

FPP Change Request Form

Change Form # & Title: 15IHR008 – Low Flow Spill Patterns w/ No RSW
Date Submitted: July 9, 2015
Project: IHR
Requester Name, Agency: Corps NWW
Final Action:

FPP Section:

Table IHR-9.* Spill Patterns w/ No RSW.

**[Note the table number was previously IHR-8, but shifted up by one when new Table IHR-7 was added May 14, 2015, per change form [15IHR006](#)]*

Justification for Change:

Currently, spill patterns with no RSW in Table IHR-9* are defined as low as 8.5 kcfs. However, during extreme low flow conditions, lower spill rates may be required. When spill is less than ~8.4 kcfs, the RSW in Bay 2 must be closed and spill passed via other bays.

This situation occurred August 22-31, 2013, and patterns were defined and implemented through in-season coordination with TMT. Considering this situation is likely to re-occur this year, patterns have been developed for the FPP to optimize egress conditions by shifting flow from the RSW in Bay 2 to adjacent Bay 3.

Proposed Changes:

See Table IHR-9 below with new patterns in track changes (Total Stops 1 - 4).

Table IHR-81. [pg 1 of 2] Ice Harbor Dam Spill Patterns with No RSW. ^a

IHR Spill Patterns with No RSW - Gate Stops (#) per Spillbay										Total Stops (#)	Total Spill (kcfs)
Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8	Bay 9	Bay 10		
	CLOSE	<u>1</u>								<u>1</u>	<u>1.7</u>
	CLOSE	<u>2</u>								<u>2</u>	<u>3.4</u>
	CLOSE	<u>3</u>								<u>3</u>	<u>5.1</u>
	CLOSE	<u>4</u>								<u>4</u>	<u>6.8</u>
	CLOSE	5								5	8.5
	CLOSE	5							1	6	10.2
	CLOSE	5						1	1	7	11.9
	CLOSE	5						1.5	1.5	8	13.6
	CLOSE	5						2	2	9	15.4
	CLOSE	5		5						10	17.0
	CLOSE	5		5					1	11	18.7
	CLOSE	5.5		5.5					1	12	20.4
	CLOSE	5.5		5.5				1	1	13	22.1
	CLOSE	5.5		5.5				1.5	1.5	14	23.8
	CLOSE	5		5		5				15	25.5
	CLOSE	5		5		5			1	16	27.2
	CLOSE	5.5		5.5		5			1	17	28.9
	CLOSE	5.5		5.5		5.5			1.5	18	30.5
	CLOSE	6		6		6			1	19	32.0
	CLOSE	5		5		5		5		20	34.0
	CLOSE	5		5		5		5	1	21	35.7
	CLOSE	5.5		5		5		5.5	1	22	37.3
	CLOSE	5.5		5.5		5.5		5.5	1	23	39.0
	CLOSE	6		5.5		5.5		6	1	24	40.6
	CLOSE	6		6		6		6	1	25	42.1
	CLOSE	5	5	5		5		5	1	26	44.2
	CLOSE	5.5	5	5		5		5.5	1	27	45.8
	CLOSE	5.5	5	5.5		5.5		5.5	1	28	47.5
	CLOSE	5.5	5.5	5.5		5.5		6	1	29	49.1
	CLOSE	5.5	5.5	6		6		6	1	30	50.7
	CLOSE	6	6	6		6		6	1	31	52.2
	CLOSE	6	6	6.5		6.5		6	1	32	54.0
	CLOSE	6.5	6.5	6.5		6.5		6	1	33	55.8
	CLOSE	6	6	5	5	5		6	1	34	57.5
	CLOSE	6	6	5	5	6		6	1	35	59.1
	CLOSE	6	6	6	5	6		6	1	36	60.7
	CLOSE	6	6	6	6	6		6	1	37	62.3
	CLOSE	6	6	6	6	7		6	1	38	64.1
	CLOSE	6	6	6	6	7		7	1	39	65.7

IHR Spill Patterns with No RSW - Gate Stops (#) per Spillbay										Total Stops (#)	Total Spill (kcfs)
Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8	Bay 9	Bay 10		
	CLOSE	6	6	6	7	7		7	1	40	67.4
	CLOSE	6	6	7	7	7		7	1	41	69.1
	CLOSE	6	7	7	7	7		7	1	42	70.8
	CLOSE	7	7	7	7	7		7	1	43	72.5
6	CLOSE	6	6	6	6	7		6	1	44	74.1
6	CLOSE	6	6	6	7	7		6	1	45	75.8
6	CLOSE	6	6	7	7	7		6	1	46	77.5
6	CLOSE	6	7	7	7	7		6	1	47	79.2
6	CLOSE	7	7	7	7	7		6	1	48	80.9
6	CLOSE	6	6	6	6	6	6	6	1	49	82.5
6	CLOSE	6	6	6	6	7	6	6	1	50	84.2
6	CLOSE	6	6	6	7	7	6	6	1	51	85.9
6	CLOSE	6	6	6	7	7	6	7	1	52	87.6
6	CLOSE	6	6	7	7	7	6	7	1	53	89.3
6	CLOSE	6	7	7	7	7	6	7	1	54	91.0
6	CLOSE	7	7	7	7	7	6	7	1	55	92.7

a. Table defines spill patterns in increments of one gate stop per row. "Total Spill" is calculated as a function of total gate stops at forebay elevation 438.0 feet. Patterns in real-time are automatically interpolated as necessary to target the desired spill rate at the observed forebay elevation.

Comments from others:

Record of Final Action: