

FPP Change Form

9/14/07

Change Request Number: 09TDA002

Date: 6/4/08

Proposed by: NWP

Location of Change

TDA spill patterns

Proposed Change:

The spill pattern was modified to reflect the unavailability of bays 10-23.

Please see the new spill pattern below.

Reason for Change:

In 2006, the District Dam Safety Team analyzed the condition of TDA spillbays, and produced a memo that outlined operational restrictions to the spillway and reflected a change to the FPP pattern. The pattern in the 2006, 2007, and 2008 FPP were incorrect for spill discharge above 189 Kcfs. Up to this point, spill discharge has not exceeded 189 Kcfs, and the correct pattern has been used. Bays 10-23 are unavailable for use, except in an emergency. The spill pattern was modified to reflect spill through available bays.

Comments from others:

Record of Final Action: Approved as proposed.

| Table 1 - 2008 Spill Patterns | | | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|----|----|----|------|-------|-------|-----------|
| Note: The following is provided as the spill pattern at The Dalles, which acknowledges the fact that spillbays 10 through 23 are red tagged and can not be used. | | | | | | | | | | | | |
| The Dalles | | | | | | | | | | | | |
| Discharge Distribution Patterns | | | | | | | | | | | | |
| Spillway Bay Number | | | | | | | | | | Total | Total | 40% Spill |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Feet | Spill | Total | |
| vertical gate opening (ft.) | | | | | | | | | | (ft) | Kcfs | Kcfs |
| 4 | | | | | | | | | | 4 | 6 | 15.0 |
| 4 | 4 | | | | | | | | | 8 | 12 | 30.0 |
| 6 | 6 | | | | | | | | | 12 | 18 | 45.0 |
| | | 4 | 4 | 4 | 4 | | | | | 16 | 24 | 60.0 |
| | 4 | 4 | 4 | 4 | 4 | | | | | 20 | 30 | 75.0 |
| 4 | 4 | 4 | 4 | 4 | 4 | | | | | 24 | 36 | 90.0 |
| 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | | 27 | 41 | 101.3 |
| 5 | 5 | 5 | 5 | 5 | 5 | | | | | 30 | 45 | 112.5 |
| 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | | | | | 33 | 50 | 123.8 |
| 6 | 6 | 6 | 6 | 6 | 6 | | | | | 36 | 54 | 135.0 |
| 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | | | | 39 | 59 | 146.3 |
| 7 | 7 | 7 | 7 | 7 | 7 | | | | | 42 | 63 | 157.5 |
| 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | | | | 45 | 68 | 168.8 |
| 8 | 8 | 8 | 8 | 8 | 8 | | | | | 48 | 72 | 180.0 |
| 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | | | | | 51 | 77 | 191.3 |
| 9 | 9 | 9 | 9 | 9 | 9 | | | | | 54 | 81 | 202.5 |
| 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | | | | | 57 | 86 | 213.8 |
| 10 | 10 | 10 | 10 | 10 | 10 | | | | | 60 | 90 | 225.0 |
| 11 | 11 | 11 | 11 | 11 | 11 | | | | | 63 | 95 | 236.3 |
| 11 | 11 | 11 | 11 | 11 | 11 | | | | | 66 | 99 | 247.5 |
| 12 | 12 | 12 | 12 | 12 | 12 | | | | | 69 | 104 | 258.8 |
| 12 | 12 | 12 | 12 | 12 | 12 | | | | | 72 | 108 | 270.0 |
| 13 | 13 | 13 | 13 | 13 | 13 | | | | | 75 | 113 | 281.3 |
| 13 | 13 | 13 | 13 | 13 | 13 | | | | | 78 | 117 | 292.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | | | | | 81 | 122 | 303.8 |
| 14 | 14 | 14 | 14 | 14 | 14 | | | | | 84 | 126 | 315.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 4 | | | | 88 | 132 | 330.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 6 | | | | 90 | 135 | 337.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 8 | | | | 92 | 138 | 345.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 10 | | | | 94 | 141 | 352.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | | | | 96 | 144 | 360.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 10 | 4 | | | 98 | 147 | 367.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 10 | 6 | | | 100 | 150 | 375.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 10 | 8 | | | 102 | 153 | 382.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 10 | 10 | | | 104 | 156 | 390.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 10 | | | 106 | 159 | 397.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 10 | 10 | 4 | | 108 | 162 | 405.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 10 | 4 | | 110 | 165 | 412.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 10 | 6 | | 112 | 168 | 420.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 10 | 8 | | 114 | 171 | 427.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 10 | 10 | | 116 | 174 | 435.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 12 | 10 | | 118 | 177 | 442.5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 12 | 12 | 12 | | 120 | 180 | 450.0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 13 | 13 | 13 | | 123 | 185 | |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | | 126 | 189 | |
| 14 | 14 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 130 | 195 | |
| 14 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 133 | 200 | |
| 14 | 14 | 16 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 137 | 206 | |
| 14 | 14 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 140 | 210 | |
| 14 | 14 | 17 | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 144 | 216 | |
| 14 | 14 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 147 | 221 | |
| 14 | 14 | 18 | 18 | 18 | 18 | 18 | 17 | 17 | 17 | 151 | 227 | |
| 14 | 14 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 154 | 231 | |
| 14 | 14 | 19 | 19 | 19 | 19 | 19 | 18 | 18 | 18 | 158 | 237 | |
| 14 | 14 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 161 | 242 | |
| 14 | 14 | 20 | 20 | 20 | 20 | 19 | 19 | 19 | 19 | 165 | 248 | |
| 14 | 14 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 168 | 252 | |
| 14 | 17 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 178 | 267 | |
| 14 | 17 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 185 | 278 | |
| 14 | 17 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 192 | 288 | |
| 14 | 17 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 199 | 299 | |
| 14 | 17 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 206 | 309 | |
| 14 | 17 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 213 | 320 | |
| 14 | 20 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 216 | 324 | |
| 14 | 20 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 223 | 335 | |
| 14 | 23 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 226 | 339 | |
| 14 | 23 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 233 | 350 | |
| 14 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 238 | 357 | |
| 18 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 242 | 363 | |
| 22 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 246 | 369 | |
| 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 252 | 378 | |