



US Army Corps of Engineers  
**BUILDING STRONG**

**John Day Lock & Dam**

**Annual Oil Accountability Report**

**14Aug2015 – 31Dec2016**

1. **PURPOSE:** To provide results of monitoring and assessment for John Day Lock and Dam (“Project”) pursuant to the Oil Accountability Plan (OAP) that was adopted pursuant to the Settlement Agreement entered into between USACE and Columbia Riverkeeper that was attached to the Order of Dismissal (E.D. Wash. No. 2:13-md-2494-LRS), dated August 14, 2014.

This Oil Accountability Report is provided for informational purposes only, and is not a final agency action within the meaning of the Administrative Procedure Act or any other applicable provision of law. Oil Accountability Reports are not intended to, and do not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

2. **INSPECTIONS (Monitoring):** All oil-filled operating equipment (55 gallons or greater), bulk oil storage containers, and high-risk equipment at the Project shall be inspected, at a minimum, monthly, for leaks and to ensure the oil level is in the normal operating range. Frequency of inspections is outlined in the below table.

<b>Equipment</b>	<b>Frequency</b>
25 Ton Mobile Grove Crane	Monthly
743B Bobcat Wheeled Loader	Monthly
70 Ton Grove Crane	Monthly
Caterpillar 416E Backhoe	Monthly
GEHL 883 Dynalift	Monthly
HYDRO RAKE CRANE	Monthly
Hazmat Collection Area	Monthly
Link Belt 30 Ton Mobile Crane	Monthly
MU Oil Drain Header/Oil Water Separator	Monthly
Mobile Diesel Fuel Tank	Monthly
NFW Pumphouse Gantry Crane	Monthly
Operations Checks	Weekly
Outside Oil Storage Building "Railroad Shed"	Monthly
PH Emergency Gantry Crane	Monthly
PH Oil Cont. Storage/Oil Purification Room	Monthly
PH Trash Rake Crane	Monthly
STS 1-49 Gearboxes M/Seasonal Apr-Dec	Monthly /Seasonal
STS Gantry Crane	Monthly
STS INSPECTION CAMERA CRANE	Monthly
Schwarze A4000 Street Sweeper	Monthly
Spare Transformer 13.8KV	Monthly
Spillway Gearboxes 1-20	Monthly
Station Service Transformer and Tap Changer T01	Monthly

Equipment	Frequency
Station Service Transformer and Tap Changer T02	Monthly
T320 Bobcat Truck Loader	Monthly
Transformer 13.8KV Line 1; A, B, & C Phases	Monthly
Transformer 13.8KV Line 2; A, B, & C Phases	Monthly
Transformer 13.8KV Line 3; A, B, & C Phases	Monthly
Transformer 13.8KV Line 4; A, B, & C Phases	Monthly
Transformer Oil Containment System	Monthly
Underground Storage Tank - Diesel	Monthly
Underground Storage Tank - Gasoline	Monthly
Warehouse Oil Storage Building	Monthly

- a. John Day Project conducted 138 Oil Accountability related inspections from August 14, 2015 to December 31, 2015. An inspection may result in the need to do an assessment. The criteria for generating an assessment follows in the next section.
3. **ASSESSMENTS:** Leaks or observable changes in oil level that indicate a discernible loss of oil that is not associated with a normal operating range require an assessment. When a leak is reported, maintenance will assess it to determine the severity. Any leak to the environment (i.e., to waterways) will be dealt with immediately. Other leaks that are not to the environment will be repaired as soon as possible. Small leaks are often deferred until the next time the equipment is scheduled to be out of service, however steps are taken to capture any leaking oil such as placing drip pans or absorbent pads. These assessments are documented by utilizing Facilities Equipment Maintenance (FEM) work orders.
- a. Assessment Criteria. A work order will be generated on the following:
    - i. Any equipment with high or low levels or alarms.
    - ii. Malfunctioning automated grease systems.
    - iii. All class 2 and 3 leaks on identified equipment. Leaks are classified as follows:
 

Leak Severity

Class 1 – Wet, seepage of fluid, but not enough to form drops.  
 Class 2 – Seepage of fluid that forms drops.  
 Class 3 – Actively dripping.

Note: Spills or releases to the environment are assessed immediately via a Project Spill Prevention Controls and Countermeasures (SPCC) plan. These are usually oil sheens discovered on water.
  - b. The inspections at the John Day Project did not necessitate the generation of any assessments from August 14, 2015 to December 31, 2015.

4. **INVENTORY:** John Day Lock and Dam maintains a small supply of lube oil and grease in our warehouse for maintenance purposes, this report only takes into account oils in use, stored, and disposed of once it has been checked out of the warehouse supply. Turbine oil and transformer oil will generally be purchased in bulk and placed into either the turbine oil bulk storage tanks for Powerhouse or the individual transformer.

All lube oils checked out of the warehouse will be considered in Powerhouse storage per drum until put in use and disposed of; this normally applies to small gearboxes where oils are replaced on a preventative maintenance cycle.

Greases are tracked in 2 different ways:

- Any grease checked out of the warehouse for wire rope, friction points, gearboxes and any other over or near water applications will be considered used and non-recoverable.
- Farval greasing systems are used on Powerhouse wicket gates and Navigation Lock gate operating mechanisms. Powerhouse Farval grease is either: recovered in the turbine pit wicket gate pockets and disposed of as Used Oil with less than 10% water, lost to rags, or for lower wicket gate bushings, considered non-recoverable. Farval grease used on the Navigation Lock gate operating mechanisms is considered non-recoverable.

John Day considers our turbine oil distribution system as a closed loop system and will be reporting as such.

Turbine oil is received in a bulk shipment by tank truck and transferred by piping to a clean oil tank in the bulk oil storage room of the Powerhouse. The Powerhouse has installed piping within the facility that distributes oil to the necessary turbines and equipment; this is done by direct pumping or gravity feed. The installed piping is visually inspected daily on Operator's rounds for leaks. Installed piping delivers oil to the desired location such as a bearing, governor system, Kaplan runner, or other equipment, once complete the volume of oil transferred is recorded. The governor system distributes oil automatically based on air pressure and lubrication needs from the governor oil cabinet to the actuator tanks, blade servo, wicket gate servo, and oil head. Periodically oil is returned to the oil storage room during maintenance activities. This returned oil is considered "dirty" and automatically pumped to a dirty turbine oil tank in the oil storage room; dirty oil is purified then returned to the clean oil tanks for reuse.

Used Oil disposal / recycling will be reported in 2 ways:

- Oil with less than 10% water includes turbine oil, transformer oil, hydraulic oil, lube oils and wicket gate grease.
- Oil with greater than 10% water includes water contaminated turbine oil, oils recovered from the sump.

## Inventory

**Turbine Oil** includes bulk storage, turbines, bearings, Kaplan runners, governors and distribution system.

**Transformer Oil** consists of main transformer oil only.

**Misc / Stored** Includes hydraulic, lube oil, greases, electrical breaker, and oil water separator recovered oils.

### Powerhouse

Source	Turbine Oil	Transformer Oil	Misc/Stored
In-Use August 14, 2015	132,070	197,874	697
+ New Oil or Grease Received	0	0	192
- Disposed Used Oil (<10% water)	405	0	0
- Disposed Used Oil (>10% water)	110	0	0
- Reported Discharges to the Environment	0	0	0
In-Use December 31, 2015	131939	197,874	889
Difference (between beginning and ending of reporting period)	-515	0	192
Reason for difference	515 gallons was disposed.	NA	Oil was checked into inventory from the warehouse.

### Navigation Lock

Source	Oil/Grease
In-Use August 14, 2015	516
+ New Oil or Grease Received	10
- Disposed Used Oil (<10% water)	0
- Disposed Used Oil (>10% water)	0
- Reported Discharges to the Environment	0
In-Use January 1, 2016	526
Difference (between beginning and ending of reporting period)	10
Reason for difference	Replaced Grease that was used.

### Spillway

Source	Oil/Grease
In-Use August 14, 2015	1555
+ New Oil or Grease Received	0
- Disposed Used Oil (<10% water)	0
- Disposed Used Oil (>10% water)	0
- Reported Discharges to the Environment	0
In-Use January 1, 2016	1555
Difference (between beginning and ending of reporting period)	0
Reason for difference	NA

### S. Fishpumps

Source	Oil / Grease
In-Use August 14, 2015	421
+ New Oil Received	0
- Disposed Used Oil (<10% water)	0
- Disposed Used Oil (>10% water)	0
- Reported Discharges to the Environment	0
In-Use January 1, 2016	421
Difference (between beginning and ending of reporting period)	0
Reason for difference	NA

### N. Fishpumps

Source	Oil / Grease
In-Use August 14, 2015	570
+ New Oil Received	200
- Disposed Used Oil (<10% water)	200
- Disposed Used Oil (>10% water)	
- Reported Discharges to the Environment	0
In-Use January 1, 2016	570
Difference (between beginning and ending of reporting period)	0
Reason for difference	NA

### Fish Screens

Source	Oil / Grease
In-Use August 14, 2015	770
+ New Oil Received	0
- Disposed Used Oil (<10% water)	0
- Disposed Used Oil (>10% water)	0
- Reported Discharges to the Environment	0
In-Use January 1, 2016	770
Difference (between beginning and ending of reporting period)	0
Reason for difference	NA