1 Heating, Ventilation, and Air Conditioning (HVAC) Start-up and Testing

5.1.1 Using Operations Special Procedure (OSP)-68-001, verify pump station ventilation fan systems, steps 3.0, 4.0, and 5.1.

Action Completed for Pump Station 1, Bldg. 225W: •

Signature: KD Grant Date/Time: 1/30/95 1359

Action Completed for Pump Station 2, Bldg. 225E:

Signature: KD Grant Date/Time: 1/30/95 1453

At the discretion of the PIC, the pump station wet well levels may be equalized during the performance of this test procedure by operation of the sluice gate.

QAC 2/3/95
1320

200 AREA TEF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.1.2 Using OSP-68-001, verify pump station and disposal sampling building heating systems, step 5.3.

Acceptance Criteria: Verify heater operation

Action Completed for Pump Station 1, Bldg. 225W:

Signature: TD Grant Date/Time: 1/30/95 1359

Action Completed for Pump Station 2, Bldg. 225E:

Signature: TD Grant Date/Time: 1/30/95 1453

Action Completed for Disposal System Sample Building, Bldg. 6653:

Signature: TD Grant Date/Time: 1/30/95 1520

- 5.1.3 Using OSP-68-001, verify pump station and disposal sampling building heat pump systems, step 5.5.

Acceptance Criteria: Verify heat pump heating and cooling cycle operation

Action Completed for Pump Station 1, Bldg. 225W:

Signature: TD Grant Date/Time: 1/30/95 1359

Action Completed for Pump Station 2, Bldg. 225E:

Signature: TD Grant Date/Time: 1/30/95 1453

Action Completed for Disposal System Sample Building, Bldg. 6653:

Action Completed:
Signature: TD Grant Date/Time: 1/30/95 1520

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.2 System Pre-Start Preparations

- 5.2.1 Using OSP-68-002, perform sampler pre-start verifications, sections 3.0, 4.0, and 5.1.

Action Completed:

Signature: AD Thraut Date/Time: 2/2/95 1505

- 5.2.2 Using OSP-68-004, perform disposal system pre-start verifications, sections 3.0, 4.0, and 5.1. Record disposal site totalizer value at FT-68C-003.

FT-68C-003 Totalizer Value: 000

Action Completed:

Signature: AD Thraut Date/Time: 2/2/95 1505
Signature: R. L. Cuffed Date/Time: 1/30/95 1750

- 5.2.3 Using OSP-68-003, perform pre-start verifications for Pump Stations 1 & 2, sections 3.0, 4.0, 5.1, and 5.7.

Action Completed Pump Station 1:

Signature: AD Thraut Date/Time: 2/2/95 1440
Signature: R. L. Cuffed Date/Time: 1/30/95 2200

Action Completed Pump Station 2:

Signature: AD Thraut Date/Time: 2/2/95 1510
Signature: R. L. Cuffed Date/Time: 1/30/95 2330

Verify JL Dan

- 5.2.4 ~~Using~~ ^{Verify} OSP-55-001, perform start-up Monitor and Control System, sections 3.0, 4.0, 5.1, 5.2, and 5.3.

Action Completed:

Signature: AD Thraut Date/Time: 2/2/95 1415

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

5.3 Start-up of Systems

NOTE

The sampler should be set up to take a "composite" sample during the testing. This will require temporary parameters determined by the cognizant engineer. Document these temporary parameters on a Test Log sheet, Appendix 2.

- 5.3.1 Using OSP-68-002, perform start-up and initialization of composite sampler, sections 5.2, 5.3, 5.4, and 5.5. Use parameters supplied by the cognizant engineer. Document these temporary parameters on a Test Log sheet, Appendix 2.

Action Completed:

Signature: J. M. Petty Date/Time: 2-10-95/1000

- 5.3.2 Using OSP-68-004, perform start-up of disposal system, section 5.2. Attempt to close the open valve and verify valves MV-68C-004 & MV-68C-005 cannot both be shut at the same time using the LOI. Reperform Step 5.2 of OSP-68-004 to properly position valves for disposal system operation.

Action Completed:

Signature: R. M. Luff Date/Time: 2/3/95 1445

- 5.3.3 Using OSP-55-001, perform steps in sections 5.5 - 5.12. This portion of the test verifies operability of the MCS system.

J. J. Danner
2-3-95
2350

Action Complete:

Signature: J. J. Danner Date/Time: 2/3/95 2350

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.4 System Component Control Testing (Valves/Pumps)

- 5.4.1 Place pumps 68A-P-A1, 68A-P-A2, 68A-P-B1, 68A-P-B2, 68B-P-A1 & 68B-P-B1 in "Manual" and "Stop" at the OCS per OSP-68-003.

Action Completed Pump Station 1:

Signature: Rv Gifford Date/Time: 2/3/95 1140

Action Completed Pump Station 2:

Signature: Rv Gifford Date/Time: 2/3/95 1648

WARNING

Valves may move without warning. Do not place hands or fingers inside valve mechanisms when energized.

- 5.4.2 Verify valves can be stroked fully open and closed as identified in Appendix 3. As measured at the valve, document opening and closing times and verify proper indication is displayed at the OCS and appropriate LOI per OSD-68-003 in accordance with Appendix 3.

Verify failsafe operation of motorized valves by opening the breaker (Pump Station #1 - Panel Breaker 11, Pump Station #2 - Panel Breaker 12) with the valve in the closed position and verifying the valve opens on loss of power. Document verifications on Appendix 3.

Test
Exception
01

Action Completed Pump Station 1:

Signature: WM Cameron Date/Time: 2/6/95 2200

Action Completed Pump Station 2:

Signature: Rv Gifford Date/Time: 2/3/95 1923

Action Completed Disposal Station:

Signature: WM Cameron Date/Time: 2/6/95 2200

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

CAUTION

Do not run pumps without water, this may damage pumps.

5.4.3 Manual Pump Operation

Align Pump Station 1 & 2 valves to recycle to both Side A and Side B without discharging from the respective pump station to the disposal system per OSP-68-003. Verify there is a minimum water level of 18 inches. Verify pumps listed in Appendix 4 can be started and stopped manually using the manual controls at the OCS, LOI, and MCC per OSP-68-003. Verify each pump can be stopped utilizing the ESTOP controls at the OCS per OSP-68-003. Document ability to start/stop pumps on Appendix 4. Verify proper indication of pump status at both OCS and LOI.

TEST
Exception
02

Action Completed Pump Station 1:

Signature: William M. Cameron

Date/Time: 2-7-95

Action Completed Pump Station 2:

Signature: J. M. Little

Date/Time: 2-6-95/2210

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5 Low Low Level Switch Shutoff Verification

5.5.1 LE-68A-005/Pump 68A-P-A1

- 5.5.1.1 Verify software engineer has bypassed the 36 inch low level pump shutoff in the Pump Station 1 operating software.

Action Completed Pump Station 1:

Signature: J. L. Hambl Date/Time: 2-6-95
20:00

- 5.5.1.2 Align Pump Station 1 valves to discharge to Side B without discharging to the disposal system and for single side operation per OSP-68-003.

Action Completed Pump Station 1:

Signature: W. M. Cameron Date/Time: 2-7-95 0125

- 5.5.1.3 Manually start pump 68A-P-A1 from the LOI per OSP-68-003 to reduce the level on Side A to 13 inches $\pm$ 1 inch. If Side B level will exceed 264 inches indicated, stop pump 68A-P-A1 and realign Pump Station 1 valves to discharge to the disposal pond per OSP-68-003 then resume manual operation of pump 68A-P-A1 to reduce the level on Side A to 13 inches $\pm$ 1 inch. If pump does not shut off on low-low level, manually shut down pump 68A-P-A1 from the LOI per OSP-68-003.

Document pump shut off on low-low level.

Record level Side A low-low level shutoff is actuated.

Acceptance Criteria: Pump 68A-P-A1 shuts off at indicated level of 14 inches $\pm$ 1 inch.

Low-low level shutoff actuates at: 14.4 inches

Action Complete:

Signature: William M. Cameron Date/Time: 2-7-95
0147

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5.1.3 Manually start pump 68A-P-A1 from the MCC per OSP-68-003 to reduce the level on Side A to 9 inches $\pm$ 1 inch. Record level Side A low-low level alarm is received at the OCS.

Acceptance Criteria: Low-low level alarm is received at indicated level of 10 inches $\pm$ 1 inch.

Low-low level alarm actuates at: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

5.5.1.4 ^{manually shut off} Place pump 68A-P-A1 in "~~Manual~~" and "~~Stop~~" at the ^{mcc} ~~OCS~~ per OSP-68-003.

Action Completed Pump Station 1:

Signature: [Signature] Date/Time: 2-29-00

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5.2 LE-68A-031/Pump 68A-P-B1

- 5.5.2.1 Align Pump Station 1 valves to discharge to Side A without discharging to the disposal system and for single side operation per OSP-68-003.

Action Completed Pump Station 1:

Signature: Rw. Gifford Date/Time: 2/7/95

- 5.5.2.2 Manually start pump 68A-P-B1 from the LOI per OSP-68-003 to reduce the level on Side B to 11 inches $\pm$ 1 inch. If Side A level will exceed 264 inches indicated, stop pump 68A-P-B1 and realign Pump Station 1 valves to discharge to the disposal pond per OSP-68-003 then resume manual operation of pump 68A-P-B1 to reduce the level on Side B to 11 inches $\pm$ 1 inch. If pump does not shut off on low-low level, manually shut down pump 68A-P-B1 from the LOI per OSP-68-003.

Document pump shut off on low-low level.

Record level Side B low-low level shutoff is actuated.

Acceptance Criteria: Pump 68A-P-B1 shuts off at indicated level of 12 $\pm$ 1 inch.

Low-low level shutoff actuates at: 12.25
9 inches
wnc

Action Complete:

Signature: William Cameron Date/Time: 1943
2-7-95

- 5.5.2.3 Manually start pump 68A-P-B1 from the MCC per OSP-68-003 to reduce the level on Side B to 9 inches $\pm$ 1 inch. Record level Side B low-low level alarm is received at the OCS.

Acceptance Criteria: Low-low level alarm is received at indicated level of 10 $\pm$ 1 inches.

Low-low level alarm actuates at: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

Test
Exception
03

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5.2.4 ^{Manually shut off} ~~Place~~ pump 68A-P-B1 in ~~"Manual"~~ and ~~"Stop"~~ at the ^{mcc} ~~OCS~~ per OSP-68-003.

Action Completed Pump Station 1:

Signature: J. M. Petty Date/Time: ¹⁹⁵⁰ 2-7-95

5.5.3 LE-68A-005/Pump 68A-P-A2

5.5.3.1 Align Pump Station 1 valves to discharge to Side B without discharging to the disposal system and for single side operation per OSP-68-003.

Action Completed Pump Station 1:

Signature: W. M. Cameron Date/Time: ⁰²⁴⁰ 2-7-95

5.5.3.2 Manually start pump 68A-P-A2 from the LOI per OSP-68-003 to reduce the level on Side A to 13 inches $\pm$ 1 inch. If pump does not shut off on low-low level, manually shut down pump 68A-P-A2 from the LOI per OSP-68-003.

Document pump shut off on low-low level.

Record level Side A low-low level shutoff is actuated.

Acceptance Criteria: Pump 68A-P-A2 shuts off at indicated level of 14 inches $\pm$ 1 inch.

Low-low level shutoff actuates at: 14.2 inches

Action Complete:

Signature: Robert Gifford Date/Time: 2/7/95 0505

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.5.3.3 Manually start pump 68A-P-A2 from the MCC per OSP-68-003 to reduce the level on Side A to 9 inches $\pm$ 1 inch. Record level Side A low-low level alarm is received at the OCS.

Acceptance Criteria: Low-low level alarm is received at indicated level of 10 inches $\pm$ 1 inch.

Low-low level alarm actuates at: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

- 5.5.3.4 ^{MANUALLY SHUT OFF} Place pump 68A-P-A2 in "Manual" and "Stop" at the ^{MCC} OCS per OSP-68-003.

Action Completed Pump Station 1:

Signature: J. M. Petty Date/Time: 2-7-95/0510

5.5.4 LE-68A-031/Pump 68A-P-B2

- 5.5.4.1 Align Pump Station 1 valves to discharge to Side A without discharging to the disposal system and for single side operation per OSP-68-003.

Action Completed Pump Station 1:

Signature: W. M. Cameron Date/Time: 2-7-95
0216

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.5.4.2 Manually start pump 68A-P-B2 from the LOI per OSP-68-003 to reduce the level on Side B to 11 inches $\pm$ 1 inch. If pump does not shut off on low-low level, manually shut down pump 68A-P-B2 from the LOI per OSP-68-003.

Document pump shut off on low-low level.

Record level Side B low-low level shutoff is actuated.

Acceptance Criteria: Pump 68A-P-B2 shuts off at indicated level of 12 $\pm$ 1 inch.

Low-low level shutoff actuates at: 12.2 inches

Action Complete:

Signature: WM Cameron Date/Time: 0235
2-7-95

- 5.5.4.3 Manually start pump 68A-P-B2 from the MCC per OSP-68-003 to reduce the level on Side B to 9 inches $\pm$ 1 inch. Record level Side B low-low level alarm is received at the OCS.

Acceptance Criteria: Low-low level alarm is received at indicated level of 10 $\pm$ 1 inches.

Low-low level alarm actuates at: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

- 5.5.4.4 ^{MANUALLY SHUT OFF} Place pump 68A-P-B2 in "Manual" and "Stop" at the ^{MCC} ~~OCS~~ per OSP-68-003.

Action Completed Pump Station 1:

Signature: J. M. Kelly Date/Time: 2-7-95 / 0240

- 5.5.4.5 Verify software engineer has reactivated the 36 inch low level pump shutoff in the Pump Station 1 operating software.

Action Completed Pump Station 1:

Signature: A. Campbell (Side A) Date/Time: 2-7-95 16:25
A. Heimbach (Side B) 2-7-95 21:45

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5.5 LE-68B-005/Pump 68B-P-A1

- 5.5.5.1 Verify software engineer has bypassed the 36 inch low level pump shutoff in the Pump Station 2 operating software.

ml
2-6-95 2000

Action Completed Pump Station 1:

Signature: ML Cameron Date/Time: 2-6-95 20:00

- 5.5.5.2 Align Pump Station 2 valves to discharge to Side B without discharging to the disposal system and for single side operation per OSP-68-003.

ml
2-6-95 2000

Action Completed Pump Station 1:

Signature: WM Cameron Date/Time: 2-6-95 2 302

- 5.5.5.3 Manually start pump 68B-P-A1 from the LOI per OSP-68-003 to reduce the level on Side A to 12 inches $\pm$ 1 inch. If Side B level will exceed 84 inches indicated, stop pump 68B-P-A1 and realign Pump Station 2 valves to discharge to the disposal pond per OSP-68-003 then resume manual operation of pump 68B-P-A1 to reduce the level on Side A to 12 inches $\pm$ 1 inch. If pump does not shut off on low-low level, manually shut down pump 68B-P-A1 from the LOI per OSP-68-003.

Document pump shut off on low-low level.

Record level Side A low-low level shutoff is actuated.

Acceptance Criteria: Pump 68B-P-A1 shuts off at indicated level of 13 inches $\pm$ 1 inch.

Low-low level shutoff actuates at: 12.97 inches

Action Complete:

Signature: WM Cameron Date/Time: 2-6-95
2316

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

- 5.5.5.3 Manually start pump 68B-P-A1 from the MCC per OSP-68-003 to reduce the level on Side A to 8 inches $\pm$ 1 inch. Record level Side A low-low level alarm is received at the OCS.

Acceptance Criteria: Low-low level alarm is received at indicated level of 9 inches $\pm$ 1 inch.

Low-low level alarm actuates at: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

- 5.5.5.4 ^{manually shut off} Place pump 68B-P-A1 in ~~"Manual"~~ and ~~"Stop"~~ at the ^{MCC} ~~OCS~~ per OSP-68-003.

Action Completed ^{MP 2-6-95} ~~Pump Station 1:~~

Signature: J. M. Kelly Date/Time: 2-6-95/2319

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5.6 LE-68B-023/Pump 68B-P-B1

- 5.5.6.1 Align Pump Station 2 valves to discharge to Side A without discharging to the disposal system and for single side operation per OSP-68-003.

Action Completed Pump Station <sup>mp 6-95
2000</sup> 4:

Signature: WM Cameron Date/Time: 0242
2-7-95

- 5.5.6.2 Manually start pump 68B-P-B1 from the LOI per OSP-68-003 to reduce the level on Side B to 9 inches $\pm$ 1 inch. If Side A level will exceed 84 inches indicated, stop pump 68B-P-B1 and realign Pump Station 2 valves to discharge to the disposal pond per OSP-68-003 then resume manual operation of pump 68B-P-B1 to reduce the level on Side B to 9 inches $\pm$ 1 inch. If pump does not shut off on low-low level, manually shut down pump 68B-P-B1 from the LOI per OSP-68-003.

Document pump shut off on low-low level.

Record level Side B low-low level shutoff is actuated.

Acceptance Criteria: Pump 68B-P-B1 shuts off at indicated level of 12 10
 $\pm$ 1 inch.

Ji Davis
2-7-95/0738

Low-low level shutoff actuates at: 9.9 inches

Action Complete:

Signature: WM Cameron Date/Time: 0310
2-7-95

- 5.5.6.3 Manually start pump 68B-P-B1 from the MCC per OSP-68-003 to reduce the level on Side B to 8 inches $\pm$ 1 inch. Record level Side B low-low level alarm is received at the OCS.

Acceptance Criteria: Low-low level alarm is received at indicated level of 9 $\pm$ 1 inches.

Low-low level alarm actuates at: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

TEST
EXCEPTION
04

TEST
EXCEPTION
03

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.5.6.4 ^{manually} ~~Place~~ ^{shut off} pump 68B-P-B1 in "Manual" and "Stop" at the ^{MCC} ~~OCS~~ per OSP-68-003.

Action Completed ~~Pump Station 1:~~ ²⁻⁶⁻⁹⁵

Signature: J. M. Petty Date/Time: 2-7-95/0315

5.5.6.5 Verify software engineer has reactuated the 36 inch low level pump shutoff in the Pump Station 2 operating software.

Action Completed ~~Pump Station 1:~~ ²⁻⁶⁻⁹⁵

Signature: S. L. Camm Date/Time: 2-7-95
1625

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6 Level Element/ECV Operation/Pressure Indication Testing

5.6.1 Pump Station 1, Side A - LE/LT-68A-004, 68A-P-A1, 68A-P-A2, 68A-ECV-03, 68A-ECV-08, PIT-68A-003U, PIT-68A-003D, PIT-68A-008U, PIT-68A-008D

5.6.1.1 Align Pump Station 1 valves to discharge to Side B without discharging to the disposal system and for single side operation per OSP-68-003. Manually start pump 68A-P-A2 from the MCC per OSP-68-003 and reduce the level on Side A to 8 inches $\pm$ 1 inch. If Side B level will exceed 60 inches indicated, stop pump 68A-P-A2 and realign Pump Station 1 valves to discharge to the disposal pond per OSP-68-003 and resume manual operation of pump 68A-P-A2 to reduce the level on Side A to 8 inches $\pm$ 1 inch. Manually shut down pump 68A-P-A2 from the MCC per OSP-68-003.

B
RSP
7 FEB 95
12:10

Bruce E. Zeddy

2/9/95 1957
Action Complete:

Signature: R. Zeddy

Date/Time: 2/8/95 0825

B

5.6.1.2 ~~Align Pump Station 1 valves to discharge to the disposal system and for single side operation of Side B per OSP-68-003. Manually start pump 68A-P-B2 from the MCC per OSP-68-003 to reduce the level on Side B to less than or equal to 60 inches. Manually shut down pump 68A-P-B2 from the MCC per OSP-68-003. Align Pump Station 1 valves to pump from Side B to Side A without discharging to the ponds, per OSP-68-003.~~

RSP
7 FEB 95
12:14

Action Complete:

Signature: Bruce E. Zeddy

Date/Time: 2/8/95 0830

B

5.6.1.3 Using OSP-68-003, place pumps 68A-P-A1 & 68A-P-A2 in automatic operation ~~discharging to side A.~~

RSP
7 FEB 95
12:15

Action Complete:

Signature: Bruce E. Zeddy

2/9/95 1959
Date/Time: 2/8/95

5.6.1.4 ~~Stage water supply for delivery to Pump Station 1, Side A.~~

~~Action Completed:~~

~~Signature: _____ Date/Time: _____~~

RSP
7 FEB 95
12:15

B

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

~~Caution~~

~~Utilize appropriate barriers and fall protection devices around open manholes and hatches. Secure all hoses prior to initiating discharges to prevent hose whip.~~

REP
7 FEB 95
12:16

- ~~5.6.1.5~~ Verify MV68A002 and 68A-SLG-1 are closed and MV68A001 is Open per per OSP-68-003.

Action Complete:

~~Signature:~~ _____ ~~Date/Time:~~ _____

- 5.6.1.6 ~~Initiate water supply to Pump Station 1, Side A. Do not allow water to~~
~~buildup and overflow manhole or back up into influent lines.~~

Start either Pump CEA-P-B1 or CEA-P-B2 as required to transfer water from side B to side A.

REP
7 FEB 95
12:17

Action Complete:

Signature: Bruce E. Dwyer Date/Time: 2/9/95 20:01

- 5.6.1.7 Record level Side A low-low level alarm/indication clears.

Acceptance Criteria: Alarm clears at indicated level of 10 inches $\pm$ 1 inch.

Level low-low alarm cleared: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

TEST
EXCEPTION
#3

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.1.8 When pump 68A-P-A1 starts, record level, 68A-ECV-03 opening time and discharge pressures in recirculation mode.

OSP
7 FEB 95
12:21

Acceptance Criteria: Pump starts at indicated level of 54 ± 1 inches.

Level pump 68A-P-A1 started: 54.3 inches

Action Completed

Signature: Bruce E. Gaffney
Date/Time: 2/9/95 20:02

68A-ECV-03 opening time: 1.54 seconds

5.6.1.8 i Shot off the B side pump (68A-P-A1 & 68A-P-A2) and record discharge pressures & amps in recirculation mode

PIT-68A-003U pressure: PIT 19.1 psig

LOI 18.9 psig

MCS 19.02 psig

OSP
7 FEB 95
12:21

PIT-68A-003D pressure: PIT 12.9 psig

LOI 12.82 psig

MCS 17.84 psig

Pump 68A-P-A1 amps: LOI 39.09 amps

OCS 39.0 amps

Action Complete:

Signature: Bruce E. Gaffney Date/Time: 2/9/95 20:07

AMP
2-3-95
12:43

~~5.6.1.8 i~~ ~~Cease water supply to Pump Station #1, Side A~~

5.6.1.9 Using OSP-68-003, place pumps 68A-P-A1 & 68A-P-A2 in manual and stop.

OSP
7 FEB 95
12:22

Action Complete:

Signature: Bruce E. Gaffney Date/Time: 2/9/95 20:10

5.6.1.10 Switch pump discharge to Side B per OSP-68A-003.

Action Complete:

Signature: Bruce E. Gaffney Date/Time: 2/9/95 20:16

5.6.1.11 Using OSP-68-003, place pumps 68A-P-A1 & 68A-P-A2 in automatic discharging to Side B. Verify pump 68A-P-A1 restarts.

Action Complete:

Signature: Bruce E. Gaffney Date/Time: 2/9/95 21:00

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.1.12 When pump 68A-P-A1 stops, record level.

Acceptance Criteria: Pump stops at indicated level of 36 inches $\pm$ 1 inch.

Level pump 68A-P-A1 stopped: 35.84 inches

Action Complete:

Signature: Bruce E. Daffey Date/Time: 21:01
2-9-95

5.6.1.13 Switch pump discharge to Side A per OSP-68A-003.

Action Complete:

Signature: Bruce E. Daffey Date/Time: 21:59
2/9/95

5.6.1.14 ~~Initiate water supply to Pump Station 1, Side A. Do not allow water to~~
~~buildup and overflow manhole or back up into influent lines.~~

Manually start either pump 68A-P-B1 or 68A-P-B2 as required to transfer water from side B to Side A.

Action Complete:

Signature: Bruce E. Daffey Date/Time: 21:07 2/9/95

5.6.1.15 Verify pump 68A-P-A1 stops when the water level reaches 60 inches $\pm$ 1 inch.

Acceptance Criteria: Pump stops at indicated level of 60 inches $\pm$ 1 inch.

Level pump 68A-P-A1 stopped: 60.1 inches

Action Complete:

Signature: Bruce E. Daffey Date/Time: 21:15

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

- 5.6.1.16 Verify pump 68A-P-A2 starts when the water level reaches 60 inches $\pm$ 1 inch and record levels, 68A-ECV-08 opening time and ~~discharge pressures in recirculation mode.~~

OSP
7/9/95
12:21
B

Acceptance Criteria: Pump 68A-P-A2 starts at indicated level of 60 $\pm$ 1 inches.

Action Completed
Signature: Bruce E. Radtke
Date/Time: 7/9/95 21:18

Level pump 68A-P-A2 started: 60.18 inches

68A-ECV-08 opening time: 62 seconds

- 5.6.1.16.1 Shut off the B side pump (68A-P-B1 & 68A-P-B2) and record discharge

PIT-68A-008U pressure: PIT 36.3 psig Pressures in the recirculation mode. $\uparrow$ amps

LOI 35.74 psig

MCS 46.02 psig
WMC 36.38

OSP
7/9/95
12:24

PIT-68A-008D pressure: PIT 34.3 psig

LOI 34.78 psig

MCS 64.86 psig
WMC 35.60

Pump 68A-P-A2 amps: LOI 81.81 amps

OCS 81.6 amps

- 5.6.1.16.2 Shut off pump 68A-P-A2 using the ESTOP per OSP-68-003. Action completed: Signature: Bruce E. Radtke Date/Time: 7/9/95 21:18:47

- 5.6.1.16.3 Place pumps 68A-P-A1 & 68A-P-A2 in manual train reset ESTOP Action Completed: action complete! Signature: Bruce E. Radtke Date/Time: 7/9/95 21:23

- 5.6.1.16.4 Start Pump 68A-P-B1 on the MCC Signature: _____ Date/Time: _____
per OSP-68-003. action completed! Signature: Bruce E. Radtke Date/Time: 7/9/95 21:24

- 5.6.1.17 Record level side A high level alarm/indication is received.

Acceptance Criteria: Alarm activates at level of 72 inches $\pm$ 1 inch.

High level alarm Side A activated: 71.8 inches

Action Complete:

Signature: Bruce E. Radtke Date/Time: 7/9/95 21:25

- 5.6.1.18 ~~Cease water supply to Pump Station 1, Side A. Manually stop Pump 68A-P-B1 on the MCC per OSP-68-003.~~

Action Complete:

Signature: Bruce E. Radtke Date/Time: 7/9/95 21:29 B

OSP
7/9/95
12:24

200 AREA TEF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.1.19 Stop pump 68A-P-A2 from the OCS using the ESTOP per OSP-68-003.

Action Complete:

Signature: _____ Date/Time: _____

5.6.1.20 Using OSP-68-003, place pumps 68A-P-A1 & 68A-P-A2 in manual and stop.

Action Complete:

Signature: _____ Date/Time: _____

RSP
7 FEB 95
12:46

△

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.2 Pump Station 1, Side B - LE/LT-68A-030, 68A-P-B1, 68A-P-B2,
68A-ECV-20, 68A-ECV-25, PIT-68A-020U, PIT-68A-020D,
PIT-68A-025U, PIT-68A-025D

5.6.2.1 Align Pump Station 1 valves to discharge to Side A without
discharging to the disposal system and for Side B single side
operation per OSP-68-003. Manually start pump 68A-P-B2 from the
MCC per OSP-68-003 and reduce the level on Side B to 8 inches $\pm$
1 inch. If Side A level will exceed 96 inches indicated, stop pump
~~68A-P-B2 and realign Pump Station 1 valves to discharge to the~~
~~disposal pond per OSP-68-003. Resume manual operation of pump~~
~~68A-P-B2 and reduce the level on Side B to 8 inches $\pm$ 1 inch.~~
Manually shut down pump 68A-P-B2 from the MCC per OSP-68-

OSP
7 FEB 95
12:45
B

5.6.2.1.1

Align pump station 003.
Valving to pump from side A to B without
discharging to the disposal ponds per OSP-68-003
action complete

Signature: Bruce E. Daffrey
Date/Time: 2/9/95 21:32

Action Complete:

Signature: Bruce E. Daffrey Date/Time: 2/9/95 21:30

5.6.2.2 Using OSP-68-003, place pumps 68A-P-B1 & 68A-P-B2 in automatic
operation ~~discharging to side "B"~~.

OSP
7 FEB 95
12:50
B

Action Complete:

Signature: Bruce E. Daffrey Date/Time: 2/9/95 21:33

~~5.6.2.3 Stage water supply for delivery to Pump Station 1, Side B.~~

~~Action Complete:~~

~~Signature: _____ Date/Time: _____~~

OSP
7 FEB 95
12:52
B

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

~~-Caution-~~

~~Utilize appropriate barriers and fall protection devices around open manholes and
hatches. Secure all hoses prior to initiating discharges to prevent hose whip.~~

5.6.2.4 ~~Ensure MV68A001 and 68A-SLG-1 are closed and MV68A002 is
Open per OSP-68-003.~~

-Action-Complete:

-Signature: _____ Date/Time: _____

5.6.2.5 ~~Initiate water discharge to Pump Station 1, Side B. Do not allow
water to buildup and overflow manhole or back up into influent lines.~~
Manually start either Pump 68A-P-A1 or 68A-P-A2 as required to transfer water
from side A to side B.

Action Complete:

Signature: Bruce E. Jeffrey Date/Time: 21:36
2-9-95
2136

5.6.2.6 Record level Side B low-low level alarm clears.

Acceptance Criteria: Alarm clears at indicated level of 10 inches $\pm$ 1
inches.

Level low-low alarm cleared: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

200 AREA TEF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.2.7 When pump 68A-P-B1 starts, record level, 68A-ECV-20 opening time and discharge pressures in recirculation mode.

Acceptance Criteria: Pump starts at indicated level of 54 ± 1 inches.

Level pump 68A-P-B1 started: 54.3 inches
54.03 inches

Action Complete

Signature Bruce E. Radfey

Date/Time 2/9/95 21:30

68A-ECV-20 opening time: 15 seconds

5.6.2.7.1 Shut off A-side pump (68A-P-A1 or 68A-P-A2) and record pressure in recirculation mode.

PIT-68A-020U pressure: PIT 31.5 psig

LOI 31.59 psig

MCS 31.46 psig

PIT-68A-020D pressure: PIT 30.4 psig

LOI 30.31 psig

MCS 30.26 psig

Pump 68A-P-B1 amps: LOI 38.4 amps

OCS 37.7 amps

Action Complete:

Signature: Bruce E. Radfey

Date/Time: 2/9/95 21:43

5.6.2.8 Cease water supply to Pump Station 1, Side B.

Action Complete:

Signature: _____

Date/Time: _____

5.6.2.9 Using OSP-68-003, place pumps 68A-P-B1 & 68A-P-B2 in manual and stop.

Action Complete:

Signature: Bruce E. Radfey

Date/Time: 21:46

2-9-95

5.6.2.10 Switch pump discharge to Side A per OSP-68A-003.

Action Complete:

Signature: Bruce E. Radfey

Date/Time: 2/9/95 21:47

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
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- 5.6.2.11 Using OSP-68-003, place pumps 68A-P-B1 & 68A-P-B2 in automatic discharging to side "A". Verify pump 68A-P-B1 restarts.

Action Complete:

Signature: Bruce E. Radtke Date/Time: 21:48
2-9-95

- 5.6.2.12 When pump 68A-P-B1 stops, record level.

Acceptance Criteria: Pump 68A-P-B1 stops at indicated level of 36 inches $\pm$ 1 inch.

Level pump 68A-P-B1 stopped: 35.9 inches

Action Complete:

Signature: Bruce E. Radtke Date/Time: 21:54
2-9-95

- 5.6.2.13 Switch pump discharge to Side B per OSP-68A-003.

Action Complete:

Signature: Bruce E. Radtke Date/Time: 21:55
2-9-95

- 5.6.2.14 ~~Initiate water discharge to Pump Station 1, Side B. Do not allow~~
~~water to buildup and overflow manhole or back up into influent lines.~~
manually start either pump 68A-P-A1 or 68A-P-A2 as required to pump from
side A to side B

Action Complete:

Signature: Bruce E. Radtke Date/Time: 21:55 21:58

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.2.15 Verify pump 68A-P-B1 stops when the water level reaches 60 inches ± 1 inch.

Acceptance Criteria: Pump stops at indicated level of 60 inches ± 1 inch.

Level pump 68A-P-B1 stopped: 60.03 inches

Action Complete:

Signature: Bruce E. Reddy Date/Time: 2/9/95 22:06

5.6.2.16 Verify pump 68A-P-B2 starts when the water level reaches 60 inches ± 1 inch and record levels, 68A-ECV-025 opening time and ~~recirculation~~ discharge pressures in recirculation mode.

Acceptance Criteria: Pump 68A-P-B2 starts at indicated level of 60 ± 1 inches.

Level pump 68A-P-B2 started: 60.05 inches

5.6.2.16.1 Shut off pump 68A-P-A1 or 68A-P-A2 and record pressures & amps in recirculation mode.

68A-ECV-025 opening time: 120 seconds

PIT-68A-025U pressure: PIT 66.8 psig
LOI 66.63 psig
MCS 66.14 psig

PIT-68A-025D pressure: PIT 62.1 psig
LOI 62.6 psig
MCS 64.48 psig

Pump 68A-P-B2 amps: LOI 84.14 amps
OCS 83.3 amps

Action Complete:

Signature: Bruce E. Reddy Date/Time: 2/9/95 22:11

5.6.2.16.2 Shot down pump 68A-P-B2 from OCS using the ESTOP per OSP-68-003

Action completed

Signature: Bruce E. Reddy Date/Time: 2/9/95 22:13

5.6.2.16.3 Place pumps 68A-P-B1 and 68A-P-B2 into manual and reset the ESTOP

Action Complete signature: Bruce E. Reddy Date/Time: 2/9/95 22:15

5.6.2.16.4 Start pump 68A-P-A1 from mcc per OSP-68-003

37 of 89

action complete
Signature: Bruce E. Reddy Date/Time: 2/9/95 22:17

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.2.17 Record level Side B high level alarm/indication is received.

Acceptance Criteria: Alarm activates at level of 72 inches $\pm$ 1 inch.

High level alarm Side B activated: 71.6 inches

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/9/95 22:18

5.6.2.18 ~~Cease water supply to Pump Station 1, Side B.~~
~~Shutdown pump 68A-P-B1 by MCC per OSP-68-003~~

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/9/95 22:19
2219

5.6.2.19 ~~Stop pump 68A-P-B2 from the OCS using the ESTOP per OSP-68-003.~~

Action Complete:

Signature: _____ Date/Time: _____

5.6.2.20 ~~Using OSP-68-003, place pumps 68A-P-B1 & 68A-P-B2 in manual and stop.~~

Action Complete:

Signature: _____ Date/Time: _____

ASP
7 FEB 95
13:07

ASP
7 FEB 95
13:09

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.3 Pump Station 2, Side A - LE/LT-68B-004, 68B-P-A1, 68B-ECV-03,
PIT-68A-003U, PIT-68A-003D

- 5.6.3.1 Align Pump Station 2 valves to discharge to Side B without discharging to the disposal system and for single side operation per OSP-68-003. Manually start pump 68B-P-A1 from the MCC per OSP-68-003 and reduce the level on Side A to 8 inches $\pm$ 1 inch. If ~~Side B level will exceed 24 inches indicated, stop pump 68B-P-A1 and realign Pump Station 2 valves to discharge to the disposal pond per OSP-68-003. Resume manual operation of pump 68B-P-A1 to reduce the level on Side A to 8 inches $\pm$ 1 inch. Manually shut down pump 68B-P-A1 from the MCC per OSP-68-003.~~

Action Complete:

Signature: R. Loffel Date/Time: 2/8/95

PSP
7 FEB 95
13:15

△

- 5.6.3.2 ~~Align Pump Station 2 valves to discharge to the disposal system and for single side operation of Side B per OSP-68-003. Manually start pump 68B-P-B1 from the MCC per OSP-68-003 and reduce the level on Side B to less than 24 inches. Manually shut down pump 68B-P-B1 from the MCC per OSP-68-003. Align pump station 2 valves to pump from side B to side A without discharging to the ponds, per OSP-68-003.~~

PSP
7 FEB 95
13:20

△

Signature: Bruce E. Loffel Date/Time: 2/8/95

Action Complete: 1950
2/8/95 1450
1358

- 5.6.3.3 Using OSP-68-003, place pump 68B-P-A1 in automatic discharging to ~~Side B.~~

PSP
7 FEB 95
13:20

△

Signature: Bruce E. Loffel Date/Time: 2/8/95

Action Complete: 1950
2/8/95 1450
1401

- ~~5.6.3.4 Stage water supply for delivery to Pump Station 2, Side A.~~

Action Complete:

Signature: _____ Date/Time: _____

PSP
7 FEB 95
13:20

△

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

Utilize appropriate barriers and fall protection devices around open manholes and hatches. Secure all hoses prior to initiating discharges to prevent hose whip.

PS17
7/23/95
13:22
B

5.6.3.5 Verify MV68B002 and 68B-SLG-41 are closed and MV68B001 is Open per OSP-68-003.

Action Complete:

Signature: _____ Date/Time: _____

5.6.3.6 Initiate water supply to Pump Station 2, Side A. Do not allow water to buildup and overflow manhole. Start Pump 68B-P-131 from MCC to transfer water from side B to side A.

PS17
7/23/95
13:22

Bruce E. Reddy

Action Complete:

2/8/95 17:55 1452

Signature: R. Reddy Date/Time: 2/8/95 1403

TEST EXCEPTION
No. 3

5.6.3.7 Record level side A low-low level alarm/indication clears.

Acceptance Criteria: Alarm clears at indicated level of 9 inches $\pm$ 1 inch.

Level low-low alarm cleared: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.3.8 When pump 68B-P-A1 starts, record level, 68B-ECV-03 opening time and ~~discharge pressures in recirculation mode.~~

Acceptance Criteria: Pump starts at indicated level of 48 ± 1 inches.

Level pump 68B-P-A1 started: 48.13 inches

68B-ECV-03 opening time: 90 seconds

5.6.3.8.1 Stop pump 68B-P-B1 from MCC and record pressures ^{in recirculation mode}

PIT-68B-003U pressure: PIT 21.6 psig

LOI 21.34 psig

MCS 21.57 psig

PIT-68B-003D pressure: PIT 18.3 psig

LOI 18.47 psig

MCS 18.24 psig

Pump 68B-P-A1 amps: LOI 38.8 amps

5.6.3.8.2 Stop pump 68B-P-A1 from OLS OCS 36.9 amps

Verify the ESTOP per OSP-68-003

Action complete: signature Bruce E. Zeff date/time 2/9/95 17:44

Action Complete:

5.6.3.8.3 Place pump 68B-P-A1 into Manual mode reset ESTOP per OSP-68-003

Action complete signature Bruce E. Zeff date/time 2/9/95 17:45

Signature: _____

Date/Time: _____

5.6.3.8.4 Start Pump 68B-P-B1 from MCC per OSP-68-003

Action complete signature Bruce E. Zeff date/time 17:55

5.6.3.9 Record level Side A high level alarm/indication is received.

Acceptance Criteria: Alarm activates at level of 54 inches $\pm$ 1 inch.

High level alarm Side A activated: 54.4 inches

Action Complete:

Signature: Bruce E. Zeff Date/Time: 2/9/95 17:56

5.6.3.10 Cease water supply to Pump Station 2, Side A.

Stop Pump 68B-P-B1 from MCC.

Action Complete:

Signature: _____ Date/Time: _____

Action Complete

Signature Bruce E. Zeff Date/Time 2/9/95 17:56

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

~~5.6.3.11 Stop pump 68B-P-A1 from the OCS using the ESTOP per OSP-68-003.~~

Action Complete: 203
75095
13147.
B

Signature: _____ Date/Time: _____

5.6.3.12 Switch pump discharge to Side B per OSP-68A-003.

Action Complete:

Signature: Bruce E. Goffey Date/Time: 2/9/95 18:00

5.6.3.13 Using OSP-68-003, place pump 68B-P-A1 in automatic discharging to side B.

Action Complete:

Signature: Bruce E. Goffey Date/Time: 2/9/95 18:00

5.6.3.14 When pump 68B-P-A1 stops, record level.

Acceptance Criteria: Pump stops at indicated level of 36 inches $\pm$ 1 inch.Level pump 68B-P-A1 stopped: 35.5 inches 36.0
35.5

Action Complete:

Signature: Bruce E. Goffey Date/Time: 2/9/95 18:06

5.6.3.15 Using OSP-68-003, place pump 68B-P-A1 in manual and stop.

Action Complete:

Signature: Bruce E. Goffey Date/Time: 2/9/95 18:08

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.4 Pump Station 2, Side B - LE/LT-68B-022, 68B-P-B1, 68B-ECV-21,
PIT-68A-021U, PIT-68A-021D

- 5.6.4.1 Align Pump Station 2 valves to discharge to Side A without discharging to the disposal system and for single side operation per OSP-68-003. Manually start pump 68B-P-B1 from the MCC per OSP-68-003 to reduce the level on Side B to 8 inches $\pm$ 1 inch. ~~If Side A level will exceed 24 inches indicated, stop pump 68B-P-B1 and realign Pump Station 2 valves to discharge to the disposal pond per OSP-68-003. Resume manual operation of pump 68B-P-B1 to reduce the level on Side B to 8 inches $\pm$ 1 inch. Manually shut down pump 68B-P-B1 from the MCC per OSP-68-003.~~

RSP
7 FEB 95
13:52
B

5.6.4.1.1 Align pump station 2 valving to pump from side A to side B without discharging to the pond, per OSP-68-003

Action complete Signature: R. W. Lafford
Date/Time: 2/8/95 1246

Signature: R. W. Lafford Date/Time: 2/8/95

Action Complete:

- 5.6.4.2 Using OSP-68-003, place pump 68B-P-B1 in automatic discharging to Side B.

RSP
7 FEB 95
13:55
B

Action Complete:

Signature: R. W. Lafford Date/Time: 2/8/95 1248

- 5.6.4.3 ~~Stage water supply for delivery to Pump Station 2, Side B.~~

Action Complete:

Signature: _____ Date/Time: _____

RSP
7 FEB 95
13:56
B

Caution

Utilize appropriate barriers and fall protection devices around open manholes and hatches. Secure all hoses prior to initiating discharges to prevent hose whip.

RSP
7 FEB 95
13:57
B

- 5.6.4.4 Verify MV68B001 and 68B-SLG-41 are closed and MV68B002 is Open per OSP-68-003.

Action Complete:

Signature: _____ Date/Time: _____

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.4.5 ~~Initiate water supply to Pump Station 2, Side B. Do not allow water to buildup and overflow manhole. Start pump 68B-P-A1 from the MCC per OSP-68-003.~~

EST
7 FEB 95
13:57
B

Action Complete:

Signature: Rw/affled Date/Time: 2/8/95 12:52

TEST
Exception
No 3

5.6.4.6 Record level Side B low-low level alarm/indication clears.

Acceptance Criteria: Alarm clears at indicated level of 9 inches $\pm$ 1 inch.

Level low-low alarm cleared: _____ inches

Action Complete:

Signature: _____ Date/Time: _____

5.6.4.7 When pump 68B-P-B1 starts, record level, 68B-ECV-21 opening time and discharge pressures in recirculation mode.

Acceptance Criteria: Pump starts at indicated level of 48 $\pm$ 1 inches.

Level pump 68B-P-B1 started: 48.12 inches

68B-ECV-21 opening time: 22.42 seconds

actions complete
signature: Rw/affled
date/time: 2/8/95 1304

5.6.4.7.1 Stop pump 68B-P-A1 from MCC and record pressures in recirculation mode
PIT-68B-021U pressure: PIT 30.1 psig #amps
LOI 32.94 psig
MCS 32.03 psig

PIT-68B-021D pressure: PIT 32.1 psig
LOI 30.30 psig
MCS 29.59 psig

Pump 68B-P-B1 amps: LOI 35.66 amps

5.6.4.7.2 Stop pump 68B-P-B1 from OCS OCS 35.4 amps
using the ESTOP
action complete signature: Rw/affled date/time: 2/8/95 1309

Action Complete:

5.6.4.7.3 Place pump 68B-P-B1 into Manual ^{stop} and reset
ESTOP per OSP-68-003

Signature: _____ Date/Time: _____

action complete signature: Rw/affled date/time: 2/8/95 1310

5.6.4.7.4 Start pump 68B-P-A1 from MCC per OSP-68-003

action complete signature: Rw/affled date/time: 2/8/95 1317 #pc

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.4.8 Record level Side B high level alarm/indication is received.

Acceptance Criteria: Alarm activates at level of 54 inches $\pm$ 1 inch.

High level alarm Side B activated: 53.9 inches

Action Complete:

Signature: R.W. Coffey Date/Time: 2/8/95 1319

5.6.4.9 ~~Cease water supply to Pump Station 2, Side B.~~
~~Stop pump 68B-P-B1 from OCS.~~

Action Complete:

Signature: R.W. Coffey Date/Time: 2/8/95 1319

5.6.4.10 ~~Stop pump 68B-P-B1 from the OCS using the ESTOP per OSP-68-~~
~~003.~~

Action Complete:

Signature: _____ Date/Time: _____

5.6.4.11 Switch pump discharge to Side A per OSP-68A-003.

Action Complete:

Signature: R.W. Coffey Date/Time: 2/8/95 1320

5.6.4.12 Using OSP-68-003, place pump 68B-P-B1 in automatic discharging to side A.

Action Complete:

Signature: R.W. Coffey Date/Time: 2/8/95 1325

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.6.4.13 When pump 68B-P-B1 stops, record level.

Acceptance Criteria: Pump stops at indicated level of 36 inches $\pm$ 1 inch.

Level pump 68A-P-B1 stopped: ^{at 36.05}~~35~~ inches

Action Complete:

Signature: R. W. / d. J. [Signature] Date/Time: 2/8/95 1331

5.6.4.14 Using OSP-68-003, place pump 68B-P-B1 in manual and stop.

Action Complete:

Signature: R. W. / d. J. [Signature] Date/Time: 2/8/95 1332

5.7 Pump Logic/Sluice Gate Interlock/Discharge, Sampler & Standby Power Testing

5.7.1 Pump Station 1

5.7.1.1 Stage water supply for delivery to Pump Station 1.

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/9/95 12:38

Caution

Utilize appropriate barriers and fall protection devices around open manholes and hatches. Secure all hoses prior to initiating discharges to prevent hose whip.

5.7.1.2 Verify MV68A001, MV68A002 and 68A-SLG-1 are Open per OSP-68-003.

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/9/95

200 AREA TEF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.1.3 Initiate water supply to Pump Station 1.

Action Complete:

Signature: Bruce E. Duffey Date/Time: 2/9/95 21:39

5.7.1.4 Cease water discharge to Pump Station 1 upon reaching a wet well level of 61 to 63 inches.

Action Complete:

Signature: Bruce E. Duffey Date/Time: 2/9/95 21:40

5.7.1.5 Align Pump Station 1 valves to discharge to Side A & B without discharging to the disposal system per OSP-68-003. Place pumps 68A-P-A1, 68A-P-A2, 68A-P-B1 & 68A-P-B2 in automatic from the OCS per OSP-68-003. Record which pump (68A-P-A2 or 68A-P-B2) started.

Pump started: 68A-P-A2

Action Complete:

Signature: Bruce E. Duffey Date/Time: 2/9/95 22:43

5.7.1.6 Place pumps 68A-P-A1, 68A-P-A2, 68A-P-B1 & 68A-P-B2 in manual and stop from MCS using OSP-68-003.

Action Complete:

Signature: Bruce E. Duffey Date/Time: 2/9/95 22:45

5.7.1.7 Place pumps 68A-P-A1, 68A-P-A2, 68A-P-B1 & 68A-P-B2 in automatic from the OCS per OSP-68-003. Verify redundant pump from Step 5.7.1.6 of this test procedure started.

Pump started: 68A-P-B2

Action Complete:

Signature: Bruce E. Duffey Date/Time: 2/9/95 22:47

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.7.1.8 On the front of the ATS Cabinet at Pump Station 1, record the values on the ATS Checklist for UTILITY power operation. Have personnel remain at the front of the ATS Cabinet while the following steps are performed, so the transfer times can be measured.

PUMP STATION #1 - UTILITY (NORMAL) POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	24230	<i>[Signature]</i> 2-9-95/2250
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	485	<i>[Signature]</i> 2-9-95/2250
Phase 2 to 3 (Select Pos 2)	395-422	485	<i>[Signature]</i> 2-9-95/2250
Phase 3 to 1 (Select Pos 3)	395-422	485	<i>[Signature]</i> 2-9-95/2250
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	90	<i>[Signature]</i> 2-9-95/2250
Phase 2 to 3 (Select Pos 2)	N/A	90	<i>[Signature]</i> 2-9-95/2250
Phase 3 to 1 (Select Pos 3)	N/A	90	<i>[Signature]</i> 2-9-95/2250
Frequency (Hz)	58-62	59	<i>[Signature]</i> 2-9-95/2250

TEST
Exception
OK

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

NOTE

Communications to the OCS may be interrupted. Document alarms received at OCS.

- 5.7.1.9 Record the time and OPEN pump station normal power feeder disconnect, F8X651 at the power pole located north of the building. Record when power successfully transfers and verify the Utility light on the ATS Cabinet is OFF and the EMERGENCY light is ON. Document the following:

Record time the normal power feeder disconnect is opened:

22:56:30

Record time the power transfers:

22:56:48

Calculate ATS transfer time:

18 seconds

VERIFY Alarm JA-68A019 exists

OCS:

✓

LOI:

✓

VERIFY ZS-68A019 (ATS Status) ON

OCS:

✓

LOI:

✓

VERIFY pump 68A-P-A2 or 68A-P-B2 started. Circle operating pump in previous sentence.

OCS:

✓

LOI:

✓

VERIFY all lights, HVAC fans, and instrument indications have returned to typical operation.

5.7.1.10 On the front of the ATS Cabinet, record the values on the ATS Checklist for EMERGENCY power operation.

PUMP STATION #1 - EMERGENCY POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/ Signature
Hour meter	N/A	24232	J. M. Kelly 2-9-95/2302
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	485	J. M. Kelly 2-9-95/2302
Phase 2 to 3 (Select Pos 2)	395-422	485	J. M. Kelly 2-9-95/2302
Phase 3 to 1 (Select Pos 3)	395-422	485	J. M. Kelly 2-9-95/2302
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	90	J. M. Kelly 2-9-95/2302
Phase 2 to 3 (Select Pos 2)	N/A	90	J. M. Kelly 2-9-95/2302
Phase 3 to 1 (Select Pos 3)	N/A	95	J. M. Kelly 2-9-95/2302
Frequency (Hz)	58-62	59	J. M. Kelly 2-9-95/2302

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

NOTE

Communications to the OCS may be interrupted. Document alarms received at OCS.

NOTE

The following information is collected for future use.

- 5.7.1.11 When operation of all equipment has been verified, record the time and CLOSE normal power feeder disconnect, F8X651. Record when power successfully transfers, and verify the Utility light on the ATS Cabinet is ON and the EMERGENCY light is OFF.

Acceptance Criteria:

Record time the normal power feeder disconnect is closed:	<u>23:05:08</u>
Record time the power transfers:	<u>23:06:06</u>
Calculate ATS transfer time:	<u>58</u> seconds
RECORD ATS transfer time:	<u>58</u> seconds
VERIFY Alarm JA-68A019 cleared	OCS: <u>✓</u> LOI: <u>✓</u>
VERIFY ZS-68A019 is OFF	OCS: <u>✓</u> LOI: <u>✓</u>
VERIFY pump 68A-P-A2 or 68A-P-B2 started. Circle operating pump.	OCS: <u>✓</u> LOI: <u>✓</u>

VERIFY all lights, HVAC fans, and instrument indications have returned to typical operation.

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.1.12 On the front of the ATS Cabinet, record the values on the ATS Checklist for UTILITY power operation.

PUMP STATION #1 - UTILITY (NORMAL) POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	24233	<i>[Signature]</i> 2-9-95/2308
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	485	<i>[Signature]</i> 2-9-95/2308
Phase 2 to 3 (Select Pos 2)	395-422	485	<i>[Signature]</i> 2-9-95/2308
Phase 3 to 1 (Select Pos 3)	395-422	485	<i>[Signature]</i> 2-9-95/2308
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	90	<i>[Signature]</i> 2-9-95/2308
Phase 2 to 3 (Select Pos 2)	N/A	90	<i>[Signature]</i> 2-9-95/2308
Phase 3 to 1 (Select Pos 3)	N/A	95	<i>[Signature]</i> 2-9-95/2308
Frequency (Hz)	58-62	59	<i>[Signature]</i> 2-9-95/2308

TEST
Exception
86

5.7.1.13 Place pumps 68A-P-A1, 68A-P-A2, 68A-P-B1 & 68A-P-B2 in manual and stop from MCS using OSP-68-003.

Action Complete:

Signature: *Bruce E. [Signature]* Date/Time: 2/9/95 23:11

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

- 5.7.1.14 Using OSP-68-002, verify samplers 68C-SMPL-1 & 68C-SMPL-2 are operational. Align Pump Station 1 valves to discharge to the disposal system per OSP-68-003. Place pump 68A-P-A2 in manual operation and start from the OCS per OSP-68-003. Record flow and pressure.

68A-P-A2 at FT-68A-052 as 800 to 1500 gpm
Flow 974 gpm

PIT-68A-008U pressure: PIT 70.7 psig
LOI 71.42 psig
OCS 70.05 psig

PIT-68A-008D pressure: PIT 69.4 psig
LOI 68.56 psig
OCS 68.94 psig

Pump 68A-P-A2 amps: LOI 82.19 amps
OCS 82.8 amps

Action Complete:

Signature: Bruce E. Telford Date/Time: 7/10/65 17:13

- 5.7.1.15 Place pump 68A-P-A2 in manual and stop from MCS using OSP-68-003.

Action Complete:

Signature: Bruce E. Telford Date/Time: 7/10/65 17:13

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

5.7.1.16 Place pump 68A-P-B2 in manual operation and start from the OCS per OSP-68-003, steps 5.4 and 5.6 and record flow and pressure.

68A-P-B2 at FT-68A-052 OCS Flow 600 to 1200 gpm
LOF 931 5 AM

PIT-68A-025U pressure: PIT 74 psig
LOI 72.13 psig
OCS 73.03 psig

PIT-68A-025D pressure: PIT 62.5 psig
LOI 69.48 psig
OCS 70.27 psig

Pump 68A-P-B2 amps: LOI 75.3 amps
OCS 76.7 amps

Action Complete:

Signature: Bruce E. Duffy Date/Time: 2/10/95 17:20

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.1.17 Place pump 68A-P-A2 in manual and start from the OCS using OSP-68-003 and record flow and pressure.

68A-P-A2 & 68A-P-B2 at FT-68A-052 Combined ^{600 to 1200} OCS ^{gpm}
Flow: 829 gpm

PIT-68A-008U pressure: PIT 84.2 psig
LOI 80.7 psig
OCS 80.95 psig
81.78

PIT-68A-008D pressure: PIT 78.7 psig
LOI 80.08 psig
OCS 82.06 psig

PIT-68A-025U pressure: PIT 73.8 psig
LOI 82.9 psig
OCS 82.76 psig

PIT-68A-025D pressure: PIT 73.6 psig
LOI 81.04 psig
OCS 81.29 psig

Pump 68A-P-A2 amps: LOI 57.45 amps
OCS 68.9 amps

Pump 68A-P-B2 amps: LOI 56.32 amps
OCS 56.4 amps

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/10/95
17:32

5.7.1.18 Place pumps 68A-P-A2 & 68A-P-B2 in manual and stop from OCS using OSP-68-003. Record ECV closure time.

ECV-68A-008 Closure Time 46.7 seconds

ECV-68A-025 Closure Time 06 seconds

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/10/95
17:35

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

5.7.1.19 Place pump 68A-P-A1 in manual operation and start from the OCS per OSP-68-003. Record flow and pressure.

68A-P-A1 at FT-68A-052	OCS Flow	340 ± 352	gpm
	LOI	377	9pm
PIT-68A-003U pressure:	PIT	48.4	psig
	LOI	52.13	psig
	OCS	50.77	psig
PIT-68A-003D pressure:	PIT	48.2	psig
	LOI	50.48	psig
	OCS	50.73	psig
Pump 68A-P-A1 amps:	LOI -LCU	31.8	amps
	OCS	30.7	amps

RSP
17-2895
02103

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/10/95
18:02

5.7.1.20 Place pump 68A-P-A1 in manual and stop from OCS using OSP-68-003. Record ECV closure time.

ECV-68A-003 Closure Time 23.9 seconds

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/10/95
18:04

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

5.7.1.21 Place pump 68A-P-B1 in manual operation and start from the OCS per OSP-68-003. Record flow and pressure.

68A-P-B1 at FT-68A-052

OCS 340 to 352 gpm
LOI Flow 334.8 gpm

PIT-68A-020U pressure:

PIT 48.8 psig
LOI 50.51 psig
OCS 51.00 psig

PIT-68A-020D pressure:

PIT 48.5 psig
LOI 49.03 psig
OCS 50.46 psig

Pump 68A-P-B1 amps:

LOI 30.31 amps
OCS 30.3 amps

Action Complete:

Signature: Bruce E. Bradley Date/Time: 2/10/95
1807

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

5.7.1.22 Place pump 68A-P-A1 in manual and start from MCS using OSP-68-003. Record flow and pressure.

68A-P-A1 & 68-P-B1 at FT-68A-052

Combined Flow:

440 + 0.445
420 gpm *cat*
OCS

PIT-68A-003U pressure:

PIT 51.9 psig
LOI 51.79 psig
OCS 51.55 psig

PIT-68A-003D pressure:

PIT 52.0 psig
LOI 52.04 psig
OCS 51.98 psig

PIT-68A-020U pressure:

PIT 52.5 psig
LOI 52.47 psig
OCS 52.63 psig

PIT-68A-020D pressure:

PIT 52.0 psig
LOI 51.99 psig
OCS 51.94 psig

Pump 68A-P-A1 amps:

LOI 29.47 amps
OCS 29.3 amps

Pump 68A-P-B1 amps:

LOI ~~LCU~~ 28.48 amps
OCS 28.5 amps

RP
10 FEB 95
07:03

Action Complete:

Signature: Bruce E. [Signature] Date/Time: 2/10/95
10:12

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.7.1.23 Continue lowering basin level to 55 inches and place pumps 68A-P-A1 & 68A-P-B1 in manual and stop from OCS using OSP-68-003. Record ECV closure time.

ECV-68A-003 Closure Time 22.6 seconds

ECV-68A-020 Closure Time 17.7 seconds

Action Complete:

Signature: Bruce E. Zolney Date/Time: 2/10/95
10:14

- 5.7.1.24 After discharge at the disposal ponds has stopped, retrieve samples from sampler 68C-SMPL-1 and deliver to WSCF per OSP-68-002

Action Complete:

Signature: J. M. Kelly Date/Time: 2-15-95
1541

- 5.7.1.25 Verify water level in Pump Station 1 is 55 to 59 inches. Add additional water if required.

Action Complete:

Signature: Bruce E. Zolney Date/Time: 2/10/95
10:19

- 5.7.1.26 Align Pump Station 1 valves to discharge to Side A & B without discharging to the disposal system per OSP-68-003. Place pumps 68A-P-A1 & 68A-P-B1 in automatic from the OCS per OSP-68-003. Record which pump (68A-P-A1 or 68A-P-B1) started.

Pump started: 68A-P-A1

Starting level: 58.1 inches

Action Complete:

Signature: Bruce E. Zolney Date/Time: 2/10/95
10:23

TEST
EXCEPTION
10

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

- 5.7.1.27 Stop operating pump 68A-P-A1 or 68A-P-B1 from the OCS using the ESTOP per OSP-68-003. Place pumps 68A-P-A1 & 68A-P-B1 in manual and stop from MCS using OSP-68-003. Reset ESTOP per OSP-68-003.

Action Complete:

Signature: Bruce E. Telford Date/Time: 2/10/95
18:25

- 5.7.1.28 Place pumps 68A-P-A1 & 68A-P-B1 in automatic from the OCS per OSP-68-003. Verify redundant pump from above started and stop pump 68A-P-A1 or 68A-P-B1 from the OCS using the ESTOP per OSP-68-003.

Pump started: 68A-P-B1

Action Complete:

Signature: Bruce E. Telford Date/Time: 2/10/95
18:26

- 5.7.1.29 Place pumps 68A-P-A1 & 68A-P-B1 in manual and stop from MCS using OSP-68-003. Reset ESTOP per OSP-68-003.

Action Complete:

Signature: Bruce E. Telford Date/Time: 2/10/95
1830

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2 Pump Station 2

5.7.2.1 Stage water supply for delivery to Pump Station 2.

Action Complete:

Signature: R. W. Laffler Date/Time: 2/10/95 0955

Caution

Utilize appropriate barriers and fall protection devices around open manholes and hatches. Secure all hoses prior to initiating discharges to prevent hose whip.

Initials

5.7.2.2 Verify MV68B001, MV68B002 and 68B-SLG-41 are Open per OSP-68-003.

Action Complete:

Signature: R. W. Laffler Date/Time: 2/10/95 0955

5.7.2.3 Initiate water supply to Pump Station 2 as required to raise wet well level to 50 to 54 inches.

Action Complete:

Signature: R. W. Laffler Date/Time: 2/10/95 1000

5.7.2.4 Cease water supply to Pump Station 2 upon reaching a wet well level of 50 to 54 inches.

Action Complete:

Signature: R. W. Laffler Date/Time: 2/10/95 1026

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.5 Align Pump Station 2 valves to discharge to Side A & B without discharging to the disposal system per OSP-68-003. ~~Place pumps 68B-P-A1 & 68B-P-B1 in automatic from the OCS per OSP-68-003. Record which pump (68B-P-A1 or 68B-P-B1) started.~~

2-14-95

2-17-95

~~Pump started: 68B-P-~~

SIGNATURE:

Signature: _____

~~Action Complete~~

~~Action Complete:~~

~~DATE/TIME: 2/17/95~~

~~Date/Time: 1354~~

5.7.2.6 ~~Place pumps 68B-P-A1 & 68B-P-B1 in manual and stop from MCS using OSP-68-003.~~

2-17-95

~~Action Complete:~~

~~Signature: _____ Date/Time: _____~~

5.7.2.7 ~~Place pumps 68B-P-A1 & 68B-P-B1 in automatic from the OCS per OSP-68-003. Verify redundant pump from Step C above started.~~

2-17-95

~~Pump started: 68B-P-~~

~~Action Complete:~~

~~Signature: _____ Date/Time: _____~~

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.7.2.8 On the front of the Pump Station 2 ATS Cabinet, record the values on the ATS Checklist for UTILITY power operation. Have personnel remain at the front of the ATS Cabinet while the following steps are performed, so the transfer times can be measured.

SiDall
2-14-95

PUMP STATION #2 - UTILITY (NORMAL) POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	7.8	2/17/95 @ 1425 <i>J. H. Munnick</i>
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	480	2/17/95 @ 1425 <i>J. H. Munnick</i>
Phase 2 to 3 (Select Pos 2)	395-422	480	2/17/95 @ 1425 <i>J. H. Munnick</i>
Phase 3 to 1 (Select Pos 3)	395-422	480	2/17/95 @ 1425 <i>J. H. Munnick</i>
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	0	2/17/95 @ 1425 <i>J. H. Munnick</i>
Phase 2 to 3 (Select Pos 2)	N/A	0	2/17/95 @ 1425 <i>J. H. Munnick</i>
Phase 3 to 1 (Select Pos 3)	N/A	0	2/17/95 @ 1425 <i>J. H. Munnick</i>
Frequency (Hz)	58-62	55.5	2/17/95 @ 1425 <i>J. H. Munnick</i>

- 5.7.2.9 Record fuel level in the propane tank.

Propane tank initial fuel level: 50 percent

Action Complete:
Signature: *JD Shant* Date/Time: 2/17/95
1425

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

NOTE

Communications to the OCS may be interrupted. Document alarms received at OCS.

Si-Dan
2-14-95

5.7.2.10 Record the time and OPEN pump station normal power feeder disconnect, F8X650 at the power pole located southwest of the building. The Utility light on the ATS Cabinet will go OFF and the Emergency Propane Generator will attempt to START. Record when the generator has started and verify the STANDBY OPERATING light is ON. When the voltage has reached an acceptable level, the power will transfer over. Verify the EMERGENCY light is ON.

Record time the normal power feeder disconnect is opened:

1430

Record time the generator started:

1430.5

Calculate ATS transfer time:

1430+60 seconds

VERIFY Alarm JA-68B019 exists

OCS: yes

LOI: yes

VERIFY ZS-68B019 (ATS Status) ON

OCS: yes

LOI: yes

VERIFY YS-68B019 (Gen Run) ON

OCS: yes

LOI: yes

Si-Dan
2-17-95

~~VERIFY pump 68B-P-A1 or 68B-P-B1 started. Circle operating pump.~~

~~OCS:~~

~~LCU:~~

VERIFY all lights, HVAC fans, and instrument indications have returned to typical operation.

Action Complete:

Signature: TD Grant

Date/Time: 2/17/95
1435

5.7.2.10.1

MANUALLY START 68B-P-A1 OR 68B-P-B1 FROM THE MCC
USING OSP-68-003.

64 of 89

ACTION COMPLETE

Signature: TD Grant

Date/Time: 2/17/95
1439

68B-P-B1
1507
500
1500

TE 12

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.11

On the front of the ATS Cabinet, record the values on the ATS Checklist for EMERGENCY power operation.

J. D. Davis
2-14-95

PUMP STATION #2 - EMERGENCY POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	196/1/1/95 5:25.8 8.0	2/17/95 11:45 J. D. Davis
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	480	2/17/95 11:45 J. D. Davis
Phase 2 to 3 (Select Pos 2)	395-422	480 490	2/17/95 11:45 J. D. Davis
Phase 3 to 1 (Select Pos 3)	395-422	480 490	2/17/95 11:45 J. D. Davis
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	50	2/17/95 11:45 J. D. Davis
Phase 2 to 3 (Select Pos 2)	N/A	50	2/17/95 11:45 J. D. Davis
Phase 3 to 1 (Select Pos 3)	N/A	50	2/17/95 11:45 J. D. Davis
Frequency (Hz)	58-62	55.5 61	2/17/95 11:15 J. D. Davis

196/2/17/95
18:45
196/2/17/95
15:45
196/2/17/95
18:45
196/2/17/95
18:45

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.12 RECORD the following readings on the generator control panel.

J. Davis
2-14-95

PUMP STATION #2 - GENERATOR CONTROL PANEL CHECKLIST (Remove West side Panel)			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	7.6	2/17/95 @ 1450 <i>J. Davis</i>
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	485	2/17/95 @ 1450 <i>J. Davis</i>
Phase 2 to 3 (Select Pos 2)	395-422	480	2/17/95 @ 1450 <i>J. Davis</i>
Phase 3 to 1 (Select Pos 3)	395-422	480	2/17/95 @ 1450 <i>J. Davis</i>
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	50	2/17/95 @ 1450 <i>J. Davis</i>
Phase 2 to 3 (Select Pos 2)	N/A	50	2/17/95 @ 1450 <i>J. Davis</i>
Phase 3 to 1 (Select Pos 3)	N/A	48	2/17/95 @ 1450 <i>J. Davis</i>
Frequency (Hz)	58-62	60.8	2/17/95 @ 1450 <i>J. Davis</i>
Coolant Temperature (°F)	185-200	185	2/17/95 @ 1450 <i>J. Davis</i>
Oil Pressure (psi)	30-70	50	2/17/95 @ 1450 <i>J. Davis</i>
Oil Temperature (°F)	70-125	225	2/17/95 @ 1450 <i>J. Davis</i>
DC Ammeter (Right side of 0)	> 0	OK	2/17/95 @ 1450 <i>J. Davis</i>

5.7.2.13 RUN standby generator for at least 3 hours but no longer than 3.5 hours.

Action Complete:

Signature: *J. Davis* Date/Time: 2/17/95 @ 1750

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

NOTE

Communications to the OCS may be interrupted. Document alarms received at OCS. Normal power will be monitored for a given period of time prior to transferring power back to the normal power feeder.

5.7.2.14 After operation of all equipment has been verified, record the time and CLOSE normal power feeder disconnect, F8X650. When power successfully transfers, record the time and verify the Utility light on the ATS Cabinet is ON and the EMERGENCY light is OFF. The generator may continue to run until the Engine Cooldown Timer is reached.

Record propane tank final fuel level: 32 percent

Record time the normal power feeder disconnect is closed: 1735

Record time the power transfers: 1749

Calculate ATS transfer time: 13 min 30 seconds

Record time the generator stopped: 1750

VERIFY Alarm JA-68B019 cleared OCS: 1749/yes
LOI: yes

VERIFY ZS-68B019 is OFF OCS: 1749/yes
LOI: yes

VERIFY YS-68B019 is OFF OCS: 1750/yes
LOI: yes

~~VERIFY pump 68B-P-A1 or 68B-P-B1~~ OCS:
~~STARTED. Circle operating pump.~~ OCS:

VERIFY all lights, HVAC fans, and instrument indications have returned to typical operation.

Action Complete:

Signature: [Signature] Date/Time: 2/17/95 1750

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

2: Dallas
2-14-95

5.7.2.15 CALCULATE the following variable by subtracting the initial number from the final number recorded above:

Total time generator ran: 2 hrs 20 min

Total generator fuel level used: 18 percent

5.7.2.16 On the front of the ATS Cabinet, record the values on the ATS Checklist for UTILITY power operation.

PUMP STATION #2 - UTILITY (NORMAL) POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	<u>10.7</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	<u>500</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Phase 2 to 3 (Select Pos 2)	395-422	<u>500</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Phase 3 to 1 (Select Pos 3)	395-422	<u>500</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	<u>0</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Phase 2 to 3 (Select Pos 2)	N/A	<u>0</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Phase 3 to 1 (Select Pos 3)	N/A	<u>0</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>
Frequency (Hz)	58-62	<u>55.6</u>	<u>2/17/95 @ 1753</u> <u>J. J. Korman</u>

5.7.2.17 Place pumps 68B-P-A1 & 68B-P-B1 in manual and stop from MCS using OSP-68-003.

Action Complete:

Signature: J. J. Korman Date/Time: 2/17/95
1802

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.7.2.5 Align Pump Station 2 valves to discharge to Side A & B without discharging to the disposal system per OSP-68-003. Place pumps 68B-P-A1 & 68B-P-B1 in automatic from the OCS per OSP-68-003. Record which pump (68B-P-A1 or 68B-P-B1) started.

Pump started: 68B-P-A1

Action Complete:

Signature: R. L. Lafford Date/Time: 2/10/95 1220
1201
1135

- 5.7.2.6 Place pumps 68B-P-A1 & 68B-P-B1 in manual and stop from MCS using OSP-68-003.

Action Complete:

Signature: R. L. Lafford Date/Time: 2/10/95 1225

- 5.7.2.7 Place pumps 68B-P-A1 & 68B-P-B1 in automatic from the OCS per OSP-68-003. Verify redundant pump from Step C above started.

Pump started: 68B-P-B1

Action Complete:

Signature: R. L. Lafford Date/Time: 2/10/95 1228

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

- 5.7.2.8 On the front of the Pump Station 2 ATS Cabinet, record the values on the ATS Checklist for UTILITY power operation. Have personnel remain at the front of the ATS Cabinet while the following steps are performed, so the transfer times can be measured.

PUMP STATION #2 - UTILITY (NORMAL) POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	5,8	<i>RC</i> 2/10/95 1237
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	500	<i>RC</i> 2/10/95 1237
Phase 2 to 3 (Select Pos 2)	395-422	500	<i>RC</i> 2/10/95 1237
Phase 3 to 1 (Select Pos 3)	395-422	500	<i>RC</i> 2/10/95 1237
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	48	<i>RC</i> 2/10/95 1237
Phase 2 to 3 (Select Pos 2)	N/A	48	<i>RC</i> 2/10/95 1237
Phase 3 to 1 (Select Pos 3)	N/A	48	<i>RC</i> 2/10/95 1237
Frequency (Hz)	58-62	55.5	<i>RC</i> 2/10/95 1237

TEST
exception
#6

- 5.7.2.9 Record fuel level in the propane tank.

Propane tank initial fuel level:

60% percent

Action Complete:

Signature: *Reliford*Date/Time: 2/10/95 1238

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

NOTE

Communications to the OCS may be interrupted. Document alarms received at OCS.

5.7.2.10 Record the time and OPEN pump station normal power feeder disconnect, F8X650 at the power pole located southwest of the building. The Utility light on the ATS Cabinet will go OFF and the Emergency Propane Generator will attempt to START. Record when the generator has started and verify the STANDBY OPERATING light is ON. When the voltage has reached an acceptable level, the power will transfer over. Verify the EMERGENCY light is ON.

Record time the normal power feeder disconnect is opened:

12:39

Record time the generator started:

12:40

Calculate ATS transfer time:

4 min 30 seconds

VERIFY Alarm JA-68B019 exists

OCS: yes
LOI: TE-09

VERIFY ZS-68B019 (ATS Status) ON

OCS: yes
LOI: TE-09

VERIFY YS-68B019 (Gen Run) ON

OCS: yes
LOI: TE-09

VERIFY pump 68B-P-A1 or 68B-P-B1 started. Circle operating pump.

OCS: yes
LOI: TE-09

VERIFY all lights, HVAC fans, and instrument indications have returned to typical operation.

Action Complete:

Signature: R. Luffel Date/Time: 2/10/05 1245

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.11 On the front of the ATS Cabinet, record the values on the ATS Checklist for EMERGENCY power operation.

PUMP STATION #2 - EMERGENCY POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	6.1	^{RL} 2/10/95 13/2
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	490	^{RL} 2/10/95 13/2
Phase 2 to 3 (Select Pos 2)	395-422	480	^{RL} 2/10/95 13/2
Phase 3 to 1 (Select Pos 3)	395-422	490	^{RL} 2/10/95 13/2
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	50	^{RL} 2/10/95 13/2
Phase 2 to 3 (Select Pos 2)	N/A	50	^{RL} 2/10/95 13/2
Phase 3 to 1 (Select Pos 3)	N/A	48	^{RL} 2/10/95 13/2
Frequency (Hz)	58-62	60	^{RL} 2/10/95 13/2

TEST
Exception
06

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.12 RECORD the following readings on the generator control panel.

PUMP STATION #2 - GENERATOR CONTROL PANEL CHECKLIST (Remove West side Panel)			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	6.01	RL 2/10/95 1330
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	250	RL 2/10/95 1330
Phase 2 to 3 (Select Pos 2)	395-422	250	RL 2/10/95 1330
Phase 3 to 1 (Select Pos 3)	395-422	250	RL 2/10/95 1330
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	50	RL 2/10/95 1330
Phase 2 to 3 (Select Pos 2)	N/A	49	RL 2/10/95 1330
Phase 3 to 1 (Select Pos 3)	N/A	*	RL 2/10/95 1330
Frequency (Hz)	58-62	60	RL 2/10/95 1330
Coolant Temperature (°F)	185-200	185	RL 2/10/95 1330
Oil Pressure (psi)	30-70	50	RL 2/10/95 1330
Oil Temperature (°F)	70-125	220	RL 2/10/95 1330
DC Ammeter (Right side of 0)	> 0	> 5	RL 2/10/95 1330

TEST
Exception
86

5.7.2.13 RUN standby generator for at least 3 hours but no longer than 3.5 hours.

Action Complete:

Signature: _____ Date/Time: _____

TE - 08

* DATA UNAVAILABLE DUE TO GENERATOR TRIP.

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

NOTE

Communications to the OCS may be interrupted. Document alarms received at OCS. Normal power will be monitored for a given period of time prior to transferring power back to the normal power feeder.

- 5.7.2.14 After operation of all equipment has been verified, record the time and CLOSE normal power feeder disconnect, F8X650. When power successfully transfers, record the time and verify the Utility light on the ATS Cabinet is ON and the EMERGENCY light is OFF. The generator may continue to run until the Engine Cooldown Timer is reached.

Record propane tank final fuel level: 57 percent

Record time the normal power feeder disconnect is closed:

1330

~~TE-08~~
TE 08

Record time the power transfers:

1330

Calculate ATS transfer time:

_____ seconds

Record time the generator stopped:

VERIFY Alarm JA-68B019 cleared

OCS: yes

LOI: _____ TE-09

VERIFY ZS-68B019 is OFF

OCS: yes

LOI: _____ TE-09

VERIFY YS-68B019 is OFF

OCS: yes

LOI: _____ TE-09

VERIFY pump 68B-P-A1 or 68B-P-B1
STARTED. Circle operating pump.

OCS: 68B-P-B1

OCS: _____
TE-09
21/05

VERIFY all lights, HVAC fans, and instrument indications have returned to typical operation.

Action Complete:

Signature: R. L. (affd) Date/Time: 21/05 1351

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.15 CALCULATE the following variable by subtracting the initial number from the final number recorded above:

Total time generator ran: _____

Total generator fuel level used: _____

57 percent

TE-06

5.7.2.16 On the front of the ATS Cabinet, record the values on the ATS Checklist for UTILITY power operation.

PUMP STATION #2 - UTILITY (NORMAL) POWER ATS CHECKLIST			
Description	Expected Value	As-Found Value	Date/Time/Signature
Hour meter	N/A	6.4	2/10/95 RC 1357
Voltage Checks (VAC)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	395-422	500	2/10/95 RC 1357
Phase 2 to 3 (Select Pos 2)	395-422	490	2/10/95 RC 1357
Phase 3 to 1 (Select Pos 3)	395-422	500	2/10/95 RC 1357
Amperage Checks (Amps)	-----	-----	-----
Phase 1 to 2 (Select Pos 1)	N/A	50	2/10/95 RC 1357
Phase 2 to 3 (Select Pos 2)	N/A	50	2/10/95 RC 1357
Phase 3 to 1 (Select Pos 3)	N/A	50	2/10/95 RC 1357
Frequency (Hz)	58-62	55.4	2/10/95 RC 1357

TE
06

5.7.2.17 Place pumps 68B-P-A1 & 68B-P-B1 in manual and stop from MCS using OSP-68-003.

Action Complete:

Signature: R. H. H. H. Date/Time: 2/10/95 1358

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

- 5.7.2.18 Align Pump Station 2 valves to discharge to the disposal system per OSP-68-003. Place pump 68B-P-A1 in manual and start from the OCS per OSP-68-003. Record flow and pressure. 2-15-95

68B-P-A1 Flow at FT-68B-042:

LOI 602.39
520 gpm

OCS 525 2/15/95

PIT-68B-003U pressure:

PIT 40.7 2-15-95

LOI 30.9 psig

OCS 39.25 psig

PIT-68B-003D pressure:

PIT 30.28 2-15-95

LOI 37.99 2/15/95

OCS 37.1 2-15-95

Pump 68B-P-A1 amps:

LOI 38.31 psig

OCS 28.59 psig

LOI 37.04 2/15/95

OCS 36.1 2-15-95

Action Complete:

Signature: R.W. Cappel Date/Time: 2/10/95 1420
KD Hunt 2/15/95 1053

- 5.7.2.19 Place pump 68B-P-A1 in manual and stop from the OCS using OSP-68-003.

Action Complete:

Signature: R.W. Cappel Date/Time: 2/10/95 1420
KD Hunt 2/15/95 1102

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

5.7.2.20 Place pump 68B-P-B1 in manual operation and on from the OCS per OSP-68-003, steps 5.4 and 5.6 and record flow and pressure.

68B-P-B1 Flow at FT-68B-042

LOI 761.16 gpm 2-15-95
650 gpm

OCS 557 2/15/95

PIT-68B-021U pressure:

PIT 35.9 psig

LOI 39.37 psig

OCS 37.41 psig

PIT-68B-021D pressure:

PIT 37.8 psig

LOI 38.25 psig

OCS 36.10 psig

Pump 68B-P-B1 amps:

LOI LCU 33.69 amps

OCS 33.7 amps

33.9 2/15/95

Action Complete:

Signature: R.L. Coffey

Date/Time: 2/10/95 1423

HTO Jhant

2/15/95 1103

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

Caution

As soon as readings are taken, proceed to the next step to minimize discharges to the disposal system.

5.7.2.21 Place pump 68B-P-A1 in manual and start from MCS using OSP-68-003. Record flow and pressure.

68B-P-A1 & 68B-P-B1 Combined Flow
at FT-68B-042

PIT-68B-003U pressure:

LOT 521.25 2-15-95
500 gpm
OCS 560 2/15/95
48.9 2-15-95
49.6 psig
LOI 48.99 psig TE-09 2-15-95
OCS 48.52 psig
48.8 2/15/95

PIT-68B-003D pressure:

PIT 48.2 2-15-95
47.2 psig TE-09 2-15-95
LOI 48.42 psig
OCS 47.48 psig
48.38 2/15/95

PIT-68B-021U pressure:

PIT 48.6 2-15-95
47.1 psig TE-09 2-15-95
LOI 48.55 psig
OCS 48.14 psig
48.40 2/15/95

PIT-68B-021D pressure:

PIT 48.1 2-15-95
47.7 psig TE-09 2-15-95
LOI 48.18 psig
OCS 47.31 psig
47.96 2/15/95

Pump 68B-P-A1 amps:

LOI 29.98 amps TE-09 2-15-95
OCS 28.3 amps
30.3 2/15/95

Pump 68B-P-B1 amps:

LOI 30.41 amps TE-09 2-15-95
OCS 31.6 amps
30.5 2/15/95

Action Complete:

Signature: R.W. Gifford Date/Time: 2/10/95 1430
HD Grant 2/15/95 1112

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.2.22 . Place pumps 68B-P-A1 & 68B-P-B1 in manual and stop from MCS using OSP-68-003. Record ECV closure time.

ECV-68B-003 Closure Time 5 seconds

ECV-68B-021 Closure Time 5 seconds

Action Complete:

Signature: R. L. Lafford Date/Time: 2/10/95 1432
K. J. Lafford 2/15/95 1122

5.7.3 After discharge at the disposal ponds has ceased record disposal site totalizer value at FT-68C-003 and calculate total volume pumped to disposal by subtracting the totalizer value recorded in step 5.2.2 of this test procedure.

FT-68C-003 Totalizer Value:

Total volume pumped to ponds: 33,300 gallons

Action Complete:

Signature: J. M. Petty Date/Time: 3-6-95 / 1338

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.4 Verification of ~~U32~~ redundancy
GPLT mp 2-9-95

- 5.7.4.1 *GPLT mp 2-9-95* Verify ~~U32~~ redundancy at 200 Area TEDF control room by removing ~~U32~~ active module and verify that the backup ~~U32~~ becomes the active module by checking the LED's on the front of the module.

Action Complete:

2-10-95

Signature: WM Cameron Date/Time: 0108

- 5.7.4.2 *GPLT mp 2-9-95* Reinstall ~~U32~~ module which was removed in step 5.7.4.1 of this test procedure. Verify all LED indicators read normal after approximately 2 minutes.

Action Complete:

2-10-95

Signature: WM Cameron Date/Time: 0108

- 5.7.4.3 *GPLT mp 2-9-95* Depress the activation button on the left ~~U32~~ module to return the reinstalled ~~U32~~ module to active status.

Action Complete:

2-10-95

Signature: WM Cameron Date/Time: 0108

200 AREA TEF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.5 Verification of RCM A redundancy

- 5.7.5.1 Verify RCM A redundancy by removing the RCM A active module and verify that the backup RCM A module becomes the active module by checking the LED's on the front of the module.

Action Complete Pump Station 1:

Signature: Jim Fitter Date/Time: 2-10-95/0233

Action Complete Pump Station 2:

Signature: Jim Fitter Date/Time: 2-10-95/0150

Action Complete Disposal System:

Signature: _____ Date/Time: _____

TEST
EXCEPTION # 7

- 5.7.5.2 Reinstall RCM A module which was removed in step 5.7.5.1 of this test procedure. Verify all LED indicators read normal after approximately 2 minutes.

Action Complete Pump Station 1:

Signature: Jim Fitter Date/Time: 2-10-95/0235

Action Complete Pump Station 2:

Signature: Jim Fitter Date/Time: 2-10-95/0150

Action Complete Disposal System:

Signature: _____ Date/Time: _____

TEST
EXCEPTION # 7

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.7.5.3 Depress the activation button on the reinstalled RCM A module to return the reinstalled RCM module to active status.

Action Complete Pump Station 1:

Signature: J. M. Kelly Date/Time: 2-10-95/16240

Action Complete Pump Station 2:

Signature: J. M. Kelly Date/Time: 2-10-95/16150

Action Complete Disposal System:

Signature: _____ Date/Time: _____

TEST
Exception
07

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

5.7.6 Verification of RCM D redundancy

- 5.7.6.1 Verify RCM D redundancy by removing the RCM D active module and verify that the backup RCM D module becomes the active module by checking the LED's on the front of the module.

Action Complete Pump Station 1:

Signature: J. M. Lally Date/Time: 2-10-95/0249

Action Complete Pump Station 2:

Signature: J. M. Lally Date/Time: 2-10-95/0150

Action Complete Disposal System:

TEST Exception 07

Signature: _____ Date/Time: _____

- 5.7.6.2 Reinstall the RCM D module which was removed in step 5.7.6.1 of this test procedure. Verify all LED indicators read normal after approximately 2 minutes.

Action Complete Pump Station 1:

Signature: J. M. Lally Date/Time: 2-10-95/0249

Action Complete Pump Station 2:

Signature: J. M. Lally Date/Time: 2-10-95/0150

Action Complete Disposal System:

TEST Exception
07

Signature: _____ Date/Time: _____

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

- 5.7.6.3 Depress the activation button on the reinstalled RCM D module to return the reinstalled RCM module to active status.

Action Complete Pump Station 1:

Signature: J. M. Kelly Date/Time: 2-10-95/0250

Action Complete Pump Station 2:

Signature: J. M. Kelly Date/Time: 2-10-95/0150

Action Complete Disposal System:

Signature: _____ Date/Time: _____

TEST EXCEPTION
#7

- 5.7.7 Verify instrument, equipment, or system restoration by observing indications, alarms, or computer points are consistent with expected conditions. Return all valve line ups for discharge to the disposal site per OSP-68-003 and OSP-68-004.

Action Complete:

Signature: J. M. Kelly Date/Time: 3-6-95/1338

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4

6.0 DATA REQUIRED

As per procedure and appendices.

7.0 REFERENCES

- 7.1 WHC-SD-WM-TP-214 Rev.0, Operational Test Plan for the 200 Area Liquid Effluent Facility.
- 7.2 WHC-SD-LEF-TS-001 Rev.0, 200 Area Treated Effluent Disposal Facility Operational Test Specification.

8.0 APPENDICES

Appendix 1: List of Equipment/Instruments Requiring Calibration

Appendix 2: Test Log

Appendix 3: Remote Valve Cycle List and Data Sheet

Appendix 4: Remote Pump Cycle List and Data Sheet

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

APPENDIX 1
LIST OF EQUIPMENT REQUIRING CALIBRATION

Pump Station 1 Equipment Calibrations Verified			
Equipment Number	Functional Description	Signature	Date/Time
LE/LT-68A-004	Level Element & Transmitter	AD Grant	1/30/95 1018
LE/LT-68A-030	Level Element & Transmitter	AD Grant	1/30/95 1018
PIT-68A-003D	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-003U	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-008D	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-008U	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-020D	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-020U	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-025D	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
PIT-68A-025U	Pressure Indicating Transmitter	AD Grant	1/30/95 1018
IT-68A-012	Yokagawa Current Transmitter	AD Grant	1/30/95 1018
IT-68A-026	Yokagawa Current Transmitter	AD Grant	1/30/95 1018
IT-68A-038	Yokagawa Current Transmitter	AD Grant	1/30/95 1018
IT-68A-046	Yokagawa Current Transmitter	AD Grant	1/30/95 1018

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

APPENDIX 1
LIST OF EQUIPMENT REQUIRING CALIBRATION

Pump Station 2 Equipment Calibrations Verified			
Equipment Number	Functional Description	Signature	Date/Time
LE/LT-68B-004	Level Elements & Transmitter	<i>KD Grant</i>	1/30/95 0940
LE/LT-68B-022	Level Elements & Transmitter	<i>KD Grant</i>	1/30/95 0940
PIT-68B-003D	Pressure Indicating Transmitter	<i>KD Grant</i>	1/30/95 0940
PIT-68B-003U	Pressure Indicating Transmitter	<i>KD Grant</i>	1/30/95 0940
PIT-68B-021D	Pressure Indicating Transmitter	<i>KD Grant</i>	1/30/95 0940
PIT-68B-021U	Pressure Indicating Transmitter	<i>KD Grant</i>	1/30/95 0940
IT-68B-012	Yokagowa Current Transmitter	<i>KD Grant</i>	1/30/95 0940
IT-68B-028	Yokagowa Current Transmitter	<i>KD Grant</i>	1/30/95 0940

200 AREA TEDF Operational Test Procedure
OSP-68-011, Rev 0
CONTROLLED COPY 1 OF 4

APPENDIX 1
LIST OF EQUIPMENT REQUIRING CALIBRATION

Disposal Equipment Initial Settings/ Calibrations Verified			
Equipment Number	Functional Description	Signature	Date/Time
FE/FT-68C-003	Flow Element & Transmitter	<i>T.D. Grant</i>	1/30/95 1100
IB-68C-003	ActionPak Current Input Isolator	<i>T.D. Grant</i>	1/30/95 1100

APPENDIX 3 REMOTE VALVE CYCLE LIST AND DATA SHEET

Pump Station 1 Valve Operation Verification

Equipment Number	Functional Description/Criteria	Open/Close Times	Signature/Date/Time
MV-68A-001	Diversion Valve: - manual operation at LCU-55C-020	CLOSE 14 SEC OPEN 16 SEC	R. Coffel 2/3/95 / 1725
MV-68A-001	Diversion Valve: - manual operation at operator control station	CLOSE 16 SEC OPEN 15 SEC	R. Coffel 2/3/95
MV-68A-001	Diversion Valve - fail open	N/A	R. Coffel 2/3/95 1753
MV-68A-001	Diversion Valve: - position indication at LCU-55C-020	N/A	R. Coffel 2/3/95 1753
MV-68A-001	Diversion Valve: - position indication at MCS operator control station	N/A	R. Coffel 2/3/95 1753
MV-68A-002	Diversion Valves: - manual operation at LCU-55C-020	CLOSE 17 SEC OPEN 17 SEC	R. Coffel 2/3/95 1817
MV-68A-002	Diversion Valve: - manual operation at operator control station	CLOSE 17 SEC OPEN 17 SEC	R. Coffel 2/3/95 1817
MV-68A-002	Diversion Valve - fail open	N/A	R. Coffel 2/3/95 1753
MV-68A-002	Diversion Valve: - position indication at LCU-55C-020	N/A	R. Coffel 2/3/95 1753
MV-68A-002	Diversion Valve: - position indication at MCS operator control station	N/A	R. Coffel 2/3/95 1753
68A-V-04	Manual Valve: - position indication at LCU-55C-20	N/A	R. Coffel 2/3/95 1826

APPENDIX 3 REMOTE VALVE CYCLE LIST AND DATA SHEET

Pump Station 1 Valve Operation Verification

Equipment Number	Functional Description/Criteria	Open/Close Times	Signature/ Date/Time
68A-V-04	Manual Valve: - position indication at MCS operator control station	N/A	Rec'd 2/3/95 ^{RL} 1826 1826
68A-V-09	Manual Valve: - position indication at LCU-55C-20	N/A	Rec'd 2/3/95 1831
68A-V-09	Manual Valve: - position indication at MCS operator control station	N/A	Rec'd 2/3/95 1831
68A-V-21	Manual Valve: - position indication at LCU-55C-20	N/A	Rec'd 2/3/95 1834
68A-V-21	Manual Valve: - position indication at MCS operator control station	N/A	Rec'd 2/3/95 1834
68A-V-26	Manual Valve: - position indication at LCU-55C-20	N/A	WM Camm 2/6/95 2115
68A-V-26	Manual Valve: - position indication at MCS operator control station	N/A	WM Camm 2/6/95 2115
68A-SLG-51	Sluice Gate: - manual operation at LCU-55C-020	CLOSE: 54 SEC OPEN: 55 SEC	Rec'd 2/3/95 1850
68A-SLG-51	Sluice Gate: - manual operation at MCS operator control stations	CLOSE: 54 SEC OPEN: 55 SEC	Rec'd 2/3/95 1854
68A-SLG-51	Sluice Gate: - position indication at LCU-55C-020	N/A	Rec'd 2/3/95 1854

200 AREA TEF Operational Test Procedure

OSP-68-011, Rev 0

CONTROLLED COPY 1 OF 4WHC-SD-LEF-OTR-001 REV 0
PAGE A - 96APPENDIX 3
REMOTE VALVE CYCLE LIST AND DATA SHEET

Pump Station 1 Valve Operation Verification

Equipment Number	Functional Description/Criteria	Open/Close Times	Signature/ Date/Time
68A-SLG-51	Sluice Gate: - position indication at MCS operator control station	N/A	<i>R. Coffel</i> 2/3/95 1854

APPENDIX 3 REMOTE VALVE CYCLE LIST AND DATA SHEET

Pump Station 2 Valve Operation Verification

Equipment Number	Functional Description	Opening/Closing Times	Signature/Date/Time
MV-68B-001	Diversion Valve: - manual operation at LCU-55C-010	OPEN 18 SEC CLOSE 17 SEC	R. Coffel 2/3/95 1803
MV-68B-001	Diversion Valve: - manual operation at MCS operator control station	CLOSE 18 SEC OPEN 19 SEC	R. Coffel 2/3/95 1810
MV-68B-001	Diversion Valve: - fail open	N/A	R. Coffel 2/3/95 1817
MV-68B-001	Diversion Valve: - position indication at LCU-55C-010	N/A	R. Coffel 2/3/95 1817
MV-68B-001	Diversion Valve: - position indication at MCS operator control stations	N/A	R. Coffel 2/3/95 1817
MV-68B-002	Diversion Valve: - manual operation at LCU-55C-010	CLOSE 18 SEC OPEN 19 SEC	R. Coffel 2/3/95 1845
MV-68B-002	Diversion Valve: - manual operation at MCS operator control station	CLOSE 18 SEC OPEN 19 SEC	R. Coffel 2/3/95 1848
MV-68B-002	Diversion Valve: - fail open	N/A	R. Coffel 2/3/95 1817
MV-68B-002	Diversion Valve: - position indication at LCU-55C-010	N/A	R. Coffel 2/3/95 1817
MV-68B-002	Diversion Valve: - position indication at MCS operator control stations	N/A	R. Coffel 2/3/95 1817
68B-V-04	Manual Valve: - position indication at LCU-55C-10	N/A	R. Coffel 2/3/95 1907

APPENDIX 3 REMOTE VALVE CYCLE LIST AND DATA SHEET

Pump Station 2 Valve Operation Verification

Equipment Number	Functional Description	Opening/Closing Times	Signature/Date/Time
68B-V-04	Manual Valve: - position indication at MCS operator control stations	N/A	Re Coffel 2/3/95 1907
68B-V-22	Manual Valve: - position indication at LCU-55C-10	N/A	Re Coffel 2/3/95 1905
68B-V-22	Manual Valve: - position indication at MCS operator control stations	N/A	Re Coffel 2/3/95 1905
68B-SLG-41	Sluice Gate: - manual operation at LCU-55C-010	OPEN: 52 SEC CLOSE: 52 SEC N/A 2/3/95 1604	Re Coffel 2/3/95 1919
68B-SLG-41	Sluice Gate: - manual operation at MCS operator control stations	OPEN: 52 SEC CLOSE: 52 SEC N/A 2/3/95 1609	Re Coffel 2/3/95 1923
68B-SLG-41	Sluice Gate: - position indication at LCU-55C-010	N/A	Re Coffel 2/3/95 1923
68B-SLG-41	Sluice Gate: - position indication at MCS operator control stations	N/A	Re Coffel 2/3/95 1923

APPENDIX 3 REMOTE VALVE CYCLE LIST AND DATA SHEET

Disposal Valve Operation Verification

Equipment Number	Functional Description	Opening/Closing Times	Signature/Date/Time
MV-68C-004	Motor operated valve: - manual operation at LCU-55C-016	N/A ²ⁱ Jan OPEN: 59 2/3/95 CLOSE: 59 1604 59 SECONDS	WM Cameron 2/6/95 2134
MV-68C-004	Motor operated valve: - manual operation at operator control station	N/A ²ⁱ Jan OPEN: 59 2/3/95 CLOSE: 59 1604 59 SECONDS	WM Cameron 2/6/95 2136
MV-68C-004	Motor operated valve: - position indication at LCU-55C-016	N/A	WM Cameron 2/6/95 2140
MV-68C-004	Motor operated valve: - position indication at operator control station	N/A	WM Cameron 2/6/95 2144
MV-68C-005	Motor operated valve: - manual operation at LCU-55C-016	N/A ²ⁱ Jan OPEN: 59 2/3/95 CLOSE: 59 1605 59 SECONDS	WM Cameron 2/6/95 2147
MV-68C-005	Motor operated valve: - manual operation at operator control station	N/A ²ⁱ Jan OPEN: 59 2/3/95 CLOSE: 59 1605 59 SECONDS	WM Cameron 2/6/95 2149
MV-68C-005	Motor operated valve: - position indication at LCU-55C-016	N/A	WM Cameron 2/6/95 2153
MV-68C-005	Motor operated valve: - position indication at operator control station	N/A	WM Cameron 2/6/95 2157

**APPENDIX 4
REMOTE PUMP CYCLE LIST AND DATA SHEET**

Pump	Pump Operation: Sat/UnSat					
	MCC		LOI		OCS	
	Start	Stop	Start	Stop	Start	Stop
68A-P-A1	SAT	SAT	SAT	SAT	SAT	SAT
68A-P-A2	SAT	SAT	SAT	SAT	SAT	SAT
68A-P-B1	SAT	SAT	SAT	SAT	SAT WMC	SAT
68A-P-B2	SAT	SAT	SAT	SAT	SAT	SAT
68B-P-A1	SAT	SAT	SAT	SAT	SAT	SAT
68B-P-B1	SAT	UNSAT	SAT	SAT	SAT	SAT

WMC
2-6-95 2320

THESE
VALUES
WMC
DO NOT
WORK AS
INTENDED AT
THIS TIME

* 68A-P-B1 WAS RETESTED ON 2-7-95
AND ALL ABOVE ITEMS (MCC, LOI, OCS AND
E-STOP). WORKED AS EXPECTED.
TIME: 1932 DATE: 2-7-95
William M. Cameron.

WHC-SD-LEF-OTR-001, Rev 0

APPENDIX B

TEST LOG

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>01</u> of <u>37</u>
TEST TITLE: 200 AREA TEDF OPERATIONAL TEST PROCEDURE			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0700/1-30-95	ATTENDED PLAN OF DAY. OTP & WORK PACKAGE FOR SUPPORTING OTP'S HAVE BEEN RELEASED ON DAILY SCHEDULE. - J.M. Petty		
0845/1-30-95	HELD PRE-JOB BRIEFING WITH ALL PERSONNEL INVOLVED IN TODAY'S TESTING. DISCUSSED ALL SAFETY ASPECTS OF THE OTP, AS WELL AS TODAY'S PLANNED TESTING. - J.M. Petty		
0930/1-30-95	OTP HAS BEGUN. INSTRUMENT TECHS PERFORMING TRANSMITTER CHECKS. - J.M. Petty		
1010/1-30-95	PUMP STATION #1 & #2 REPORTS SLUICE GATES AT BOTH STATIONS IN MANUAL MODE, AND THAT THERE IS SUFFICIENT WATER TO FILL ONE SIDE OF EACH PUMP STATION.		
1135/1-30-95	COMPLETED INSTRUMENT CHECK AT PUMP STATION #1 & PUMP STATION #2, TEDF DISPOSAL STATION. J.M. Petty		
1135/1-30-95	LUNCH BREAK J.M. Petty		
1230/1-30-95	MADE TWO(2) CONTROL COPIES OF EACH OF THE FOLLOWING PROCEDURES: OSP-68-001, OSP-68-003, OSP-68-004. THESE SHOULD BE LEFT IN THE CONTROL ROOM UNLESS USED IN THE FIELD. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>2</u> of <u>32</u>
TEST TITLE: 200 AREA TEDF OPERATIONAL TEST PROCEDURE			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1320/1-30-95	Control Copy #1 of OSP-68-001 & OSP-68-003 checked out to Field to perform ventilation & Valve Live-ups.		
	Control Copy #2 Also checked out to same Group. J.M. Kelly		
1433/1-30-95	MADE Two (2) Control Copies of OSP-68-002.		
1450/1-30-95	BEGAN HEAT & VENTILATION check-out AT Pump STA #1, Pump STA #2 & Disposal Building per Sections 5.1.1, 5.1.2 & 5.1.3 of OTP. J.M. Kelly		
1520/1-30-95	Completed Sections 5.1.1, 5.1.2 & 5.1.3 of OTP without exception. J.M. Kelly		
1530/1-30-95	Field crew returned Control Copy #1 of OSP-68-001 & OSP-68-003. Also returned Control Copy #2 of OTP. J.M. Kelly		
1600/1-30-95	STOPPED OTP TESTING AT END OF SECTION 5.1.3. Logical stopping point for end of shift.		
1610/1-30-95	Briefed oncoming SOM on today's testing activities, & upcoming test.		
1620/1-30-95	Turned over Shift & PIC duties to oncoming SOM.		
1626/1-30-95	Accepted Shift Responsibilities. Jim Dugas		
1629/1-31-95	Checked OTP Copies #2 & 3 to Field. Procedure OSP-68-002, ^{TWD 1/30/95} 1632		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 3 of 37
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1449/1-30-95	ISSUED OSP-68-002, 003, 004 on Copy 1 and OSP-68-002 of Copy 2 Ji Dallas		
1650/1-30-95	Held pre Job brief Discussed OTP & Safety issues OTP crew dispatched to Start Section 5.2.1. Ji Dallas		
1700/1/30/95	OTP crew at Sample Found Section 5.1 on OSP 68-A-002 Missing from Procedure. SOE working to Resolve this issue. OTP crew Moving to Step 5.2.2 Per OSP-68-011. THD 1-30-95 68-1705 Ji Dallas		
1716/1-30-95	Found typo on OSP-68-004. MV-68C-004 Replaced MV-68A-004 on Page 13 of 17 Procedure was Redlined to Show Correct Valve. Ji Dallas		
1729/1-30-95	Called in Copy # ^{THD} 2 ¹⁻³⁰⁻⁹⁵ OSP-68-004 to incorporate Correction on Page 13 of 17 for MV-68C-004. issued Copy #2 with Corrections to field. Ji Dallas		
1750/1-30-95	Completed Step 5.2.2 of OTP OSP-68-011. FT-68C-003 now Reading '0'. Ji Dallas		
1757/1-30-95	Now Performing Step 5.2.3 of OSP-68-011 Ji Dallas Found Sample valves omitted from OSP-68-003 Checklist Redline Changes were made Continued activities. Ji Dallas		
1847/1-30-95	OSP-68-002, was verified Section 5.1 was accidentally omitted Per R. Binney. Will add 5.1 from Rev 0 as Redline. Ji Dallas		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 4 OF 32
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TEST TITLE:

200 Area TEDF OTP

TIME/DATE	EVENT DESCRIPTION/SIGNATURE
1900/1-30-95	Changed OSP-68-011 Step 5.2.4 from "using" to "Verify". MCS
2115/1-30-95	is already operating startup not Required. Jim Dallas
	Could not open Both Inlet ^{7:00-95} Test MV-68A-001 & MV-68A-002 From
	the MCS. OSP-68-003 allows Manual operation - valves
	were operated manually with the bkr's off. Jim Dallas
2346/1-30-95	Completed valve lineups Per OSP-68-011 Step 5.2.3. All
	Valves had to be aligned manually. MCS did not operate
	Valves. LCU in Pump Station #2 is down.
	appears Sampler System Programming was non-existent during
	operation of OSP-68-003. Notes Ref on Bags to
	look at. Jim Dallas
2349/1-30/95	Ended OTP operations for this Shift. Jim Dallas
2356/1-30-95	All Controlled Copies of OTP and OSP's were returned
	to the W-049 Control Room. Jim Dallas

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 5 of 37
TEST TITLE: 200 AREA TEDF OPERATIONAL TEST Procedure			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0700/1-31-95	ATTENDED Plan of Day. OTP is Scheduled & Released For Today Work. J.M. Kelly		
0740/1-31-95	Held Crew Brief & Pre-Job Meeting with all parties involved in OTP testing. No concerns were noted. J.M. Kelly		
0745/1-31-95	Software Engineer at OCS to collect problems from last night. J.M. Kelly		
0820/1-31-95	RESET LOI at Pump Station #2. RESET Successfully on first attempt. J.M. Kelly		
0830/1-31-95	TEST ENGINEER & Software Engineer doing Troubleshooting between OCS & Pump Station #2. Can NOT operate Inlet MOV's from LOI or Graphics at OCS. WAS EMP-31-95 able to operate Inlet MOV's from Group Displays at OCS. Troubleshooting will continue. J.M. Kelly		
0849/1-31-95	OA & S was brought over OSP-68-002 Section 5.1 & installed in procedure. J.M. Kelly		
0850/1-31-95	Software Engineer has Pump Station #2 ^{inlet} MOV's working from both the LOI & OCS Group display. Still NOT working from OCS Graphics. MU-68B-001, & MU-68B-002 at STA #2 OPEN & Disconnected in Normal Position. J.M. Kelly		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 6 of 37
TEST TITLE: 200 - AREA TEDF OPERATIONAL TEST PROCEDURES.			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0915/1-31-95	Two new Control Copies of OSP-68-002 have been Put in Control Room. Old ones Removed. Field Crew issued Control Copies #1 & #2 of OSP-68-002 & OSP-68-004. J.M. Petty		
0918/1-31-95	Operators & Engineers Left for Disposal Bldg. to try & resolve problems with Samplers J.M. Petty		
0920/1-31-95	Completed Troubleshooting AT Pump STA#1. MOV's will operate from LOI & OCS ^{GROUP} GRAPHIC Display. Will NOT work from OSP OCS GRAPHICS. Software Engineer trying to get help resolving graphics problem. Inlet MOV's AT STA#2 OPEN & Disconnects in Normal Position. Sluice GATE OPEN. J.M. Petty		
1000/1-31-95	Field Crew AT Pump Station#1 to Troubleshoot operating Valves From OCS. J.M. Petty		
1142/1-31-95	Field Crew has finished Troubleshooting AT Pump Station#1. MOV's will operate from LOI & OCS Group Display but NOT OCS Graphics. J.M. Petty		
1145/1-31-95	Problem noted that Sluice GATE in Pump Station#1 68A-SLG-51 does NOT show indication AT EITHER OCS or LOI. Electricians will look AT Limit Switches AFTER Lunch. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>6</u> of <u>37</u> Rev 1-31-95 7
TEST TITLE: 200-AREA TEDF OPERATIONAL TEST PROCEDURES.			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1150/1-31-95	Collection, it is The INLET MOV AT Pump		
	STATION #1 (MU-68A-001) THAT'S NOT SHOWING proper		
	INDICATION. ELECTRICIANS to Look AT AFTER Lunch. J.M. Petty		
1310/1-31-95	ELECTRICIANS & OPERATOR off to Pump STATION #1 to		
	check Limit Sw. Tch on MU-68A-001. J.M. Petty		
1310/1-31-95	Control Copies #1 of OSP-68-002 & OSP-68-004		
	Returned to Control Room. J.M. Petty		
1315/1-31-95	ENGINEERS have Completed Revising Sampling		
	Procedure OSP-68-002 & have Sent to Bob		
	Biervey to put out NEXT REVISION. J.M. Petty		
1340/1-31-95	TEST Hold. OTP TESTING has been put		
	on Hold AT END of STEP 5.1.3. REASON		
	FOR TEST Hold is THAT Equipment, will NOT		
	WORK From OCS graphic. MILON is FED-Xing		
	UPDATED Program. AFTER Program is LOADED		
	& Verified, we will Continue TESTING.		
	TEST INTERRUPTION FORM OR STARTED. J.M. Petty		
1340/1-31-95	MU-68A-001 has been Fixed to Show proper		
	indication to both LOI & OCS. Minor Adjustment		
	on Limit Switch was needed. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>8</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OPERATIONAL TEST PROCEDURE			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1400/1-31-95	Switchgear to all 4 pumps at Pump Station #1 & Both Pumps at Pump Station #2 have been shut off. Resumption of testing will require reperforming Valve & Electrical Line-up and will be spelled out in TEST INTERRUPTION FORM #1. J.M. Petty		
1530/1-31-95	Briefed oncoming Shift OPERATION Manager on today's TESTING ACTIVITIES. Turned over PIC and SOM Duties to oncoming SOM.		
1600/1-31-95	Accepted Crew Responsibilities. J. Dallas		
1605/1-31-95	Held Crew Brief discussed OTP Hold.		
2130/1-31-95	Operators walked down OSP-68-003 with as built drawings in Both Pump stations and the Sample building. Redlined OSP-68-003 with applicable Changes and made 2 new Controller Copies for use in Field. The old Controlled Copies were destroyed. J. Dallas		
2345/1-31-95	Completed Section 6.2 "Administrative Procedures" Section of the TEDF Qualification Card for operators crew "P". J. Dallas		
2350/1-31-95	walked down OSP-68-004 with as built drawings. Found discrepancies on Step 5.5.7. Redlines were made to correct issues. Step 5.5.8 is not correct Step "B" should read Pond "A" inlet valve. Step C.D.EE should reference Pond "A". NEED Eng Review to complete. J. Dallas		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>9</u> of <u>37</u>
TEST TITLE: <u>200 AREA TEDF OTP</u>			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
^{TWD} 1-31-95 ²³⁵⁷ 2347 / 1-31-95	Completed all shift activities Closed out log. J. Danner		
1130/2-3-95	OCS has been repaired by software engineering. New software program seems to work fine. J.M. Petty		
1215/2-3-95	Change Record "A" was written on page 11 of OTP. Note added to allow using sluice gate to equalize wet wells when pumping side to side. This should save some time. J.M. Petty		
1245/2-3-95	Disposition TEST interruption 01. Resumption of OTP testing will require starting at step 5.2.1 and to include reperforming steps 5.2.2 & 5.2.3. J.M. Petty		
1310/2-3-95	TEST Hold removed. Held pre-job with all parties involved in testing. No problems or concerns noted. J.M. Petty		
1340/2-3-95	All personnel have dispersed to the field to begin OTP testing. J.M. Petty		
1430/2-3-95	STEP 5.3.1 START-UP of sampler will NOT be performed UNTIL just before we send water to disposal pond AT STEP 5.6.1.2 J.M. Petty		

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0
CONTROLLED COPY 4 OF 4WHC-SD-LEF-OTR-001
PAGE B - 10

REV 0

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: <i>OSP-68-011</i>	TEST LOG PAGE NUMBER: <i>10</i> of <i>37</i>
TEST TITLE: <i>200-AREA TEDF OTP</i>			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
<i>1530/2-3-95</i>	<i>Step 5.3.2 could be performed correctly, ^{1530P} however, this caused the OPEN/CLOSE logic for MV-68004 and MV-68005 to work incorrectly. Logic changes will be made to correct this and step 5.3.2 will be reperfomed. J.M. Kelly</i>		
<i>1612/2-3-95</i>	<i>BA-ETed oncoming SOM of today's testing activities, and planned testing for tonight. Turned over PIC and SOM duties to oncoming SOM.</i>		
<i>1614/2-3-95</i>	<i>Accepted SOM & PIC Duties. J.Dallas</i>		
<i>1615/2-3-95</i>	<i>Made Redline Changes to OSP-68-011 Appendix 3. Removed N/A on opening times for Sluicgate and diversion valves at disposal Ponds. Checked out Controlled Copies of OSP-68-011 and OSP-68-003 to Field. J.Dallas</i>		
<i>1640/2-3-95</i>	<i>Resumed OTP Activities after turnover. Currently working Steps 5.3.3 and 5.4.1. J.Dallas</i>		
<i>1642/2-3-95</i>	<i>Completed 5.4.1 of OSP-68-011 for Pump Station #1 now working Station 2. J.Dallas</i>		
<i>1645/2-3-95</i>	<i>Found Typo on page 15 of 89 for OSP-68-011 Step 5.4.2 Procedure reads OSD-68-003 Changed to read OSP-68-003. J.Dallas</i>		
<i>1648/2-3-95</i>	<i>Completed Step 5.4.1 of OSP-68-011 for Both Pump Stations. J.Dallas</i>		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>11</u> of <u>37</u>
TEST TITLE: 200 Area TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1712 / 2-3-95	initiated S.4.2 on OSP-68-011 for Pump station 1 & 2 Ji Danna		
2300 / 2-3-95	3 manual valves in Pump Station 1 & 2 would not send a Closed Position indication to the LCU/MCS. Appears that the Limit switches need to be adjusted. Valves are 68A-V-21, 68A-V-26 and 68B-V-04 J-3 written. OSP-68-011 Step S.4.2 Appendix 3 needs to be completed for the disposal system. Ji Danna		
2345 / 2-3-95	Step S.4.3 of OSP-68-011. Performed MCC start & stop at Pump station #1. While attempting LCU or MCS could not start pumps. Called Steve Carmichael but could not resolve issue over the phone. This issue needs to be resolved ASAP. Ji Danna		
2350 / 2-3-95	Completed Step S.3.3 operability test of the OCS, except S.12 of OSP-55-001. This step is the emergency Shutdown Section this S.12 is Redlined out of OTP. Ji Danna		
2355 / 2-3-95	wrote 2 Test exceptions 1) to cover items in Log entry 2300/2-3-95 2) not able to start pumps from OCS or LCU per step S.4.3 of OTP. Test exceptions are in copy 4 in OSP-68-011. Ji Danna		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>12</u> of <u>37</u>
TEST TITLE: 200 Area TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
2400/2-3-95	Checked in all Controlled Copies of OTP & operating Procedures to Control Room. End of Log J. M. Petty		
0700/2-4-95	Reviewed Log From Last Night's Activities. J. M. Petty		
0710/2-4-95	Software Engineer, STEVE Carmichael, is here to see if he can figure out why OCS is not working properly. STEVE is aware of the problems we have trying to run the pumps, as well as logic problems at the disposal site. J. M. Petty		
0800/2-4-95	Attempted to start pump 68B-P-A1 at pump station #2. Pump did not start. Breaker for pump tripped. Left in tripped position. J. M. Petty		
0830/2-4-95	Crew has moved to pump station #1 to verify proper recycle configuration. STEVE has informed us that with ECU fail alarms we will not be able to start pumps. To clear alarms, you have to click on ECU & command it to close. After a few seconds, alarm will clear allowing attempt at starting pumps. Attempted to start 60 HP pump with no success. Finally after several attempts, we started pump using Group display. J. M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>13</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0910/2-4-95	Could NOT shut off pump from GRAPHICS, Group display, or using E-STOP. AFTER many attempts, and using Right Side Console, we were able to STOP pump using Group display. J.M. Petty		
0930/2-4-95	ATTEMPTED to START Redundant 60 hp pump at Pump Station #1. Same Results as before. WE used only Right Side Console this time and still took many attempts to get it started. AGAIN NOTED Could NOT shut pump down until AFTER many attempts & then only using Group display. J.M. Petty		
0945/2-4-95	IT should be NOTED That we will NOT be able to Run The 25 hp pumps at Pump Station #1 until we bring The wet well Level below 54". WE will need to pump wet well up disposal line when we are ready to START TESTING Again. This will allow us to perform all steps in The OTP. J.M. Petty		
1000/2-4-95	Electrician is here and headed to pump Station #2 to look at Tripped Breakers. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>14</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1025/2-4-95	LEON Angel Angel here to see if he can help STEVE RESOLVE OCS PROBLEMS <i>A.M. Petty</i>		
1030/2-4-95	ELECTRICIAN REPORTS THAT BREAKER TRIPS AT PUMP STATION #2, ARE DUE TO LOW SETTINGS ON PUMP START OVERLOADS. WHEN WE ARE ABLE TO START ^{START} PUMPS, ELECTRICIAN WILL LOOK AT AMPERAGE AND ^{SET UP} SET UP OVERLOADS. AT THIS TIME NO TRIP ADJUSTMENTS HAVE BEEN MADE. ELECTRICIAN WILL WORK ON LIMIT SWITCHES FOR 68A-U-21, 68A-U-26, AND 68B-U-04. <i>A.M. Petty</i>		
1150/2-4-95	ELECTRICIAN AND ^{AND} HAS ADJUSTED ALL THREE VALVE'S LIMIT SWITCHES AND THEY ARE WORKING PROPERLY ON LOT'S. WHEN WE RESUME TESTING, WE WILL NEED TO CHECK THESE VALUES PER STEP 5.4.2 OF OTP. <i>A.M. Petty</i>		
1210/2-4-95	SOFTWARE ENGINEERS WILL CONTINUE WORKING ON OCS PROBLEM. STILL NO RESOLUTION. <i>A.M. Petty</i>		
1230/2-4-95	POWER HAS BEEN SHUT OFF TO ALL PUMPS AT BOTH PUMP STATIONS FOR NOW. <i>A.M. Petty</i>		
1708/2-4-95	BRIEFED COMING MANAGER OF TODAY ACTIVITIES & WHAT TO EXPECT TONIGHT. TURNED OFF PIC & SOM DUTIES. <i>A.M. Petty</i>		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>15</u> of <u>37</u>
TEST TITLE: 200 AREA TEDF OTR			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1810/2-4-95	* Late entry 2-4-95 0000 Due to Problems with the Mican Control System Test interruption #2 is Placed in effect. Software Eng & Mican Eng are to Resolve issue. J. D. Davis		
2000/2-6-95	Software Engineers have Resolved all problems with OCS. Everything seems to be tested O.K. J. M. Petty		
2000/2-6-95	Held Pre-Job w. All personnel involved in TESTING activities. Stressed possible need for eye protection when running 60 hp. pumps in Pump Station #1. J. M. Petty		
2035/2-6-95	TEST Hold Removed. TEST Interruption Form #2 has been Completed. Conditions for Restarting TESTING is to ensure power is on to all pumps & Valving is set to Recycle Wet Wells. J. M. Petty		
2100/2-6-95	RETESTED VALVES 68A-U-021, 68A-U-026, & 68B-U-004. 68A-U-021 did not show proper indication. Still needs adjustments on limit switch. 68A-U-26, & 68B-U-004 worked fine. J. M. Petty		
2125/2-6-95	STARTED pumping water from Pump Station #1 to Disposal Pond in order to get the level below 60" to allow testing of 25 hp. pump. J. M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 16 of 37
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
2127/2-6-95 2127/2-6-95	Left Left side OCS is NOT working. Can NOT operate any equipment nor does it show status of current conditions. J.M. Kelly		
2130/2-6-95 2130/2-6-95	Began testing of Disposal Valves per STEP 5.4.2 of OTP. J.M. Kelly		
2150/2-6-95 2150/2-6-95	Began pumping water from Pump Station #2 to disposal Pond in order to get level under 24" to allow for testing per STEP 5.4.3. J.M. Kelly		
2210/2-6-95	Completed pumping water from Pump Station #1 to disposal Pond. Level at approx. 57" per side. J.M. Kelly		
2217/2-6-95	Completed testing of Disposal Valves per STEP 5.4.2. This completes Valves Testing. J.M. Kelly		
2235/2-6-95	Completed pumping Pump Station #2 level down to approx. 38". J.M. Kelly		
2255/2-6-95	Pump Station #2 Personnel working on Section 5.5.5, Testing of Level Elements at Pump Station #2. J.M. Kelly		
2310/2-6-95	Completed Section 5.5.5.3. Pump 68B-P-A1 Shut-off at level of 12.97" J.M. Kelly		
2315/2-6-95	Can NOT shut off 68A-P-B1 pump at Station #1 from either LOI or OCS without using E-STOP. (cont.)		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>12</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF. OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
2315/2-6-95	(cont) We will not do any further testing on this pump unit. Software problem has been corrected. STEP 5.5.2 for testing level element for this pump will have to be bypassed at this time. O.K. to continue with rest of testing. J.M. Petty		
2330/2-6-95	AFTER cycling valve 68A-U-021, IT APPEARS TO BE WORKING OK. AT THIS TIME. J.M. Petty		
2350/2-6-95	CREWS have come in for short break. Will continue testing on next shift. J.M. Petty		
0115/2-7-95	Proceeding with STEPS 5.5.1.1 & 5.5.5.3 concurrently. This test low levels at both pump stations. J.M. Petty		
0210/2-7-95	Low-Low Level Alarms for 68A-P-A1 & 68B-P-A1 did not work. Pumps ran down to lowest level allowed by OTP & close to cavitation without any indication of Low-Low Level Alarm. TEST EXCEPTION 03 WRITTEN. O.K. to move on in testing as engineering feels these may not be important. Disposition of TEST EXCEPTION will determine any retesting required. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>18</u> of <u>32</u>
TEST TITLE: <u>200-AREA TEDF OTP</u>			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0315/2-7-95	TRACKBALL ON RIGHT HAND OCS HAS LOCKED UP. J.M. Kelly		
0320/2-7-95	Pump 68B-P-B1 SHUT DOWN AT 9.9" INSTEAD OF 12" $\pm$ 1" AS CALLED OUT IN STEP 5.5.6.2. TEST EXCEPTION #4 WRITTEN. TEST ENGINEER CLAIMS WE CAN NOT CHANGE THIS. O.K. TO MOVE ON. J.M. Kelly		
0330/2-7-95	TEST ENGINEER HAS CALLED BRAD BENTON TRYING TO GET RIGHT SIDE OCS BACK UP & RUNNING. J.M. Kelly		
0330/2-7-95	ALL PUMPS HAVE BEEN TESTED FOR LOW-LEVEL CUT OFFS EXCEPT 68A-P-B1, WHICH NEEDS LOGIC FIXED TO ALLOW PUMP START & STOPS FROM LOT & OCS, AND 68A-P-A2 WHICH IS READY TO BE TESTED. J.M. Kelly		
0410/2-7-95	BRIEFED ONCOMING SOM OF TODAY'S TESTING ACTIVITIES & ACTIVITIES PLANNED FOR TONIGHT. TURNED OVER PIC & SOM DUTIES TO ONCOMING SOM. J.M. Kelly		
0411/2-7-95	ASSUME PIC & SOM DUTIES J. J. Down		
0415/2-7-95	CHECKED OUT CONTROLLED COPIES OF OSP-68-011 # 2 & 3. OSP-68-003 BOTH COPIES. J. J. Down		
0505/2-7-95	PERFORMED STEP 5.5.3.2 PUMP TRIPPED WITHIN RANGE 14.2. 5.5.3.3 LOW LOW LEVEL ALARM DID NOT LOCK IN BEFORE PUMP CAVITATION		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 19 of 32
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0700/2-7-95	Pump was shutdown Manually. J. Dallas		
0515/2-7-95	Setting Pump Station 1 for Step 5.6 of OSP-68-011 Moving all H ₂ O from Side "B" to Side "A". J. Dallas		
0732/2-7-95	Found Step 5.5.6.2 12" Low Level Cutout incorrect Changed Requirement to 10" $\pm$ 1 Per Cog Eng updated all Controlled Copies. J. Dallas		
1500/2-7-95	Experiencing Problems with Micron. Micron RFP is now now working toward Resolution. Pump Station #2 is Currently working OK Can Continue OTP. J. Dallas		
1520/2-7-95	Completed Rewrite of Section 5.6 of OTP Deleted the need for H ₂ O Truck. Will use Existing H ₂ O. Reprinted Copy #1 only #s 2,3,4 need to be updated. J. Dallas		
1600/2-7-95	Turned over PIC & SOM Responsibilities. J. Dallas Relieved Turned over from off going SOM. Accepted PIC & SOM duties. J.M. Peltz		
1630/2-7-95	Held Pre-Job & Crew brief with all parties involved in tonight's TESTING. No safety concerns were brought up. J.M. Peltz		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>20</u> of <u>37</u>
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1920/2-7-95	Completed TESTING of Pump 68A-P-B1 per STEP 5.4.3, running of pumps from LOR or OCS & using E-STOP. <i>J.M. Kelly</i>		
1943/2-7-95	Completed TESTING of Low Level Cutoff for 68A-P-B1 per STEP 5.5.2.2. TESTING PASSED with pump shutdown AT 12.25". <i>J.M. Kelly</i>		
2200/2-7-95	Will START procedure STEP 5.6.1, TESTING Level/Elevate ECU OPERATION, & Pressure Indicating TESTING. <i>J.M. Kelly</i>		
2330/2-7-95	When TEST ENGINEER put 36" interlock back into software, we lost ability to start/stop pumps or operate valves AT Pump Station #1. Have shut off power to all 4 pumps AT Pump Station #1. STEVE will need to fix tomorrow. Could not perform any TESTING AT Pump Station #1. <i>J.M. Kelly</i>		
2300/2-7-95	Went to Pump Station #2 to run pump 68B-P-A1 to ensure software still working AT Station #2. When pump was started, a loud banging noise was heard by operators AT Pump Station. Pump shut down manually by operators. TEST ENGINEER & myself will investigate after shift change. Operators state that it sounded like pump picked up something. <i>J.M. Kelly</i>		
2355/2-7-95	Shift Turnover. Graveyard operators on board. <i>J.M. Kelly</i>		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 21 of 32
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0100/2-8-95	AFTER checking piping & equipment at Pump Station #2 and finding no evidence of any damage or problems, we RESTARTED Pump 68B-P-A1. CN ^{MS-3-95} STARTED START-UP, we noticed a clang ^{noise} noise from 68B-ECU-03. After shutting pump down & restarting again, we found that the check valve (68B-ECU-03) WAS opening very fast. This is causing the clang noise on pump start-up. We suspect the ball & springs in the needle valves maybe stuck, causing the problem. No testing will be performed at Pump Station #2 until problem is resolved. Power to both pumps at Station #2 have been shut off. J.M. Petty		
0230/2-8-95	TRACK ball on Right side ^{MS-3-95} speed OCS has locked up again. J.M. Petty		
0403/2-8-95	Briefed concerning some of Today's testing activities & Planned activities for tonight. Turned over PIC & SOM duties. J.M. Petty		
0405/2-8-95	Accepted PIC & SOM Duties. J. Dallas		
0430/2-8-95	Continued troubleshooting ECV's in Pump Station #2. Flow Control Values for Closing & opening times on ECV ^{MS-3-95} 68B-P-A1 68B-ECU-03 were open ~ 4 1/2 turns. Moved to 2 1/2 turns. Value moves slower at this time. J. Dallas		

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0
CONTROLLED COPY 4 OF 4WHC-SD-LEF-OTR-001
PAGE B - 22

REV C

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>22</u> of <u>57</u>
TEST TITLE: <u>200 AREA TEDF OTP</u>			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0730/2-8-95	Held PreJob Brief for otp and dispatched operator to Pump station #2 for OTP Preparation. Checked out Controlled Copies of OSP-68-003 and Copy 2 of OSP-68-011 to Field. <u>Ji Dallas</u>		
0732/2-8-95	Software Eng working on Control System to allow start of otp. <u>Ji Dallas</u>		
0748/2-8-95	Software Eng Completed getting MICON System Rebooted and ready for OTP's. <u>Ji Dallas</u>		
0800/2-8-95	Due to Micon & Software Eng working on GPCIT & MODEM for Pump Station #1 we started OTP Section 5.6.3. 5.6.2 will be done when upgrades are complete. <u>Ji Dallas</u>		
0810/2-8-95	Added Steps 5.6.1.7, 5.6.2.6, 5.6.3.7 and 5.6.4.6. TO TE 03 Low low Level alarm Does not initiate on Low Level. <u>Ji Dallas</u>		
0820/2-8-95	Did not Receive Pump Start (68B-P-A1) in Auto @ 48" ± 1". Stopped Pump 68B-P-B1. Could not Change Value or Pumps from the OCS. Software Eng Notified. <u>Ji Dallas</u>		
1000/2-8-95	Software eng Continued working Pump Station 1 Modem upgrades. <u>Ji Dallas</u>		
1230/2-8-95	Software ^{TO B} eng ₂₋₈₋₉₅ trouble shot & Found a bad GPCIT and two bad interface Cables. Repairs were made		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>23</u> of <u>37</u>
TEST TITLE: 200 Area TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1230/2-8-95	and System Returned to Normal Control. Ji Duan		
1245/2-8-95	Started OTP Step # 5.6.4 Due to H ₂ O already in "A" Side. # 5.6.3 will be next. Ji Duan		
1325/2-8-95	Pump 68B-P-81 when placed into Auto Condition Re-Step 5.6.4.12 Did not start with a level of 54".		
	Cleared Oper/Fail alarm on ^{TWO} FCV ^{2-8-95 1330} = 68B-FCV-21 Pump Started. TE 05 written. Ji Duan		
1332/2-8-95	Completed Section 5.6.4. Ji Duan		
1345/2-8-95	Started ^{TWO} Section 5.6.4 ^{12:45} 5.6.4 ^{13:45} testing Side "A" Pump Station 2. Worked OK until step 5.6.3.8. Pump 68B-P-81 Did not Auto Start @ 48". Software eng looking at issue. Ji Duan		
1520/2-8-95	Turned over PIC & SOM Duties to Jim Petty, Ji Duan		
1530/2-8-95	Accepted SOM & PIC duties. Accepted Chain of Custody for Sample BOTTLES AT TEST. J.M. Petty		
1730/2-8-95	Micon Representative has discovered THAT The E-Prompts They have changed will NOT WORK. They cause more problem than help. They will be changing back to old E-Prompts AT Pump Station #1. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>24</u> of <u>37</u>
TEST TITLE: 200 AREA TEF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1900/2-8-95	BEGAN RETESTING SECTION 5.6.3 OF OTP TO SEE 48"		
	PUMP START FOR 68B-P-A1. J.M. Petty		
1930/2-8-95	48" PUMP START FOR 68B-P-A1 STILL DID NOT WORK.		
	MICON REP. WILL LOOK AT ^{THIS} AFTER HE TRIES TO FIGURE		
	OUT ^{WHY} PUMP STATION #1 STILL NOT WORKING. J.M. Petty		
2200/2-8-95	MICON REP & TEST ENGINEER COULD NOT GET		
	PUMP STATION #1 LOE BACK ON LINE. THEY ALSO		
	COULD NOT FIGURE OUT WHY THE 48" PUMP START		
	FOR PUMP 68B-P-A1 AT PUMP STATION #2 WILL		
	NOT WORK. MICON REP HAS ^{AND 2-2-95} ACT WENT HOME FOR		
	EVENING. NO OTP TESTING WILL BE PERFORMED		
	TONIGHT. J.M. Petty		
0130/2-8-95	BRIEFED. NUCLEAR PROCESS OPERATOR BILL CROWSON ON		
	TODAYS ACTIVITIES. HAVE TURNED OVER CHAIN OF		
	CUSTODY & KEYS FOR SAMPLE BOTTLES, AT DISPOSAL		
	BUILDING TO BILL. HE WILL TURN OVER TO SOM		
	IN THE MORNING. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>25</u> of <u>37</u>
TEST TITLE: <u>200-AREA TEDF OTP</u>			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1610/2-9-95	Held crew brief & Pre-Job with parties involved in tonight's testing activities. <i>J.M. Kelly</i>		
1615/2-9-95	48" pump START for 68B-P-A1 pump has been Fixed. OCS problems have been Fixed. LOI at WEST AREA back-up. Will begin OTP TESTING at Section 5.6.3.2 <i>J.M. Kelly</i>		
1805/2-9-95	Completed testing Section 5.6.3. 68B-P-A1 AT came on at 48.13" & OFF at 36.4". 68B-P-91 pump put back in Manual. Have opened Effluent valves at pump station #2 to see if we can get enough drain back without having to use a water truck. After lunch, we will go to WEST AREA & start on Section 5.6 for Pump Station #1. <i>J.M. Kelly</i>		
1940/2-9-95	Crew is at Pump Station #1 to start performance of Section 5.6. <i>J.M. Kelly</i>		
2218/2-9-95	Completed All of Section 5.6.1 & 5.6.2, at Pump Station #1. All went as planned. <i>J.M. Kelly</i>		
2235/2-9-95	Began Section 5.7.1, Testing of ATS and logic at Pump Station #1. <i>J.M. Kelly</i>		

200 AREA TEDF Operational Test Procedure

OSP-68-011, Rev 0
CONTROLLED COPY 4 OF 4WHC-SD-LEF-DTR-001
PAGE B - 26

REV 0

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>26</u> of <u>37</u>
TEST TITLE: TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
2311/2-9-95	Completed testing of section 5.7.1, including switching to back-up power, AT Pump Station #1. All went exactly as planned. TEST Exception #6 was written because the VALUES SEEN ON FRONT OF ATS CABINET WERE NOT WITHIN EXPECTED VALUES. TEST ENGINEER HAS ALREADY DISPOSITIONED THE EXCEPTION. THE EXPECTED VALUES WERE TAKEN FROM THE TRANSFORMER & WRONG CONFIGURATION WAS USED FOR OUR TABLES. Voltage values seen in the field are O.K. & corrected correct. This completes a very successful successful night of testing. J.M. Petty		
0015/2-10-95	Held CREW brief with incoming CREW. Will use the electrician to test section 5.7.4, checking redundancy of U-32, RCM CREDS. J.M. Petty		
0108/2-10-95	Completed Redundancy check of GPLI's AT Control Room. J.M. Petty		
0125/2-10-95	Did NOT Find any Redundancy Creds for RCM-A or RCM-B AT Disposal Panels. TEST Exception #7 written. Did perform Redundancy Check on U32 AT Disposal. Checked O.K. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>27</u> of <u>37</u>
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0150/2-10-95	Completed testing of U32, RCM-A & RCM-D cards AT Pump Station #2. All went as planned. J.M. Kelly		
0250/2-10-95	Completed testing of U32, RCM A & RCM-D cards at Pump Station #1. NOTE That Cards are NOT MARKED AT Pump Station #1. This completes TESTING of SECTIONS 5.7.4.1 Through 5.7.6.3. TESTING will Resume tomorrow Morning on days. J.M. Kelly		
0500/2-10-95	Assumed SOH & Pie Responsibilities J. Dallas		
0730/2-10-95	Hold Pie Job brief & discussed OTP Steps to be performed today. J. Dallas		
0800/2-10-95	Crew for disposal Pond activities are collecting all necessary equipment to Perform Sampling activities.		
0900/2-10-95	Still waiting for ^{TRUCK} Sample H ₂ O truck at Pump Station #2. Called Scheduler to expedite. J. Dallas		
1000/2-10-95	Water truck arrived and is now filling PS. 2. J. Dallas		
1026/2-10-95	Pump Station #2 is now at 54" Stopped H ₂ O truck Proceeding with OTP. J. Dallas		
1030/2-10-95	Experienced Problems Switching Pumps in Pump Station 2 to Manual or Auto Since C Software Eng Working		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>28</u> of <u>37</u>
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1030/2-10-95	the issue. J. Dallas		
1045/2-10-95	Truck driver is now filling Pump Station 1 J. Dallas		
1235/2-10-95	Softarm eng ^{2-#274} got MCS Back in operation, appears to be a continuation of the same problem we are experiencing with MCS/LOU Communication. J. Dallas		
1225/2-10-95	Per step 5.7.2.7 Placed Pump Station 2 Pumps into Auto Pump A1 Started. Verified Pump B1 Started on next attempt.		
1235/2-10-95	tripped Normal Power Supply off Generator Picked up load Ran ~15 min then tripped out on over speed. Electricians looked at generator Found no problems then Restarted. Found that when checking Voltages Between Phases it appears the Switch Shorts Causing the generator to trip off line. TE #8 written and we are continuing test. J. Dallas		
1400/2-10-95	LOU at Pump Station #2 Still not working Properly. Could not get all the Data requested in OTP TE #9 written. J. Dallas		
1500/2-10-95	Completed activities with Pump Station 2. Per		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: 29 of 37
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1530/2-10-95	J-3 written to have water truck driver deliver into Swings to Support Pump Station 1 activities Jim Down		
1538/2-10-95	turned ^{TRD} in over Pic & son responsibilities to Jim Petty Jim Down		
1538/2-10-95	Accepted son & PIC duties from off-going son. mitty		
1700/2-10-95	Began testing AT section 5.7.1.14. Bob Avilina has taken the other crew to disposal for samples. mitty		
1740/2-10-95	Disposal team reports water flowing into disposal Pond. They are able to pull GEAR samples. Flow meter & totalizer show 0. mitty		
1830/2-10-95	Completed testing of section 5.7.1. This completes testing of this OTP except for exceptions. mitty		
1000/2-10-95	Noticed flow at disposal was approx. 150 gpm. Got to Disposal Bldg & found proportional sampler running & trying to take sample, but would not pull one. Evidently the sample tube is not far enough down in disposal pipe to pick-up sample. Sampler shut off. All GEAR samples are packaged & awaiting to go to WGC on Monday. mitty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>30</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
2100/2-10-95	Micon REP has TRIED unsuccessfully to GET LOF AT STATION #2 up & running. He believes we need a NEW LOI. Maybe CAN GET one FROM FMEF. J.M. Petty		
2230/2-10-95	We will READ totalizer AT disposal on Monday IN CASE any water moves down the Line LATE tonight. J.M. Petty		
2300/2-10-95	With the levels we have pumped out of both STATION #1 & STATION #2, IT IS POSSIBLE THAT we have sent up to 40,176 GALS to disposal Pond. J.M. Petty		
0700/2-13-95	OCS WAS Locked up when WE came IN this Morning. Software Engineer to LOOK AT LATER Today. J.M. Petty		
1045/2-13-95	JRT Electricians ARE going to Generator AT STATION #2 to Trouble Shoot our problem Identified IN TEST EXCEPTION TE 08. J.M. Petty		
1300/2-13-95	JRT Electricians were able to observe generator shut-down when phase selector switch moved. Work will be coordinated with the vendor to troubleshoot further. D. Kiffin		
1400/2-13-95	Pipefitters discovered that Composite Sampler tube was too long and may have been Kinked inside pipe. Operating the composite sampler pump in manual, did result in successful pumping through		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>31</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1400/2-13-95 (601T)	15 ft pipe/tube. Will need to verify correct sample volumes during OTT Testing. <i>D. Hainley</i>		
0700/2-14-95	ATTENDED Plan of Day. WATER TRUCK to Fill Pump Station #2 has been ordered. <i>J.M. Petty</i>		
0930/2-14-95	WATER TRUCK AT Pump Station #2, but no water. Also water truck will not start. Mechanic has been called. <i>J.M. Petty</i>		
1100/2-14-95	MSDS Books are now at the Control Room & also at Disposal Bldg. <i>J.M. Petty</i>		
1300/2-15-95	LOI at Pump Station #2 is back on line & working. APPEARS IT WAS A SOFTWARE problem & not a bad LOI as thought. WATER will be added to Pump Station #2 to allow RETESTING of STEPS 5.7.2.18 thru STEPS 5.7.2.22. <i>J.M. Petty</i>		
1600/2-15-95	Change A has been made to OTP. This just REPLACES Pages 62 thru 68 with clean pages for data. We will REPERFORM these STEPS after Generator at Station #2 is fixed. <i>J.M. Petty</i>		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>32</u> of <u>37</u>
TEST TITLE: 200 AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
0600/2-15-95	Noticed both GPLI's for pump station # 1 in Failed mode when I came in. Left in Failed mode for Steve to look at. J.M. Kelly		
0700/2-15-95	Attended plan of Axy. 5.7 is written to Recalibrate Disposal Flow Meter from 0-3000 gpm to 0-1500 gpm. This should help our problem with Low Flow. J.M. Kelly		
0800/2-15-95	Modem has been hooked up between our Computer & Microw at Houston, TEXAS to allow Microw to help Troubleshooting our OCS problems. Modem is thru Bob Paulina's phone. J.M. Kelly		
1000/2-15-95	Recalibrated Disposal Flowmeter. Sampler 68C-SMPL-1 will now sample every 1500 gals. instead of 3,000 gals. J.M. Kelly		
1010/2-15-95	Held pre-Job meeting with all personnel involved in testing. Will reperform steps 5.7.2.18 thru 5.7.2.23. J.M. Kelly		
1045/2-15-95	Restarted testing at step 5.7.2.18, with water discharging to disposal pond. J.M. Kelly		
1112/2-15-95	Completed testing thru step 5.7.2.21. Will continue to allow both pumps to run until shut off at 36" to		

try & test both the Flowmeter & sampler at disposal. J.M. Kelly

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>33</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTR			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
11/22/2-1595	Both Pumps have shut down AT 36" for Pump Station #2. Awaiting water to show up at Disposal Pond to test Flow meter & Sampler. J.M. Kelly		
12/10/2-1595	Flow meter at Disposal started showing flow. Flow started at approx. 60 gpm and has steadily increased to up over 500 gpm. J.M. Kelly		
12/30/2-1595	Flow meter & Sampler (68C-SMPL-1) are working properly. Proportional Sampler on line & pulling samples. This will close out TEST EXCEPTION #10. Also TEST EXCEPTION #9 closed out as steps 5.7.2.18 thru 5.7.2.22 have been re-performed satisfactorily. J.M. Kelly		
1/30/2-1595	Crew trouble shooting Generator #2 at shift turnover. No status at this time. J.M. Kelly		
0800/2-1695	Could not find EXACT problem of Generator. Vendor will be onsite tomorrow to trouble shoot. J.M. Kelly		
1045/2-1795	TEST EXCEPTION #11 has been written to document the OCS & LCU Reliability problems. RETEST of this exception will require 96 hrs of run time without any major problems from OCS or LCU. J.M. Kelly		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>34</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1300/2-17-95	Vendor found that overspeed TRIP SETPOINT for STA #2 Generator needed to be adjusted. This was causing our Generator shutdowns. Overspeed TRIP SETPOINT has been re-adjusted. J.M. Petty		
1315/2-17-95	Wrote Change Record A to allow testing of Generator without checking redundancy of pumps in Automatic. This has already been tested satisfactorily. STEPS 5.7.2.5 thru 5.7.2.17 will be tested with one of the pumps in Manual. J.M. Petty		
1320/2-17-95	Held pre-job meeting with personnel involved in retesting of Generator per STEPS 5.7.2.5 thru 5.7.2.17. J.M. Petty		
1356/2-17-95	200-EAST SAE ²⁻¹⁷⁻⁹⁵ AREA has had an unscheduled power outage. Computers in Control Room have stayed on line. Pump Station #2 reports that Generator came on line as it was supposed to. J.M. Petty		
1404/2-17-95	Power to 200-E has been restored. No word on what caused it. J.M. Petty		
1430/2-17-95	Normal power has been shut down & Generator started per STEP 5.7.2.10 J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>36</u> of <u>37</u> <u>35</u>
TEST TITLE: TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1505/2-17-95	Pump 68B-P-A1 went down. Pump 68B-P-B1 started to allow continuance of testing while electrician troubleshoots. J.M. Petty		
1540/2-17-95	IT APPEARS THAT 68B-P-A1 shutdown due to thermal overloads. Electrician has RESET & pump 68B-P-A1 restarted. Pump 68B-P-B1 shut down manually. J.M. Petty		
1550/2-17-95	Electrician states that if needed, Pump Breakers may be RESET once for testing. J.M. Petty		
1610/2-17-95	Pump 68B-P-A1 shut down again. Pump 68B-P-B1 restarted. J.M. Petty		
1645/2-17-95	Pump ^{68B-P-B1} 68B-P-A1 has shut down. Will restart Pump 68B-P-A1 in a few minutes. J.M. Petty		
1700/2-17-95	Restarted Pump 68B-P-A1. J.M. Petty		
1720/2-17-95	Pump 68B-P-A1 shut down. We will leave off. Tried restarting 68B-P-B1 but could not get it to RESET. Both pumps will be left off & the breakers in the OFF position. J.M. Petty		
1735/2-17-95	Power restored to Pump Station #2 per STEP 5.7.2.14. J.M. Petty		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>36</u> of <u>37</u>
TEST TITLE: 200-AREA TEDF OTP			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1749/2-17-95	Power TRANSFERRED FROM GENERATOR TO MAIN POWER. J.M. Kelly		
1836/2-17-95	COMPLETED TESTING OF GENERATOR PER STEPS 5.7.25 THRU 5.7.2.17. IT SHOULD BE NOTED THAT THERE WAS ONLY A 5 SEC. DELAY BETWEEN GENERATOR & NORMAL LINE POWER TRANSFER. ENGINEERING SHOULD EVALUATE WHETHER OR NOT THIS IS ENOUGH TIME TO ALLOW PUMPS TO WIND DOWN BEFORE POWER IS RESTORED. J.M. Kelly		
230/2-27-95	TEST EXCEPTION #12 WAS WRITTEN TO DOCUMENT PROBLEMS WE HAD WITH PUMPS 68B-P-A1 & 68B-P-B1 SHUTTING OFF DUE ^{11/27/95} 2/27/95 TO OVERLOADS TRIPPING. ELECTRICAL ENGINEERING IS LOOKING INTO THIS PROBLEM FOR RESOLUTION. AS FAR AS THE GENERATOR RAN FOR 3+ hrs & 20 min OF THAT WITHOUT A LOAD, THAT IS ACCEPTABLE AND NOT A PROBLEM. THE GENERATOR TEST GIVE US THE FUEL CONSUMPTION ESTIMATE THAT WE WERE LOOKING FOR. J.M. Kelly		

APPENDIX 2 TEST LOG FORM

TEST LOG		TEST NUMBER: OSP-68-011	TEST LOG PAGE NUMBER: <u>37</u> of <u>37</u>
TEST TITLE: <u>200-AREA TEDF OTP</u>			
TIME/DATE	EVENT DESCRIPTION/SIGNATURE		
1000 / 2-25-95	Micon representative Bob Marcotte Changed the Refresh rate of the graphic from ^{ONCE a} 1 second to ^{ONCE every 4} 4 seconds. This change reduces the traffic via the modem which was causing communication problems between the OCS and the LCU's at the Pump Stations. <u>SL Canichal</u> 2-28-95.		
0730 / 2-28-95	Have ^{begun} begun 96 hour operation of MCS system per RETEST Requirements of TEST EXCEPTION #11. This will require constant graphic display & selected equipment operation for 96 hours. <u>J.M. Kelly</u>		
0730 / 3-6-95	Completed 96 hour ^{of} of operation of MCS system per RETEST Requirements of TEST EXCEPTION #11. All things worked well with no problems. <u>J.M. Kelly</u>		
1348 / 3-6-95	WORK PACKAGE EL-95-00013 has been issued to replace overloads on pump breakers to next larger size. This closes out TEST EXCEPTION #12. <u>J.M. Kelly</u>		
1350 / 3-6-95	Took final totalizer reading and have ensured all test exceptions are closed out. Have ensured all paper work is correct. This now closes out this OTP. <u>J.M. Kelly</u>		

WHC-SD-LEF-OTR-001, Rev 0

APPENDIX C
COMPLETED OPERATIONAL TEST SPECIFICATION

WHC-SD-LEF-TS-001, Rev. 2

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ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 192549

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2. ECN Category (mark one) Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersedeure ☐ Cancel/Void ☐	3. Originator's Name, Organization, MSIN, and Telephone No. A.F. Crane, LEF Proc. Eng., S6-71, 372-3152	3a. USQ Required? ☐ Yes ☒ No	4. Date 02/08/95
	5. Project Title/No./Work Order No. LEF 200 Area TEDF	6. Bldg./Sys./Fac. No. 200 Area TEDF	7. Approval Designator NA
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-LEF-TS-001, Rev 1	9. Related ECN No(s). NA	10. Related PO No. NA
11a. Modification Work ☐ Yes (fill out Blk. 11b) ☒ No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. NA	11c. Modification Work Complete NA _____ Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) NA _____ Cog. Engineer Signature & Date
12. Description of Change The requirement to demonstrate automatic closure of the electric check valves at Pump Stations 1 & 2 on loss of power has been removed as the normal operation of the check valves relies on the emergency solenoid pilot valve to open when the power to the valve is shut off. Pages 5, 6 & 24 typographical errors were corrected to provide items 20 through 28 for Pump Station 1 and eliminate duplicate entries.			
13a. Justification (mark one) Criteria Change ☒ Design Improvement ☐ Environmental ☐ Facility Deactivation ☐ As-Found ☐ Facilitate Const ☐ Const. Error/Omission ☐ Design Error/Omission ☐			
13b. Justification Details Correction to reflect proper test requirements.			
14. Distribution (include name, MSIN, and no. of copies) Attached		RELEASE STAMP OFFICIAL RELEASE BY WHO DATE FEB 09 1995 SMA 4	

RELEASE AUTHORIZATION

Document Number: WHC-SD-LEF-TS-001, REV 2

Document Title: 200 Area Treated Effluent Disposal Facility
Operational Test Specification

Release Date: 2/9/95

**This document was reviewed following the
procedures described in WHC-CM-3-4 and is:**

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Kara M. Broz

February 9, 1995

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SUPPORTING DOCUMENT

2. Title

200 Area Treated Effluent Disposal Facility
Operational Test Specification

3. Number

WHC-SD-LEF-TS-001

4. Rev No.

2

5. Key Words

ATP, OTP, Test Specification, 200 Area TEDF

6. Author

Name: A.F. Crane

A.F. Crane *02/09/95*
Signature

Organization/Charge Code 86230/A2107

7. Abstract

This document identifies the test specification and test requirements for the 200 Area Treated Effluent Disposal Facility (200 Area TEDF) operational testing activities. These operational testing activities, when completed, demonstrate the functional, operational and design requirements of the 200 Area TEDF have been met.

8. RELEASE STAMP

(1) Document Number

Page 1

200 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONAL TEST SPECIFICATION

Authorized for Release

(4) Description of Change - Replace, Add, and Delete Pages

(6)	Cog. Mgr.	Date
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(7) EDT-611037

1

Reference to WHC-SD-LEF-OTP-001, Rev 0 was changed to OSP-68-011 ECL-192518

A.F. Crane

N.J. Sullivan.

2

RS

The requirement to demonstrate automatic closure of the electric check valves was removed & typographical errors were corrected on pages 5, 6 & 24. EAC-192519

A.F. Crane

N.J. Sullivan

CC Crane
02/08/95

02/09/95

WHC-SD-LEF-TS-001, Rev 2

200 AREA TREATED EFFLUENT DISPOSAL FACILITY
OPERATIONAL TEST SPECIFICATION

1.0 PURPOSE

This document shall identify the test specification and test requirements for the 200 Area Treated Effluent Disposal Facility (200 Area TEDF) operational testing activities. This test specification identifies the operational testing which demonstrates functional, operational and design requirements of the 200 Area TEDF have been met.

2.0 APPLICABLE DOCUMENTS

The following documents, of the exact issue shown, form a part of the Basis of Design to the extent specified in the applicable sections of this document. In the event of conflict between documents referenced herein and the requirements of this specification, the requirements of this specification shall take precedence.

WHC-SD-W049H-FDC-001, Rev 1 Functional Design Criteria for the 200 Area Treated Effluent Disposal Facility, Project W-049H

WHC-SD-W049H-FDC-001, Rev 1A Functional Design Criteria for the 200 Area Treated Effluent Disposal Facility, Project W-049H

WHC-SD-W049H-FDC-001, Rev 1B Functional Design Criteria for the 200 Area Treated Effluent Disposal Facility, Project W-049H

W-049H-C1, As-Built Rev 1 Construction Specification For Divisions 2 Through 16 Piping And Pump System Collection System 200 Area Treated Effluent Disposal Facility

W-049H-C2, As-Built Rev 1 Construction Specification For Construction Specification For Instrumentation And Telecommunication System For Disposal System Package 2

W-049H-C3, As-Built Rev 1 Construction Specification For Disposal System: Package 1 200 Area Treated Effluent Disposal Facility

3.0 TECHNICAL REQUIREMENTS

The technical requirements for operational testing of the 200 Area TEDF are defined by the test requirements presented in Appendix A. These test requirements demonstrate the following:

Pump station #1 and associated support equipment operate both automatically and manually.

WHC-SD-LEF-TS-001, Rev 2

Pump station #2 and associated support equipment operate both automatically and manually.

Water is transported through the collection and transfer lines to the disposal ponds with no detectable leakage.

The disposal ponds accept flow from the transfer lines with all support equipment operating as designed.

The control systems operate and status the 200 Area TEDF including monitoring of appropriate generator discharge parameters.

Testing will utilize Acceptance Test Procedures and Operational Test Procedures to demonstrate operability of the 200 Area TEDF. Validation of Plant Operating Procedures, Component Index Data Sheet information and Calibration Procedures will be included during these test activities.

4.0 INITIAL FACILITY CONDITIONS

Testing will be conducted as the individual subsystems become operational to demonstrate the operability of the 200 Area TEDF. At the completion of testing, the 200 Area TEDF will be fully operational in both manual and automatic modes, and ready to accept waste from individual generating facilities after completion of final tie-in activities.

5.0 TEST REQUIREMENTS

Completion of the test requirements presented in Appendix A will demonstrate that the technical requirements identified in Section 3.0 have been met. Completion of each test requirement will be verified by the LEF Process Engineering Cognizant Engineer or his representative.

Table A-1 200 Area TEDF Pump Station #1

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
1	Normal power is available.	Power supply is available at the MCC	WHC-SD-W049H-ATP-002, Rev 0	Section 7.1.5 OK Crane 02/07/95
2	Hoist (68A-HOIST-01) & lifting cables have been load tested.	Load test certifications are stamped on hoist & lifting cables	WHC-SD-W049H-ATP-002, Rev 0	Section 7.1.1 OK Crane 02/07/95
3	Flow switches (FSL-68A-007, -021, -033, -68A-041) functionally tested to verify activation of internal micro switch & wiring to LCU & MCC.	As measured at the MCC & LCU: - Open contact resistance >5 megohms - Vane activated closed contact resistance approximately 0 ohms	WHC-SD-W049H-ATP-002, Rev 0	Section 8.2 OK Crane 02/07/95
4	Level switches (LSL/LE-68A-005, -031) functionally tested to verify operation.	As measured at the LCU: - Open contact resistance >5 megohms - Closed contact resistance (grounded liquid level electrode) approximately 0 ohms	WHC-SD-W049H-ATP-002, Rev 0	Section 9 OK Crane 02/07/95
5	Pressure indicating transmitters (PIT-68A-003U, -003D, -008U, -008D, -020U, -020D, -025U, -025D) functionally tested to verify operation	As measured at the PIT & LCU: - at 4 mA the reading is ≤ 0 psi - at 20 mA the PIT reading is 100 psi - verify pressure readings at LCU display	WHC-SD-W049H-ATP-002, Rev 0 OSP-68-011	Section 10 OK Crane 02-22-95 Sections 5.6.1.8, 5.6.1.16, 5.6.2.7, 5.6.2.16 OK Crane 02-22-95
6	Flow meter (FE/FT-68A-052) functionally tested to verify generation of a meter signal & wiring to LCU	As measured at the flow sensor - voltage across TP 12 & TP 8 is between -2.0 & -3.0 V dc - voltage across TP 13 & TP 8 is between -2.0 & -3.0 V dc	WHC-SD-W049H-ATP-002, Rev 0	Section 11 OK Crane 02/07/95
7	Temperature transmitters (TE/TT-68A-056, -68WA-001) functionally tested to show change in output signal & verify wiring to LCU	As measured at the LCU - current in mA rises with increasing temperature - current in mA decreases with decreasing temperature	WHC-SD-W049H-ATP-002, Rev 0	Section 12 OK Crane 02/07/95
8	Position switches (ZSH/ZSL-68A-004N, -004C, -009N, -009C, 021N, -021C, -026N, -026C) functionally tested to verify operation of position indicating limit switches	As measured at the valve & LCU - Closed contact measures 0 ohms resistance - Open contact measures >5 megohms resistance	WHC-SD-W049H-ATP-002, Rev 0	Section 13 OK Crane 02/07/95

Table A-1 200 Area TEDF Pump Station #1

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
9	Electric check valve (ZSH-68A-003N, -008N, -020N, -025N) functionally tested to verify operation of solenoid type valves & roller cam type micro switch and wiring to LCU	As measured at the microswitch - Open contact resistance >5 megohms - Closed contact resistance approximately 0 ohms	WHC-SD-W049H-ATP-002, Rev 0	Section 14 OK Crane 02/07/95
10	Solenoids (PV-68A-014, -015, -016, -017, -018, -019, -028, -029) are functional	As measured at the solenoid - magnetic compass deflection noted when power is applied to the solenoid & returns to normal position when power is turned off	WHC-SD-W049H-ATP-002, Rev 0	Section 14.3 OK Crane 02/07/95
11	Electric check valves (68A-ECV-003/-008/-020/-025)	As measured at the valve - demonstrate automatic operation - demonstrate manual operation using the normal solenoid pilot valves	WHC-SD-W049H-ATP-003, Rev 0	Sections 9.23 & 9.24 OK Crane 02/07/95
12	Automatic transfer switch functionally tested for automatic transfer of power feed to backup upon failure of primary power feed	As measured at the automatic transfer switch - power feed is transferred to standby power feed within 5 minutes of primary power supply failure	WHC-SD-W049H-ATP-002, Rev 0	Section 16 OK Crane 02/07/95
13	Influent valves (MV-68A-001, -002), position indicators (ZSH-68A-001N, -001C, -002N, -002C) & fail safe units are functionally tested	As measured at the valve - valve opens & closes manually - two lower limit switches are set to indicate closure - two upper limit switches are set to indicate open - valve opens upon power failure	WHC-SD-W049H-ATP-002, Rev 0	Section 18 OK Crane 02/07/95
14	Pumps (68A-P-A1, -A2, -B1, -B2) are functionally tested	As measured at the pump - pump oil level is correct - pump rotation & operation is correct - pump installation is correct	WHC-SD-W049H-ATP-002, Rev 0	Section 19.3 OK Crane 02/07/95

Table A-1 200 Area TEDF Pump Station #1

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
15	Sluice gate (68A-SLG-01) does not leak	As measured in the wet well Side A & B	WHC-SD-W049H-ATP-002, Rev 0	Section 19.4 OK Crane 02/07/95
16	Flow switch, pump current & line pressure test	As measured at - the MCC: pump motor current - the current transmitter: current output - the pressure transmitter: pressure - the surge relief valve: relieves at >90 psi	WHC-SD-W049H-ATP-002, Rev 0	Sections 19.5.8, 19.5.9, 19.5.12, 19.5.16, & 19.5.28 OK Crane 02/07/95
17	Level element (LE/LT-68A-004, -030) verification	As measured at the level element - set 0 level at 4 mA - set full level at 20 mA	WHC-SD-W049H-ATP-002, Rev 0	Section 19.6 OK Crane 02/07/95
18	Verify hydraulic design of pumping systems	As measured at the pressure transmitters - system head	WHC-SD-W049H-ATP-002, Rev 0	Section 20 OK Crane 02/07/95
19	Verify pumps (68A-P-A1, -A2, -B1, -B2) can be started & stopped at the MCC	As measured at the MCC	WHC-SD-W049H-ATP-003, Rev 0	Sections 19.18 thru 19.21 OK Crane 02/07/95
20	Verify all I & C communication between the Control Room and Pump Station 1	As measured at the MCS Operator Control Station and Pump Station 1 (LCU 55C20)	WHC-SD-W049H-ATP-003, Rev 0	Section 9.24 OK Crane 02/08/95
21	System 68A equipment has been calibrated	By individual calibration procedures	OSP-68-011	Section 3.1.1 OK Crane 02/08/95
22	All switches and alarms have been verified to actuate at given set values/alarm points	As measured at the LCU (55C20) & MCS	WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	Section 9.24 OK Crane 02/22/95 OK Crane 02/22/95

Table A-1 200 Area TEDF Pump Station #1

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
23	Verify all valves listed in Table A-2 can be stroked fully open and fully closed with manual & electrical actuators	As measured at the valve	WHC-SD-W049H-ATP-002, Rev 0 WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	Sections 18.2 & 13.2 <i>AK Crane</i> 02-02-95 Sections 9.24 & 9.8 9.6 <i>AK Crane</i> 02-05-95 Section 5.4.2 <i>AK Crane</i> 02-22-95
24	System 68A equipment returns to a fail safe position on failure of the system, including a loss of utilities	As measured at the equipment	WHC-SD-W049H-ATP-002, Rev 0 OSP-68-011	Sections 9.24 18.1 & 18.2 <i>AK Crane</i> 02-22-95
25	Pumps 68A-P-A1/B1/A2/B2 operate automatically at set points	As measured from floor of wet well: - -A1/-B1 start at the level setpoint of 54 inches. - -A1/-B1 shut down at the low level setpoint of 36 inches. - -A1/-B1 shut down at the high level setpoint of 60 inches. - -A2/-B2 start at the level setpoint of 60 inches. - -A2/B2 shut down at the low level setpoint of 36 inches. - the high level alarm is activated at the setpoint of 72 inches.	OSP-68-011	Sections 5.6.1 & 5.6.2 <i>AK Crane</i> 02-22-95

Table A-1 200 Area TEDF Pump Station #1

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
26	Pumps 68A-P-A1/A2/B1/B2 can be operated manually and automatically for both single & dual side operation according to documented logic	As measured by <ul style="list-style-type: none"> - Manual operation from the MCC, LCU-55C-20 and MCS operator control stations - Automatic operation from LCU-55C-20 and MCS operator control stations - pump shuts down when STOP switch is activated from LCU-55C-20 and MCS operator control stations. 	OSP-68-011	<i>AT Crane</i> 02-20-95
27	Pumps 68A-P-A1/B1/A2/B2 meet design minimum flow specifications	As measured at LCU-55C-20 or MCS operator control stations <ul style="list-style-type: none"> - -A1/-B1 at 225 gpm - -A2/-B2 at 490 gpm 	WHC-SD-W049H-ATP-002, Rev 0 OSP-68-011	Section 20.2 Sections 5.7.1.14, 5.7.1.16, 5.7.1.19, 5.7.1.21 <i>AT Crane</i> 02-22-95
28	Pumps 68A-P-A1/-A2/-B1/-B2 operational status and current demand (amperage) is monitored & displayed	As measured at LCU-55C-20 and MCS operator control stations	WHC-SD-W049H-ATP-002, Rev 0	Section 19.5 <i>AT Crane</i> 02/08/95
29	Fans (68A-FAN-01/-02/-03) & damper (68A-DPR-1) are operational	As measured at the fan <ul style="list-style-type: none"> - fan rotation & operation is correct - damper opens on fan start & damper shuts on fan stop 	WHC-SD-W049H-ATP-002, Rev 0	Section 19.2 <i>AT Crane</i> 02/08/95
30	Air conditioner (68A-FCU-001) & electric heater (68A-EUH-001) are operable.	Building temperature is maintained at 50-85 degrees F	OSP-68-011	Sections 5.1.2 & 5.1.3 <i>AT Crane</i> 02-22-95

Table A-2 Pump Station 1 Valve Operation Verification

Equipment Number	Functional Description/Criteria	Completion per Procedure	Verification Date/Initials
MV-68A-001 MV-68A-002	Diversion Valves: - manual operation at valve - manual operation at LCU-55C-020 & operator control stations - fail open - position indication at LCU-55C-020 & MCS operator control stations	WHC-SD-W049H -ATP-002, Rev 0 WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	Section 13.2 OK Crane 02/08/95 Section 9.24 OK Crane 02/08/95 Section 5.4.2 OK Crane 02-22-95
68A-V-04 68A-V-05 68A-V-09 68A-V-10 68A-V-11 68A-V-13 68A-V-15 68A-V-16 68A-V-17 68A-V-18 68A-V-19 68A-V-21 68A-V-22 68A-V-26 68A-V-27	Manual Valves: - manual operation at valve - position indication at LCU-55C-20 & MCS operator control stations for: 68A-V-04 68A-V-09 68A-V-21 68A-V-26	WHC-SD-W049H -ATP-002, Rev 0 WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	Section 13.2 OK Crane 02/08/95 Sections 9 & 9.24 OK Crane 02/08/95 Section 5.4.2 OK Crane 02-22-95
68A-SLG-51	Sluice Gate: - manual operation at valve - manual operation at LCU-55C-020 & MCS operator control stations - fail as is - position indication at LCU-55C-020 & MCS operator control stations	WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	Sections 9.6 & 9.24 OK Crane 02/08/95 Section 5.4.2 OK Crane 02-22-95

Table A-3 200 Area TEDF Pump Station #2

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
1	Normal power is available.	Power supply is available at the MCC	WHC-SD-W049H-ATP-002, Rev 0	Section 7.1.5 OK Crane 02/07/95
2	Hoist (68B-HOIST-01) & lifting cables have been load tested.	Load test certifications are stamped on hoist & lifting cables	WHC-SD-W049H-ATP-002, Rev 0	Section 7.1.1 OK Crane 02/07/95
3	Flow switches (FSL-68B-007, -025) functionally tested to verify activation of internal micro switch & wiring to LCU & MCC.	As measured at the MCC & LCU: - Open contact resistance >5 megohms - Vane activated closed contact resistance approximately 0 ohms	WHC-SD-W049H-ATP-002, Rev 0	Section 8.2 OK Crane 02/07/95
4	Level switches (LSL/LE-68B-005, -023) functionally tested to verify operation.	As measured at the LCU: - Open contact resistance >5 megohms - Closed contact resistance (grounded liquid level electrode) approximately 0 ohms	WHC-SD-W049H-ATP-002, Rev 0	Section 9 OK Crane 02/07/95
5	Pressure indicating transmitters (PIT-68B-003U, -003D, -021U, -021D) functionally tested to verify operation	As measured at the PIT & LCU: - at 4 mA the U PIT's reading is ≤ 0 psi - at 20 mA the PIT reading is 100 psi - verify there is a pressure reading at the LCU display	WHC-SD-W049H-ATP-002, Rev 0 OSP-68-011	Section 10 OK Crane 02-22-95 Sections 5.6.3.8 & 5.6.4.7 OK Crane 02-22-95
6	Flow meter (FE/FT-68B-042) functionally tested to verify generation of a meter signal & wiring to LCU	As measured at the flow sensor - voltage across TP 12 & TP 8 is between -2.0 & -3.0 V dc - voltage across TP 13 & TP 8 is between -2.0 & -3.0 V dc	WHC-SD-W049H-ATP-002, Rev 0	Section 11 OK Crane 02/07/95
7	Temperature transmitters (TE/TT-68B-046, -68WB-001) functionally tested to show change in output signal & verify wiring to LCU	As measured at the LCU - current in mA rises with increasing temperature - current in mA decreases with decreasing temperature	WHC-SD-W049H-ATP-002, Rev 0	Section 12 OK Crane 02/07/95

Table A-3 200 Area TEDF Pump Station #2

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
8	Position switches (ZSH/ZSL-68B-004N, -004C, -022N, -022C, -041N, -041C) functionally tested to verify operation of position indicating limit switches	As measured at the valve & LCU - Closed contact measures 0 ohms resistance - Open contact measures >5 megohms resistance	WHC-SD-W049H-ATP-002, Rev 0	Section 13 OK Crane 02/07/95
9	Electric check valve (68B-ECV-003, -021) functionally tested to verify operation of solenoid type valves & roller cam type micro switch and wiring to LCU	As measured at the microswitch - Open contact resistance >5 megohms - Closed contact resistance approximately 0 ohms	WHC-SD-W049H-ATP-002, Rev 0	Section 14 OK Crane 02/07/95
10	Electric check valves (68B-ECV-003/-021)	As measured at the valve - demonstrate automatic operation - demonstrate manual operation using the normal solenoid pilot valves	WHC-SD-W049H-ATP-003, Rev 0	Sections 9.22, 9.23 & 9.24 OK Crane 02/07/95
11	Solenoids (PV-68B-014, -015, -031, -032) are functional	As measured at the solenoid - magnetic compass deflection noted when power is applied to the solenoid & returns to normal position when power is turned off	WHC-SD-W049H-ATP-002, Rev 0	Section 14.3 OK Crane 02/07/95
12	Automatic transfer switch functionally tested for automatic transfer of power feed to generator upon failure of primary power feed	As measured at the automatic transfer switch - power feed is transferred to standby power feed within 5 minutes of primary power supply failure	WHC-SD-W049H-ATP-002, Rev 0	Section 17 OK Crane 02/07/95
13	Influent valves (MV-68B-001, -002), position indicators (ZSH-68B-001N, -001C, -002N, -002C) & fail safe units are functionally tested	As measured at the valve - valve opens & closes manually - two lower limit switches are set to indicate closure - two upper limit switches are set to indicate open - valve opens upon power failure	WHC-SD-W049H-ATP-002, Rev 0	Section 18 OK Crane 02/07/95

Table A-3 200 Area TEDF Pump Station #2

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
14	Pumps (68B-P-A1, -B1) are functionally tested	As measured at the pump & fan - pump oil level is correct - pump rotation & operation is correct - pump installation is correct	WHC-SD-W049H-ATP-002, Rev 0	Section 19.3 OK Crane 02/07/95
15	Sluice gate (68B-SLG-41) does not leak	As measured in the wet well Side A & B	WHC-SD-W049H-ATP-002, Rev 0	Section 21.4 OK Crane 02/07/95
16	Flow switch, pump current & line pressure test	As measured at - the MCC: pump motor current - the current transmitter: current output - the pressure transmitter: pressure	WHC-SD-W049H-ATP-002, Rev 0	Section 21.5 OK Crane 02/07/95
17	Level element (LE/LT-68B-004, -022) verification	As measured at the level element - set 0 level at 4 mA - set full level at 20 mA	WHC-SD-W049H-ATP-002, Rev 0	Section 21.6 OK Crane 02/07/95
18	Verify hydraulic design of pumping systems	As measured at the pressure transmitters - system head	WHC-SD-W049H-ATP-002, Rev 0	Section 21.7 OK Crane 02/07/95
19	Verify pumps (68B-P-A1, -B1) can be started & stopped at the MCC	As measured at the MCC	WHC-SD-W049H-ATP-003, Rev 0	Sections 9.22 & 9.23 OK Crane 02/07/95
20	Verify all I & C communication between the Control Room and Pump Station 2	As measured at the MCS Operator Control Stations and Pump Station 2 (LCU 55C10)	WHC-SD-W049H-ATP-003, Rev 0	Section 9.24 OK Crane 02/07/95
21	System 68B equipment has been calibrated	By individual calibration procedures	OSP-68-011	Section 3.1.1 OK Crane 02-22-95
22	All switches and alarms have been verified to actuate at given set values/alarm points.	As measured at LCU 55C10 & MCS	WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	Section 9.24 OK Crane 02-22-95

Table A-3 200 Area TEDF Pump Station #2

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
23	Verify all valves listed in Table A-4 can be stroked fully open and fully closed with manual & electrical actuators	As measured at the valve	WHC-SD-W049H-ATP-002, Rev 0 WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	Section 18.2 <i>OK Crane</i> 02-22-95 Section 9.2.4 <i>OK Crane</i> 02-22-95 Section 5.4.2 <i>OK Crane</i> 02-22-95
24	System 68B equipment returns to a fail safe position on failure of the the system, including a loss of utilities.	As measured at the equipment	WHC-SD-W049H-ATP-002, Rev 0 OSP-68-011	Section 18.1 & 18.2 <i>OK Crane</i> 02-22-95 Section 5.4.2 <i>OK Crane</i> 02-22-95
25	Pumps 68B-P-A1/B1 operate automatically at set points	As measured from floor of wet well: - -A1/-B1 start at the level setpoint of 48 inches. - -A1/-B1 shut down at the low level setpoint of 36 inches. - the high level alarm is activated at the setpoint of 54 inches.	OSP-68-011	Section 5.6.3 & 5.6.4 <i>OK Crane</i> 02-22-95
26	Pumps 68B-P-A1/B1 can be operated manually & automatically for both single & dual side operation according to documented logic	As measured by - Manual operation from the MCC & LCU-55C-10 - Automatic operation from LCU-55C-20 and MCS operator control stations - pump shuts down when STOP switch is activated from LCU-55C-10 & MCS operator control station	OSP-68-011	<i>OK Crane</i> 02-22-95
27	Pumps 68B-P-A1/B1 meet design minimum flow specifications	As measured at LCU-55C-10 or MCS operator control stations - -A1/-B1 at 340 gpm	WHC-SD-W049H-ATP-002, Rev 0 OSP-68-011	Section 21.7.17 & 21.7.23 Section 5.7.2.18 & 5.7.2.20 <i>OK Crane</i> 02-22-95

Table A-3 200 Area TEDF Pump Station #2				
#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
28	Pumps 68B-P-A1/B1 operational status and current demand (amperage) is monitored & displayed	As measured at LCU-55C-10 and MCS operator control stations	WHC-SD-W049H-ATP-002, Rev 0	Section 21.5 GK Crane 02-22-95
29	Fans (68B-FAN-04/-05/-06) & damper (68B-DPR-1) are operational	As measured at the fan - fan rotation & operation is correct - damper opens on fan start & damper shuts on fan stop	WHC-SD-W049H-ATP-002, Rev 0	Section 21.2 GK Crane 02-22-95
30	Air conditioner (68B-FCU-001) & electric heater (68B-EUH-001) are operable.	Building temperature is maintained at 50-85 degrees F	OSP-68-011	Sections 5.1.2 & 5.1.3 GK Crane 02-22-95

Table A-4 Pump Station 2 Valve Operation Verification

Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
MV-68B-001 MV-68B-002	Diversion Valves: - manual operation at valve - manual operation at LCU-55C-010 & MCS operator control stations - fail open - position indication at LCU-55C-010 & MCS operator control stations	WHC-SD-W049H -ATP-002, Rev 0 WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	Section 20.2.6 & 20.2.7 <i>OK Crane</i> 02-22-95 Section 9.24 <i>OK Crane</i> 02-22-95 Section 5.4.2 <i>OK Crane</i> 02-22-95
68B-V-04 68B-V-05 68B-V-06 68B-V-07 68B-V-08 68B-V-09 68B-V-10 68B-V-20 68B-V-22 68B-V-23	Manual Valves: - manual operation at valve - position indication at LCU-55C-10 & MCS operator control stations for: 68B-V-04 68B-V-22	WHC-SD-W049H -ATP-002, Rev 0 WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	<i>OK Crane</i> 02-22-95 Section 9.24 <i>OK Crane</i> 02-22-95 Section 5.4.2 <i>OK Crane</i> 02-22-95
68B-SLG-41	Sluice Gate: - manual operation at valve - manual operation at LCU-55C-010 & MCS operator control stations - fail as is - position indication at LCU-55C-010 & MCS operator control stations	WHC-SD-W049H -ATP-002, Rev 0 WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	Section 20.6.28 & 21.6.30 <i>OK Crane</i> 02-22-95 Section 9.24 <i>OK Crane</i> 02-22-95 Section 5.4.2 <i>OK Crane</i> 02-22-95

Table A-5 200 Area TEDF Collection System				
#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
1	H Line flowmeter (FE/FT-68B-100) & multiplexers (MUX-1A, MUX-1B) functions verified	As measured at the flowmeter & LCU's: - 4 mA at 0 gpm - 12 mA at 385 gpm - 20 mA at 770 gpm	WHC-SD-W049H-ATP-002, Rev 0	Section 22.2 AG Crane 02/08/95
2	Verify integrity of transfer & facility collection lines	As measured by hydrostatic testing & visual inspection	W-049H-C1 Collection System Construction Spec. WHC-SD-W049H-ATP-002, Rev 0	AG Crane 02/08/95
3	Verify all valves listed in Table A-6 can be stroked fully open and fully closed with manual actuators	As measured at the valve	WHC-SD-W049H-ATP-002, Rev 0	Sections 20.2 & 21.7 AG Crane 02/08/95

Table A-6 Collection & Transfer Valve Operation Verification

Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
68T-BV-01 68T-BV-02 68T-BV-03 68T-BV-04 68T-BV-05 68T-BV-06 68T-BV-07 68T-BV-08 68T-BV-09 68T-BV-10 68T-BV-11 68T-BV-12 68T-BV-13 68T-BV-15 68T-BV-16 68T-BV-18 68T-BV-20 68T-BV-21 68T-BV-22 68T-BV-23 68T-BV-24 68T-BV-25 68T-BV-26 68T-BV-27 68T-BV-28 68T-BV-30 68T-BV-31 68T-BV-32 68T-BV-33 68T-BV-34 68T-BV-35 68T-BV-36 68T-BV-37 68T-BV-38 68T-BV-39 68T-BV-40 68T-BV-41 68T-BV-42	Transfer Line Sectional Isolation Valves: - manual operation at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>AK Crane</i> 02-22-95
68S-BV-02 68S-BV-03 68H-BV-04	Facility Collection Line Sectional Isolation Valves: - manual operation at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>AK Crane</i> 02-22-95

Table A-6 Collection & Transfer Valve Operation Verification			
Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
68T-GV-01 68T-GV-02 68T-GV-03 68T-GV-04 68T-GV-05 68T-GV-06 68T-GV-07 68T-GV-08 68T-GV-09 68T-GV-10 68T-GV-11 68T-GV-12 68T-GV-13 68T-GV-15 68T-GV-16 68T-GV-18 68T-GV-20 68T-GV-21 68T-GV-22 68T-GV-23 68T-GV-24 68T-GV-25 68T-GV-26 68T-GV-27 68T-GV-28 68T-GV-30 68T-GV-31 68T-GV-32 68T-GV-33 68T-GV-34 68T-GV-35 68T-GV-36 68T-GV-37 68T-GV-38 68T-GV-39 68T-GV-40 68T-GV-41 68T-GV-43	Transfer Line Air/Vacuum Relief Isolation Valves: - manual operation at valve	WHC-SD-W049H -ATP-002, Rev 0	AG Case 02-22-95

Table A-6 Collection & Transfer Valve Operation Verification

Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
68S-GV-02 68S-GV-03 68E-GV-02 68E-GV-03 68F-GV-02 68F-GV-03 68H-GV-04 68H-GV-05 68H-GV-06 68H-GV-08 68H-GV-09	Facility Collection Line Air/Vacuum Relief Isolation Valves: - manual operation at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>CC</i> 02-22-95

Table A-6 Collection & Transfer Valve Operation Verification

Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
68T-VBAR-01 68T-VBAR-02 68T-VBAR-03 68T-VBAR-04 68T-VBAR-05 68T-VBAR-06 68T-VBAR-07 68T-VBAR-08 68T-VBAR-09 68T-VBAR-10 68T-VBAR-11 68T-VBAR-12 68T-VBAR-13 68T-VBAR-15 68T-VBAR-16 68T-VBAR-18 68T-VBAR-20 68T-VBAR-21 68T-VBAR-22 68T-VBAR-23 68T-VBAR-24 68T-VBAR-25 68T-VBAR-26 68T-VBAR-27 68T-VBAR-29 68T-VBAR-30 68T-VBAR-31 68T-VBAR-32 68T-VBAR-33 68T-VBAR-34 68T-VBAR-35 68T-VBAR-36 68T-VBAR-37 68T-VBAR-38 68T-VBAR-39 68T-VBAR-40 68C-VBAR-41	Transfer Line Air/Vacuum Relief Valves: - no leakage at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>At Case</i> 02-22-95

Table A-6 Collection & Transfer Valve Operation Verification

Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
68S-VBAR-02 68S-VBAR-03 68E-VBAR-02 68F-VBAR-02 68H-VBAR-04 68H-VBAR-05 68H-VBAR-06 68H-VBAR-08 68H-VBAR-09	Facility Collection Line Air/Vacuum Relief Valves: - no leakage at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>AG Crane</i> 02-22-95
68E-GV-03 68F-GV-03 68H-GV-09	Facility Collection Line Isolation Valves: - manually operated at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>AG Crane</i> 02-22-95
68H-CV-08	Facility Collection Line Check Valves: - no operational checks required	NA	
68T-DV-14 68T-DV-17 68T-DV-19 68T-DV-29	Transfer Line Drain Valves: - manually operated at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>AG Crane</i> 02-22-95
68S-DV-03 68H-DV-07	Facility Collection Line Drain Valves: - manually operated at valve	WHC-SD-W049H -ATP-002, Rev 0	<i>AG Crane</i> 02-22-95

WMC-SD-LEF-TS-001
PAGE C - 27

REV 0

Table A-7 200 Area TEDF Monitor & Control System				
#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
1	MCS receives, displays and sends all required 200 Area TEDF signals	At MCS - verification of design drawing logic diagrams - operation of TEDF - verification of alarms	OSP-68-011	<i>QX C</i> 02-22-95

Table A-8 200 Area TEDF Disposal System

#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
1	Normal power is available.	Power supply is available at the MCC	WHC-SD-W049H-ATP-003, Rev 0	Section 8.1.5 Off Crane 02-22-95
2	Disposal line flowmeter (FE/FT-68C-003), fault detection (FXS-68C-003) & current isolator (IB-68C-003) functions verified	As measured at the flowmeter & current isolator - 4 mA at 0 gpm - 6 mA at 400 gpm - 12 mA at 1500 gpm - 20 mA at 3000 gpm	WHC-SD-W049H-ATP-001, Rev 0	Section 8.2 Off Crane 02-22-95
3	Temperature transmitters (TE/TT-68C-09) functionally tested to show change in output signal & verify wiring to LCU 55C16	As measured at LCU 55C16 - current in mA rises with increasing temperature - current in mA decreases with decreasing temperature	WHC-SD-W049H-ATP-001, Rev 0	Section 9.2 Off Crane 02-22-95
4	Influent valves (MV-68C-004, -005), position indicators (ZSH-68C-004N, -004C, -005N, -005C) are functionally tested	As measured at the valve & LCU - valve opens & closes manually - closed contact measures 0 ohms resistance - open contact measures infinite ohms - two lower limit switches are set to indicate closure - two upper limit switches are set to indicate open - both valves cannot be shut at the same time	WHC-SD-W049H-ATP-001, Rev 0 WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	Section 10.2 Off Crane 02-22-95 Section 9.24 Off Crane 02-22-95 Section 5.4.2 Off Crane 02-22-95
5	Level element (LE/LT-68C-007/-008) verification	As measured at the level element - set 0 level at 4 mA - set full level at 20 mA	WHC-SD-W049H-ATP-001, Rev 0 WHC-SD-W049H-ATP-003, Rev 0	Section 11.2 Off Crane 02-22-95 Section 9.24 Off Crane 02-22-95
6	Samplers (68C-SMPL-1/-2) functionally tested	As measured at the sampler - programs entered - samples drawn	WHC-SD-W049H-ATP-001, Rev 0 WHC-SD-W049H-ATP-002, Rev 0	Section 12.2 Off Crane 02-22-95 Section 20.2.2 through 21.9.1 Off Crane 02-22-95

Table A-8 200 Area TEDF Disposal System				
#	Test Requirement	Acceptance Criteria	Completion Req'd By (Document)	Verification Initials/Date
7	Verify pressure relief valves (PSV-68C-001/-002) relieve excess pressure	As measured at the pressure relief valves - valve discharges at 18-22 psig - valve reseats	WHC-SD-W049H-ATP-001, Rev 0	Section 13.2 OK Crane 02-22-95
8	System 68C equipment has been calibrated	By individual calibration procedures	OSP-68-011	Section 2.1.1 OK Crane 02-22-95
9	All switches and alarms have been verified to actuate at given set values/alarm points.	As measured at LCU 55C16 & MCS	OSP-68-011	OK Crane 02-22-95
10	Verify all valves in Table A-9 can be stroked fully open and fully closed with manual & electrical actuators	As measured at the valve	WHC-SD-W049H-ATP-002, Rev 0 WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	OK Crane 02-22-95 Sections 8.1.15 & 9.24 OK Crane 02-22-95 Section 5.4.2 OK Crane 02-22-95
11	System 68C equipment returns to a fail safe position on failure of the the system, including a loss of utilities.	As measured at the equipment	WHC-SD-W049H-ATP-003, Rev 0 OSP-68-011	OK Crane 02-22-95
12	Air conditioner (68C-FCU-001) & electric heater (68C-EUH-001) are operable.	Building temperature is maintained at 50-85 degrees F	OSP-68-011	Sections 5.1.2 & 5.1.3 OK Crane 02-22-95

Table A-9 Disposal Valve Operation Verification

Equipment Number	Functional Description	Completion per Procedure	Verification Date/Initials
MV-68C-004 MV-68C-005	Motor operated valves: - manual operation at valve - manual operation at LCU-55C-016 & operator control stations - fail as is - position indication at LCU-55C-016 & operator control stations	WHC-SD-W049H -ATP-001, Rev 0 WHC-SD-W049H -ATP-003, Rev 0 OSP-68-011	Section 10.2 <i>At Crane</i> 02-22-95 Section 9.24 <i>At Crane</i> 02-22-95 Section 5.4.2 <i>At Crane</i> 02-22-95
68C-V-01 68C-V-02 68C-V-03 68C-V-04	Manual Valves: - manually operated at valve	WHC-SD-W049H -ATP-001, Rev 0 OSP-68-011	Section 11.2.4 <i>At Crane</i> 02-22-95 Section 5.4.2 <i>At Crane</i> 02-22-95
68C-SLG-06 68C-SLG-07 68C-SLG-08	Sluice Gate: - manual operation at valve	WHC-SD-W049H -ATP-001, Rev 0 OSP-68-011	Section 14.1 <i>At Crane</i> 02-22-95 Section 5.4.2 <i>At Crane</i> 02-22-95

WHC-SD-LEF-OTR-001, Rev 0

APPENDIX D

TEST EXCEPTION LOG

TEST EXCEPTION LOG

TE #	DATE	DESCRIPTION	DISPOSITIONED	DATE CLOSED
01	2/3/95	Did not Receive Closed Limit Signal from Valves 68A-V-26 and 68B-V-04 Step 5.4.2.	Limit Switches have been adjusted & values retested. Valve positions tested O.K.	2-7-95 1. M. Kelly
02	2/3/95	Could not Start Pumps from either the MCS or LCU Per step 5.4.3	Problems with CCS & LCU have been corrected. Properly tested pumps per step 5.4.3	2-7-95 1. M. Kelly
03	2-7-95	Low-Low Level Alarms not received on E. Prior Lot at CCS per steps 5.5.1.3, 5.5.5.3, 5.5.4.3, 5.5.5.3, 5.5.6.3, 5.6.1.7, 5.6.2.6, 5.6.3.7, 5.6.4.4	ECN 192520 written to remove Low Low Level Alarms from PID's. Alarms were Redundant & not necessary.	2-7-95 1. M. Kelly
04	2-7-95	Pump 68B-P-81 Shut down at 9.9" instead of 12" ± 1" as called in step 5.5.6.2	Step 5.5.6.2 Called out 12" ± 1" was incorrect. 10" ± 1" is correct per Log.	2-7-95 J. Dallas
05	2-8-95	Placed Pump 68B-P-81 Per 5.6.4.12 in Auto. Did not Start. Had to clear open fail alarm on 68B-ECV-21	Fail open Alarms work as designed. Under normal operation, Fail open Alarms will not be active due to head pressure from flow.	2-17-95 1. M. Kelly
06	2-9-95	Did not see expected voltages for 12V lines on ATS Tables 5.7.1.8, 5.7.1.10, 5.7.1.12, 5.7.2.8, 5.7.2.11, 5.7.2.12, 5.7.2.16	ATS voltage tables were written using information from the transformer. The incorrect configuration was read from the transformer and this is why the ATS values and voltages do not match. Correct voltages should be 464-496 VAC.	2-10-95 0030 1. M. Kelly
07	2-9-95	Did not Find Any Redundant RCM-A or RCM-D cards at Disposal Station.	Error made in OGP step as Disposal does not have or require Redundant RCM cards. Disposition closed.	1415 2-15-95 1. M. Kelly
08	2-10-95	Generator trips off when Changing Positions on Switch to check Voltage	OverSpeed Trip was set wrong causing Generator to shut down. Voltage set proper settings for OverSpeed Trip. Retested per steps 5.7.2.5 + 5.7.2.17	2-17-95 1. M. Kelly
09	2-10-95	Loi For Pump Station not reading out Data	Loi back running after software was downloaded. Reperformed steps 5.7.2.18 thru 5.7.2.22 Satisfactorily	2-15-95 1400 1. M. Kelly
10	2-10-95	68C-SMPL-1 did not work due to flow meter not reading. Flow meter worked at 200 gpm. 68C-SMPL-1 running but unable to obtain sample.	Flow meter recalibrated to 0-1500 gpm. Sample tubing reset at proper depth in disposal pipe. Both have been retested and verified working properly.	2-15-95 1400 1. M. Kelly

2-10-95

OSP-68-011, Rev 0

CONTROLLED COPY 4 OF 4

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WHC-SD-LEF-OTR-001, Rev 0

APPENDIX E
TEST EXCEPTION REPORTS

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: OSP-68-011 SECTION 5.4.2		TEST NAME: 200-AREA TEDF OTP		T.E. NUMBER: 01	
DESCRIPTION OF PROBLEM: OCS (OPERATOR CONTROL STATION) did NOT RECEIVE A "closed" signal FOR VALUES 68A-U-26 AND 68A-U-04, AS REQUIRED by STEP 5.4.2					
ORIGINATOR: <i>J.M. Petty</i> 2-3-95 <i>2-7-95 MP</i>			IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE		
ORG: _____ DATE: _____			PIC <i>J.M. Petty</i> 2-7-95 DATE: _____		
DISPOSITION: MAINTENANCE TO RE-ADJUST LIMIT SWITCHES OF VALUES 68A-U-26 & 68A-U-04. DOCUMENT ON J-5 OF WORK PACKAGE EL-95-0004.					
RETEST REQUIREMENTS: AFTER LIMIT SWITCHES HAVE BEEN READJUSTED, RETEST VALUES 68A-U-26 & 68A-U-04 PER STEP 5.4.2					
DISPOSITION AND RETEST REQUIREMENTS BY: A.F. Crane / Process Engineering <i>AFC</i> 02-04-95 DATE			DISPOSITION ACTIONS COMPLETE: Verified <i>J.M. Petty</i> 2-4-95 By: _____ DATE		
QAE CONCURRENCE WITH DISPOSITION: N/A DATE			RETEST COMPLETE: <i>J.M. Petty</i> 2-7-95 PIC _____ DATE		

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: OSP-68-011 SECTION 5.4.3		TEST NAME: 200-AREA TEF OTP		T.E. NUMBER: 02	
DESCRIPTION OF PROBLEM: Could NOT START NONE OF THE PUMPS FROM THE OCS (OPERATOR CONTROL STATION) OR LCU (LOCAL CONTROL UNIT) PER SECTION 5.4.3					
ORIGINATOR: <u>J.M. Kelly</u> <u>2-3-95</u>			IMPACT ON TESTING: ☒ HOLD FOR RESOLUTION ☒ CONTINUE		
ORG: <u>J.M. Kelly</u> DATE: <u>2-3-95</u>			PIC: <u>J.M. Kelly</u> DATE: <u>2-3-95</u>		
DISPOSITION: Software Engineer will troubleshoot & correct problem with software to allow section 5.4.3 to be written performed as required.					
RETEST REQUIREMENTS: AFTER SOFTWARE HAS BEEN CORRECTED, RETEST PUMPS PER SECTION 5.4.3					
DISPOSITION AND RETEST REQUIREMENTS BY: R.F. Crane / Process Engineering <u>R.F. Crane</u> <u>02-06-95</u> DATE			DISPOSITION ACTIONS COMPLETE: Verified <u>J.M. Kelly</u> <u>2-6-95</u> By: <u>J.M. Kelly</u> DATE		
CAE CONCURRENCE WITH DISPOSITION: <u>N/A</u> DATE			RETEST COMPLETE: <u>J.M. Kelly</u> <u>2-7-95</u> PIC: <u>J.M. Kelly</u> DATE		

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: <i>OSP-68-011 Sections 5.5 & 5.6</i>		TEST NAME: <i>100-AICA TEST OTP</i>	T.E. NUMBER: <i>03</i>
DESCRIPTION OF PROBLEM: <i>"Low-Low Level" Alarms Not Received at either OCS (Operator Control Station) or LOI (Local Operator Interface) as required in steps 5.5.1.3, 5.5.5.3, 5.5.4.3, 5.5.5.3, 5.5.6.3, 5.6.1.7, 5.6.2.2, 5.6.3.7 or 5.6.4.6</i>			
ORIGINATOR: <i>J.M. Kelly</i> ORG: _____ DATE: <i>2-7-95</i>		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE <i>J.M. Kelly</i> PIC _____ DATE: <i>2-7-95</i>	
DISPOSITION: <i>ECN 192520 written to remove low low level alarm from P&ID's. Alarms were redundant with alarms associated with level switches and not necessary. Level switch alarms were changed to urgent.</i>			
RETEST REQUIREMENTS: <i>NA</i>			
DISPOSITION AND RETEST REQUIREMENTS BY: <i>A.F. Crane / Process Engineering</i> <i>A.F. Crane</i> <i>02-07-95</i> DATE		DISPOSITION ACTIONS COMPLETE: <i>J.M. Kelly</i> <i>3-6-95</i> Verified By: DATE	
QAE CONCURRENCE WITH DISPOSITION: <i>N/A</i> DATE		RETEST COMPLETE: <i>N/A</i> PIC DATE	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: <i>OSP-68-011 Section 5.5.6.2</i>		TEST NAME: <i>200-AREA TENE OTP</i>	T.E. NUMBER: <i>04</i>
DESCRIPTION OF PROBLEM: <i>Pump 68B-P-B1 Shut down AT 9.9" instead of 12" ± 1" AS CALLED OUT IN STEP 5.5.6.2.</i>			
ORIGINATOR: <i>J.M. Kelly</i> ORG: _____ DATE: <i>2-7-95</i>		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE <i>J.M. Kelly</i> PIC _____ DATE: <i>2-7-95</i>	
DISPOSITION: <i>STEP 5.5.6.2 INCORRECTLY CALLED OUT 12" ± 1" FOR ACCEPTANCE CRITERIA. CORRECT CRITERIA IS 10" ± 1"</i>			
RETEST REQUIREMENTS: <i>NONE</i>			
DISPOSITION AND RETEST REQUIREMENTS BY: <i>A.F. Crane / Process Engineering</i> <i>A.F. Crane</i> _____ DATE: <i>02-07-95</i>		DISPOSITION ACTIONS COMPLETE: Verified <i>J.M. Kelly</i> By: _____ DATE: <i>2-7-95</i>	
QAE CONCURRENCE WITH DISPOSITION: <i>N/A</i> _____ DATE: _____		RETEST COMPLETE: <i>N/A</i> _____ PIC _____ DATE: _____	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION:		TEST NAME:	T.E. NUMBER:
OSP-68-011 Section 5.6.4.12		200-AREA T&EF OTP	05
DESCRIPTION OF PROBLEM: Pump 68B-P-B1 did not start when placed in AUTO per section 5.6.4.12. Had to clear the "Fail OPEN" Alarm on Check Valve 68B-ECU-21 before Pump would start.			
ORIGINATOR:		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE
2-8-95 ORG: DATE:		2-8-95 PIC DATE:	
DISPOSITION: The "Fail OPEN" Alarms is designed to hold out pumps from running. Under normal operations, the "Fail OPEN" Alarm will not be active due to head pressure from effluent line against check valves.			
RETEST REQUIREMENTS: None			
DISPOSITION AND RETEST REQUIREMENTS BY:		DISPOSITION ACTIONS COMPLETE:	
AF Crane / Process Engineering
02-08-95 DATE:		Verified By: 2-17-95 DATE:	
QAE CONCURRENCE WITH DISPOSITION:		RETEST COMPLETE:	
N/A		N/A	
DATE:		DATE:	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: OSP-68-011 ^{Sections} 5.7.1 & 5.7.2		TEST NAME: 200-AREA TEST OF OTP	T.E. NUMBER: 06
DESCRIPTION OF PROBLEM: DID NOT SEE EXPECTED VALUES FOR VOLTAGES ON ATS TABLES PER STEPS 5.7.1.8, 5.7.1.10, 5.7.1.12, 5.7.2.8, 5.7.2.11, 5.7.2.12 and 5.7.2.16			
ORIGINATOR: <u>J.M. Petty</u> 2-9-95		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE	
ORG: _____ DATE: _____		PIC: _____ DATE: _____	
DISPOSITION: ATS Voltage Tables WERE WRITTEN USING INFORMATION FROM THE TRANSFORMER. THE INCORRECT CONFIGURATION WAS READ FROM THE TRANSFORMER AND THIS IS WHY THE ATS VALUES & AS READ VOLTAGES DO NOT MATCH. CORRECT VOLTAGE SHOULD BE 464-496 VAC.			
RETEST REQUIREMENTS: NONE			
DISPOSITION AND RETEST REQUIREMENTS BY: A.F. Crane / Process Engineering <u>A.F. Crane</u> 02-09-95 DATE		DISPOSITION ACTIONS COMPLETE: Verified <u>J.M. Petty</u> 2-9-95 By: _____ DATE	
QAE CONCURRENCE WITH DISPOSITION: N/A DATE		RETEST COMPLETE: N/A DATE	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: OSP-68-011 <u>Section 5.7.5 & 5.7.6</u>		TEST NAME: 200-AREA TEF OTP	T.E. NUMBER: 07
DESCRIPTION OF PROBLEM: Could NOT Find any Redundant RCM-A or RCM-D Cards at The Disposal Station as Required in Sections 5.7.5 & 5.7.6			
ORIGINATOR: <u>J.M. Kelly</u> <u>2-9-95</u> ORG: _____ DATE: _____		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE <u>J.M. Kelly</u> <u>2-9-95</u> PIC _____ DATE: _____	
DISPOSITION: IMP 2-9-95 CAE SECTION'S 5.7.5 & 5.7.6 WERE IN ERROR TO CALL OUT Redundant RCM-A & RCM-D CARDS AT The Disposal Building. PER Design, There ARE NO Redundant CARDS AT The Disposal Building.			
RETEST REQUIREMENTS: <u>NONE</u>			
DISPOSITION AND RETEST REQUIREMENTS BY: <u>A.F. Crane / Process Engineering</u> <u>A.F. Crane</u> <u>02-09-95</u> DATE		DISPOSITION ACTIONS COMPLETE: Verified <u>J.M. Kelly</u> <u>2-15-95</u> By: _____ DATE	
CAE CONCURRENCE WITH DISPOSITION: <u>N/A</u> DATE		RETEST COMPLETE: <u>N/A</u> PIC _____ DATE	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: OSP-68-011 Section 5.7.2.12		TEST NAME: 200-AREA TEF. OTP	T.E. NUMBER: 08
DESCRIPTION OF PROBLEM: When Changing Positions on Selector Switch, AT GENERATOR CONTROL PANEL, FOR VOLTAGE CHECKS, GENERATOR SHUTS OFF, Thus NOT ALLOWING PERFORMANCE OF STEP 5.7.2.12.			
ORIGINATOR: <u>J.M. Petty</u> 2-10-95 CRE: DATE:		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE <u>J.M. Petty</u> 2-10-95 PIC DATE:	
DISPOSITION: OFFSITE VENDOR WILL MAKE NECESSARY REPAIRS TO GENERATOR USING WORK PACKAGE EL-95-00010. 2-17-95 Vendor found overspeed trip settings were wrong, thus causing generator to shut down. overspeed trip has now be set properly.			
RETEST REQUIREMENTS: AFTER VENDOR HAS MADE PROPER REPAIRS, RETEST GENERATOR USING SECTIONS 5.7.2.5 Thru 5.7.2.17 OF THIS OTP. (OSP-68-011)			
DISPOSITION AND RETEST REQUIREMENTS BY: R.F. Crane / Process Engineering <u>R.F. Crane</u> 02-10-95 DATE		DISPOSITION ACTIONS COMPLETE: Verified <u>J.M. Petty</u> 2-17-95 By: DATE	
QAE CONCURRENCE WITH DISPOSITION: <u>N/A</u> DATE		RETEST COMPLETE: <u>J.M. Petty</u> 2-17-95 PIC DATE	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION:	TEST NAME:	T.E. NUMBER:
OSP-68-011 Section 5.7.2	200-AREA TEF OTR	09
DESCRIPTION OF PROBLEM: LOI (Local Operator Interface) is not working at Pump Station #2 to allow readings to be taken as required through-out Section 5.7.2		
ORIGINATOR:	IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE	
<u>J.M. Petty</u> <u>2-10-95</u>	<u>J.M. Petty</u> <u>2-10-95</u>	
ORIG: DATE:	PIC DATE:	
DISPOSITION: Software Engineer will need to download information from OCS (Operator Control Station) to LOI (Local Operator Interface) in order to get LOI back working.		
RETEST REQUIREMENTS: AFTER LOI has been brought back on line, RETEST PER SECTION 5.7.2 to verify LOI readings.		
DISPOSITION AND RETEST REQUIREMENTS BY:	DISPOSITION ACTIONS COMPLETE:	
<u>A.C. Crane / Process Engineering</u>		
<u>A.C. Crane</u> <u>02-10-95</u>	Verified <u>J.M. Petty</u> <u>2-15-95</u>	
DATE	By: DATE	
GAE CONCURRENCE WITH DISPOSITION:	RETEST COMPLETE:	
<u>N/A</u>	<u>J.M. Petty</u> <u>2-17-95</u>	
DATE	PIC DATE	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION:		TEST NAME:	T.E. NUMBER:
OSP-68-011 Section 5.7.1.24		200-AREA TEF OTP	10
DESCRIPTION OF PROBLEM: Sampler 68C-SMPL-1 did NOT work properly in STEP 5.7.1.24, due to Flow meter NOT showing proper Flows and when sampler did run, it was unable to obtain a sample.			
ORIGINATOR:		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE
ORG: _____ DATE: 2-10-95		PIC _____ DATE: 2-10-95	
DISPOSITION: Using work package EL-95-00004, Recalibrate Flow meter FIT-68C-003 to 0-1500 gpm. This will ^{allow} the Flow meter to work at expected lower flows. Also recheck sampler tubing inserted into disposal pipe. Reset at proper height.			
RETEST REQUIREMENTS: AFTER WORK ON sampler has been completed, RETEST using Section 5.7.2 to send water to the ponds, thus allowing testing of sampler.			
DISPOSITION AND RETEST REQUIREMENTS BY:		DISPOSITION ACTIONS COMPLETE:	
A.F. Crane / Process Engineering _____ DATE: 02-10-95		Verified By: _____ DATE: 2-15-95	
QAE CONCURRENCE WITH DISPOSITION:		RETEST COMPLETE:	
N/A _____ DATE: _____		PIC _____ DATE: 2-15-95	

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION:

TEST NAME:

T.E. NUMBER:

OSP-68-011 / 5.4.2 thru 5.7.2.22

MCS Graphic / Interface Display
Validation

11

DESCRIPTION OF PROBLEM:

During the performance of Steps 5.4.2 through 5.7.2.22, the MCS graphics & interface was not operable for periods exceeding twenty four hours without interruption. Resetting of the LCU's and OCS controls was required, along with software upgrades to resume testing on multiple occasions.

ORIGINATOR: A.F. Crane / Process Engineering

IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE

A.F. Crane

J.M. Petty

2-17-95

ORG: 86230

DATE: 02-17-95

PIC

DATE

DISPOSITION:

The MCS vendor will provide resolution to all hardware and software related problems and the system retested for a period of 96 hours to verify MCS graphics & interface display reliability.

RETEST REQUIREMENTS: MCS graphics system operation without interruption for a period of 96 hours. Operation shall include constant display of one or more graphics and validation of selected equipment operation at random during the continuous 96 hour period.

DISPOSITION AND RETEST REQUIREMENTS BY:

DISPOSITION ACTIONS COMPLETE:

A.F. Crane / Process Engineering

A.F. Crane

02-17-95

DATE

Verified

By:

J.M. Petty

3-6-95

DATE

QAE CONCURRENCE WITH DISPOSITION:

RETEST COMPLETE:

NA

DATE

PIC

J.M. Petty

3-6-95

DATE

TEST EXCEPTION REPORT

TEST PROCEDURE NO. & SECTION: STEPS 5.7, 2.10.1 05P-68-011 5.7.3.17		TEST NAME: 200-AREA TEST OTP	T.E. NUMBER: 12
DESCRIPTION OF PROBLEM: During 3 ^{hr} Run of Generator, Could NOT keep at least of all The 25 ^{hp} pumps running AT ALL TIMES due to pumps Kicking out on overload. APPROX. 20 MIN OF The 3 ^{hr} Generator Run WAS without a load.			
ORIGINATOR: <u>J. M. Kelly</u> 2-27-95 ORCA DATE:		IMPACT ON TESTING: ☐ HOLD FOR RESOLUTION ☒ CONTINUE <u>J. M. Kelly</u> 2-27-95 PIC DATE:	
DISPOSITION: Thermal overloads were increased to the next larger size under work request EL-9500013 and the trip point set to 102 of the full load motor amp rating.			
RETEST REQUIREMENTS: No retest required			
DISPOSITION AND RETEST REQUIREMENTS BY: A.E. Crane / Proc. Eng <u>A.E. Crane</u> 03-06-95 DATE		DISPOSITION ACTIONS COMPLETE: Verified <u>J. M. Kelly</u> 3-6-95 By: DATE	
QAE CONCURRENCE WITH DISPOSITION: <u>N/A</u> DATE		RETEST COMPLETE: <u>N/A</u> PIC DATE	