

MEMORANDUM

Date: June 29, 2012
To: 65-22723
From: Michele Edl
Re: Dam Safety inspection

John Falk, P.E. IDWR Dam Safety, provided me with the following to confirm that an inspection had taken place on August 10, 2010.

The photos were downloaded from the photo gallery stored on Mr. Falk's desktop computer. They are not routinely a part of the inspection report.

The photos confirm that the powerplant had been upgraded sometime before the August 2010 inspection.

IDAHO DEPARTMENT OF WATER RESOURCES
--- DAM SAFETY RECORD OF INSPECTION ---

Inspector: John Falk	Dam Owner: USBR	Hazard: High
Pool Level: 5317.5 feet	NID Dam Ht: 143 feet	Hydraulic Ht: 137 feet
Reservoir Storage: 162,000 @ 5334'	Surface Area: 3000 acres	NAT DAM ID: ID00284
Others Present: USBR Dam Safety Inspection Team		Weather Conditions: Sunny, Warm, Dry

PRIMARY DAM ▲

Type of Construction: ☐ - Earthen ☐ - Rockfill ☒ - Concrete ☐ - Timber Crib ☐ - Other:

Instrumentation: ☒ - Piezometers ☒ - Inclinometers ☐ - Seismic ☒ - Other: Foundation Drains, Extensometer

Is there another dam, dike, or hydraulic structure impounding a portion of this reservoir? ☐ - Yes ☒ - No

If "Yes", explain:

	Seepage	Erosion	Animal	Vegetation
Upstream Slope	Dry	*See Remarks Below	None Observed	Bare to Sparse
Crest	Dry	None Observed	None Observed	Bare to Sparse
Downstream Slope	Point Source Seepage	*See Remarks Below	None Observed	Bare to Sparse
Downstream Toe	Damp	*See Remarks Below	None Observed	Debris
Left Abutment	Point Source Seepage	*See Remarks Below	None Observed	Mixed Vegetation
Right Abutment	Select One	None Observed	None Observed	Mixed Vegetation

Observations and Remarks:

- Concrete arch dam is largely unchanged from prior inspection reports and photographs. Freeze thaw deterioration is present, but does not appear to significantly affect the integrity of the structure.
- Talus from concrete spalls accumulate at downstream toe.
- Vegetation (brush/weeds) is beginning to encroach at the abutments.
- Rock bolts were installed in the left abutment in 2003 to satisfy stability concerns evaluated under seismic loading conditions. No apparent instability was observed during this inspection.
- Gate house roof repaired in 2004.

See photo gallery for summary of photographs taken during site inspection.
 See also USBR Periodic Facility Review (PFR) when it is published.

Condition Assessment (Unsatisfactory rating requires department action)

☐ - Satisfactory
 ☒ - Fair
 ☐ - Poor
 ☐ - Unsatisfactory
 ☐ - Not Rated (See Remarks)

Is This Structure Suitable for the Continued Impoundment of Water? ☒ - Yes ☐ - No

If "No", explain:

PRIMARY OUTLET ☐

Size/ Diameter: Two (2) 66" Date Last Operated: Today Date Last Inspected: Oct-2002

Type of Conduit: ☒ - Steel ☐ - Plastic ☐ - Concrete ☐ - Cast Iron ☐ - CMP ☐ - Other _____

Location: ☐ - Left Side ☒ - Center ☐ - Right Side ☐ - Other _____

Operating Mechanism: ☐ - Manual ☒ - Electric ☐ - Gas/Diesel ☐ - Other _____

Valve/Gate: ☒ - Upstream Control ☐ - Internal Control (wet well) ☐ - Downstream Control (pressurized)

Is there another outlet or discharge feature associated with this reservoir? ☐ - Yes ☒ - No

If "Yes", explain: _____

Observations and Remarks:

- Note: There are two (2) sets of gates on each outlet conduit
==> 54" guard gate upstream
==> 60" diameter jet-flow valve downstream.
- The jet-flow valves can be operated remotely from Black Canyon control center near Emmett; however, the upstream guard-gates can only be operated from the gate house.
- Current release ~ 900 cfs; wintertime releases ~ 50 cfs
- The small hydro-generator inside gate house was refurbished 2009; it provides power to operate project equipment. Two backup generators; one diesel and one propane.
- Conduits last inspected via ROV by USBR in October 2002; last visual inspection was 1973.

Condition Assessment (Unsatisfactory rating requires department action)

☒ - Satisfactory ☐ - Fair ☐ - Poor ☐ - Unsatisfactory ☐ - Not Rated (See Remarks)

PRIMARY SPILLWAY ☒

Type of Construction: ☒ - Earthen ☐ - Rock ☒ - Concrete ☐ - Other _____

Location: ☐ - Left Side ☒ - Center ☐ - Right Side ☐ - Other _____

Controlled Entrance: ☐ - Yes ☒ - No If "Yes", describe: _____

Inflow Design Flood (Q=cfs): PMF= Static Freeboard (feet): 6' @ Dam Crest

Is an auxiliary spillway or discharge feature associated with this reservoir? ☐ - Yes ☒ - No

If "Yes", explain: _____

Observations and Remarks:

- Spillway is uncontrolled ogee section located near center of dam at elevation 5334'.
- Six (6) feet freeboard to top of dam (5340')
- 9.5 feet freeboard to top of parapet wall (5343.5')
- Calculated PMF will overtop the parapet wall by 1.6 feet.
- Downstream edge of spillway crest was repaired in 2000.

Condition Assessment (Unsatisfactory rating requires department action)

☒ - Satisfactory ☐ - Fair ☐ - Poor ☐ - Unsatisfactory ☐ - Not Rated (See Remarks)

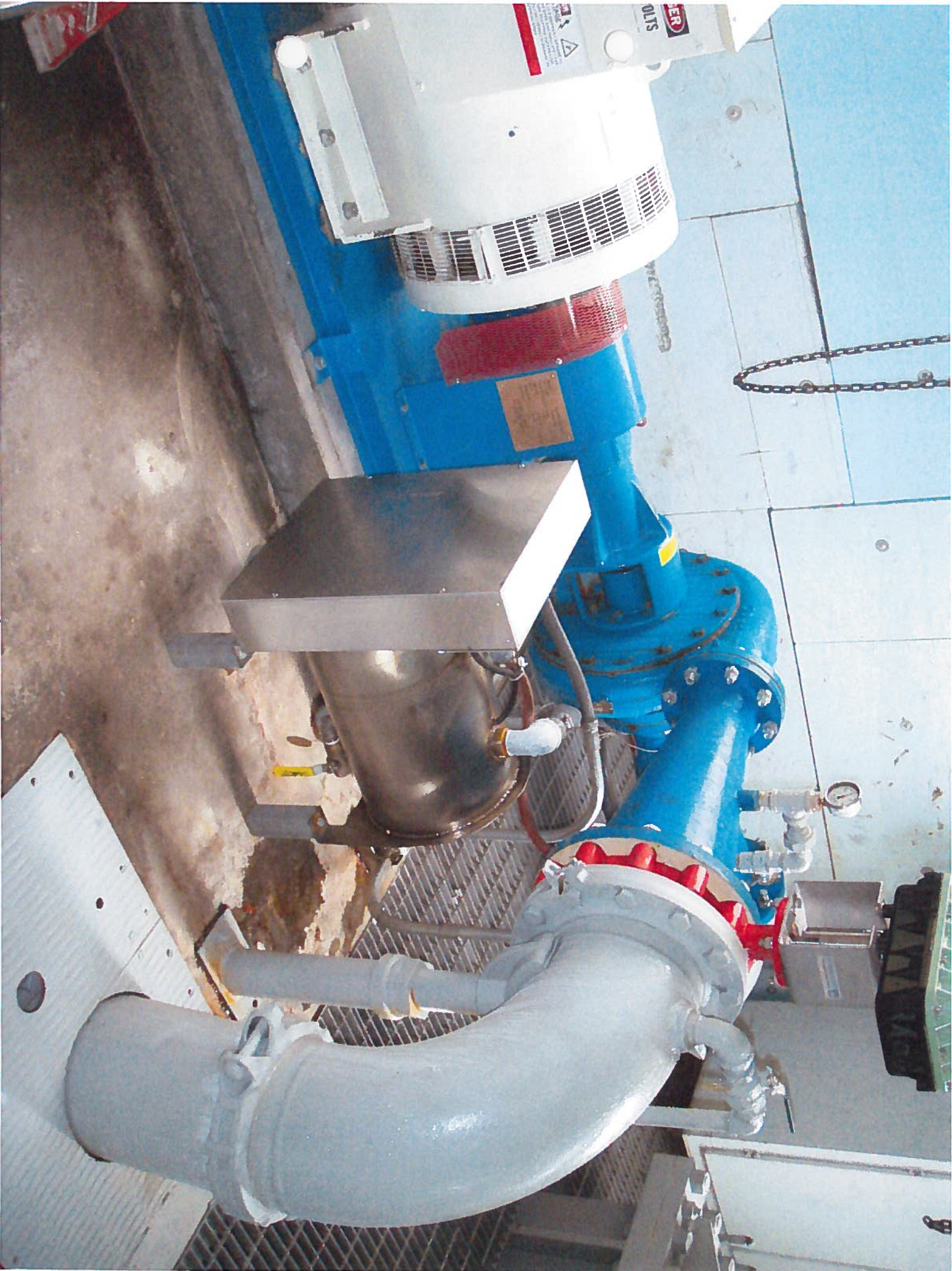


photo date 01/10/2016 courtesy J. Felle

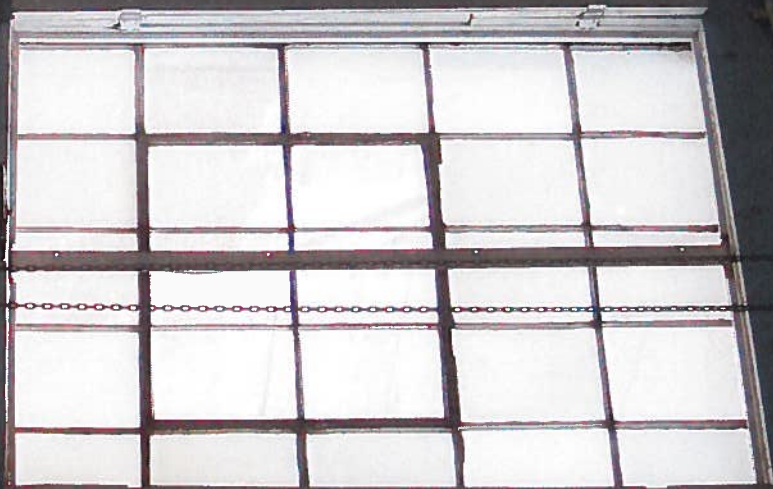


photo date 8/10/2010 Courtesy J. Falk



Water house exterior 9/10/2018 courtesy J. Park

water house exterior before 8/10/2020 CSU/HO/S&I - T. Kelly

