

UNITED STATES DISTRICT COURT
for the
DISTRICT OF MASSACHUSETTS

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UNITED STATES OF AMERICA,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,
et al.,

Defendants.

.....

CONSERVATION LAW FOUNDATION OF
NEW ENGLAND, INC.,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,

Defendants.

.....

MWRA MONTHLY COMPLIANCE REPORT
FOR OCTOBER 1998 AND
PROGRESS REPORT AS OF NOVEMBER 16, 1998

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of October 1998 and supplementary compliance information in accordance with the Court's order of December 23, 1985, subsequent orders of the Court and undertakings of the Authority.

I. Schedule Six.

A status report for the scheduled activities for the month of October 1998 on the Court's Schedule Six, certified by Douglas B. MacDonald, Executive Director of the Authority, is attached hereto as Exhibit "A."

A. Activities Completed.

1. Report on Backup Disposal Plan.

On October 15, 1998, in accordance with Schedule Six, the Authority submitted its semi-annual report on its backup residuals disposal plan. A copy of the report was attached as Exhibit "B" to the Authority's October 15, 1998 Compliance and Progress Report. The Authority and the Commonwealth also submitted their Joint Report regarding the Memorandum of Understanding on beneficial use of biosolids.

B. Progress Report.

1. Fiscal Matters.

(a) Federal Funding.

The Boston Harbor Project received \$20 million in the Omnibus Consolidated and Emergency Supplemental Appropriations bill signed into law by the President on October 21, 1998. These funds are in addition to the \$30 million included in the VA, HUD and Independent Agencies Appropriations Conference Report described in last month's report to the Court, bringing the total amount appropriated for the Boston Harbor Project in Fiscal Year ("FY") 1999 to \$50 million.

(b) Current Expense Budget.

As reported in the Authority's July 15, 1998 Compliance and Progress Report, the Authority's Board of Directors approved a Current Expense Budget for FY 1999 on June 24, 1998. A printed copy of the budget is attached as Exhibit "B."

2. Harbor Management.

(a) Construction of Effluent Outfall Tunnel.

During the past month, the contractor for the Effluent Outfall Tunnel completed the first pass clean-up and repair of the tunnel arch. The contractor is proceeding to dismantle and remove the equipment used for this work. In addition, final pass clean-up and repair of the pre-cast liner in the tunnel invert is complete and inspected to within a mile of the Deer Island shaft. On October 30, the contractor resumed grouting operations, which are complete and approved up to 50 feet from the shaft.

On November 6, 1998, the Authority hosted a meeting of the parties and provided additional information and opportunity for discussion concerning the status of construction of the tunnel and the continuing challenges that lie ahead.

(b) Pump Station Modifications.

As reported last month, fabrication of the new and modified harmonic filters for the Lydia Goodhue Pump Station is underway. The work remains on schedule for completion during January 1999, after which installation can proceed. With respect to the North Main Pump Station, the Authority expects to issue a purchase order for the design and fabrication of the additional harmonic filters needed for that facility by the end of this month, following

review of pre-purchase bids opened on November 13, 1998. The Authority continues to expect fabrication of these filters to be complete in February 1999. Due to the increased size of the new filter banks, the Authority has determined that it must locate them outside the North Main Pump Station. This change will require additional installation work, including the placement of a concrete slab base. To minimize any delays, the Authority is using two separate construction support contractors to perform critical path work to prepare for installation of the filters as soon as they are available.

In the meantime, work continues on the variable frequency drives of the South System pumps, as modifications are made to enhance operation.

(c) Demolition of Nut Island Treatment Plant.

At Nut Island, demolition of the old sedimentation basins is nearly complete. The contractor is continuing with the removal of asbestos from the former administration and digester buildings. In the new headworks, the contractor has completed construction of the east side of the surge chamber and is making preparations to begin work on the west side.

(d) Thermal Plant.

The contractor for the Thermal Plant has completed all modifications needed to the digester gas system. In addition, the new permanent cooling water line needed for testing is now installed and in operation. Performance testing of the digester gas system has begun today.

(e) Secondary Treatment Operations.

The repairs that required the temporary shut-down of the Secondary Battery B clarifiers, as reported last month, are now complete. Battery B is

back on-line in full, and staff are operating the secondary portion of the plant in its normal operating mode. As anticipated, during the repair period staff operated the reactors of both secondary batteries with the Secondary Battery A clarifiers. Operating at close to the hydraulic limit, staff was able to gain a better understanding of the secondary process capabilities.

(f) Deer Island Performance Certification.

On October 21, 1998, the Board of Directors authorized the procurement of services for the second phase of performance certification of components of the new Deer Island Treatment Plant. As reported previously, by regulation the Authority must obtain the certification for certain facilities as a condition of retaining federal and state funds awarded for their construction.¹ In addition, the Authority has elected to include other non-funded facilities critical to plant operations. The reviews conducted to date have provided an independent assessment of the first year of operation for each of the new Deer Island facilities, identified certain corrective actions needed in facilities which failed initially to meet specific performance standards and produced useful recommendations for plant optimization.

Phase I of the certification process included the primary treatment facilities, early residuals facilities, various support facilities and a number of plant-wide systems. The results confirmed that six of the ten Phase I construction projects met or exceeded all performance criteria. The reports identified corrective actions which, when completed, will ensure that three of the remaining four projects will also satisfy the standards required for

¹ See Compliance and Progress Report dated May 15, 1996, pp. 7-8, for a report on the first phase of performance certification.

certification.² The final Phase I construction project, Process Instrumentation and Control Systems, is expected to meet certification criteria upon completion of all Deer Island facilities. These evaluations provided the Authority with numerous valuable observations and recommendations and allowed the Authority to retain \$93.5 million in federal grants and \$29.7 million in State Revolving Fund loans.

Phase II of Performance Certification will include 17 construction projects, as well as additional plant-wide systems. Among other facilities, Phase II will include the Lydia Goodhue Pump Station, the Inter-Island Tunnel, the Nut Island Headworks, Secondary Reactor Batteries A and B, Secondary Clarifier Batteries A and B and the Thermal/Power Plant.

3. Combined Sewer Overflow Program.
 - (a) Environmental Review of Combined Sewer Overflow Facility Upgrades.

As reported last month, the Authority submitted a Supplemental Environmental Impact Report (“SEIR”) for the combined sewer overflow (“CSO”) facility upgrades to the MEPA³ Unit of the Executive Office of Environmental Affairs on September 30, 1998. As anticipated, the period for public comment on the document closed on November 9, 1998, and the Authority is scheduled to receive a Certificate from the Secretary of Environmental Affairs today. The Authority will report further on this matter next month.

- (b) Fox Point CSO Facility.

² The corrections identified do not affect the basic operation of the facilities, all of which are functioning satisfactorily. The corrections are being addressed as part of on-going capital and maintenance projects at the plant.

³ Massachusetts Environmental Policy Act.

The Authority is continuing its efforts to work with parties interested in the Fox Point CSO facility regarding siting of a dechlorination facility and other issues of concern. Participants in a recent series of public meetings included area residents and business owners, local and state elected officials and members of civic, environmental and private groups. Options for providing dechlorination discussed at the meetings included (1) building a facility at one of several locations within the Savin Hill Yacht Club property; (2) converting the existing Metropolitan District Commission bathhouse at Malibu Beach; and (3)-constructing a new force main for sodium bisulfite from the existing Fox Point facility, under the Southeast Expressway and along Savin Hill Beach to an injection point near Morrissey Boulevard. The Authority is providing additional information requested regarding constructing underground detention tanks near the existing facility to allow on-site disinfection and dechlorination.⁴

The Authority's goal is to develop better community understanding and support to allow this project to move forward in compliance with the Court schedule for its construction. The Authority expects to prepare an SEIR for submission to the MEPA Unit in December with a plan for Fox Point that is technically feasible and cost effective, that minimizes environmental and community impacts and that has a reasonable level of public support.

(c) Cottage Farm Facility Upgrade.

As previously reported, construction of the upgrade to the Cottage Farm CSO facility began on schedule in March 1998.⁵ In the course of construction, there developed an unforeseen problem that may affect the Authority's ability

⁴ The Authority evaluated and rejected this alternative during earlier planning efforts, because it was outside the scope of an interim facility upgrade and not cost effective.

⁵ See Compliance and Progress Report dated April 15, 1998, p. 2.

to complete the project on schedule, at least as originally designed. The Authority is moving expeditiously to evaluate the extent of the problem, the likely effect on the construction schedule and possible interim measures that will enable the treatment system upgrades to be ready for operation in compliance with Schedule Six.

The construction project at Cottage Farm involves installing new equipment to improve disinfection and to add dechlorination of CSO discharges, including the addition of automated controls, and adding a new building to house disinfection and dechlorination chemicals. The design calls for converting the existing sodium hypochlorite storage room to the new control room. When work began in this area to prepare for the conversion, the contractor discovered evidence of deterioration in the concrete floor that was not visible on the surface.⁶ Preliminary hammer soundings suggest that the deterioration may be extensive and may require significant structural repair.⁷ A coring plan to determine the extent of the damage is underway and will provide information about the condition of the concrete slab, the reinforcing steel, the support beams and adjacent walls. The Authority expects to receive the results of the testing by early December, after which it expects to proceed with design and construction of repairs.

Although the Authority cannot estimate the time required to make the repairs at this time, it appears very unlikely that they can be completed in time to install the control room as designed and have the automated control system in place by March 1999, when the upgrade is scheduled to be completed.

⁶ It appears that past sodium hypochlorite spills in the room probably damaged the concrete.

⁷ Because the floor in question also forms the ceiling of the screen room below, the problem has possible implications for other parts of the Cottage Farm facility, as well as for worker safety.

Based on the present understanding of the problem, it appears that completing the facility upgrade, exclusive of installing the control room in the proposed location, and being prepared to run a semi-automatic, operator-controlled disinfection and dechlorination system may be the most prudent way to proceed in order to have an upgraded facility functioning by March 1999. Therefore, the Authority is working toward the development and installation of an interim flow-based system to control chlorination and dechlorination until the automated controls are available.

In the meantime, the Authority is also working with its design consultant to evaluate other short and long-term options that may minimize any delays in completing the facility. These alternatives include temporary relocation of all critical process control instruments to another location within the existing building or to a trailer on-site, and permanent relocation of the instrumentation to an alternate location.

Although the Authority's intent is, at a minimum, to be able to implement an operator-controlled chlorination/dechlorination system by March 1999, it will be unable to test the operation of the upgraded process control system, as per the recommended design, until the permanent control room is in place and fully functional. Therefore, this unexpected problem may affect both the period of start-up and systems optimization anticipated in Schedule Six (see Note 35), as well as the time by which the Authority may be able to comply with certain conditions in the Variance for CSO discharges into the Charles River issued by the Massachusetts Department of Environmental Protection ("DEP") in September.⁸ The Authority anticipates scheduling a meeting with DEP and the Environmental Protection Agency ("EPA") as soon as

⁸ See September 15, 1998, Compliance and Progress Report, pp. 11-13, and Exhibit B.

more information becomes available to discuss the construction problem at Cottage Farm and alternative measures under consideration. In the meantime, the Authority will make every effort to have a functioning upgraded chlorination and dechlorination system in place at Cottage Farm by March 1999 and to minimize the delay in completing the automated controls.

4. Residuals Program.

(a) Pelletizing Plant Expansion.

The contractor for the expansion of the pelletizing plant has introduced sludge into the second new dryer train and is continuing to perform testing of both of the new trains. To date, the testing has demonstrated that the new trains meet specified loadings and are able to process substantially more sludge than the existing trains. Modifications to certain components of the trains are underway before further testing proceeds. The Authority continues to expect turnover of the new dryer trains by the end of the year.

5. Toxic Reduction and Control Program.

The Authority's Toxic Reduction and Control Department ("TRAC") recently submitted its fourteenth annual Industrial Waste Report to EPA. The report covers activities of the Authority's industrial pretreatment program during FY 1998, including enforcement, permitting and implementation of TRAC's Strategic Permitting Plan.

During FY 1998, 254 industries met EPA's definition of Significant Industrial User ("SIU").⁹ Of these, 96 were in Significant Noncompliance¹⁰ during the year (down from 100 in FY1997). TRAC issued 574 informal Notices

⁹ See 40 C.F.R. 403.3(t).

¹⁰ See 40 C.F.R. 403.8(f)(2)(vii).

of Violation in FY1998 (an increase of 21 percent from FY 1997)¹¹ and 52 Notices of Noncompliance, the next stage of enforcement. TRAC collected a total of \$270,645 in enforcement penalties (including amounts due from previous years) and assessed \$122,900 in new penalties. TRAC issued 31 enforcement orders under the Mercury Safe Harbor program, under which companies that actively pursue mercury reduction measures will not proceed to the penalty stage of TRAC's escalating enforcement program.¹²

In FY 1998, TRAC collected \$1,341,711 in permit fees from 1,191 permitted industries (with a collection rate exceeding 98 percent). TRAC issued ten Notices of Proposed Permit Suspension to companies that had not paid their fees.

TRAC continued to implement its Strategic Permitting Plan to help reduce pollutant loadings from industrial, commercial and other sources not otherwise regulated by TRAC. Components of the plan include a voluntary molybdenum substitution program for cooling towers and implementation of a group permit for food processors, as well as an education/outreach program and evaluation of amalgam control options for dentists. As the result of TRAC's overall efforts during the year, total loads for key metals in the influent at the Deer Island and Nut Island Treatment Plants (mercury, molybdenum, copper, lead) declined or held at FY 1997 levels.

By its attorneys,

¹¹ For several years, TRAC has used early informal notification to improve compliance and avoid formal enforcement, where possible.

¹² See August 17, 1998 Compliance and Progress Report, pp. 11-13, for the most recent report on the Authority's mercury reduction efforts.

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CERTIFICATE OF SERVICE

I, John M. Stevens, attorney for the Massachusetts Water Resources Authority, do hereby certify that I have caused this document to be served by hand or mail to all counsel of record.

John M. Stevens (BBO No. 480140)

Dated: November 16, 1998