

2008 % TDG Exceedance Tracking System

The US Army Corps of Engineers (Corps) tracks the number of percent TDG exceedances of the Oregon and Washington water quality standards and designates a cause for each exceedance during the spill season, April 3 through August 31. There are exceedances that occurred outside of the spill season, but they are not included in this report since they are not associated with spill for fish. The State water quality standards are 115% in the forebays and 120% in the tailwaters of the Columbia and Snake River dams, under the provisions of the state water quality exemptions granted by the states. The percent TDG exceedances are based on the daily high 12 hour average.

Table 1 provides a listing of the various causes (types) that are designated to each percent TDG exceedance occurrence for the daily high 12 hour average. These definitions of exceedance types have been evolving since 2003; during 2008, the definition of type #12 was changed to show that an exceedance would be credited to a thermal temperature spike of 1.5 °F instead of 3 °F. Table 2 designates a specific exceedance type for all the exceedances at the Corps Lower Columbia and Snake River projects.

**TABLE 1
TYPES OF PERCENT TDG EXCEEDANCE TRACKING**

Types of Exceedances:
1. Exceedance due to high runoff flows and flood control efforts.
2. Exceedance due to Intertie line outages.
3. Exceedance due to unit outages during repair or maintenance.
4. Exceedance due to BPA inability to handle load so water was spilled.
5. Exceedance due to a break down in communication. Teletype went out but no change occurred or Project operator interpreted teletype differently than what was intended.
6. Exceedance due to uncertainties when using best professional judgment to apply the spill guidance criteria, e.g., travel time, degassing, water temperature effects, spill patterns.
7. Exceedance due to high TDG levels coming from the Mid Columbia River Dam (see Pasco FMS readings).
8. Exceedance due to high TDG levels coming from the Snake River projects (see Ice Harbor Dam FMS readings).
9. Exceedance due to a load rejection; the powerhouse was not working and the river was spilled.
10. Exceedance due to the FMS gage malfunctioning and registering very high TDG levels
11. Exceedance due to mechanical problems, e.g., gate was stuck open, passing debris.
12. Exceedance due to sharp rise in water temperature (a 1.5 degree F. or greater change in a day).
13. Exceedance due to bulk spill pattern being used which generated more TDG than expected.
14. Exceedance due to non-functioning of flow deflectors during tailwater elevation above 19 ft and especially above 26 ft.

TABLE 2
PERCENT TDG EXCEEDANCE TYPE TRACKING
MAY 2008

Date	Low Gran. FB	Low Gran. TW	Little Goose FB	Little Goose TW	Low Monu. FB	Low Monu. TW	Ice Harb. FB	Ice Harb. TW	McNary FB	McNary TW	John Day FB	John Day TW	The Dalles FB	The Dalles TW	BON FB	BON TW	Camas FB
5/1/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5/2/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5/3/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5/4/2008	---	---	---	---	13	---	---	---	---	---	---	---	---	---	---	---	12
5/5/2008	---	---	---	---	13	---	13	---	---	---	---	---	---	---	12	---	12
5/6/2008	---	---	---	---	13	---	13	---	---	---	---	---	---	---	---	---	6
5/7/2008	---	---	---	---	6	---	6	---	---	---	---	---	---	---	---	---	---
5/8/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---
5/9/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6	---
5/10/2008	---	---	---	---	6	---	---	---	---	---	---	---	---	---	---	6	---
5/11/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5/12/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	---
5/13/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6	---
5/14/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5/15/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6	6
5/16/2008	---	---	---	---	---	6	6	---	---	---	---	---	---	---	6	6	6
5/17/2008	---	1	---	---	1	1	1	---	---	---	---	---	---	---	1	1	1
5/18/2008	---	1	---	1	1	1	1	1	---	---	---	---	---	---	1	1	1
5/19/2008	---	1	1	1	1	1	1	1	---	1	---	6	---	---	1	1	1
5/20/2008	---	1	1	1	1	1	1	1	---	1	---	---	---	---	1	1	1
5/21/2008	---	1	1	1	1	1	1	1	---	1	---	---	---	---	---	1	1
5/22/2008	---	1	1	1	1	1	1	1	---	1	---	6	---	---	---	1	1
5/23/2008	---	1	1	1	1	1	1	1	---	1	---	---	---	---	---	1	1
5/24/2008	---	1	1	1	1	1	1	1	---	1	---	1	1	---	1	1	1
5/25/2008	---	1	1	---	1	---	1	1	---	1	---	1	---	---	1	1	1
5/26/2008	---	1	1	---	1	---	1	1	7	1	1	---	---	---	6	1	1
5/27/2008	---	1	1	---	1	---	1	---	7	1	1	---	1	---	---	1	1
5/28/2008	---	1	1	11	1	1	1	1	7	1	1	6	1	---	1	1	1
5/29/2008	---	1	1	1	1	1	1	1	7	1	1	---	---	---	---	1	1
5/30/2008	---	1	1	1	1	1	1	1	---	1	---	---	---	---	1	1	1
5/31/2008	---	1	1	1	1	---	1	1	---	1	---	---	---	---	1	1	1

TABLE 2
PERCENT TDG EXCEEDANCE TYPE TRACKING
JUNE 2008

Date	Low Gran. FB	Low Gran. TW	Little Goose FB	Little Goose TW	Low Monu. FB	Low Monu. TW	Ice Harb. FB	Ice Harb. TW	McNary FB	McNary TW	John Day FB	John Day TW	The Dalles FB	The Dalles TW	BON FB	BON TW	Camas FB
6/1/2008	---	1	1	1	1	1	1	1	7	1	---	---	---	---	---	1	1
6/2/2008	---	1	1	1	1	1	1	1	---	1	---	---	---	---	---	1	1
6/3/2008	---	1	1	1	1	1	1	1	---	1	---	1	1	1	1	1	1
6/4/2008	---	1	1	1	1	1	1	1	---	1	---	1	1	---	1	1	1
6/5/2008	---	1	1	11	1	1	1	1	---	1	---	---	---	---	1	1	1
6/6/2008	---	1	1	---	1	1	1	1	---	1	---	---	---	---	---	1	1
6/7/2008	---	1	1	---	1	---	---	---	---	---	---	---	---	---	---	1	1
6/8/2008	---	1	---	---	1	---	---	---	---	1	---	---	---	---	---	1	1
6/9/2008	---	1	1	---	1	---	1	---	---	---	---	---	---	---	---	1	1
6/10/2008	---	---	---	---	---	1	---	1	---	---	---	---	---	---	---	1	---
6/11/2008	---	1	---	1	---	1	---	1	---	1	---	1	---	---	---	1	---
6/12/2008	---	1	---	1	1	1	---	---	---	1	---	1	---	---	---	1	1
6/13/2008	---	1	---	1	1	1	1	1	7	1	---	1	---	---	1	1	1
6/14/2008	---	---	1	---	1	1	1	---	7	---	---	---	---	---	---	1	1
6/15/2008	---	---	1	---	1	6	6	---	7	---	1	---	---	---	---	1	1
6/16/2008	---	---	---	---	6	6	6	---	7	---	1	---	6	---	---	1	---
6/17/2008	---	1	---	---	1	---	1	1	---	---	---	---	---	---	---	1	1
6/18/2008	---	1	---	1	1	1	1	1	---	1	---	1	1	---	---	1	1
6/19/2008	---	1	1	1	1	1	1	1	7	1	---	---	1	---	1	1	1
6/20/2008	---	1	1	---	1	1	1	---	7	---	---	---	---	---	1	1	1
6/21/2008	---	1	1	---	1	---	1	1	7	---	1	---	---	---	1	1	1
6/22/2008	---	1	1	---	1	---	1	1	7	---	1	1	1	---	---	1	1
6/23/2008	---	1	1	---	1	1	1	---	---	---	1	---	---	---	---	1	---
6/24/2008	---	1	1	---	1	---	1	1	---	1	---	---	---	---	---	1	---
6/25/2008	---	---	1	---	1	---	1	1	---	---	---	---	---	---	---	1	1
6/26/2008	---	---	1	1	1	---	1	1	---	---	---	---	---	---	---	1	---
6/27/2008	---	---	1	1	1	---	1	---	---	---	---	---	6	---	---	1	1
6/28/2008	---	---	1	---	1	---	1	---	7	---	---	---	6	1	1	1	1
6/29/2008	---	---	1	---	1	---	1	---	7	---	1	---	6	---	1	1	1
6/30/2008	---	---	---	---	1	---	1	---	7	---	1	---	6	---	1	1	1

TABLE 2
PERCENT TDG EXCEEDANCE TYPE TRACKING
AUGUST 2008

	Low Gran. FB	Low Gran. TW	Little Goose FB	Little Goose TW	Low Monu. FB	Low Monu. TW	Ice Harb. FB	Ice Harb. TW	McNary FB	McNary TW	John Day FB	John Day TW	The Dalles FB	The Dalles TW	BON FB	BON TW	Camas FB
8/1/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/2/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/3/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12
8/4/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12
8/5/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6
8/6/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6
8/7/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12
8/8/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/9/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/10/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/11/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6
8/12/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/13/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---
8/14/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/15/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12
8/16/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12
8/17/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6
8/18/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/19/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/20/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/21/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/22/2008	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---
8/23/2008	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---
8/24/2008	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	12
8/25/2008	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---
8/26/2008	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---
8/27/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/28/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/29/2008	---	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	12
8/30/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8/31/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total	0	35	34	23	54	32	55	31	21	28	14	17	17	2	27	57	68
Grand Total	515																