

### **Provisions of the Proposed 316(b) Rule That Should Be Retained:**

- **No Mandate for Closed-Cycle Cooling** – The proposed rule does not mandate the installation of closed-cycle cooling technology at all existing facilities. We agree with EPA that the use of closed-cycle cooling is not a nationwide solution.
- **Plant Upgrades & Replacements Treated as Existing Facilities** – The proposed rule treats plant upgrades and repowered and replacement units as existing facilities rather than as new units. We agree with this approach because treating upgrades and repowered/replacement units as new units would discourage efficiency improvements and effective environmental compliance measures at existing sites.
- **Flexibility in Addressing Entrainment** – The proposed rule provides substantial flexibility in addressing entrainment issues by delegating this authority to state permitting agencies, including the ability to consider various site-specific and cost-benefit factors when determining BTA. State decision-making that evaluates site-specific conditions with the effectiveness of the proposed entrainment solution is appropriate, and the rule must ensure that the cost of any technology approach is justified when compared to the benefits.

### **Aspects of the Proposed Rule That Need to be Improved:**

- **Site-Specific Review** – The final rule should allow site-specific review of impingement, as it does with entrainment. Plant owners must be able to propose—and permitting authorities to approve—measures that are feasible and appropriate at a given site, taking into account progress already made and particular site characteristics such as fish and shellfish species composition, type of ecosystem, and physical geography.
- **Pre-Approved Technologies** – The final rule should provide a suite of impingement reduction technologies that EPA considers protective. It should allow plant owners simply to adopt any one of the impingement technologies, thereby complying with the rule's requirements as long as the technology is properly operated and maintained without the need for ongoing biological monitoring or other such measures. It is important to recognize that the basic requirement of 316(b) is to install and operate the EPA-approved intake technology.
- **Alternative Technology** – The final rule should also allow plant owners to propose alternative technology that would perform comparably to the pre-approved technology, in terms of I&E impacts, in the event that pre-approved technologies are not technically feasible or cost-effective.
- **Definition of Closed-Cycle Cooling** – The final rule should adopt the definition for closed-cycle cooling in the current Phase I rule that applies to new facilities and the original Phase II rule so that existing facilities do not have more burdensome requirements than new facilities as they do under the proposed rule. The final rule should not include any quantitative requirements relating to cycles of concentration and flow reduction in the definition of closed-cycle cooling, which currently excludes many plants that have long been considered to have closed-cycle cooling. Also, the definition should not exclude facilities that involve cooling ponds that are waters of the U.S. Equally important, the rule should acknowledge that facilities that rely on ponds or impoundments created for purposes of providing cooling water to and treating waste heat from a generating system may properly be classified as recirculating cooling systems. Although a requirement that facilities minimize make-up and blowdown, taking into account the design of all affected plant systems and all relevant operating conditions would be appropriate, establishing minimum requirements for cycles of concentration for existing facilities is inappropriate.
- **Closed-Cycle Cooling Should Satisfy Requirements for I & E** – The final rule should reflect that closed-cycle cooling, while not required, should be considered BTA for both I&E and should not require plants with closed-cycle cooling to meet additional impingement requirements.
- **Joint Consideration of I & E** – The final rule should allow I&E to be considered together, rather than forcing early, separate action on impingement. An implementation schedule should be proposed by the permittee and approved by the state permitting agencies that allows for the full consideration of I&E requirements and solutions. This will help to ensure that the most efficient measures are adopted at each facility recognizing the interplay between I&E measures.

- **De-Minimis Effects Relief** – The final rule should not require any new impingement measures if the number of fish or biomass impinged annually is less than a number determined to represent *de minimis* level of environmental impact. State permitting authorities are in the best position to establish this *de minimis* level taking into account threatened or endangered species (“species of concern”).
- **Cost-Benefit Relief** – The final rule should allow plant owners to demonstrate that particular entrainment or impingement technology is not cost-beneficial at a given site (e.g., the technology will cost more than the ensuing benefits). The final rule must ensure that states select entrainment or impingement technologies where the social and economic costs are justified by the social and economic benefits. Costs shall include facility incremental capital costs and O&M costs.
- **Aim for Maximum Net Benefits** – The final rule should specify that permitting authorities must not knowingly impose impingement or entrainment requirements whose costs exceed their benefits, and when faced with more than one option whose benefits exceed costs should select the one that provides maximum net benefits.
- **Infeasibility Relief** – The final rule should not require plant owners to install impingement or reduction technologies that are not feasible at their sites, given local space, permitting, and environmental constraints.
- **Treatment of New Units** – EPA should treat new units the same as other existing facilities, rather than holding them to a higher “90% of closed cycle” (entrainment) requirement.
- **Facilities on Ocean, Estuarine or Tidal Waters** – The final rule should allow for a site-specific review of additional shellfish measures that are warranted, feasible and appropriate, taking into account the shellfish species, technology, ecology, geography and other factors. The barrier net requirement to reduce shellfish mortality on oceans and tidal rivers is unnecessary and poses safety concerns as nets could become dislodged during storm events and possibly enter the intake system. It should be deleted.
- **Entrapment & Carryover** – The requirement to equate and count any fish or shellfish carried over traveling screens and removed as debris as mortality is overly restrictive and, in most instances, impossible to perform. It should be deleted. The proposal’s requirement that there be no “entrapment” – that is, fish or shellfish not impinged but resident in a pond, lake, basin, or forebay must be provided some return system to the source water body – is not always practical or desirable and therefore should be deleted.

#### **Other Improvements:**

- A reasonable schedule should be provided that allows facilities to design, install and test technologies before compliance is actually required. Also, if there is no evidence of population-level impacts on fish and shellfish, states should be encouraged to use existing data and to presume no further documentation is necessary unless specific situations dictate otherwise.
- The velocity standard as written contains requirements that the limit be met under all conditions and does not allow for short-term exceedences resulting from uncontrollable situations such as flushing of debris from the screens. The criteria also mandate that no more than 15 percent of the intake opening can be blocked. These conditions are virtually impossible to control for or accurately measure and should be deleted.
- If the current new unit language is retained, then new units at existing facilities should use “design” flow rather than “actual” flow when demonstrating that flow is commensurate with closed-cycle cooling, if EPA insists on closed-cycle cooling for “new units.”
- The requirement that entrainment characterization studies include a detailed and protracted peer review process is unnecessary and should be deleted. State permitting authorities have the right to consult with any entity they choose in making its BTA decision.