SECTION 316(B) RULE FOR COOLING WATER INTAKE STRUCTURES

WHAT IS THE RULE?

Section 316(b) of the Clean Water Act states that existing power generating facilities and other industrial facilities that withdraw more than 2 million gallons per day from waters of the United States, and use at least 25 percent of the water they withdraw exclusively for cooling purposes, must employ the best technology available (BTA) for minimizing harmful impacts to organisms in the water.

WHAT IS THE NEED FOR THE RULE?

Due to the withdrawal of cooling water from surface waters, aquatic/marine life can forcefully collide with intake screens or be drawn into cooling systems. Most cooling water intake structures employ a 3/8-inch mesh screen to prevent debris from entering cooling systems. Smaller organisms that cannot overcome the currents of water, such as fish eggs and larvae, can pass through the screens and be drawn into the cooling systems. Larger fish can become trapped on the screens due to the force of water. Physical stress associated with impingement and entrainment can kill the organisms.

Organisms can become impinged on water intake screens or drawn into the cooling systems, causing physical stress or mortality. The Section 316(b) Rule says facilities must use the best technology available to minimize impacts to organisms in the water.

WHAT MUST I DO FOR COMPLIANCE WITH THE RULE?

- Determine if your existing technology meets applicable BTA standards
- Work with states on potential reporting waivers
- Establish compliance schedule with states
- Develop and submit applicable 122.21(r) reports, describing the biological communities in the area, the facility and cooling water system, existing compliance measures and the proposed compliance approach

The 316(b) rule presents a number of alternatives for meeting the national BTA standard for impingement. These include pre-approved technologies, streamlined alternatives, and a provision for new or innovative approaches. With respect to entrainment, the EPA chose not to prescribe a single national standard, but, instead, requires states to establish BTA requirements on a site-specific basis. Also, some facilities may presently employ BTA and the states have flexibility to waive some or all of the requirements.

HOW CAN FREESE AND NICHOLS HELP?

Freese and Nichols' experience with water resources projects dates back to our founding in 1894. Our extensive water infrastructure and water intake expertise is coupled with a team of award-winning professionals, whose experience in addressing impingement and entrainment issues is unmatched.

Our team has assisted dozens of electric utilities in negotiating the rule requirements, including more than 30 facilities in Texas, Oklahoma, Louisiana and Arkansas. Our unique combination of expertise in water intake engineering, environmental science and permitting enables us to provide seamless support for this potentially complex rule.

Freese and Nichols' Coastal Restoration and Planning Team has more than 60 years of combined experience in coastal engineering, geosciences and ecology services. By addressing shoreline protection, habitat assessment, grant applications, agency regulations and more, we guide our clients through every step to meet their coastal-related needs.

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Freese and Nichols, Inc. is a professional consulting firm serving clients across the Southwest and Southeast United States. With sustainability in mind, Freese and Nichols plans, designs and manages infrastructure projects. It is the first engineering/architecture firm to receive the Malcolm Baldrige National Quality Award.

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