

August 30, 2002

Mr. Glenn Haas, Director
Division of Watershed Management
Department of Environmental Protection
1 Winter Street
Boston, MA 02108

Ms. Linda Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency
Water Technical Unit "SEW"
P.O. Box 8127
Boston, MA 02114

Re: Massachusetts Water Resources Authority, Permit Number MA0103284
Notification Pursuant to Part I.8. Contingency Plan

Dear Mr. Haas and Ms. Murphy:

On August 23, I notified you of a high Total Suspended Solids (TSS) level in Deer Island Treatment Plant (DITP) effluent for the week of August 11 to 17 due to an upset in the secondary treatment process. At that time, we anticipated that the same upset would cause a second violation of MWRA's discharge permit and Contingency Plan limit for the following week. On August 26, 2002 MWRA confirmed that the average weekly TSS for the period August 18 to 24 was 64.9 mg/L. MWRA's discharge of TSS is limited to a weekly average of 45 mg/L, therefore this exceeds the permit limit, and is also a Contingency Plan exceedance, triggering a notification requirement under the Contingency Plan. This letter constitutes that notification.

As described in the August 23 letter, elevated TSS in the effluent was associated with an "upset" of the treatment plant secondary process, caused by overgrowth of filamentous bacteria. The bacteria growth is believed to be related to a discharge of sulfate-rich industrial effluent to the DITP through MWRA's Alford Street Pump Station.

TSS effluent data for August 11 to 27 are in the table on the following page. Since the time the upset was discovered MWRA staff have been working to bring the microbiological processes in the secondary batteries back into balance, and by the middle of last week the process began to return to normal. I am glad to report that the treatment plant is now producing effluent with TSS within our permit limit. Nevertheless, because of the several days of high TSS values, it is likely that there will be a violation of our monthly permit limit, which is 30 mg/L TSS, for August.

Total suspended solids in DITP effluent

	TSS (mg/L)
August 11	14.7
August 12	16.0
August 13 ¹	22.5
August 14 ²	41.0
August 15 ³	49.0
August 16	74.7
August 17	102
Weekly average⁴	45.7
August 18	132
August 19	100
August 20	62
August 21	56
August 22	50
August 23	33
August 24	21
Weekly average⁴	64.9
August 25	26
August 26	26
August 27	27

¹ 5535 gal. 3,047 lbs sulfate

² 8113 gal. 4,601 lbs sulfate

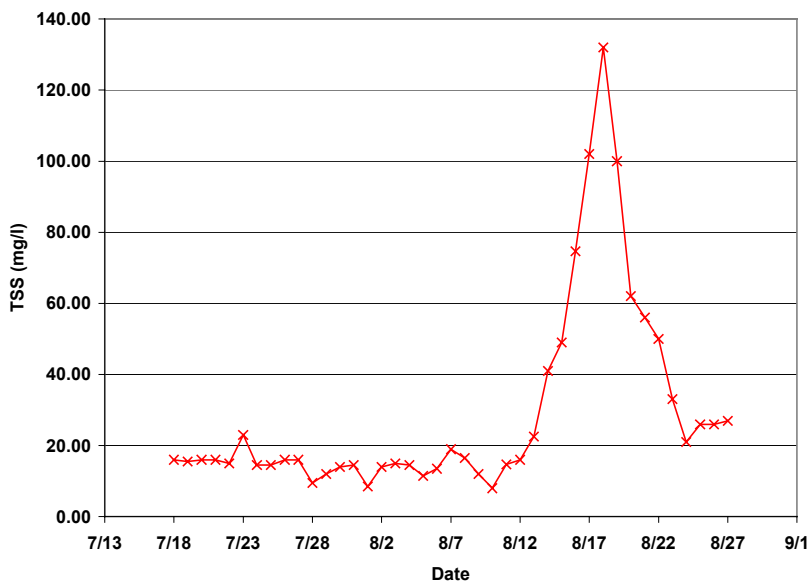
³ 8405 gal. 4,767 lbs sulfate

⁴ Permit limit = 45 mg/L

Note: The sample time for a given date is a composite collected from approximately 7:30am on that day to approximately 7:30am on the following day. The sample results become available mid-afternoon the following day. For example, the August 17 sample was collected from approximately 7:30am on the 17th, to 7:30am on the 18th, the data were available on the afternoon of the 18th.

Final effluent TSS data for mid-July through August 27 are presented graphically on the next page. The graph illustrates the stability of the process in the weeks preceding the exceedance, how the process performance rapidly degraded beginning August 13, and the process recovery.

Final Effluent TSS (mg/l)



Environmental Effects: Primary treatment has been normal, and bacteria, total chlorine residual and cBOD permit limits have been met throughout this upset. The treatment plant upset has not been lengthy, with one battery of secondary restored to normal operation after three days. As noted previously, we do not anticipate adverse environmental impacts. If there are any impacts in the water column or in the sediment, MWRA expects to be able to detect them through our monitoring at the outfall site.

Please let me know if any of MWRA's staff can give you additional assistance regarding this notification.

Sincerely,

Michael J. Hornbrook
Chief Operating Officer

Cc:

Environmental Protection Agency, Region I (EPA)

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Janet Labonte-Deshais
Eric Hall
Roger Janson

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