

MEMORANDUM FOR THE RECORD - 22 IHR 04

SUBJECT: 115 kv line and turbine unit outages

Units 1 and 2 were out of service from 0758 hours on April 4 to 1020 hours on April 18 because the 115 kv line #1 was down for Bonneville Power Administration (BPA) to perform bus upgrades at the Franklin Substation. With unit 3 being out of service for the runner replacement, unit 6 is the next unit in operating priority (see Fish Passage Plan Table IHR-4 below) and was the sole unit running during that period until it was forced out of service at 1813 hours on April 16 when the head cover pumps failed. Unit 4 was then operated until unit 1 was returned to service on April 18.

Table IHR-4. Ice Harbor Dam Turbine Unit Priority Order.

Season	Operation	Unit Priority Order
March 1 – November 30 (Fish Passage Season)	Single-Unit Operation w/ NO Line Switching	1, 2, 6, 5
	Single-Unit Operation AFTER Line Switching -OR- Multiple-Unit Operation	1, 2, 3, 6, 4, 5
December 1 – end of February (Winter Maintenance)	Single-Unit Operation w/ NO Line Switching	Any order for Units 1, 2, 5, 6
	Single-Unit Operation AFTER Line Switching -OR- Multiple-Unit Operation	Any Order

Unit 5 was taken out of service on April 18 at 1106 hours to accommodate BPA’s line #3 relay replacement, which is scheduled to be completed on May 6. Unit 6 will remain out of service until then because of the line #3 work and to accomplish annual maintenance and repair of the head cover pumps.

When units 1 and 2 were out of service, fish attraction flow to the south shore fish entrance was reduced, which may have delayed fish passage into the south fish ladder. However, unit 6 was still operating to provide attraction flow to the north powerhouse fish entrance until April 16. When unit 4 was the only unit operating from April 16 to April 18, there may have been a further delay in fish finding the entrances into the south ladder. With units 1 and 2 back on-line, the unit 5 and 6 outages are not anticipated to affect fish passage with spring spill occurring up to 125% of the gas cap. There most likely will not be a need to operate more than one or two units through May 6 based on the latest STP river flow forecast.

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