



# FISH PASSAGE CENTER

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## MEMORANDUM

TO: Michele DeHart and FPC Files

FROM: Brandon R. Chockley

DATE: June 14, 2007

RE: FYI - Change in spring spill schedule at Ice Harbor

In preparing the daily figures for the 2007 Spill Season Update website (<http://www.fpc.org/WebForm2.0/MAINCHART.ASPX>) on May 31, 2007, I noticed that Ice Harbor Dam (IHR) did not spill to the 45 kcfs/Gas Cap level for May 30, as originally planned. Upon further investigation, I noticed that it appeared that IHR spilled approximately 30% of total flow on an hourly basis. I contacted Tim Wik (COE) to inquire whether IHR had deviated from the original spill schedule. According to Mr. Wik, BPA had requested that some days of 45 kcfs/Gas Cap spill be switched with days of 30%/30% spill. Mr. Wik sent me copy of the teletype (attached below) informing operators of a change in the spill schedule at IHR. This teletype indicates that May 30 and 31 will be operated at 30%/30% spill, while June 3 and 4 will be operated at 45 kcfs/Gas Cap spill. Furthermore, the teletype indicated that this change was originally requested by Scott Bettin (BPA). Below is a table outlining the original planned spill levels and the new spill levels for the effected days. These changes result in 6 continuous days of 30%/30% spill (May 26-May 31) followed by 6 continuous days of 45 kcfs/Gas Cap spill (June 1-June 6) at IHR.

Date	Original Schedule	New Schedule
Wednesday, May 30	45 kcfs/Gas Cap	30%/30%
Thursday, May 31	45 kcfs/Gas Cap	30%/30%
Sunday, June 3	30%/30%	45 kcfs/Gas Cap
Monday, June 4	30%/30%	45 kcfs/Gas Cap

**Teletype copied from e-mail received by Brandon R. Chockley from Tim Wik on Thursday, May 31, 2007.**

Sent to: SN

XX  
IHR R 052907 1300 SN MCN IHR LMN LGS LWG BPA BPC NPD NPC NPW

ATTENTION: ICE HARBOR AND BPA

REPLACE TTY IHR R 040237 0900 START OF SPRING SPILL TEST

SUBJECT: NEW SCHEDULE - SEE \* FOR CHANGE

1. STARTING 0500 HOURS ON 30 APRIL 2007 UNTIL 0500 HOURS ON 13 JUNE 2007,  
SPILL FOR JUVENILE FISH PASSAGE AS SPECIFIED BELOW USING THE SPILL PATTERNS  
PROVIDED TO THE CONTROL ROOM BY TIM WIK AND FOLLOW THE SCHEDULE BELOW.

2. TEST SPILL PATTERNS FROM 2007 FISH PASSAGE PLAN

FOR TREATMENT GAS CAP USE:  
TABLE IHR-10 ICE HARBOR RSW 45 KCFS/SPILL CAP SPILL PATTERN.

FOR TREATMENT 30% USE:  
TABLE IHR-9 ICE HARBOR RSW 30% SPILL PATTERN

4. STUDY SCHEDULE

DATE	START BLOCK	TREATMENT
	30-APR 0500 HR	1 GAS CAP
	1-MAY 0500 HR	1 GAS CAP
	2-MAY 0500 HR	1 30%
	3-MAY 0500 HR	1 30%
	4-MAY 0500 HR	2 GAS CAP
	5-MAY 0500 HR	2 GAS CAP
	6-MAY 0500 HR	2 30%
	7-MAY 0500 HR	2 30%
	8-MAY 0500 HR	3 GAS CAP
	9-MAY 0500 HR	3 GAS CAP
	10-MAY 0500 HR	3 30%
	11-MAY 0500 HR	3 30%
	12-MAY 0500 HR	4 30%
	13-MAY 0500 HR	4 30%
	14-MAY 0500 HR	4 GAS CAP
	15-MAY 0500 HR	4 GAS CAP
	16-MAY 0500 HR	5 30%
	17-MAY 0500 HR	5 30%
	18-MAY 0500 HR	5 GAS CAP
	19-MAY 0500 HR	5 GAS CAP
	20-MAY 0500 HR	6 GAS CAP
	21-MAY 0500 HR	6 GAS CAP
	22-MAY 0500 HR	6 30%
	23-MAY 0500 HR	6 30%
	24-MAY 0500 HR	7 GAS CAP
	25-MAY 0500 HR	7 GAS CAP

26-MAY	0500 HR	7	30%
27-MAY	0500 HR	7	30%
28-MAY	0500 HR	8	30%
29-MAY	0500 HR	8	30%
*30-MAY	0500 HR	8	30%
*31-MAY	0500 HR	8	30%
1-JUN	0500 HR	9	GAS CAP
2-JUN	0500 HR	9	GAS CAP
*3-JUN	0500 HR	9	GAS CAP
*4-JUN	0500 HR	9	GAS CAP
5-JUN	0500 HR	10	GAS CAP
6-JUN	0500 HR	10	GAS CAP
7-JUN	0500 HR	10	30%
8-JUN	0500 HR	10	30%
9-JUN	0500 HR	11	30%
10-JUN	0500 HR	11	30%
11-JUN	0500 HR	11	GAS CAP
12-JUN	0500 HR	11	GAS CAP
13-JUN	0500 HR	12	30%
14-JUN	0500 HR	12	30%
15-JUN	0500 HR	12	GAS CAP
16-JUN	0500 HR	12	GAS CAP
17-JUN	0500 HR	13	GAS CAP
18-JUN	0500 HR	13	GAS CAP
19-JUN	0500 HR	13	30%
20-JUN	0500 HR	13	30%
21-JUN	0500 HR	14	GAS CAP
22-JUN	0500 HR	14	GAS CAP
23-JUN	0500 HR	14	30%
24-JUN	0500 HR	14	30%
25-JUN	0500 HR	15	30%
26-JUN	0500 HR	15	30%
27-JUN	0500 HR	15	GAS CAP
28-JUN	0500 HR	15	GAS CAP
29-JUN	0500 HR	16	30%
30-JUN	0500 HR	16	30%
1-JUL	0500 HR	16	GAS CAP
2-JUL	0500 HR	16	GAS CAP
3-JUL	0500 HR	17	GAS CAP
4-JUL	0500 HR	17	GAS CAP
5-JUL	0500 HR	17	30%
6-JUL	0500 HR	17	30%
7-JUL	0500 HR	18	30%
8-JUL	0500 HR	18	30%
9-JUL	0500 HR	18	GAS CAP
10-JUL	0500 HR	18	GAS CAP
11-JUL	0500 HR	19	30%
12-JUL	0500 HR	19	30%
13-JUL	0500 HR	19	GAS CAP
14-JUL	0500 HR	19	GAS CAP
15-JUL	0500 HR	20	30%
16-JUL	0500 HR	20	30%
17-JUL	0500 HR	20	GAS CAP
18-JUL	0500 HR	20	GAS CAP
19-JUL	0500 HR	21	GAS CAP
20-JUL	0500 HR	21	GAS CAP

21-JUL 0500 HR            21      30%  
22-JUL 0500 HR            21      30%

\* CHANGE TO SCHEDULE TREATMENT 29 MAY 2007

4. WHEN THE TREATMENT IS GAS CAP:

4.1 FROM 0500 - 1800 HOURS, OPERATE UNIT 1 WITHIN 1% OF BEST EFFICIENCY (OR UNIT 3 IF UNIT 1 IS OUT OF SERVICE) AND SPILL THE BALANCE UP TO 45.6 KCFS.

4.2 FROM 1800 - 0500 HOURS, SPILL TO THE 120% GAS CAP LEVEL (SEE PARAGRAPH 6).

4.3 SPILL USING THE SPILL PATTERN AS SPECIFIED IN TABLE IHR-10.

4.4 FROM 1800 - 0500 HOURS, IF THE TOTAL OUTFLOW IS BETWEEN THE 120% GAS CAP AND THE 120% GAS CAP PLUS THE MINIMUM FLOW TO RUN ONE GENERATOR (WITHIN THE 1% EFFICIENCY LIMITATIONS), RUN ONE GENERATOR AT THE LOW END OF THE 1% RANGE AND THEN SPILL THE REST OF THE OUTFLOW. RUNNING ONE UNIT TAKES PRIORITY OVER MEETING THE SPILL REQUIREMENT.

5. WHEN THE TREATMENT IS 30%:

5.1 SPILL 30% (+/- 1%) OF TOTAL PROJECT OUTFLOW 24 HOURS A DAY. MAKE BEST EFFORT TO SPILL AS CLOSELY AS POSSIBLE TO THE 30% OF TOTAL OUTFLOW AS POSSIBLE ON A HOURLY BASIS.

5.2 SPILL USING THE SPILL PATTERN AS SPECIFIED IN TABLE IHR- 9.

6. THE 120% GAS CAP LEVEL FOR ICE HARBOR IS FOUND IN THE CURRENT TTY TITLED "SPILL PRIORITY LIST". RCC POINTS OF CONTACTS ARE JIM ADAMS AND LAURA HAMILTON.

7. NOTE THAT IT MAY NOT BE POSSIBLE TO SPILL TO THE FULL SPILL VOLUME WHEN FLOWS ARE LOW. DO NOT DRAFT RESERVOIR BELOW THE OPERATING RANGE SPECIFIED IN THE REFERENCED TTY.

SPILL FROM 1800 - 0500 MAY BE LOWER THAN THE 120% GAS CAP RANGE DURING TIMES WHEN THERE IS NO GENERATION AND INFLOW IS LESS THAN THE 120% GAS CAP. THE AMOUNT OF SPILL MAY BE LOWER THAN THE SPECIFIED SPILL AMOUNT DURING TIMES WHEN THE MINIMUM GENERATION REQUIREMENT RESULTS IN SPILL LEVELS BELOW THE SPECIFIED AMOUNT.

8. AT NO TIME IS THE PROJECT TO SPILL MORE THAN THE 120% GAS CAP VOLUNTARILY.

9. THERE IS A MINIMUM SPILL AMOUNT OF 15.2 KCFS AT ICE HARBOR.

10. THERE IS A MINIMUM GENERATION REQUIREMENT AT ICE HARBOR OF 9.5 KCFS THAT BPA CAN USE FOR GENERATION IF NEEDED FOR SYSTEM RELIABILITY. IF IT IS NECESSARY TO GENERATE FOR SYSTEM RELIABILITY GENERATE WITH ONE UNIT USING EITHER THE 9.5 KCFS MINIMUM GENERATION REQUIREMENT OR THE MINIMUM GENERATION FLOW LEVEL THAT STAYS WITHIN THE 1% OF BEST EFFICIENCY OPERATION, WHICHEVER IS GREATER.

11. THIS OPERATION WAS REQUESTED BY SCOTT BETTIN (BPA) AND COORDINATED WITH TIM WIK (NWW), BILL BERRY (BPA) AND JACK SHELDON (IHR).  
CC POINTS OF CONTACT ARE SCOTT BOYD AND BERNARD KLATTE