Operate 241-AZ-301 Condensate Distribution System

TSR Compliance

Table of Contents

1.0 PURPOSE AND SCOPE ................................................................. 3
  1.1 Purpose ............................................................................... 3
  1.2 Scope ................................................................................ 3

2.0 INFORMATION .............................................................................. 4
  2.1 General Information ............................................................. 4

3.0 PRECAUTIONS AND LIMITATIONS ........................................... 5
  3.1 Personnel Safety ................................................................. 5
  3.2 Equipment Safety ............................................................... 6
  3.3 Radiation and Contamination Control ................................. 6
  3.4 Environmental Compliance ................................................ 6
  3.5 Limits .................................................................................. 6

4.0 PREREQUISITES ........................................................................ 6
  4.1 Special Tools, Equipment and Supplies ............................... 6
  4.2 Performance Documents ..................................................... 7

CHANGE HISTORY (≤ LAST 5 REV-MODS)

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-2</td>
<td>10/16/2018</td>
<td>Operations Request</td>
<td>Changes identified during Periodic Review Process. Formatting corrections. Update Title to Section 5.9 and updated steps to correct process. Added steps in Section 5.9 to ensure specific valves are closed/open when recirculating catch tank,</td>
</tr>
<tr>
<td>F-1</td>
<td>07/16/2018</td>
<td>Inconsequential Change</td>
<td>Records section update</td>
</tr>
<tr>
<td>F-0</td>
<td>12/12/2016</td>
<td>Periodic review comment resolution and address WRPS-PER-2016-1232</td>
<td>Summary: Added changes to replace the Hazard Risk Category 0 statement in Section 3.1 and corresponding steps as well as Checklist 2 to address WRPS-PER-2016-1232. Modified Step 4.3.1 to address Standard requirements. Added Step 5.2.1. Modified Step 5.2.14. section 3.1.1 and section 3.1.2 were swapped.</td>
</tr>
<tr>
<td>E-2</td>
<td>05/24/2016</td>
<td>Inconsequential change to RECORD Section WRPS-PER-2014-0355.9 05/24/2016 LGC</td>
<td>Updated RECORDS section to latest requirements.</td>
</tr>
</tbody>
</table>

Type: CONTINUOUS
Document No.: TO-200-110
Rev/Mod: F-2
Release Date: 10/16/2018
Page: 1 of 47
OPERATE 241-AZ-301 CONDENSATE DISTRIBUTION SYSTEM

4.3 Field Preparation ................................................................. 7

5.0 PROCEDURE ........................................................................... 8

5.1 Prepare Condensate Distribution System for Operation .................. 8
5.2 Connect AZ301TK-COND (Tanker Truck) to 241-AZ-301 Condensate Distribution System ..................................................... 10
5.3 Configure 241-AZ-301 to AUTO Pump to AZ301TK-COND (Tanker Truck) ............................................................. 12
5.4 Configure 241-AZ-301 to AUTO Pump to Tank 241-AY-101 ............ 14
5.5 Configure 241-AZ-301 to AUTO Pump to Tank 241-AZ-102 .......... 16
5.6 Perform Manual Pumping of Tank 241-AZ-301 to AZ301TK-COND (Tanker Truck) ......................................................... 18
5.7 Perform Manual Pumping of Tank 241-AZ-301 to Tank 241-AY-101 ............................................................. 21
5.8 Perform Manual Pumping of Tank 241-AZ-301 to Tank 241-AZ-102 ........................................................................... 23
5.9 Re-Circulate Catch Tank Contents for Mixing And/Or Sampling ....... 25
5.10 Short-Term Shut Down of Condensate Distribution System .......... 28
5.11 Long-Term Shut Down of Condensate Distribution System ........... 29
5.12 Disconnect AZ301TK-COND (Tanker Truck) From 241-AZ-301 Condensate Distribution System and Prepare for Shipment .......... 30
5.13 Pump AZ-301 Building Sump ................................................... 33
5.14 Records .............................................................................. 35

Check List 1: 241-AZ-301 Condensate Distribution System STARTUP Valving ......................................................... 36

Check List 2: Circuit Breaker Position ................................................ 37

Data Sheet 1 Information Record Sheet ............................................. 39

Data Sheet 2 - Tanker Truck Pre-Transport Inspection and Data .......... 40

Table 1 - Tanker Truck Level (Bubbler) to Gallons Conversion Table .... 41

Signature Sheet 1 ....................................................................... 42

Appendix 1: Prime Condensate Pump ............................................. 43

Figure 1 – AZ301 Condensate Distribution System ............................... 44

Figure 2 – Pump Control Panel AZ301-COND-ENCL-101 .................... 45

Figure 3 – Condensate Receiver Tank Valving ..................................... 46

Figure 4 – Trailer and Tank ............................................................... 47
1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for startup, shutdown and operation of the 241-AZ-301 Condensate Distribution System. This procedure also includes sections for connecting and disconnecting the AZ301TK-COND (8000 gallon tanker truck) to/from the 241-AZ-301 Condensate Distribution System.

1.2 Scope

1.2.1 This procedure applies to Waste Group C Double Shell Tanks (AZ-102 and AY-101), and AZ301TK-COND (8000 gallon tanker truck).

1.2.2 This procedure involves operating 241-AZ-301 Condensate Distribution System using valving, instrumentation and gauges located in the following locations:

- 241-AZ-271 Instrument Building
- 241-AZ-702 Vent Building
- AZ301-COND-ENCL-101 Pump Control Enclosure in AZ-301 Building
- AZ301-COND-ENCL-103 Leak Detector Enclosure in AZ-301 Building
- AZ301TK-COND (8000 gallon tanker truck) located in 217-AZ tent.
2.0 INFORMATION

2.1 General Information

2.1.1 Actions or steps in this procedure shall be completed by a Nuclear Chemical Operator (NCO), unless otherwise noted.

2.1.2 Some sections of this procedure require a minimum of two Nuclear Chemical Operators (NCOs) to perform.

2.1.3 Condensate from 241-AZ-702 ventilation system flows by gravity and collects in seal pot, AZ-PC-SP-1 which then drains into receiver tank 241-AZ-301, located directly adjacent to the 241-AZ-702 building. Condensate is allowed to collect in receiver tank 241-AZ-301 and is then automatically, or manually, pumped to tanks 241-AY-101, 241-AZ-102, or AZ301TK-COND (8000 gallon tanker truck) via the AZ301 Condensate Distribution System. Tanks 241-AY-102 and 241-AZ-101 are not currently connected to the 241-AZ-301 Condensate Distribution System.

2.1.4 The condensate pumps are interlocked with the 702-AZ Exhaust Fans to prevent condensate pump operation without exhaust fan(s) running. Timer selector switch AZ301-COND-HS-104 will bypass the interlock and run the pump for up to 60 min.

2.1.5 Sections, Steps, or check lists in this procedure may be performed and/or re-performed independently per Shift Manager/OE direction.

2.1.6 Condensate from 241-AZ-702 Ventilation System is excluded from TSR Definition of Waste.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** – Failure to don proper PPE before operating electrical circuit breakers, disconnects, and/or pilot devices may result in personnel injury.

**WARNING** - Administrative lock conditions must be established prior to disconnecting the transfer line from the tanker truck to prevent an accidental release of condensate material and spreading contamination.

3.1.1 Personnel trained in the operation of breakers and disconnects will wear the following PPE as a minimum:
- Non-melting (untreated natural fiber) long-sleeved shirt
- Safety glasses
- Leather or insulating gloves
- Hearing protection.

3.1.2 Don PPE for breaker lineup as required by DOE-0359.

3.1.3 Entry in AZ301-COND-ENCL-102 for breaker lineups and operation can potentially introduce an arc flash hazard and requires the following PPE:
- Arc rated clothing at a minimum of 1.23 Cal/cm² as required by the Electrical Hazard Analysis (EHE).
3.2 Equipment Safety

**CAUTION** - AZ301TK-COND (8000 gallon tanker truck) has a HIGH Level of 50 inches (7000 gallons) and a HIGH HIGH Level of 52 inches (7250 gallons). Exceeding the HIGH HIGH value could result in over flow.

3.3 Radiation and Contamination Control

3.3.1 Work in Radiological Areas will be performed using a Radiological Work Permit (RWP) following review by Radiological Control per the ALARA Work Planning procedure TFC-ESHQ-RP_RWP-C-03.

3.4 Environmental Compliance

3.4.1 Environmental must be notified in the event of a leak during transfer operations per the Environmental On-Call List. Environmental will make the appropriate leak or release notification.

3.5 Limits

HNF-SD-WM-TSR-006, Technical Safety Requirements

Administrative Control Key Element 5.9.4, Waste Characteristic Controls

4.0 PREREQUISITES

4.1 Special Tools, Equipment and Supplies

The following supplies may be needed to perform this procedure:

- Communication devices.

**For Appendix 1 Completion Only**

- \(\frac{3}{8}\) inch Allen Wrench
- Thread Sealant
- Funnel
- Gallon Jug of water
- Other tools, equipment and supplies as identified by Shift Manager/OE/FWS/User.
4.2 Performance Documents

The following documents may be needed to perform this procedure:

- ARP-T-251-00003, Respond to Monitor Control System Graphic #03 Leak Detect Alarms
- ARP-T-251-00016, Respond to Monitor Control System Graphic #16 Primary Cooling Alarms.
- OSD-T-151-00007 Operating Specifications for the Double-Shell Storage Tanks

4.3 Field Preparation

4.3.1 CONFIRM Shift Manager has authorized procedure actions to be performed, AND

CONFIRM Shift Manager has identified a current receiving tank and condensate distribution system operating mode (Auto or Manual).

4.3.2 IF a condensate pump (AZ301-COND-P-001 or AZ301-COND-P-002) loses prime during the performance of this procedure, REQUEST Maintenance prime condensate pump per Appendix 1.

4.3.3 IF configuring system to transfer to tank AY-101 or AZ-102, REQUEST Engineering determine if there is a current waste compatibility assessment document for the receiving tank.

4.3.4 IF changing current receiving tank (101-AY, 102-AZ, or AZ301TK-COND), CHECK with either process engineer or system engineer to determine the receiving tank for the condensate. (AC 5.9.4)

4.3.5 IF Shift Manager/OE directions or Operator actions are not identified in this procedure, RECORD directions and actions taken on Data Sheet 1.

4.3.6 CONFIRM all personnel performing this procedure have completed Signature Sheet 1.
5.0 PROCEDURE

NOTE - If the 241-AZ-301 Condensate Distribution System is already operating, Section 5.1 may not need to be performed.

5.1 Prepare Condensate Distribution System for Operation

5.1.1 ENSURE Section 4.3 has been completed.

NOTE - It is acceptable to have TK-001 High Level Alarm active if re-circulating or pumping out tank contents.

5.1.2 CONFIRM alarms located on enclosures AZ301-COND-ENCL-101 and AZ301-COND-ENCL-103, are not active.

5.1.2.1 IF any alarm is active, REFER to applicable ARP AND ENSURE leak detector alarms are RESET prior to operating the condensate distribution system.

5.1.2.2 NOTIFY Shift Manager/OE of any actions or findings.

5.1.3 PERFORM startup valving per Check List 1 (See Figure 1).

OR

PERFORM Check List 1 valve lineup per Shift Manager/OE instructions AND

RECORD directions and actions on Data Sheet 1.

NOTE - Performance of Check List 2 is not required if preparing the condensate distribution system for operation after a Short-Term shutdown.

5.1.4 IF preparing the condensate distribution system for operation after a Short-Term shutdown, GO TO Step 5.1.7.
5.1 Prepare Condensate Distribution System for Operation (Cont.)

**WARNING**
Failure to don proper PPE before operating electrical circuit breakers, disconnects, and/or pilot devices may result in personnel injury.

5.1.5 IF opening enclosure AZ301-COND-ENCL-102 is required in order to perform Check List 2, **PERFORM** the following:

5.1.5.1 **REQUEST** a qualified electrical worker to provide escort.

5.1.5.2 **PRIOR** to opening enclosure AZ301-COND-ENCL-102, **ENSURE** Arc Flash PPE is donned per EHE.

5.1.6 IF equipment in Check List 2 is identified as requiring PPE-0, **ENSURE** personnel trained in the operation of breakers and disconnects dons PPE prior to operating. (Refer to Section 3.1).

5.1.7 IF AUTO pumping to AZ301TK-COND (Tanker Truck), **GO TO** Section 5.3.

5.1.8 IF AUTO pumping to tank 241-AY-101, **GO TO** Section 5.4.

5.1.9 IF AUTO pumping to tank 241-AZ-102, **GO TO** Section 5.5.

5.1.10 IF MANUAL pumping to AZ301TK-COND (Tanker Truck), **GO TO** Section 5.6.

5.1.11 IF MANUAL pumping to tank 241-AY-101, **GO TO** Section 5.7.

5.1.12 IF MANUAL pumping to tank 241-AZ-102, **GO TO** Section 5.8.

5.1.13 **PERFORM** Check List 2 to place circuit breakers in the ON (closed) position

OR

**PERFORM** Check List 2 breaker lineup per Shift Manager/OE instructions AND

**RECORD** directions and actions on Data Sheet 1.
5.2 Connect AZ301TK-COND (Tanker Truck) to 241-AZ-301 Condensate Distribution System

NOTE – This section is only required to be performed if 241-AZ-301 Condensate Distribution System will be AUTO or MANUALLY transferred to the AZ301TK-COND (Tanker Truck).

- This section typically requires two operators to perform.

5.2.1 ENSURE tanker truck cupola is positioned beneath suspended transfer line and vacuum breaker.

5.2.2 OPEN tanker truck breather filter isolation valve AZ301TK-COND-V-103.

5.2.3 ENSURE tanker truck bubbler isolation valve AZ301TK-COND-V-104 is open.

5.2.4 ENSURE tanker truck bubbler isolation valve AZ301TK-COND-V-105 is open.

5.2.5 PLUG IN power cord to bubbler (liquid level indication system) AND ENSURE level display comes on.

5.2.6 REMOVE tanker truck overflow line from adjustable cable AND CONNECT the tanker truck overflow line to the overflow tank.

5.2.7 OPEN tanker truck overflow line valve AZ301TK-COND-V-102.

5.2.8 REMOVE plastic bag or sleeve from tanker connection port and transfer line.

5.2.9 RELEASE coupling latches on tanker connection port AND UNCAP tanker connection port.
## Operate 241-AZ-301 Condensate Distribution System

### 5.2 Connect AZ301TK-COND (Tanker Truck) to 241-AZ-301 Condensate Distribution System (Cont.)

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.10</td>
<td><strong>RELEASE</strong> coupling latches on transfer line <strong>AND</strong> <strong>UNCAP</strong> transfer line.</td>
</tr>
<tr>
<td>5.2.11</td>
<td><strong>CONNECT</strong> the transfer line to the tanker connection port.</td>
</tr>
<tr>
<td>5.2.12</td>
<td><strong>CLOSE</strong> coupling latches to secure transfer line to the tanker.</td>
</tr>
<tr>
<td>5.2.13</td>
<td><strong>CHECK</strong> there is adequate slack between transfer line and tanker truck to allow settling of truck during filling.</td>
</tr>
<tr>
<td>5.2.14</td>
<td><strong>EXCEPT</strong> for the vacuum breaker, <strong>ENSURE</strong> the hose to tanker connection is sealed with plastic sleeving, containing sufficient absorbent material.</td>
</tr>
</tbody>
</table>

**NOTE -** Valve AZ301TK-COND-V-101 open/close indication is on side of valve. As used in this system, when the valve handle is pointing up the valve is OPEN, with the valve handle pointing down the valve is CLOSED.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.15</td>
<td><strong>REMOVE</strong> securing clip <strong>AND</strong> <strong>OPEN</strong> valve AZ301TK-COND-V-101 (valve handle will point up).</td>
</tr>
<tr>
<td>5.2.16</td>
<td><strong>RE-INSTALL</strong> securing clip <strong>AND</strong> <strong>ENSURE</strong> valve is secured OPEN.</td>
</tr>
</tbody>
</table>
5.3 Configure 241-AZ-301 to AUTO Pump to AZ301TK-COND (Tanker Truck)

5.3.1 ENSURE Sections 4.3 and 5.1 have been completed.

5.3.2 ENSURE the AZ301TK-COND (Tanker Truck) has been connected to the 241-AZ-301 Condensate Distribution System per Section 5.2.

5.3.3 IF pump AZ301-COND-P-001 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 1” (see Figure 2),

OR

IF pump AZ301-COND-P-002 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 2” (see Figure 2).

5.3.4 ENSURE valve AZ301-COND-V-140 is CLOSED.

5.3.5 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.3.6 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.3.7 ENSURE administrative lock conditions are established for the following valves:

- AZ301-COND-V-116
- AZ301-COND-V-125

5.3.8 ENSURE valve AZ301-COND-V-129 is OPEN.

5.3.9 ENSURE valve AZ301-COND-V-136 is OPEN.

NOTE - Positioning selector switch AZ301-COND-HS-106 to “AUTO” position enables pump operation and may start pump if tank level is above the pump start level (42.5”).

5.3.10 POSITION selector switch AZ301-COND-HS-106 to “AUTO” (see Figure 2).
5.3 Configure 241-AZ-301 to AUTO Pump to AZ301TK-COND (Tanker Truck) (Cont.)

5.3.11 VISUALLY CHECK condensate distribution system and chemical addition system for leaks.

5.3.11.1 IF a leak is found, IMMEDIATELY NOTIFY Shift Manager/OE AND

IF directed, SHUTDOWN the condensate distribution system per Section 5.10 of this procedure.

5.3.12 IF any alarm(s) activates, during condensate distribution system operations, RESPOND to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 AND

NOTIFY Shift Manager/OE.

5.3.13 NOTIFY Shift Manager/OE and TMACS operator that the condensate receiver system is operating in AUTO mode and is configured to pump to AZ301TK-COND (Tanker Truck).
5.4 Configure 241-AZ-301 to AUTO Pump to Tank 241-AZ-101

5.4.1 ENSURE Sections 4.3 and 5.1 have been completed.

5.4.2 IF pump AZ301-COND-P-001 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 1” (see Figure 2).

OR

IF pump AZ301-COND-P-002 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 2” (see Figure 2).

5.4.3 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.4.4 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.4.5 ENSURE valve AZ301-COND-129 is CLOSED.

5.4.6 ENSURE administrative lock conditions are established for the following valves:

- AZ301-COND-V-125
- AZ301-COND-V-129.

5.4.7 ENSURE valve AZ301-COND-V-116 is OPEN.

NOTE - Positioning selector switch AZ301-COND-HS-106 to “AUTO” position enables pump operation and may start pump if tank level is above the pump start level (42.5”).

5.4.8 POSITION selector switch AZ301-COND-HS-106 to “AUTO” (see Figure 2).

5.4.9 VISUALLY CHECK condensate distribution system and chemical addition system for leaks.

5.4.9.1 IF a leak is found, IMMEDIATELY NOTIFY Shift Manager/OE AND

IF directed, SHUTDOWN the condensate distribution system per Section 5.10 of this procedure.
### Operate 241-AZ-301 Condensate Distribution System

#### 5.4 Configure 241-AZ-301 to AUTO Pump to Tank 241-AY-101 (Cont.)

5.4.10 IF any alarm(s) activates, during condensate distribution system operations, RESPOND to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 AND

**NOTIFY** Shift Manager/OE.

5.4.11 **NOTIFY** Shift Manager/OE and TMACS operator that the condensate system is operating in AUTO mode, and is configured to pump to tank 241-AY-101.
Operate 241-AZ-301 Condensate Distribution System

5.5 Configure 241-AZ-301 to AUTO Pump to Tank 241-AZ-102

5.5.1 ENSURE Sections 4.3 and 5.1 have been completed.

5.5.2 IF pump AZ301-COND-P-001 will be operated, POSITION selector switch AZ301 COND HS-105 to “PUMP 1” (see Figure 2),

OR

IF pump AZ301-COND-P-002 will be operated, POSITION selector switch AZ301 COND HS-105 to “PUMP 2” (see Figure 2).

5.5.3 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.5.4 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.5.5 ENSURE valve AZ301-COND-V-129 is CLOSED.

5.5.6 ENSURE administrative lock conditions are established for the following valves:
- AZ301-COND-V-116
- AZ301-COND-V-129.

5.5.7 ENSURE valve AZ301-COND-V-125 is OPEN.

NOTE - Positioning selector switch AZ301-COND-HS-106 to “AUTO” position enables pump operation and may start pump if tank level is above the pump start level (42.5”).

5.5.8 POSITION selector switch AZ301-COND-HS-106 to “AUTO” (see Figure 2).

5.5.9 VISUALLY CHECK condensate distribution system and chemical addition system for leaks.

5.5.9.1 IF a leak is found, IMMEDIATELY NOTIFY Shift Manager/OE AND

IF directed, SHUTDOWN the condensate distribution system per Section 5.10 of this procedure.
5.5 Configure 241-AZ-301 to AUTO Pump to Tank 241-AZ-102 (Cont.)

5.5.10 IF any alarm(s) activates, during condensate distribution system operations, RESPOND to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 AND NOTIFY Shift Manager/OE.

5.5.11 NOTIFY Shift Manager/OE and TMACS operator that the condensate system is operating in AUTO mode, and is configured to pump to tank 241-AZ-102.
5.6 Perform Manual Pumping of Tank 241-AZ-301 to AZ301TK-COND (Tanker Truck)

NOTE – If the catch tank is pumped below 6”, the pumps may lose prime and will fail to pump until re-primed.

5.6.1 ENSURE Sections 4.3 and 5.1 have been completed.

5.6.2 ENSURE the AZ301TK-COND (Tanker Truck) has been connected to the 241-AZ-301 Condensate Distribution System per Section 5.2.

5.6.3 IF pump AZ301-COND-P-001 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 1” (see Figure 2),

OR

IF pump AZ301-COND-P-002 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 2” (see Figure 2).

5.6.4 ENSURE valve AZ301-COND-V-140 is CLOSED.

5.6.5 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.6.6 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.6.7 ENSURE administrative lock conditions are established for the following valves:

• AZ301-COND-V-116
• AZ301-COND-V-125.

5.6.8 ENSURE valve AZ301-COND-V-129 is OPEN.

5.6.9 ENSURE valve AZ301-COND-V-136 is OPEN.
5.6 Perform Manual Pumping of Tank 241-AZ-301 to AZ301TK-COND (Tanker Truck) (Cont.)

5.6.10 **POSITION** selector switch AZ301-COND-HS-106 to “HAND” (see Figure 2).

5.6.11 **IF** 702-AZ primary ventilation system is not operating, **OR**

**IF** directed by the Shift Manager/OE, **POSITION** timer selector switch AZ301-COND-HS-104 as directed (up to 60 minutes) to **BYPASS INTERLOCK** and run pump.

5.6.12 **CONFIRM** selected condensate pump starts **AND**

**ENSURE** 241-AZ-301 Enraf level is decreasing.

5.6.13 **NOTIFY** Shift Manager/OE and TMACS operator that the condensate distribution system is pumping in MANUAL mode to AZ301TK-COND (Tanker Truck).

5.6.14 **MONITOR** 241-AZ-301 tank level periodically while condensate pump is running.

5.6.15 **CHECK** Condensate Distribution System periodically for leaks during pumping operations.

5.6.15.1 **IF** a leak is found, **IMMEDIATELY NOTIFY** Shift Manager/OE **AND**

**IF** directed, **SHUTDOWN** the condensate distribution system per Section 5.10.

5.6.16 **IF** any alarm(s) activates, during condensate distribution system operation, **RESPOND** to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 **AND**

**NOTIFY** Shift Manager/OE.
5.6 Perform Manual Pumping of Tank 241-AZ-301 to AZ301TK-COND (Tanker Truck) (Cont.)

CAUTION
AZ301TK-COND (8000 gallon tanker truck) has a HIGH Level of 50 inches (7000 gallons) and a HIGH HIGH Level of 52 inches (7250 gallons). Exceeding the HIGH HIGH value could result in over flow.

5.6.17 MONITOR tank level.

5.6.17.1 WHEN any of the following conditions occur, GO TO Section 5.10 to shutdown condensate distribution system:
- 241-AZ-301 tank level reaches approximately 10”
- AZ301TK-COND (Tanker Truck) level reaches the maximum operating level 50 inches (7000 gallons)
- Shift Manager/OE directs condensation distribution system shutdown.
5.7 Perform Manual Pumping of Tank 241-AZ-301 to Tank 241-AY-101

NOTE - If the catch tank is pumped below 6”, the pumps may lose prime and will fail to pump until re-primed.

5.7.1 ENSURE Sections 4.3 and 5.1 have been completed.

5.7.2 IF pump AZ301-COND-P-001 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 1” (see Figure 2).

OR

IF pump AZ301-COND-P-002 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 2” (see Figure 2).

5.7.3 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.7.4 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.7.5 ENSURE valve AZ301-COND-V-129 is CLOSED.

5.7.6 ENSURE administrative lock conditions are established for the following valves:
   • AZ301-COND-V-125
   • AZ301-COND-V-129.

5.7.7 ENSURE valve AZ301-COND-V-116 is OPEN.

5.7.8 POSITION selector switch AZ301-COND-HS-106 to “HAND” (see Figure 2).

5.7.9 IF 702-AZ primary ventilation system is not operating,

OR

IF directed by the Shift Manager/OE, POSITION timer selector switch AZ301-COND-HS-104 as directed (up to 60 minutes) to BYPASS INTERLOCK and run pump.

5.7.10 CONFIRM selected condensate pump starts AND

ENSURE 241-AZ-301 Enraf level is decreasing.

5.7.11 NOTIFY Shift Manager/OE and TMACS operator that the condensate system is operating in MANUAL mode to tank 241-AY-101.
5.7 Perform Manual Pumping of Tank 241-AZ-301 to Tank 241-AY-101 (Cont.)

5.7.12 MONITOR 241-AZ-301 tank level periodically while condensate pump is running.

5.7.13 VISUALLY CHECK condensate distribution system periodically for leaks during pumping operations.

5.7.13.1 IF a leak is found, IMMEDIATELY NOTIFY Shift Manager/OE.

   a. IF directed, SHUTDOWN the condensate distribution system per Section 5.10 of this procedure.

5.7.14 IF any alarm(s) activates, during condensate distribution system operations, RESPOND to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 AND NOTIFY Shift Manager/OE.

5.7.15 MONITOR tank level.

5.7.15.1 WHEN any of the following conditions occur, GO TO Section 5.10 to Shut Down Condensate Distribution System.

   • 241-AZ-301 tank level reaches approximately 10"
   • Shift Manager/OE directs condensation distribution system shutdown.
5.8 Perform Manual Pumping of Tank 241-AZ-301 to Tank 241-AZ-102

NOTE - If the catch tank is pumped below 6”, the pumps may lose prime and will fail to pump until re-primed.

5.8.1 ENSURE Sections 4.3 and 5.1 have been completed.

5.8.2 IF pump AZ301-COND-P-001 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 1” (see Figure 2).

OR

IF pump AZ301-COND-P-002 will be operated, POSITION selector switch AZ301-COND-HS-105 to “PUMP 2” (see Figure 2).

5.8.3 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.8.4 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.8.5 ENSURE valve AZ301-COND-V-129 is CLOSED.

5.8.6 ENSURE administrative lock conditions are established for the following valves:

- AZ301-COND-V-116
- AZ301-COND-V-129.

5.8.7 ENSURE valve AZ301-COND-V-125 is OPEN.

5.8.8 POSITION selector switch AZ301-COND-HS-106 to “HAND” (see Figure 2).

5.8.9 IF 702-AZ primary ventilation system is not operating,

OR

IF directed by the Shift Manager/OE, POSITION timer selector switch AZ301-COND-HS-104 as directed (up to 60 minutes) to BYPASS INTERLOCK and run pump.

5.8.10 CONFIRM selected condensate pump starts AND

ENSURE 241-AZ-301 Enraf level is decreasing.

5.8.11 NOTIFY Shift Manager/OE and TMACS operator that the condensate system is operating in MANUAL mode to tank 241-AZ-102.
5.8 Perform Manual Pumping of Tank 241-AZ-301 to Tank 241-AZ-102 (Cont.)

5.8.12 **MONITOR** 241-AZ-301 tank level periodically while condensate pump is running.

5.8.13 **VISUALLY CHECK** condensate distribution system periodically for leaks during pumping operations.

5.8.13.1 **IF** a leak is found, **IMMEDIATELY NOTIFY** Shift Manager/OE AND

**IF** directed, **SHUTDOWN** the condensate distribution system per Section 5.10 of this procedure.

5.8.14 **IF** any alarm(s) activates, during condensate distribution system operations, **RESPOND** to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 AND **NOTIFY** Shift Manager/OE.

5.8.15 **MONITOR** tank level.

5.8.15.1 **WHEN** any of the following conditions occur, **GO TO** Section 5.10 to Shut Down Condensate Distribution System.

- 241-AZ-301 tank level reaches approximately 10"
- Shift Manager/OE directs condensation distribution system shutdown.
5.9 Re-Circulate Catch Tank Contents for Mixing And/Or Sampling

NOTE - The catch tank should be re-circulated at levels of approximately 30-45 inches. The tank will take at least 60 minutes to mix thoroughly.

- It is acceptable to have TK-001 High Level Alarm active if re-circulating or pumping out tank contents.

5.9.1 CONFIRM alarms located on enclosures AZ301-COND-ENCL-101 and AZ301-COND-ENCL-103 are not active.

5.9.1.1 IF any alarm is active, REFER to applicable ARP AND ENSURE leak detector alarms are RESET prior to operating the condensate distribution system.

5.9.1.2 NOTIFY Shift Manger/OE of any actions or findings.

5.9.2 ENSURE selector switch AZ301-COND-HS-106 is in the OFF position (see Figure 2).

5.9.3 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.9.4 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.9.5 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.9.6 ENSURE valve AZ301-COND-V-129 is CLOSED.

NOTE - Opening valves AZ301-COND-V-112 and AZ301-COND-V-113 will allow solution to return to the catch tank.

5.9.7 OPEN valve AZ301-COND-V-112.

5.9.8 OPEN valve AZ301-COND-V-113.

5.9.9 POSITION selector switch AZ301-COND-HS-106 to HAND to start pump (see Figure 2).

5.9.10 IF 702-AZ ventilation system is not operating, POSITION selector switch AZ301-COND-HS-104 for at least 60 minutes or as directed by OE to BYPASS INTERLOCK and run the pump.

5.9.11 CONFIRM selected pump starts.
5.9 Re-Circulate Catch Tank Contents for Mixing And/Or Sampling (Cont.)

5.9.12 CHECK Condensate Distribution System for leaks during tank re-circulation.

5.9.12.1 IF a leak is found, NOTIFY Shift Manager AND PERFORM the following:

   a. POSITION selector switch, AZ301-COND-HS-106 to OFF.
   b. ENSURE selector switch, AZ301-COND-HS-104 is OFF.
   c. NOTIFY Shift Manager/OE and TMACS Operator condensate system pumps have been shut down due to a leak.

5.9.13 IF any alarm(s) activates during tank re-circulation, RESPOND to alarm(s) per ARP-T-251-00003 and/or ARP-T-251-00016 AND NOTIFY Shift Manager/OE.

5.9.14 IF obtaining samples of catch tank contents, PERFORM the following:

5.9.14.1 ENSURE catch tank contents have recirculated for ≥60 minutes prior to obtaining a sample.

5.9.14.2 OPEN valve AZ301-COND-V-129.

5.9.14.3 POSITION sample container under sample port and SLOWLY OPEN valve AZ301-COND-V-140.

5.9.14.4 IF increased or decreased sample flow is required, SLOWLY THROTTLE OPEN OR CLOSE valve AZ301-COND-V-112.

5.9.14.5 WHEN sample container is full, CLOSE valve AZ301-COND-V-140.

5.9.14.6 REPEAT Steps 5.9.14.3 thru 5.9.14.5 until sampling is complete.

5.9.14.7 CLOSE valve AZ301-COND-V-129.
5.9 Re-Circulate Catch Tank Contents for Mixing And/Or Sampling (Cont.)

5.9.15 WHEN recirculation and/or sampling activities are complete, **PERFORM** the following:

5.9.15.1 **POSITION** selector switch AZ301-COND-HS-106 to OFF (see Figure 2).

5.9.15.2 **ENSURE** AZ301-COND-HS-104 is OFF.

**NOTE** - Closing valve AZ301-COND-V-112 and AZ301-COND-V-113 will isolate the return line back to the catch tank.

5.9.15.3 **CLOSE** valve AZ301-COND-V-112.

5.9.15.4 **CLOSE** valve AZ301-COND-V-113.
5.10 Short-Term Shut Down of Condensate Distribution System

5.10.1 ENSURE Section 4.3 has been completed.

5.10.2 POSITION selector switch AZ301-COND-HS-106 to OFF.

5.10.3 ENSURE selector switch AZ301-COND-HS-104 is OFF.

5.10.4 CONFIRM condensate pumps are not operating.

5.10.5 IF performing shut down of condensate distribution system after pumping to AZ301TK-COND (Tanker Truck), PERFORM the following steps to drain the line to the tanker truck:

5.10.5.1 OPEN valve AZ301-COND-V-112.

5.10.5.2 OPEN valve AZ301-COND-V-113.

5.10.5.3 WAIT 5 minutes before performing next step (to allow line to drain back to tank AZ-301).

5.10.5.4 CLOSE valve AZ301-COND-V-112.

5.10.5.5 CLOSE valve AZ301-COND-V-113.

5.10.6 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.10.7 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.10.8 ENSURE valve AZ301-COND-V-129 is CLOSED.

5.10.9 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.10.10 NOTIFY Shift Manager/OE and TMACS operator that Condensate Distribution System has been shut down.

5.10.11 IF directed by Shift Manager/OE, PERFORM Long-Term Shutdown of Condensate Distribution System per Section 5.11.
5.11 Long-Term Shut Down of Condensate Distribution System

NOTE - Long term shut down of the condensate distribution system is normally only required for power outages or if directed by the Shift Manager/OE.

5.11.1 ENSURE Section 4.3 has been completed.

5.11.2 ENSURE Short-Term Shut Down of Condensate Distribution System has been performed per Section 5.10.

**WARNING**

Failure to don proper PPE before operating electrical circuit breakers, disconnects, and/or pilot devices may result in personnel injury.

5.11.3 IF opening enclosure AZ301-COND-ENCL-102 is required in order to perform Check List 2, **PERFORM** the following:

5.11.3.1 REQUEST a qualified electrical worker to provide escort.

5.11.3.2 PRIOR to opening enclosure AZ301-COND-ENCL-102, ENSURE Arc Flash PPE is donned per EHE.

5.11.4 IF equipment in Check List 2 is identified as requiring PPE-0, ENSURE personnel trained in the operation of breakers and disconnects dons PPE prior to operating. (Refer to Section 3.1).

5.11.5 **PERFORM** Check List 2 circuit breaker position to place circuit breakers in OFF (OPEN) position,

**OR**

**PERFORM** Check List 2 breaker lineup per Shift Manager/OE instructions AND

**RECORD** directions and actions on Data Sheet 1.

5.11.6 **NOTIFY** Shift Manager/OE and TMACS Operator condensate distribution system has been shut down.
5.12 Disconnect AZ301TK-COND (Tanker Truck) From 241-AZ-301 Condensate Distribution System and Prepare for Shipment

NOTE - This section typically takes two operators to perform.

5.12.1 ENSURE Section 4.3 has been completed.

5.12.2 IF AZ301TK-COND (Tanker Truck) is the current receiving tank for the system, ENSURE the Condensate Distribution System is shutdown per Section 5.10.

5.12.3 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.12.4 ENSURE valve AZ301-COND-V-129 is CLOSED.

**WARNING**

Administrative lock conditions must be established prior to disconnecting the transfer line from the tanker truck to prevent an accidental release of condensate material and spreading contamination.

5.12.5 PRIOR to continuing, VERIFY administrative lock conditions have been established for valve AZ301-COND-V-129.

<table>
<thead>
<tr>
<th>Signature /</th>
<th>Print (First and Last) /</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.12.6 IF damage to the transfer line or tanker connection is identified during disconnection operations, NOTIFY the following:

- Shift Manager
- Engineering.

5.12.7 REMOVE plastic sleeving and absorbent material enclosing the transfer line to tanker connection.

NOTE - Valve AZ301TK-COND-V-101 open/close indication is on side of valve. As used in this system, when the valve handle is pointing UP, the valve is OPEN, with the valve handle pointing DOWN the valve is CLOSED.

5.12.8 REMOVE securing clip AND CLOSE valve AZ301TK-COND-V-101 (valve handle will point DOWN).
5.12 Disconnect AZ301TK-COND (Tanker Truck) From 241-AZ-301 Condensate Distribution System and Prepare for Shipment (Cont.)

5.12.9 RE-INSTALL securing clip AND

ENSURE valve AZ301TK-COND-V-101 is secured in the CLOSED position.

5.12.10 RELEASE coupling latches on the transfer line connection to the tanker.

5.12.11 SLOWLY RAISE the transfer line until it separates from tanker.

5.12.12 INSTALL cap on transfer line AND

CLOSE coupling latches.

5.12.13 ENCLOSE end of transfer line with plastic bag or sleeve and seal with tape.

5.12.14 ENSURE the transfer line is secured clear of the tanker truck.

5.12.15 INSTALL cap on tanker connection port AND

CLOSE coupling latches.

5.12.16 ENSURE connection port and cupola area is decontaminated,

OR

ENCLOSE connection port with plastic bag or sleeve and seal with tape.


5.12.18 SEPARATE tanker truck overflow line at quick disconnect AND

INSERT line plug into end of hose.
### Operate 241-AZ-301 Condensate Distribution System

**5.12 Disconnect AZ301TK-COND (Tanker Truck) From 241-AZ-301 Condensate Distribution System and Prepare for Shipment (Cont.)**

- **5.12.19** **SECURE** tanker truck overflow line to tanker with adjustable cable.
- **5.12.20** **RECORD** tank level reading (bubbler) on Data Sheet 2.
- **5.12.21** **UNPLUG** power cord to bubbler (liquid level system).
- **5.12.22** **CLOSE** tanker truck bubbler isolation valve AZ301TK-COND-V-104.
- **5.12.23** **CLOSE** breather filter isolation valve AZ301TK-COND-V-103, PRIOR to tanker shipment to LERF/ETF.
- **5.12.24** **COMPLETE** Data Sheet 2 PRIOR to tanker shipment to LERF/ETF.
- **5.12.25** **IF** tanker shipment will be to a location other than LERF/ETF, **NOTIFY** Environmental.
5.13 Pump AZ-301 Building Sump

5.13.1 CONFIRM Sections 4.3 through 5.1 have been completed.

5.13.2 IF the condensate distribution system is operating, PERFORM Section 5.10 to shut down the AZ301 condensate system AND RETURN to next step.

5.13.3 OPEN valve AZ301-COND-V-103.

5.13.4 OPEN valve AZ301-COND-V-114.

5.13.5 OPEN valve AZ301-COND-V-115.

5.13.6 CLOSE valve AZ301-COND-V-105.

5.13.7 ENSURE valve AZ301-COND-V-116 is CLOSED.

5.13.8 ENSURE valve AZ301-COND-V-125 is CLOSED.

5.13.9 ENSURE valve AZ301-COND-V-129 is CLOSED.

5.13.10 ENSURE valve AZ301-COND-V-136 is CLOSED.

5.13.11 IF pumping the sump to AZ301TK-COND (Tanker Truck), PERFORM Section 5.6 to begin pumping the condensate distribution system in manual mode AND RETURN to Step 5.13.14.

5.13.12 IF pumping the sump to Tank 241-AY-101, PERFORM Section 5.7 to begin pumping the condensate distribution system in manual mode AND RETURN to Step 5.13.14.

5.13.13 IF pumping the sump to Tank 241-AZ-102, PERFORM Section 5.8 to begin pumping the condensate distribution system in manual mode AND RETURN to Step 5.13.14.
5.13 Pump AZ-301 Building Sump (Cont.)

5.13.14 WHEN sump has been pumped,

OR

WHEN directed by Shift Manager/OE, PERFORM the following:


5.13.15 IF directed by Shift Manager/OE, CONFIGURE the condensate distribution system for AUTO or MANUAL pumping per this procedure.
**5.14 Records**

5.14.1 **PERFORM** the following for records identified within this procedure.

5.14.1.1 **RECORD** the number of times the record was generated in applicable column

**OR**

5.14.1.2 **SUBMIT** the package for verification of completed records.

<table>
<thead>
<tr>
<th>Records Submittal Checklist</th>
<th>Number of times completed</th>
<th>N/A (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steps</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 5.12.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Check Lists</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check List 1: 241-AZ-301 Condensate Distribution System STARTUP Valving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check List 2: Circuit Breaker Position</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data Sheets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Sheet 1 Information Record Sheet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Sheet 2 - Tanker Truck Pre-Transport Inspection and Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Signature Sheets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signature Sheet 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FWS/OE/Shift Manager SEND the completed records to the Central Shift Office for records retention.

_______________________________ / ________________ / ________________
Signature Print (First & Last) Date

FWS/OE/Shift Manager

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
### Check List 1: 241-AZ-301 Condensate Distribution System STARTUP Valving

<table>
<thead>
<tr>
<th>VALVE</th>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>Operator Initials</th>
<th>Operator Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ301-COND-V-101</td>
<td>Enraf isolation</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-102</td>
<td>Receiver tank condensate inlet from the seal pot</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-103</td>
<td>Secondary low point suction isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-104</td>
<td>Receiver tank bottom suction isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-105</td>
<td>Receiver tank normal suction isolation</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-106</td>
<td>Pump P-001 suction isolation</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-108</td>
<td>Pump P-001 discharge isolation</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-109</td>
<td>Pump P-002 suction isolation</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-111</td>
<td>Pump P-002 discharge isolation</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-112</td>
<td>Recirculation isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-113</td>
<td>Pumping system low point drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-114</td>
<td>Recirculation isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-115</td>
<td>Pumping system low point drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-116</td>
<td>AY-101 condensate discharge isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-117</td>
<td>AY-101 condensate header loop drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-118</td>
<td>AY-101 encasement drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-119</td>
<td>AY-102 condensate discharge isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-120</td>
<td>AY-102 condensate header loop drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-121</td>
<td>AY-102 encasement drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-122</td>
<td>AZ-101 condensate discharge isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-123</td>
<td>AZ-101 condensate header loop drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-124</td>
<td>AZ-101 encasement drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-125</td>
<td>AZ-102 condensate discharge isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-126</td>
<td>AZ-102 Condensate Header Loop Drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-127</td>
<td>AZ-102 Encasement Drain</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-128</td>
<td>Encasement System Low Point Drain</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-129</td>
<td>Condensate Discharge Header Test Connection</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-130</td>
<td>Seal Loop Bypass</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-136</td>
<td>AZ301TK-COND condensate discharge isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-COND-V-140</td>
<td>Sample port isolation valve</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZ301-CHEMB-V-105</td>
<td>Chemical Addition System Isolation</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Check List 2: Circuit Breaker Position

<table>
<thead>
<tr>
<th>Circuit Breaker #</th>
<th>DOE-0359 Requirement</th>
<th>Arc Flash PPE</th>
<th>DESCRIPTION</th>
<th>ON (closed)</th>
<th>OFF (open)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Main</td>
<td>✓</td>
<td>✓</td>
<td>40 AMP Primary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary Main</td>
<td>✓</td>
<td>✓</td>
<td>50 AMP Secondary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 &amp; 3</td>
<td>✓</td>
<td>✓</td>
<td>Containment Space Heater, AZ301-COND-HTR-101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>Containment Lighting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>✓</td>
<td>✓</td>
<td>Control Circuit Power AZ301-COND-ENCL-101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>✓</td>
<td>✓</td>
<td>LDSTA 1,2,3,4,5 PWR Supply AZ301-COND-ENCL-103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>✓</td>
<td>✓</td>
<td>Heat Trace – 1, 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>✓</td>
<td>✓</td>
<td>Heat Trace – 3, 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 &amp; 13</td>
<td>✓</td>
<td>✓</td>
<td>Cabinet Strip Heater, AZ301-COND-ENCL-102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>✓</td>
<td>✓</td>
<td>Pump Power AZ301-COND-ENCL-101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>✓</td>
<td>✓</td>
<td>Cabinet Light &amp; Receptacle AZ301-COND-ENCL-102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panelboard PP-16</td>
<td>✓</td>
<td></td>
<td>Mini Power Panel AZ301-EDS-DP-107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panelboard AZ-CW-R-1</td>
<td>✓</td>
<td></td>
<td>MINI POWER PANEL AZ-CW-R-A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*PRIOR to opening enclosure AZ301-COND-ENCL-102*, REQUEST a qualified electrical worker to provide escort.

---

If checked (✓), This is a 480 volt breaker/disconnect that requires a qualified electrical worker to operate.

If checked (✓), ENSURE personnel trained in the operation of breakers and disconnects dons PPE before operating (refer to Section 3.1)

If checked (✓), DON Arc Flash PPE before inspection or operation (refer to Section 3.1).

If breaker is positioned, or breaker position is verified, enter (✓). If breaker is excluded, ENTER N/A AND RECORD any information, directions, or actions on Data Sheet 1 Information Record Sheet.

(Continued on Next Page)
## Check List 2: Circuit Breaker Position (Cont.)

### Performing Check List 2- Positioning or Verifying Breakers for (Circle one):

<table>
<thead>
<tr>
<th>Circuit Breaker #</th>
<th>DOE-0359 Requirement</th>
<th>DESCRIPTION</th>
<th>ON (closed) (✓) OR N/A (4)</th>
<th>OFF (open) (✓) OR N/A (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MAIN BREAKER</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>AZ301-EDS-RCPT-303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAIN BREAKER</td>
<td></td>
<td>MAIN BREAKER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 &amp; 3</td>
<td>✓</td>
<td>AZ301-EDS-RCPT-303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 &amp; 4</td>
<td></td>
<td>SECONDARY MAIN BREAKER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 &amp; 7</td>
<td></td>
<td>AZ301-EDS-RCPT-305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 &amp; 8</td>
<td></td>
<td>AZ301-EDS-RCPT-304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>AZ301-EDS-RCPT-301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>AZ301-EDS-RCPT-302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>FIXED TENT LIGHTING</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) If checked (✓), This is a 480 volt breaker/disconnect that requires a qualified electrical worker to operate.
(2) If checked (✓), ENSURE personnel trained in the operation of breakers and disconnects dons PPE before operating (refer to Section 3.1)
(3) If checked (✓), DON Arc Flash PPE before inspection or operation (refer to Section 3.1).
(4) If breaker is positioned, or breaker position is verified, enter (✓). If breaker is excluded, ENTER N/A AND RECORD any information, directions, or actions on Data Sheet 1 Information Record Sheet.
## Data Sheet 1 Information Record Sheet

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Directions and actions</th>
<th>Sheet _____ of _____</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature / Print (First & Last) / Date

Operator

Signature / Print (First & Last) / Date

Shift Manager / OE
# Operate 241-AZ-301 Condensate Distribution System

## Data Sheet 2 - Tanker Truck Pre-Transport Inspection and Data

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>(√)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanker truck isolation valve AZ301TK-COND-V-101 is CLOSED (Valve handle points down).</td>
<td></td>
</tr>
<tr>
<td>Tanker truck overflow valve AZ301TK-COND-V-102 is CLOSED</td>
<td></td>
</tr>
<tr>
<td>ENSURE HEPA filter isolation valve AZ301TK-COND-V-103 is CLOSED</td>
<td></td>
</tr>
<tr>
<td>Tanker truck bubbler isolation valve AZ301TK-COND-V-104 is CLOSED</td>
<td></td>
</tr>
<tr>
<td>All liquid/gas release points where tanker contents could escape to atmosphere are closed</td>
<td></td>
</tr>
<tr>
<td>Tanker vents and valves show no signs of leakage</td>
<td></td>
</tr>
<tr>
<td>Tanker truck overflow line plugged and secured to tanker</td>
<td></td>
</tr>
<tr>
<td>Transfer line secured clear of tanker truck</td>
<td></td>
</tr>
<tr>
<td>Tanker low point sump access secure and no signs of leakage (underneath back of tanker)</td>
<td></td>
</tr>
<tr>
<td>Breather Filter Emission unit ID and Air Emission Inventory ID Number are visible and legible</td>
<td></td>
</tr>
</tbody>
</table>

### TANKER SHIPPING DATA

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanker truck liquid level (bubbler reading) prior to shipping (inches):</td>
<td></td>
</tr>
<tr>
<td>Tanker truck volume (in gallons) prior to shipping (convert inches from bubbler using Table 1 – Round to nearest .25 inch):</td>
<td></td>
</tr>
<tr>
<td>Date/Time of shipment:</td>
<td></td>
</tr>
<tr>
<td>Tanker shipping destination is LERF/ETF *</td>
<td></td>
</tr>
<tr>
<td>Removable contamination is less than or equal to 1,000 dpm/100 cm² beta/gamma and less than or equal to 20 dpm/100 cm² alpha prior to transport.</td>
<td></td>
</tr>
</tbody>
</table>

### Special Instructions:

* IF Shipment destination is other than LERF/ETF, NOTIFY environmental.

### Comments:

---

**Signature** / **Print (First & Last)** / **Initials** / **Date**

**HPT**

**Signature** / **Print (First & Last)** / **Date**

**Operator**

**Signature** / **Print (First & Last)** / **Date**

**Shift Manager / OE**
### Table 1 - Tanker Truck Level (Bubbler) to Gallons Conversion Table

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>+ 0</th>
<th>+ .25</th>
<th>+ .50</th>
<th>+ .75</th>
<th>LEVEL</th>
<th>+ 0</th>
<th>+ .25</th>
<th>+ .50</th>
<th>+ .75</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>18</td>
<td>32</td>
<td>4152</td>
<td>4193</td>
<td>4234</td>
<td>4276</td>
</tr>
<tr>
<td>1</td>
<td>27</td>
<td>38</td>
<td>50</td>
<td>62</td>
<td>33</td>
<td>4317</td>
<td>4358</td>
<td>4399</td>
<td>4441</td>
</tr>
<tr>
<td>2</td>
<td>76</td>
<td>91</td>
<td>106</td>
<td>123</td>
<td>34</td>
<td>4482</td>
<td>4523</td>
<td>4564</td>
<td>4605</td>
</tr>
<tr>
<td>3</td>
<td>140</td>
<td>157</td>
<td>176</td>
<td>195</td>
<td>35</td>
<td>4646</td>
<td>4687</td>
<td>4728</td>
<td>4769</td>
</tr>
<tr>
<td>4</td>
<td>214</td>
<td>234</td>
<td>255</td>
<td>276</td>
<td>36</td>
<td>4810</td>
<td>4851</td>
<td>4892</td>
<td>4932</td>
</tr>
<tr>
<td>5</td>
<td>298</td>
<td>320</td>
<td>343</td>
<td>366</td>
<td>37</td>
<td>4973</td>
<td>5014</td>
<td>5054</td>
<td>5095</td>
</tr>
<tr>
<td>6</td>
<td>390</td>
<td>414</td>
<td>439</td>
<td>464</td>
<td>38</td>
<td>5135</td>
<td>5176</td>
<td>5216</td>
<td>5256</td>
</tr>
<tr>
<td>7</td>
<td>490</td>
<td>515</td>
<td>542</td>
<td>568</td>
<td>39</td>
<td>5296</td>
<td>5336</td>
<td>5376</td>
<td>5416</td>
</tr>
<tr>
<td>8</td>
<td>595</td>
<td>623</td>
<td>651</td>
<td>679</td>
<td>40</td>
<td>5456</td>
<td>5496</td>
<td>5535</td>
<td>5575</td>
</tr>
<tr>
<td>9</td>
<td>707</td>
<td>736</td>
<td>765</td>
<td>795</td>
<td>41</td>
<td>5614</td>
<td>5653</td>
<td>5692</td>
<td>5731</td>
</tr>
<tr>
<td>10</td>
<td>824</td>
<td>854</td>
<td>885</td>
<td>916</td>
<td>42</td>
<td>5770</td>
<td>5809</td>
<td>5848</td>
<td>5886</td>
</tr>
<tr>
<td>11</td>
<td>946</td>
<td>978</td>
<td>1009</td>
<td>1041</td>
<td>43</td>
<td>5925</td>
<td>5963</td>
<td>6001</td>
<td>6039</td>
</tr>
<tr>
<td>12</td>
<td>1073</td>
<td>1106</td>
<td>1138</td>
<td>1171</td>
<td>44</td>
<td>6077</td>
<td>6115</td>
<td>6153</td>
<td>6190</td>
</tr>
<tr>
<td>13</td>
<td>1204</td>
<td>1237</td>
<td>1271</td>
<td>1305</td>
<td>45</td>
<td>6227</td>
<td>6264</td>
<td>6301</td>
<td>6338</td>
</tr>
<tr>
<td>14</td>
<td>1339</td>
<td>1373</td>
<td>1408</td>
<td>1442</td>
<td>46</td>
<td>6375</td>
<td>6411</td>
<td>6447</td>
<td>6484</td>
</tr>
<tr>
<td>15</td>
<td>1477</td>
<td>1512</td>
<td>1548</td>
<td>1583</td>
<td>47</td>
<td>6519</td>
<td>6555</td>
<td>6591</td>
<td>6626</td>
</tr>
<tr>
<td>16</td>
<td>1619</td>
<td>1655</td>
<td>1691</td>
<td>1727</td>
<td>48</td>
<td>6661</td>
<td>6696</td>
<td>6731</td>
<td>6765</td>
</tr>
<tr>
<td>17</td>
<td>1764</td>
<td>1800</td>
<td>1837</td>
<td>1874</td>
<td>49</td>
<td>6799</td>
<td>6834</td>
<td>6867</td>
<td>6901</td>
</tr>
<tr>
<td>18</td>
<td>1911</td>
<td>1948</td>
<td>1986</td>
<td>2023</td>
<td>50</td>
<td>6934</td>
<td>6967</td>
<td>7000</td>
<td>7033</td>
</tr>
<tr>
<td>19</td>
<td>2061</td>
<td>2099</td>
<td>2137</td>
<td>2175</td>
<td>51</td>
<td>7065</td>
<td>7097</td>
<td>7129</td>
<td>7161</td>
</tr>
<tr>
<td>20</td>
<td>2214</td>
<td>2252</td>
<td>2291</td>
<td>2329</td>
<td>52</td>
<td>7192</td>
<td>7223</td>
<td>7254</td>
<td>7284</td>
</tr>
<tr>
<td>21</td>
<td>2368</td>
<td>2407</td>
<td>2446</td>
<td>2485</td>
<td>53</td>
<td>7314</td>
<td>7344</td>
<td>7373</td>
<td>7402</td>
</tr>
<tr>
<td>22</td>
<td>2524</td>
<td>2564</td>
<td>2603</td>
<td>2643</td>
<td>54</td>
<td>7431</td>
<td>7460</td>
<td>7488</td>
<td>7516</td>
</tr>
<tr>
<td>23</td>
<td>2683</td>
<td>2722</td>
<td>2762</td>
<td>2802</td>
<td>55</td>
<td>7543</td>
<td>7570</td>
<td>7597</td>
<td>7623</td>
</tr>
<tr>
<td>24</td>
<td>2842</td>
<td>2882</td>
<td>2922</td>
<td>2963</td>
<td>56</td>
<td>7649</td>
<td>7674</td>
<td>7699</td>
<td>7724</td>
</tr>
<tr>
<td>25</td>
<td>3003</td>
<td>3044</td>
<td>3084</td>
<td>3125</td>
<td>57</td>
<td>7748</td>
<td>7772</td>
<td>7795</td>
<td>7818</td>
</tr>
<tr>
<td>26</td>
<td>3165</td>
<td>3206</td>
<td>3247</td>
<td>3287</td>
<td>58</td>
<td>7840</td>
<td>7862</td>
<td>7883</td>
<td>7904</td>
</tr>
<tr>
<td>27</td>
<td>3328</td>
<td>3369</td>
<td>3410</td>
<td>3451</td>
<td>59</td>
<td>7924</td>
<td>7944</td>
<td>7963</td>
<td>7981</td>
</tr>
<tr>
<td>28</td>
<td>3492</td>
<td>3533</td>
<td>3574</td>
<td>3615</td>
<td>60</td>
<td>7999</td>
<td>8016</td>
<td>8032</td>
<td>8047</td>
</tr>
<tr>
<td>29</td>
<td>3657</td>
<td>3698</td>
<td>3739</td>
<td>3780</td>
<td>61</td>
<td>8062</td>
<td>8076</td>
<td>8089</td>
<td>8101</td>
</tr>
<tr>
<td>30</td>
<td>3821</td>
<td>3863</td>
<td>3904</td>
<td>3945</td>
<td>62</td>
<td>8111</td>
<td>8121</td>
<td>8129</td>
<td>8135</td>
</tr>
<tr>
<td>31</td>
<td>3987</td>
<td>4028</td>
<td>4069</td>
<td>4110</td>
<td>63</td>
<td>8138</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Signature Sheet 1
All participating personnel shall enter their printed name, signature and initials below.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Printed Name (First &amp; Last)</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 1: Prime Condensate Pump

Tools:

- ⅛ inch Allen Wrench
- Thread Sealant
- Funnel
- Gallon jug of water

Instructions for Priming the Condensate Pump:

[1] **REMOVE** pump casing fill plug, located on top of pump casing.
[2] **CHECK** that level is within one inch of top of casing.
[3] **IF** required, **PERFORM** the following:

  [3.1] **INSERT** a funnel.
  [3.2] **FILL** with water from one gallon jug.

Operate 241-AZ-301 Condensate Distribution System

Figure 1 – AZ301 Condensate Distribution System
Operate 241-AZ-301 Condensate Distribution System

Figure 2 – Pump Control Panel AZ301-COND-ENCL-101
Operate 241-AZ-301 Condensate Distribution System

Figure 3 – Condensate Receiver Tank Valving
Operate 241-AZ-301 Condensate Distribution System

Figure 4 – Trailer and Tank