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August 28, 2008

ENVIR. APPEALS BOAR

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VIA FEDEX

U.S. Environmental Protection Agency Clerk of the Board, Environmental Appeals Board 1341 G Street, N.W., Suite 600 Washington, DC 20005

> Re: In re: City of Attleboro, MA Department of Wastewater, Government Center, 77 Park Street, Attleboro, MA 02703 NPDES Permit No. MA 0100595 NPDES Appeal No. 08-09

Dear Sir/Madam:

Enclosed for filing in the above matter are the original and five copies of the Response of the Permittee, City of Attleboro, to RIDEM'S Petition for Review.

Douglas H. Wilkins

DHW:skc enclosures cc: Carl Dierker, U.S. EPA, Region 1 Samir Bukhari Susan B. Forcier, Esquire Client



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UNITED STATES OF AMERICA ENVIRONMENTAL APPEALS BOARD DEMARATION APPEALS BOARD ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C.

NPDES APPEAL No. 08-09

In re:

City of Attleboro, MA Department of Wastewater, Government Center, 77 Park Street, Attleboro, MA 02703 NPDES Permit No. MA 0100595

RESPONSE OF THE PERMITTEE, CITY OF ATTLEBORO, TO RIDEM'S PETITION FOR REVIEW

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August 28, 2008

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NPDES APPEAL No. 08-09

In re:

City of Attleboro, MA Department of Wastewater, Government Center, 77 Park Street, Attleboro, MA 02703 NPDES Permit No. MA0100595

Petition of Rhode Island Department of Environ-Mental Management

RESPONSE OF THE PERMITTEE, CITY OF ATTLEBORO, TO RIDEM'S PETITION FOR REVIEW

Pursuant to the Environmental Appeals Board's Order Granting Leave to Intervene and File Response to Petition, dated August 1, 2008, the permittee, City of Attleboro ("City") responds as follows to the Petition filed by the Rhode Island Department of Environmental Management ("RIDEM").

ISSUES PRESENTED

1. Did RIDEM fail to raise the issue below that it seeks to present on appeal?

2. Does RIDEM carry its burden of showing that Region 1 was arbitrary and capricious by presenting a few new data points, without a showing of relevance to the City's discharge and without accounting for time, distance, dilution and other natural explanations?

FACTS

Attleboro operates a municipal wastewater treatment plant known as the City of Attleboro Water Pollution Control Facility at 27 Pond Street in North Attleboro ("Facility" or "WWTP"). The Facility's NPDES permit, with limits and conditions, authorizes the City to discharge treated wastewater effluent from outfall 001 of the Facility in Attleboro to a receiving water named the Ten Mile River. The Ten Mile River then flows into Rhode Island and eventually empties into the Seekonk River, which is a marine water. Response to Comments ("RTC"), p. 6 n.5. The Seekonk River joins the Providence River, which discharges into the Narraganset Bay. <u>Id.</u>

Region 1 and MADEP jointly issued a proposed permit and fact sheet (Fact Sheet #1) on August 16, 2006, proposing limits under both the Federal Clean Water Act and the Massachusetts Clean Waters Act. RIDEM submitted comments on the proposed nitrogen limits and, as to metals, requested "support" for Region 1's use of a 100 hardness value for calculating effluent limits. Region 1's response provided the support. RTC at p. 43. RIDEM did not request lower effluent limits for metals.¹ On August 1, 2007, Region 1 and MADEP issued a revised draft permit, which reduced the phosphorus limit to 0.1 mg/l and issued a new fact sheet ("Fact Sheet #2"). On June 9, 2008, Region 1 and MADEP issued a new NPDES permit, to become effective on September 1, 2008.

ARGUMENT

I. RIDEM HAS NOT MET ITS BURDEN TO SHOW THAT THE ISSUES WERE RAISED BELOW.

RIDEM acknowledges its burden to raise issues at the Region 1 level. RIDEM petition, p. 10, citing 40 C.F.R. § 124.13. It is well settled that, where "issues were reasonably

ascertainable but were not raised during the public comment period on the Draft Permit, the

¹ The hardness comments appeared at the end of a long paragraph generally addressing background conditions of the receiving waters. The full extent of the hardness comments is: "In addition, EPA has utilized an in-stream hardness value of 100 mg/l to compute the water quality criteria for metals. This value is significantly higher than the values typically observed in RI waters and results in significantly higher water quality criteria than RIDEM would anticipate. Please provide information to support the use of this hardness value." RTC, C.1 at p. 41. EPA's response fully addressed this request. RTC, at p. 43.

issues have not been preserved for review by the Board." <u>In Re City of Marlborough</u>, 12 E.A.D. 235, 243 (2005).

Here, RIDEM acknowledges that it did not present to Region 1 the hardness data that it now seeks to present to the Board. RIDEM petition, p. 16, n. 3. It admits (at <u>id</u>.) that the data were available to Region 1. Yet, RIDEM did nothing to bring its *argument* to the attention of Region 1. The fact that Region 1's files may contain some data that RIDEM may feel warrants a different result is not enough to carry RIDEM's own burden of affirmatively commenting on its desire for a lower hardness number. In <u>Re Phelps Dodge Corp.</u>, 10 E.A.D. 460, 507 (EAB 2002) ("It is not our duty in an adversarial proceeding to comb the record and make a party's argument for it."). The appeal is not saved by the fact that RIDEM's 2007 and 2008 joint surface water sampling program data and sampling plan postdated, in part, the first comment period (but overlapped the second comment period). The problem is not the data, but in RIDEM's arguments.

In its comments to Region 1, RIDEM did not ask for a downward revision of the 100 hardness value. The issue of a new hardness value was "ascertainable," RIDEM itself claimed to have some undisclosed information on that very point in 2006. Its September 12, 2006 comments state that "values typically observed in RI waters" were less than 100, but RIDEM chose not to present any such data or to argue for any different hardness value based upon whatever data it claimed to have.

Instead, RIDEM raised only a general issue, asking EPA to provide information to "support" the 100 hardness value. It did not request collection of any new data, present its existing data or ask that the metals limits be held in abeyance until new data could be collected. Now, it seeks to revisit that hardness value by proposing a very substantially lower number,

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based upon subsequently collected data. Even the new data are described summarily, without context² That is not the same argument that RIDEM presented below. A comment seeking support for an input is not the same as a comment seeking more stringent limits. See, e.g. In Re City of Marlborough, 12 E.A.D. at 242-44 (a comment on the length of time an interim limit will be in effect does not preserve an appeal challenging the limit's stringency.). "[I]t is not sufficient for the petitioner to have raised a more general or related argument during the public comment period." In Re Scituate Wastewater Treatment Plant, 12 E.A.B. 708, 724 (2006) (citations omitted).

Moreover, there will always be new data, so validating RIDEM's approach would greatly undercut the need for finality and the primacy of EPA Regions. For all these reasons, the Board should deny RIDEM's petition for failure to raise the issue below.

II. RIDEM HAS NOT MET ITS BURDEN OF PRESENTING EVIDENCE SHOWING ANY ERROR BELOW.

In any event, RIDEM also has the burden of affirmatively showing that Region 1's analysis was arbitrary and capricious. It has failed to present any basis for such a finding.

A. Incompleteness/Insufficiency of Data and Analysis.

RIDEM's evidence is insufficient on its face. RIDEM offers only some data points. It presents no way to link those data to the City's discharges, which occurred at a different time and place. At a minimum, RIDEM can not make its data relevant to the City's plant without examination of the travel time, flow conditions and dilution factor³ between the time and place of

 $^{^2}$ The unfairness in RIDEM's argument is compounded by the near-certainty that, if the new data had supported a value in excess of 100, RIDEM would not have filed a petition.

³ The 1.4 dilution factor used by Region 1 to calculate permit limits only applied during 7Q10 conditions. RIDEM cannot legitimately apply this dilution factor unless it demonstrates that the facility's discharge actually occurred during 7Q10 conditions, instead of during conditions affording greater dilution. As shown in subsequent paragraphs of this response, the City's discharge takes weeks to reach East Providence. It is a non-sequitur to say that 7Q10 readings in East Providence reflect 7Q10 flows many weeks earlier in Attleboro. Trying to make that connection

the City's discharge and the date and location of the hardness readings. See 40 C.F.R. § 122.44(d)(1)(ii) (dilution must be considered). RIDEM was well aware of the failings of its analysis, because Region 1's RTC, p. 43, already pointed out the need to consider dilution in connection with a different point.⁴ Instead of doing the necessary analysis, RIDEM merely leaps to the conclusion that, if the data reflect 7Q10 conditions in Providence, the upstream discharge weeks earlier and miles away in another state must also have been under 7Q10 conditions.

RIDEM's unsubstantiated alternative theory (indeed, its non-sequitur), is not a basis for the EAB to entertain review. <u>In Re Town of Ashland Wastewater Treatment Facility</u>, 9 E.A.D. 661, 667 (EAB 2001). RIDEM cannot simply ask the EAB to assume without proof that the data from Rhode Island water bodies during 7Q10 conditions reflect the City's upstream discharges during 7Q10 conditions. That is particularly true where (as shown in part b below) Region 1's residence time calculations, general principles of science and the record show that discharges in Attleboro do not arrive in East Providence for many weeks or months, at which time the dilution factor greatly exceeds EPA's calculated number of 1.4.

RIDEM's data raise a lot of questions about the circumstances of collection and analysis, but RIDEM provides no answers. It has not presented even a prima facie case that discharges from the plant during 7Q10 conditions require lower metals limits than Region 1 imposed.

requires actual proof. Moreover, as shown below, the dilution from 250 hardness to 40 or 70 hardness is much greater than 1.4.

⁴ In RTC, p. 43, EPA notice that RIDEM "does not account for the dilutive impact of the Sevenmile River," which is similar to RIDEM's error here.

B. RIDEM's Conclusion Is Not Supported, In Any Event.

While the City need show only that RIDEM has failed to carry the burden of showing error, there is more, if the EAB even considers RIDEM's late-breaking data. ⁵ RIDEM's hardness readings *could not* result from Attleboro's discharge during 7Q10 conditions, unless one revises the 1.4 dilution factor -- which would result in fundamentally more lenient effluent limitations across the board.

First, the Plant's monitoring for the month of August 2007 showed a hardness of 250, which is within the range of normal readings for the City's facility. It is simply impossible for a plant to discharge effluent at a hardness of 250 in August, 2007 and for the receiving waters simultaneously to exhibit a hardness of 70 if the dilution factor is only 1.4; those two observations establish a dilution factor approximating 3.5. Yet, 1.4 is the dilution factor used for the 7Q10 conditions for permitting purposes in this proceeding and by RIDEM in its own Petition (at p. 17). RTC, p. 64. RIDEM's data therefore either do not reflect 7Q10 conditions *at the plant's discharge point* or the 1.4 dilution factor is inappropriate for purposes of applying the data. Either way, RIDEM has failed to support its petition. It is not arbitrary and capricious for Region 1 to discount an argument that lacks logical support and is internally consistent.

Second, there are logical and natural explanations for RIDEM's observations that provide no support whatsoever for lower metals limits for the Facility. RIDEM (Petition at p. 16) reports on the 7Q10 flow at East Providence, RI^6 and states that the August 21 and September 4, 2007 flows were equivalent to 7Q10. That says nothing about the flows upstream at the Facility. It takes a substantial amount of time for flows from the City's outfall to reach East Providence.

⁵ Attleboro presents the accompanying letter from CDM without waiving its right to argue that the EAB should not consider any new data. CDM's report and this part of the response are presented conditionally: if RIDEM can present new data, Attleboro must have the opportunity to rebut.

⁶ RIDEM's Petition provides no other data regarding any 7Q10 flow at any other time or place.

Among other things, flows from the City's discharge do not reach East Providence for many weeks (or months), as they pass through several ponds, reservoirs and other bodies, including the Turner Reservoir and Slater's Park pond.

The record already refutes the notion that the flows in August 21 and September 4, 2007 contained any recent discharge from the City's WWTP. EPA has provided residence times for the intervening water bodies. According to EPA's calculation, Turner Reservoir itself has a residence time of 42 days (a full six weeks) (See RTC, page 75) at 7Q10 conditions (nearly 10 days with average flows). Flowing through Slater's Park Pond and the river channel itself would also increase the overall travel time from Attleboro to East Providence. The flows on August 21 and September 4, therefore, include plant discharges at substantially earlier times (in earlier months). The dilution factor at that earlier time was obviously higher, because, mathematically, the values in East Providence are many times lower than the hardness of the plant's effluent.

Moreover, meteorological data provide an entirely natural explanation for the observations – one that is consistent with the irrefutable fact that substantial dilution (in excess of 1.4) occurred. As the attached comments from CDM show, there were substantial rains in the weeks and days before the August 21 and September 4, 2007 observations reported by RIDEM at p. 16. Those rains (coupled with flows in excess of 7Q10 at the time of discharge and water bodies along the way) are undoubtedly what diluted the hardness levels.

<u>Finally</u>, EPA's hardness number was too low, not too high. The City has discovered that, because of a data transcription error, the data that EPA relied on to justify the 100 mg/l hardness value were incorrect. The City's arguments for a higher hardness value were actually correct.

EPA used information from the Whole Effluent toxicity test report for August of 2004, which reported effluent hardness of 30, 130 and 130 mg/l on three different days of the test. The

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reported hardness values for the receiving water for those three days were 220, 220, 270. Usually, the values are reversed, with plant effluent being in the 200 plus range, and receiving waters being in the 100 or so range. When CDM and the City looked at the chemistry taken on the first day of the test, it observed that the effluent was actually someplace around 200 mg/l, and the river closer to 130 mg/l. Detailed chemistry is usually only run on the first day of the test period. It appears that two transcription errors occurred - the first one that reversed the effluent and receiving water values, and the second one that dropped the 1 in front of the 130. Correcting the numbers shows that EPA's hardness value of 100 is too low.

CONCLUSION

In short, RIDEM cannot support its appeal because (1) it did not raise the issues at the Region 1 level and (2) the incomplete data and self-contradictory analysis it presents do not show that Region 1 was arbitrary and capricious.

Respectfully submitted,

Douglas H. Wilkins Mass Bar No. 528000 Anderson & Kreiger LLP One Canal Park, Suite 200 Cambridge, MA 02141 Telephone: (617) 621-6580 Fax: (617) 621-6680

CERTIFICATE OF SERVICE

I hereby certify that on August 28, 2008, copies of the foregoing Response of the Permittee, City of Attleboro, to RIDEM's Petition for Review were sent to the following persons by first class mail, postage prepaid:

Carl Dierker Samir Bukhari Office of Regional Counsel U.S. EPA, Region 1 1 Congress Street, Suite 1100 Boston, MA 02114-2023

Susan B. Forcier, Esq. Department of Environmental Management Office of Legal Services 235 Promenade Street, 4th Floor Providence, RI 02908

Douglas H. Wilkins



One Cambridge Place, 50 Hampshire Street Cambridge, Massachusetts 02139 tel: 617 452-6000 fax: 617 452-8000

August 28, 2008

Mr. Paul A. Kennedy Superintendent Department of Wastewater Government Center 77 Park Street Attleboro, MA 02703

Dear Mr. Kennedy:

As you have requested, CDM has reviewed certain elements of the appeal filed by the Rhode Island Department of Environmental Management (RIDEM) concerning the NPDES permit issued by the Environmental Protection Agency to the City of Attleboro.

We have prepared comments with respect to this appeal, copies of which are attached hereto. Should you have any questions on these matters, please do not hesitate to contact me at 617-452-6246

Very truly/yours John J/Gall, Jr. Vide President

Vice President Camp Dresser & McKee Inc.

Comments of CDM

With Respect to the RIDEM Appeal

RIDEM has filed an appeal with the EAB seeking to have lower metals limits imposed on Attleboro. Their rationale is that observed data from 2007 argues for lower hardness than the 100 mg/l used by EPA, which would result in lower metals limits.

The analysis presented by RIDEM is incomplete and erroneous because it fails to evaluate certain critical conditions associated with the Ten Mile River. Specifically, RIDEM has not shown that the samples they are referencing in their appeal reflected low flow conditions.

We do not have the specific data RIDEM quotes. Based on their appeal we merely know that:

samples were taken seven times at eight different locations in the summer of 2007;

that the lowest reported value was 48.9 mg/l, but we do not know where or when this sample was taken; and

that hardness ranged from 70.2 to 94.7 mg/l on August 21 and September 4 of 2007, but we do not know where these samples were taken, or on which date the specific values were taken. (See RIDEM appeal at page 16).

Knowing the specific dates, time and location of each sample is important, because they waters that are sampled reflect conditions at the time of discharge. The time of discharge is not the same as the time of sampling. This is especially true of the Ten Mile River, where several ponds and reservoirs exist between the upper reaches of the watershed, where Attleboro discharges, and the lower reaches in East Providence where the USGS gage is located. These include the Turner Reservoir and Slater's Park pond. According to EPA's calculation, Turner Reservoir itself has a residence time of 42 days (See EPA response to comments, page 75) at low flows. Slater's Park Pond and the river channel itself would increase that time.

Thus, samples taken at East Providence at low flows, represent effluent discharged much earlier. The exact day when the discharge occurred reflects the actual flows in the period from the time of discharge and the time of the sample, the mixing that happens in the reservoir, the diminution in flows due to evapotranspiration and direct and indirect water withdrawals from the river/reservoir and associated connected groundwater.

The date of discharge of the sampled waters can be estimated through various techniques, none of which appear to have been applied by RIDEM. It is clear, however from the gage record and rainfall records from a nearby airport, that there were several significant rainfall events in this period that could have caused the low apparent hardness in the waters sampled. The rainfall provides additional flow which dilutes the hardness, and other pollutants in the Attleboro discharge.

Figure 1 presents a plot of the flow at the East Providence gage, observed precipitation at the airport in Pawtucket, RI and the dates of sampling mentioned in the RIDEM appeal.

RIDEM indicates that hardness values were in the range of 70 to 95 mg/l, while it is our position that the river hardness should be close to 200 at 7q10. The samples they have collected would equate to a hardness of 200 if the flow in the river was between 30 and 45 cubic feet per second (CFS). Looking backwards from the sample dates of 8/21 and 9/4, flows of 30 to 45 CFS are quite common. Thus, it is entirely plausible that the samples collected by RIDEM reflect discharge conditions at a time when the river was not a low flow conditions.



With Respect to Reported Hardness Values in August of 2004

In its response to comments, EPA advises that data from the August, 2004 whole effluent toxicity testing justifies the 100 mg/l hardness value used in the calculations of the metals limits contained in the permit. The whole effluent toxicity test report of August 2004 indicates that hardness in the effluent was 30, 130 and 130 mg/l respectively on days 0, 2 and 4. The Agency therefore discounts the City's contention that a higher value for in-stream hardness of 207 mg/l should be used, because of high effluent harness in the City's discharge.

However, the same report also indicated that the upstream receiving water values were 220, 270 and 270 mg/l on days 0, 2 and 4 respectively. These values are normally reversed, with the effluent being in the 220 to 270 mg/l range, and the upstream receiving water being lower. In order to verify the accuracy of these we calculated the hardness, based on the observed concentrations of calcium and magnesium. These

calculations indicated that the effluent hardness was 200 mg/l and the receiving water hardness was 130 mg/l. Based on these calculations, we concluded that the values as reported in the whole effluent toxicity report we transposed, and the reported receiving water values were actually the effluent values. We asked the laboratory who conducted the whole effluent toxicity testing to confirm our conclusions. They affirmed our conclusion that the effluent hardness on those days was likely to be 220, 270, and 270, respectively.

Accordingly, EPA has no basis for asserting that the August, 2004 data justifies the use of 100 mg/l hardness for the river, and the limits should be recalculated using a higher hardness.