#### **LGS Special Spill Operations for Adult Passage**

(updated Thursday 6/22/17, 10 am)

Coordinated at TMT Fri, June 2.

Implemented Sat, June 3 – Mon, June 5 (3 days):

# 4 am - 10 am (6 hours):

- Spill maintained at 40% of total project outflow.
- Five available turbine units operated as constant as possible.

# 10 am - 4 pm (6 hours):

Spill increased to pass inflow (inflow = outflow).

### 4 pm - 4 am (12 hours):

• Spill increased to draft back to MOP range 633-634 ft.

Coordinated at TMT Mon, June 5.

Implemented Tues, June 6 – Wed, June 7 (2 days):

# Red text indicates change from previous operation.

### 4am - 10am (6 hours):

- Spill maintained at 30% of total project outflow.
- Five available turbine units operated as constant as possible.

# 10am - 4pm (6 hours):

Spill increased to pass inflow (inflow = outflow).

### 4pm - 4am (12 hours):

• Spill increased to draft back to MOP range 633-634 ft, if possible. Spill will **not** exceed 140 kcfs as a hard constraint to avoid exceeding 130% TDG in the LGS tailrace.

Coordinated at TMT Wed, June 7 and Wed, June 14.

Implemented Thurs, June 8 through Wed, June 21 (14 days):

# 4am - NOON (8 hours):

- Spill maintained at 30% of total project outflow.
- Five available turbine units operated as constant as possible.

### NOON - 4pm (4 hours):

Spill increased to pass inflow (inflow = outflow).

### 4pm - 4am (12 hours):

• Spill increased to draft back to MOP range 633-634 ft, if possible. Spill will **not** exceed 140 kcfs as a hard constraint to avoid exceeding 130% TDG in the LGS tailrace.

# **LGS Special Spill Operations for Adult Passage**

(updated Thursday 6/22/17, 10 am)

Date	Operation (red = change)	CHN Adults	CHN Jacks		Total Outflow (kcfs)	Spill (kcfs)	% Spill	% TDG	Forebay (ft) (red > MOP)	Unit Outages for Screen Cleaning
Sat, Jun 3	40% 4am-10am	793	511	Min	134.6	54.6	39.5%	120.3%	633.0	none
				Max	192.0	109.7	57.3%	129.4%	634.7	
				24-hr Average	169.1	84.1	49.0%	125.6%	633.9	
Sun, Jun 4	40% 4am-10am	578	407	Min	132.3	52.7	39.6%	119.9%	633.0	none
				Max	190.9	108.9	57.0%	128.5%	634.5	
				24-hr Average	165.2	80.5	48.0%	124.8%	633.7	
	40% 4am-10am	390	356	Min	132.8	52.9	39.6%	119.8%	633.2	U6 10am-noon; U4 1pm-4pm; U3 3pm-5pm
Mon, Jun 5				Max	197.9	138.2	71.8%	129.0%	634.6	
				24-hr Average	168.1	91.0	53.2%	125.5%	634.0	
	30% 4am-10am	1,542	334	Min	128.0	38.9	29.9%	117.4%	633.3	U3 10am-noon; U2 10am-3pm; U1 noon- 4pm. EMERG DEBRIS SPILL 3pm-4pm
Tue, Jun 6				Max	185.4	112.7	81.0%	143.8%	635.2	
				24-hr Average	161.0	85.8	52.2%	126.0%	634.3	
	30% 4am-10am	1,384	260	Min	128.3	38.7	29.9%	117.8%	633.2	none
Wed, Jun 7				Max	174.9	92.4	52.8%	126.8%	634.4	
				24-hr Average	149.7	64.1	42.1%	122.6%	633.8	
Thu, Jun 8	30% 4am-noon	1,398	362	Min	128.2	38.6	29.8%	117.5%	633.2	none
				Max	176.7	95.8	54.2%	127.0%	634.7	
				24-hr Average	150.8	65.0	42.0%	122.3%	633.9	
Fri, Jun 9	30% 4am-noon	948	265	Min	128.1	38.8	30.0%	116.7%	633.2	none
				Max	173.2	92.5	53.8%	127.3%	634.9	
				24-hr Average	150.5	64.7	41.9%	122.1%	634.2	
	30% 4am-noon	1,338	347	Min	128.0	38.6	29.9%	116.7%	633.1	none
Sat, Jun 10				Max	170.4	90.3	53.0%	126.7%	634.4	
				24-hr Average	147.0	61.8	41.2%	121.5%	633.7	
Sun, Jun 11	30% 4am-noon	1,520	376	Min	128.4	38.5	30.0%	116.7%	633.1	none
				Max	138.8	58.3	42.2%	120.7%	633.6	
				24-hr Average	132.7	46.9	35.2%	118.6%	633.4	
Mon, Jun 12	30% 4am-noon*	1,242	322	Min	110.0	35.0	29.8%	115.9%	633.0	*Inflows receded enough to achieve FOP 30% spill 4am-4pm.
				Max	132.6	50.5	38.1%	119.6%	633.5	
				24-hr Average	120.9	38.6	31.9%	116.9%	633.3	

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Tue, Jun 13	30% 4am-noon*	907	245	Min	76.8	23.2	30.1%	115.1%	633.3'	U2, U3 10am-3pm.
				Max	127.2	58.7	52.6%	120.7%	634.1'	*Inflows receded enough to achieve FOP 30%
				24-hr Average	111.7	40.1	35.7%	116.8%	633.7'	spill other hours.
Wed, Jun 14	30% 4am-noon*	772	221	Min	126.3	38.4	29.6%	115.3%	633.2'	*Inflows receded enough to achieve FOP 30% spill 4am-5pm.
				Max	136.6	54.2	40.2%	118.9%	633.9'	
				24-hr Average	129.9	44.5	34.2%	116.9%	633.5'	
Thu, Jun 15	30% 4am-noon*	446	164	Min	116.2	34.5	29.2%	115.5%	633.1'	*Inflows receded enough to achieve FOP 30% spill 4am-midnight.
				Max	130.6	49.9	38.3%	118.8%	633.5'	
				24-hr Average	124.3	38.6	31.0%	116.3%	633.3'	
Fri, Jun 16	30% 4am-noon*	1,186	199	Min	107.7	32.7	29.4%	115.9%	633.2'	*Inflows receded enough to achieve FOP 30% spill ALL hours.
				Max	123.7	36.6	30.5%	116.6%	633.8'	
				24-hr Average	113.7	34.0	29.9%	116.2%	633.4'	
Sat, Jun 17	30% 4am-noon*	539	204	Min	114.7	34.5	29.1%	115.4%	633.3'	*Inflows receded enough to achieve FOP 30% spill ALL hours.
				Max	129.0	39.2	30.4%	116.0%	633.8'	
				24-hr Average	120.7	35.9	29.8%	115.7%	633.6'	
Sun, Jun 18	30% 4am-noon*	372	146	Min	114.6	35.6	29.3%	115.2%	633.3'	*Inflows receded enough to achieve FOP 30% spill most hours.
				Max	130.3	39.6	33.0%	116.4%	633.5'	
				24-hr Average	120.1	36.8	30.7%	115.9%	633.4'	
Mon, Jun 19	30% 4am-noon*	245	116	Min	77.8	23.3	29.5%	115.8%	633.3'	U1 8am-2pm; U2 11am-4pm; U3 3pm-4pm.
				Max	123.8	64.5	54.2%	122.5%	634.1'	*Inflows receded enough to achieve FOP 30%
				24-hr Average	115.3	40.4	34.9%	117.4%	633.6'	spill other hours.
Tue, Jun 20	30% 4am-noon	581	222	Min	110.2	32.6	29.4%	115.8%	633.2'	
				Max	122.1	46.2	39.4%	118.4%	633.7'	U6 OOS @10am for maintenance.
				24-hr Average	115.2	40.0	34.8%	117.1%	633.4'	
Wed, Jun 21	30% 4am-noon*	448	190	Min	101.6	30.6	29.9%	115.2%	633.0'	U6 OOS thru 5pm.
				Max	141.0	58.8	45.3%	120.3%	634.5'	*Inflows receded enough to achieve FOP 30%
				24-hr Average	118.5	41.5	34.8%	117.3%	634.0'	spill 6pm-7pm.