

October 13, 2005

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:

This is a letter of notification prepared pursuant to the Massachusetts Water Resources Authority ("MWRA") Contingency Plan notification requirements. MWRA's NPDES Permit and Contingency Plan specify that four tests for Deer Island effluent toxicity be conducted every month. MWRA has received results indicating that one of the tests, the *Arbacia* (sea urchin) chronic fertilization test conducted on a sample collected September 15, 2005 did not meet the Contingency Plan Warning threshold and permit limit.

Effluent from that sample did, however, meet the acute toxicity tests for the mysid (shrimp) and *Menidia* (fish) tests and the chronic *Menidia* test. All other requirements of the permit were met on September 15, and there were no operational upsets during this period that would have caused the Deer Island Treatment Plant to violate other parameters within the permit. After receiving preliminary results from the testing laboratory that the *Arbacia* test may have been failed, MWRA repeated the *Arbacia* fertilization test on September 23, 2005. That repeat test passed, suggesting that the cause of the toxicity test failure was transient.

MWRA is investigating what factors may have caused this test failure. The *Arbacia* test involves exposing sperm to effluent, combining the sperm with egg, and then measuring fertilization success. The purpose of the test is to measure the potential for chronic (long-term, sub-lethal) effects of the effluent. Since other studies have shown that the *Arbacia* test has sensitivity to metals, MWRA's investigation is including an examination of metals chemistry in the water supply and waste stream including the interaction of metals, chlorination, dechlorination, and organic carbon.

MWRA will provide follow-up information at a future Outfall Monitoring Science Advisory Panel meeting.

Please let me know if I can give you additional assistance regarding this notification.

Sincerely,

Michael J. Hornbrook
Chief Operating Officer

Cc:

Environmental Protection Agency, Region I

Matthew Liebman

Todd Borci

Roger Janson

National Marine Fisheries Service

Chris Mantzaris

Stellwagen Bank National Marine Sanctuary

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