June 25, 2001

Mr. Tom Wall
Ms. Deborah Nagle
Cooling Water Intake Task Force
Office of Science and Technology
c/o Cooling Water Intake Structure (New Facilities)
Proposed Rule Comment Clerk (Docket #W-00-03)
Water Docket (Mail Code 4101)
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: U.S. EPA's *Notice of Data Availability* for the Proposal to Regulate Cooling Water Intake Structures for New Facilities, pursuant to § 316(b) of the Clean Water Act
(66 Fed. Reg. 28,853; May 25, 2001) [Docket Number W-00-03]

Dear Mr. Wall and Ms. Nagle:

The Office of the Chief Counsel for Advocacy of the U.S. Small Business Administration (the "Office of Advocacy") was established by Congress in 1976 pursuant to Pub. L. 94-305 to represent the views and interests of small businesses in Federal policymaking activities. The Chief Counsel participates in agency regulatory actions when she deems it necessary to ensure proper representation of small business interests.

The Office of Advocacy has reviewed the U.S. Environmental Protection Agency ("EPA" or "the Agency") *Notice of Data Availability* ("NODA") for the proposal to regulate cooling water intake structures for new facilities pursuant to § 316(b) of the Clean Water Act, published in the *Federal Register* on May 25, 2001 (66 Fed. Reg. 28,853). The proposed rule would establish national requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities. The proposed national requirements are intended to minimize adverse environmental impacts associated with the use of these structures.

We provided comments on the proposed rule to EPA on November 9, 2000. We remain concerned that the rule could impose substantial compliance costs on small businesses and other entities, particularly those involved in manufacturing and the co-generation and other power generation sectors, without demonstrated reductions in environmental risks. We are pleased, however, that EPA appears to be looking at a number of issues, some of which are discussed in the NODA, that could, if implemented, go a long ways towards reducing significantly the burdens of the rule on small businesses and other entities while still reducing the risk of adverse environmental impacts from intake structures.

1. The Rule's Proposed Applicability Thresholds Are Not Adequately

Supported or Justified by the Scientific Information in
the Record and Could Impact a Substantial Number of Small Entities.

We continue to support the approach of applying the new facility cooling water intake structures rule only to facilities that exceed minimum intake flow thresholds, since facilities with larger intake flows are more likely to cause adverse environmental impacts if left unregulated. However, we remain concerned that EPA has not provided an adequate justification for its current choice of thresholds. This is particularly disturbing because the rule's basic 2 million gallons per day ("MGD") applicability threshold could capture many more small businesses than EPA's analyses suggest, including small businesses in sectors not specifically considered by EPA.

For example, the Agency did not specifically consider the food products, rubber and plastic products, fabricated metal products, and electrical equipment and components manufacturing sectors, each of which contains thousands of small businesses. (*See* U.S. Census Database for 1997, *Employer Firms, Employment and Estimated Receipts by Employment Size of Firm*.) Many of the small businesses in these industrial sectors are or could become significant users of cooling water, and therefore could become subject to this rule.

Furthermore, the recent shortages in electric power generation capacity and fuel (*e.g.*, gasoline and diesel fuel) supplies in this country could change the outlook for new facilities and trigger the construction of more new power generation and fuel refining facilities than projected by the Agency. A significant number of these new facilities could be developed by small businesses, including small developers of co-generation and other independent power projects and small refiners. Many of these small businesses are or could become significant users of cooling water, some of which could become subject to this rule. Moreover, depending on the economics of the recycling segment of the paper products industry over the next ten to twenty years, a number of new facilities could be built by small businesses. Several of these small businesses could be significant users of cooling water, some of which also could become subject to this rule.

Moreover, the significant costs associated with complying with the rule could erect a competitive barrier to small business by deterring new small businesses from entering into business activities that would require the use of cooling water in amounts above the thresholds. Alternate sources of water, including from public water systems or groundwater, also frequently are costly and do not provide for small businesses a feasible alternative to the use of surface water sources. In light of the inadequate evidence showing adverse environmental impacts at the low intake flows proposed, discussed in detail in our November 9, 2000 comments, we believe the thresholds can and should be increased to minimize the rule's potential burdens on small business entities.

EPA proposed setting the basic applicability threshold at 2 MGD to ensure that almost all cooling water withdrawn from surface waters nationwide is covered by a national regulation. However, EPA's primary focus for the proposed rule appears to be on regulating major new facilities with substantial cooling water withdrawals. Virtually all of the information on

environmental impacts relied on by EPA in the rulemaking materials continues to be associated with major power plants with water intake flows substantially greater than the current 2 MGD size threshold.

We continue to believe the Agency should adjust the rule's basic 2-MGD applicability threshold to at least 10 MGD. Furthermore, based on the information reviewed to date, we believe that a threshold set at 25 MGD for facilities on somewhat larger waterbodies (for example, where intake flows do not exceed 10% of a stream's 7Q10 flow, 10% of the mean annual volume of a lake or reservoir, or 10% of the volume of the water column near an intake in a tidal river or estuary, as proposed by earlier commenters) would be appropriate. A 25 MGD threshold still would cover a very high percentage of total estimated cooling water withdrawal flows.[1]

EPA should not set a lower threshold without first substantiating, through sufficient, credible scientific studies and other information, that the risk of adverse environmental impacts is substantial at intake flow levels immediately above the threshold level in question. A threshold should not be set based merely on conjecture, on extrapolations or scaling down from some high flow conditions, or on some other unsubstantiated assumptions.

Additionally, EPA should not adopt the 1% of mean annual flow or volume threshold it is contemplating because the Agency has provided no evidence that this level is needed to eliminate a problem. On the other hand, if there is evidence that a higher flow or volume threshold would solve a problem, a flow or volume threshold set at the higher level should be considered.

Moreover, EPA should adopt an absolute minimum flow threshold (such as 100,000 gallons/day, or higher, of water used for cooling purposes), in conjunction with the percentage of waterbody flow or volume threshold, to ensure that smaller new facilities located on fairly small waterbodies are not subjected to excessively stringent national standards. Smaller facilities should be addressed on a case-by-case basis, only where needed, with any requirements specifically tailored to reflect site-specific conditions.

Finally, new facilities with intake structures not subject to this rule because they fall below the rule's applicability thresholds should not be considered cooling water intake structures for 316 (b) regulatory purposes. Such facilities should not be automatically subjected to case-by-case 316(b) determinations because they presumptively would not pose a substantial risk of adverse environmental impacts. Individualized 316(b) determinations might be considered only in those few instances where there are unique circumstances providing a reasonable basis for a permit authority to conduct an evaluation.

2. EPA Should Define a Cooling Water Intake Structure Where at

[1] EPA's justification for the 2 MGD threshold in the notice of proposed rulemaking is that it captures 99.97% of all cooling water flows. However, according to the Agency's figures, a 25 MGD threshold is equally supportable, since it captures 99.1% of the flows (less than a 0.9% difference), according to the rule proposal.

Least 50% of the Withdrawn Water is to be Used for Cooling Purposes.

Section 316(b) of the Clean Water Act is aimed at regulating intake structures that withdraw *cooling* water, *not process* water. However, EPA currently is proposing to define a cooling water intake structure as any structure where as little as 25% of the withdrawn water is used for cooling purposes. Hence, many facilities, including small businesses, that use surface water predominantly for *process* purposes would be subjected to the requirements of this rule that is supposed to regulate *cooling water* intake structures only. The Agency has solicited comment in the NODA on the appropriateness of this 25% threshold figure.

It is not clear what or how much adverse environmental impact associated with cooling water withdrawals would be eliminated by such a standard. However, it is clear that this standard could affect a significant number of small businesses. Again, this threshold figure appears to be set specifically to capture a significant number of facilities by the rule, rather than to focus on eliminating demonstrable environmental harm.

We continue to believe EPA should define a cooling water intake structure as it did in the Agency's 1976 final rule and 1977 guidance, where at least 50% of the withdrawn water is to be used for cooling purposes. A 50% threshold would be more consistent with the jurisdictional basis and purpose of § 316(b), namely, regulating *cooling* (*not* process) water intakes. Furthermore, a 50% threshold still would capture half of the manufacturing facilities, based on an extrapolation of the Agency's preliminary data from the existing facilities questionnaire, and still would capture a substantial majority of all cooling water flows.[2]

3. The Percentage Use Threshold Should Exclude Withdrawn Water Used for Both Process and Cooling Purposes.

Many facilities use withdrawn water in varying proportions over time for process versus cooling purposes. Furthermore, industrial facilities often preheat process water with energy captured from operations inside the facility. A common way of doing this is to run the water through a steam condenser to transfer heat to the water and then use it for other for process purposes. Moreover, some facilities use process water to perform subsequent cooling functions. Such practices conserve both water and energy. If such uses of water would constitute a "cooling water" function for purposes of applicability of the § 316(b) standards, then in some cases facilities would be compelled to cease these practices, with substantial adverse environmental and energy consequences.

For example, industrial facilities would need to separate their cooling water from their process water to meet the standards for cooling water intake structures, with the result that they would lose the benefit of recovering waste heat for process purposes. Moreover, the lost heat

[2] It is anticipated the estimated half of manufacturing facilities that would be removed from coverage by the rule with a 50% threshold would account for considerably less than half of the total cooling water withdrawal flows from manufacturers. (The Agency should confirm this figure in the questionnaire database.) Moreover, according to figures used by the Agency, manufacturing accounts for less than 10% of total cooling water withdrawal flows. Based on the foregoing, a 50% threshold would remove only a small percentage of cooling water flows from regulation, and the vast majority of cooling water flows would remain regulated.

that was going into the process water use would result in the increased burning of fossil fuels to make up for the additional heat required. This burning of additional fossil fuels would result in other adverse environmental impacts such as higher air pollutant emissions and creation of greenhouse gases. It also would adversely affect energy resources and use by forcing small businesses and other entities to incur the cost of using additional expensive energy resources unnecessarily. These unintended consequences to the environment and energy resources are negative and should be considered in the evaluation of adverse environmental and energy impacts under this rule.

It is unclear how the rule's percentage use threshold would be applied at facilities where intake water is used in varying proportions over time for cooling versus process purposes, or where water may be used initially as cooling water and subsequently reused as process water in the plant. It is also unclear how the percentage use threshold would be applied at facilities that use withdrawn water only intermittently for cooling purposes (*e.g.*, for makeup water).

EPA needs to clarify how the percentage use threshold would be applied at facilities which use withdrawn water in varying proportions over time for process versus cooling purposes. The percentage of use should be defined in terms of a long term average use at the facility, for example, an annual average. Where water is used initially as cooling water and subsequently reused as process water in the plant, or vice versa, such water should be excluded from the definition of cooling water, since it also serves a "process water" function. Moreover, water used both as cooling water and process water in the plant should not be counted against the minimum flow threshold (discussed above in Comment 1), but should be subtracted out of the plant's total intake flow for purposes of determining applicability of such threshold to the plant.

The Agency should encourage facilities to reuse water, because of the environmental and energy advantages of reusing such water and capturing what would otherwise, in many instances, be wasted energy.

4. EPA Needs to Provide a Reasonable Definition of "Adverse Environmental Impact" in the Rule.

The proposed rule does not define "adverse environmental impact" ("AEI"). As a result, it is impossible to evaluate whether the technology-based approach proposed by the Agency in the rule would minimize AEI at new facilities. However, we applaud EPA's apparent efforts, as discussed in the NODA, to develop a realistic and reasonable definition of AEI.

A reasonable definition of AEI needs to be provided in the rule so that there is a definitive endpoint for determining the efficacy of proposed requirements. Adverse environmental impact should take into account effects on the entire population of the aquatic community, and consider seasonal and natural variability and other appropriate site-specific conditions.

5. Facilities Should Be Given the Option of a "Two-Track Approach."

We support, in principle, a two-track approach along the lines of the proposal provided by the Utility Water Act Group. This approach would allow regulated entities to agree to either *(i)* a set of specified controls in exchange for certainty of getting § 316(b) approval ("Track 1," a so-called "fast-track" alternative), or *(ii)* demonstrating, through site-specific studies, that their intakes are not causing AEI, potentially leading to a less stringent set of requirements ("Track 2").

A regulatory approach like this could provide flexibility to regulated entities. The controls to be specified under the "fast-track" alternative need to be protective, yet set at a sufficiently reasonable level, to make this a realistic alternative. It also should free a facility up from having to conduct potentially very time-consuming and costly site-specific environmental impact studies. Similarly, the site-specific studies that would be required under the second alternative would need to be sufficiently reasonable, to make this a realistic alternative as well.

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In summary, we believe it is appropriate for the Agency to provide minimum intake flow thresholds in the rule. If appropriately established, thresholds could provide significant relief for small businesses and other entities while also being protective of the environment. The thresholds as currently contemplated, however, are not supported or justified by the scientific information on which the Agency is proposing to base the rule, and thus could impose substantial compliance costs on entities without any demonstrable evidence of environmental risk. EPA should consider increasing the basic threshold to at least 10 MGD, with a threshold set at 25 MGD for facilities on somewhat larger waterbodies. The Agency also should consider setting a flow or volume threshold at an appropriate level only if there is evidence that a flow or volume threshold would solve a problem. Moreover, at least 50% of the intake water flow should be for cooling purposes. Such thresholds are more in line with the available scientific information.

Finally, EPA needs to consider the environmental and energy implications of the standards and technologies the Agency selects for the final rule. Certain technologies and requirements under consideration could require significant energy consumption, and also result in higher air pollutant emissions and creation of greenhouse gases.

Sincerely,

/s/

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/s/

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