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ENVIR. APPEALS BOARD

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September 10, 2007

By Federal Express

Eurika Durr, Clerk of the Board  
Environmental Appeals Board  
U.S. Environmental Protection Agency  
Colorado Building  
1341 G Street, N.W.  
Suite 600  
Washington, D.C. 20005

In re: NPDES Permit No. SC0039853  
Easley Combined Utilities, Petitioner  
Petition for Review

Dear Ms. Durr:

Enclosed for filing in your usual manner are the original and five copies of the subject Petition for Review, including an original and three copies of Exhibits. We appreciate your assistance in this matter.

Sincerely,

Richard H. Sedgley

Cc: Joel D. Ledbetter, P.E., General Manager  
Easley Combined Utilities  
F. Paul Calamita, Esq.

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**ENVIRONMENTAL APPEALS BOARD**

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

ENVIR. APPEALS BOARD

Easley Combined Utilities,  
Petitioner

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Civil No. \_\_\_\_\_

In re: NPDES Permit No. SC0039853  
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**PETITION FOR REVIEW**

In this matter, and pursuant to 40 C.F.R. 124.19, Petitioner Easley Combined Utilities requests that the Environmental Appeals Board review one provision of the subject NPDES Permit modified by the U.S. Environmental Protection Agency Region IV on August 8, 2007 ("Permit").

For its Petition Easley Combined Utilities states as follows.

1. Petitioner. Easley Combined Utilities ("Petitioner" or "Easley") is a governmental organization which owns and operates the Middle Branch wastewater treatment plant, a Publicly Owned Treatment Works ("POTW") in Easley, South Carolina. Easley filed comments on the draft NPDES Permit, as well as comments on prior informal versions of the draft. Exhibit A. Easley, as the permittee, is adversely affected by the NPDES Permit decision challenged herein because it will be subject to potential legal liability for any violation of the Permit condition challenged and will be

subject to additional expenses required for compliance with such condition, without resulting environmental benefit.

2. The NPDES Permit. Petitioner operates the Middle Branch POTW pursuant to and in accordance with NPDES Permit Number SC0039853. Exhibit B (excerpts).
3. Permit Modification. The NPDES Permit was modified as stated above. Easley received the final modified Permit by U.S. Mail on August 15, 2007.
4. Jurisdiction. This Petition for Review is pursuant to 40 C.F.R. 124.19.
5. NPDES Permit Condition Challenged. Easley petitions for review of one condition of the NPDES Permit, the Part I.A.3 requirement for "Additional Testing/Reevaluation Related to the Copper Water Effect Ratio (WER)." Easley raised the issue presented in its comments on the draft Permit.
6. The Water Effect Ratio. EPA's Water Effect Ratio procedure was developed because of concerns that the federal numeric water quality criteria for metals, and state water quality standards derived from the criteria, are in many site-specific cases substantially more stringent than necessary for the protection of water quality and designated uses. See Memorandum, Use of the Water-Effect Ratio in Water Quality Standards (EPA Feb. 22, 1994). Exhibit C (excerpt). Because of substantial experience with WERs for copper, EPA developed and published in 2001 its Streamlined Water-Effect Ratio Procedure for Discharges of Copper. Exhibit D (excerpts). The WER and the WER procedure involve testing in site water, and the derivation of a site-specific protective water quality standard through the use of a WER multiplier. EPA's own assessment of

the copper WER procedure is that it "provides a level of protection close to that intended for the criteria." Ex. D, App. C (Conclusion).

7. The Applicable Water Quality Standard for Copper. The South Carolina water quality standard for copper incorporates the WER procedure. South Carolina Department of Health and Environmental Control, Regulation 61-68, Appendix: Water Quality Numeric Criteria for the Protection of Aquatic Life and Human Health & fn Z. Exhibit E (excerpts).
8. Easley's WER. Easley commissioned a WER procedure for copper, which resulted in a recommendation for a WER multiplier of 7.051. Neither EPA, the South Carolina Department of Health and Environmental Control nor any other person questioned the accuracy of the WER determination or the WER multiplier. The WER procedure effectively provides in Easley's case copper water quality standards substantially higher than the unadjusted standards.
9. EPA's Application of the WER. Consistent with Easley's demonstrations and EPA guidance, the Regional Office concluded that there is no "Reasonable Potential" for water quality standards exceedance, and therefore there is no legal basis for Permit limits for copper. Thus, the prior copper limit was properly removed from the Permit. However, despite these conclusions, EPA wrongly included the Additional Testing/Reevaluation Related to the Copper Water Effect Ratio in the modified Permit. The effect of this condition would be to force Easley to redo the WER procedure if any of a number of circumstances enumerated by EPA were to occur. This requirement is both inappropriate

and unnecessary. Specifically, the challenged provision provides for separate tiers or "Levels" of effluent copper concentrations. As long as effluent copper remains less than or equal to 0.025 milligrams per liter ("mg/l") (monthly average) and 0.034 mg/l (daily maximum), no additional testing or reevaluation is required. However, it further provides for two Levels with additional requirements.

- A. Level I. If monthly average effluent copper is between 0.025 and 0.046 mg/l, or daily maximum between 0.034 and 0.061 mg/l, for two consecutive months, additional requirements are triggered. Those include (i) a reevaluation of whether changes may impact the WER, and a new WER testing series if EPA determines that conditions have changed such that they "might substantially impact the effluent," Permit Part I.A.3.b.i, and (ii) quarterly monitoring for five effluent parameters (believed to affect copper toxicity) and a new WER testing series "whenever these values decrease below the values that existed when the original WER was determined," Id. I.A.3.b.ii.
- B. Level II. If monthly average effluent copper is above 0.046 or daily maximum above 0.061 mg/l, (i) the reevaluation of I.A.3.b.i is triggered, but on an annual basis, (ii) the parameter monitoring of I.A.3.b.ii is triggered, but on a monthly basis, and (iii) a study of environmental fate of copper in the effluent is required. Id. I.A.3.c.

10. Legal Errors. There is no legal or factual basis under either federal or South Carolina law for the Additional Testing/Reevaluation Related to the Copper Water Effect Ratio provisions.

A. The Provisions Ignore the Fact that the Effective Water Quality Standard is the WER-Adjusted Value. As noted above, pursuant to the South Carolina water quality standards the WER-adjusted criteria are the site-specific numeric criteria applicable to the Permit and the receiving waters. The Regional Office correctly determined that there is no Reasonable Potential, 40 CFR 122.44(d), for water quality standards exceedance. Because there is no Reasonable Potential for water quality standards exceedance, there is no basis for water quality-based effluent limitations ("WQBELs"). Id. The Additional Testing/Reevaluation Related to the Copper Water Effect Ratio provisions are WQBELs, for which no legal basis exists.

B. No Distinction Between Copper and Other Parameters. Every NPDES permit is evaluated for a number of potentially toxic or otherwise harmful parameters, and the Fact Sheet reveals that this Permit was no different. For other metals and other chemical parameters for which there was no Reasonable Potential for water quality standards exceedance, no provisions comparable to the "Additional Testing/WER Reevaluation" provision for copper were imposed in the Permit. No valid distinction was claimed by the

Regional Office, and no valid distinction exists, to justify the different treatment for copper.

- i. For example, the pollutant lead is subject to numeric limits in the Permit. The state water quality standard for lead, like copper, is dependent on the instream parameter hardness. Ex. E. Although hardness and other instream variables that may affect the potential toxicity of lead will surely vary from those considered by the Regional Office, at other than low flow conditions, in determining the limits for lead, the Regional Office (correctly) did not attempt to require any reevaluation of lead. Exhibit F (EPA 1994 Fact Sheet) (excerpts).
- ii. By way of further example, the Permit process considered the potential toxicity of other metals (chromium, cadmium) and determined that no Reasonable Potential existed for water quality standards exceedance. Id. Although hardness or other instream variables that may affect the potential toxicity of other metals will surely vary from those considered by the Regional Office in determining that no Reasonable Potential existed, the Regional Office (correctly) did not attempt to require any mid-Permit term reevaluation based on any changes in such variables.

C. Effluent Data Even at the Level I and II Concentrations Would Not Justify the Permit Provisions. The WER documents and Easley's

comments demonstrated that if there had been Reasonable Potential for water quality standards exceedance (which there was not), the proper Permit limits under EPA's regulations would have been approximately 0.064 mg/l (monthly average) and 0.084 mg/l (daily maximum). Ex. A (Easley Mar. 6, 2007 comment letter). Permit limits, by definition, are designed to be protective of water quality. Because the effluent Level I and Level II concentrations imposed as triggers for WER reevaluation are all substantially below these safe concentrations, the reevaluation requirements are clearly unnecessary and inappropriate. Ex. A (Easley Apr. 13, 2007 comment letter).

D. EPA Guidance Does Not Provide a Valid Basis for the Challenged Provisions. Although the Fact Sheet correctly notes EPA guidance comments concerning possible WER reevaluations, that guidance is not properly applied here to require the reevaluation. Under South Carolina law the WER procedure is not an exception to water quality standards applicability. Rather the standard itself is an initial value multiplied by the calculated WER. Water quality standards are a unique state responsibility under the Clean Water Act, and these standards are duly adopted and formally approved by the U.S. EPA. Accordingly, there is no legal basis for EPA to now second-guess the approved water quality standards and Permit processes through this unnecessary reevaluation procedure. Rather, permit reissuance is the permit issuing authority's



opportunity to evaluate or reevaluate Reasonable Potential for water quality standards exceedance. EPA has done that. Easley has provided substantial data on which that evaluation was based, and there is no basis for any reevaluation during the brief (24 month) period remaining before this Permit will again be up for reissuance. At that time, EPA will again have the right to consider Reasonable Potential for copper and the myriad other parameters that may be limited in NPDES permits.

- E. Comparable Regional Office-Issued NPDES Permits do not Include a WER Reevaluation Provision. On information and belief, EPA has not imposed WER reevaluation requirements in other similarly situated NPDES permits. Moreover, we are not aware of any other permit which requires a WER reevaluation in response to interim changes in the data inputs supporting the WER result. Even if such a reevaluation were appropriate (and it is not), it makes no sense here where EPA would require a reevaluation based upon any change in the input data, even where such a change is clearly non-significant to the determination that no copper limit is warranted. For example, Easley's NPDES permit for its Georges Creek facility has recently been reissued. Based on a copper WER nearly as high as the Middle Branch WER (6.468), the South Carolina Department of Health and Environmental Control correctly concluded that there was no Reasonable Potential for a water quality standards exceedance and removed the copper limits.

There is also no WER reevaluation condition. There are no factors distinguishing the two permits adequate to justify the different treatment. The Regional Office Fact Sheet response that “many NPDES permits in South Carolina . . . have copper limits even when there is no [R]easonable [P]otential to exceed the WER-adjusted water quality standard” is not relevant. Exhibit G (EPA Amendment to Fact Sheet) (excerpts). For this Permit, there is no legal basis for the challenged provisions.

- F. No Water Quality Need. As noted above, part of the challenged provision includes analyses for five water quality parameters believed to affect the potential toxicity of copper. The Permit would require additional biological testing and a WER recalculation if any of five water quality parameters (hardness, pH, etc) were to fall below (apparently by any amount) the values used in the WER study. Consistent with EPA guidance, the WER study was based on a 7Q10 critical low receiving water flow mix. Non-7Q10 conditions will present an even less critical water quality condition. The combination of critical low receiving water flow mix and the already very conservative factors used for the five variables in the WER procedure make any reevaluation completely unnecessary. In response to Easley's earlier comments the Regional Office made a complex argument about instream flow dilutions and the purported need for new WER test series. Exhibit G. Irrespective of the presence or absence of a WER, water chemistry clearly

changes when instream flow changes. However, both EPA guidance and practice correctly consider that the critical conditions are at minimum instream flow/minimum mixing. No alternative evaluations or calculations are performed at higher than minimum flows in non-WER situations, and none are required in WER applications. See Technical Support Document for Water Quality-Based Toxics Control sec. 5.4.1 (EPA) ("This procedure [the standard procedure for evaluating Reasonable Potential and setting permit limits when necessary] provides a mechanism for setting permit limits that will be toxicologically protective . . . .") Exhibit H (excerpts).

- G. A Claimed Regional Office "Policy" Does Not Provide a Legal Basis for the Challenged Provisions. The Fact Sheet notes that it is Region IV "policy" to minimize WERs "by setting an effluent limit based on past performance." Ex. G. Effluent limits for POTWs are predicated on either secondary treatment or limits necessary to prevent exceedance of water quality standards. Effluent limits for copper would be neither, and WQBELs in the form of the reevaluation procedure as a substitute for numeric copper limits are simply not authorized here by EPA's NPDES regulations.
- H. A Large Recurrence Interval for the Triggering of the Challenged Provisions Does Not Provide a Legal Basis for the Provisions. In the Fact Sheet the Regional Office claims that there is a small likelihood of these challenged WER reevaluation provisions being triggered by

future copper levels in the Middle Branch effluent. The high quality of the Easley Middle Branch effluent argues against WER reevaluation provisions, rather than for such provisions because of the extremely small predicted chance that the Level I or II thresholds would be triggered. This shows these requirements are not necessary – consistent with the finding of no Reasonable Potential for any copper limit. In any event, the Regional Office's point provides no legal basis for the challenged provisions.

- I. Monitoring Authority Does Not Provide a Legal Basis for the Challenged Provisions. Finally, the Regional Office Fact Sheet cites general monitoring authority. That authority is properly exercised in Permit Part I.A.1 for monthly monitoring of effluent copper concentration. It provides no legal basis for a WER reevaluation requirement.

11. Conclusion. Because EPA's national water quality criteria for copper, and the derivative South Carolina water quality standards, are far more stringent than necessary, Easley was recently forced to spend approximately \$20,000 on a WER procedure. The WER was conducted pursuant to EPA guidance, and resulted in a recommended water quality standard WER or multiplier for copper of 7.051. This WER is high enough that the effluent data demonstrated no Reasonable Potential for instream water quality standards exceedance. Despite the showings made, the procedures and conclusions of which the Regional Office has not questioned, the Regional Office nonetheless has imposed an expensive

and unnecessary reevaluation procedure. As outlined above, there is no basis in law for the challenged Permit provision. Accordingly, for the reasons stated herein, the modification by EPA of the Permit with the challenged provision was based on findings of fact and conclusions of law that were clearly erroneous. Accordingly, Easley prays that the Environmental Appeals Board grant its Petition for Review.

Respectfully submitted,

Richard H. Sedgley/mwa  
Counsel for Petitioner

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**CERTIFICATE OF SERVICE**

I certify that on this 10<sup>th</sup> day of September, 2007 I delivered the Petition for Review with five copies and Exhibits with three copies by Federal Express to U.S. Environmental Protection Agency, Clerk of the Board, Environmental Appeals Board, Colorado Building, 1341 G Street, N.W., Suite 600, Washington, D.C. 20005.

Richard H. Sedgley / mwa

Counsel