

Cooling Water Intake Section 316(b) Compliance



Each cooling water intake structure strategy must uniquely reflect individual facility and client objectives – Tetra Tech delivers tailored, cost-effective solutions that support operational goals for each client.

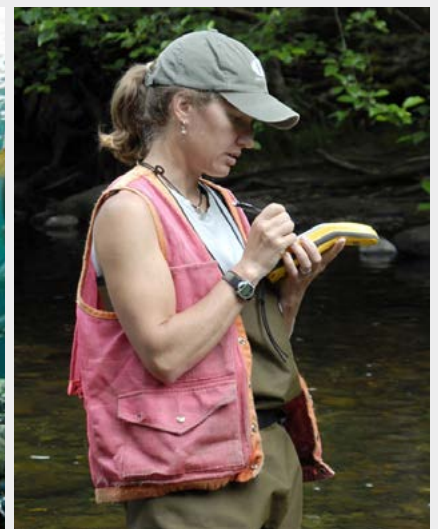
Tetra Tech offers a team of Section 316(b) experts knowledgeable and experienced in a broad range of federal, state, and local agency regulatory requirements nationwide. Our Section 316(b) regulatory experience combined with a long history of supporting power generating facilities benefits our clients. This support to power generators has

included data collection, fish sampling, engineering design, compliance strategy development, and permitting.

We are uniquely staffed and positioned to offer a balanced and comprehensive approach. We understand not only the challenges our clients face at their facilities, but also the perspective of federal and state regulatory agencies. This unique perspective provides a beneficial understanding to assist our clients with navigating the rule requirements to achieve successful, cost-effective compliance.

U.S. EPA has finalized regulations establishing requirements for cooling water intake structures under Section 316(b) of the Clean Water Act. Electric generation and manufacturing facilities that withdraw more than 2 million gallons per day for cooling purposes will be required to implement, through the NPDES permit program, the best technology available (BTA) to reduce the impact on fish and other aquatic organisms from impingement (organisms trapped against intake screens) and entrainment (organisms flowing through the intake screens) at their facilities.

The Tetra Tech Section 316(b) team can work directly with you to understand your operational needs, evaluate potential strategies, and position your facility to achieve success under the new rules. Whether your strategy is for early action or a more deliberate approach allowing for minimal change while assessing a range of alternatives, Tetra Tech can provide practical input and effective implementation to meet your goals.



Tetra Tech is a leading provider of consulting, engineering, program management, construction management, and technical services. The Company supports commercial and government clients by providing innovative solutions to complex problems focused on water, environment, energy, infrastructure, and resource management. With 13,000 employees worldwide, Tetra Tech's capabilities span the entire project life cycle.

Section 316(b) of the Clean Water Act Services

Tetra Tech provides a full menu of services to identify and implement an effective facility strategy.

Strategic Compliance

Tetra Tech's 316(b) team has expertise not only in a full understanding of the rule, but also overall NPDES compliance, understanding how facilities operate, and identifying particular needs and constraints. Our multidisciplinary 316(b) team can develop effective strategic compliance options while delivering solutions that meet local concerns, taking advantage of existing conditions to minimize study and/or technology costs.

Services: • Regulatory strategy • Permitting and scheduling • Identification of site-specific constraints • NPDES/SPDES applications • Agency coordination

Biological and Laboratory Support

Tetra Tech has full in-house expertise to provide the range of biological support services, including sampling at and in the vicinity of cooling water intake structures. With field staff and laboratories in multiple states, Tetra Tech works with our clients to determine critical needs and design programs that balance agency expectations with operational requirements.

Services: • Sample plan and design • Data collection and analysis • Water quality sampling and analysis • Benthic surveys • Fishery assessments • Plankton collection and analysis • Fisheries population modeling and analysis • Verification monitoring

Engineering and Design

Our engineering and design experts are nationally recognized in the field of cooling water flows, closed cycle cooling, and flow rates. In addition, our experts are partnering

with nationally known cooling water intake experts to develop innovative approaches to cooling water solutions.

Services: • Closed-cycle system evaluations • Impingement and entrainment reduction technologies • Site-specific technical review and analyses of engineering options and constraints • Cooling system retrofit options design • Site-specific capital cost estimate guidance for cooling system retrofits

Economic Assessments

Tetra Tech provides our clients the most cost-effective solutions in fulfilling compliance with the rule. We offer a variety of economic assessments on a site-specific basis to support once-through cooling system modifications or consideration of a site for closed-cycle cooling.

Services: • Cost-benefit evaluations and strategic assessments of alternative compliance options • Benefit evaluation studies • Communications with agencies and stakeholders

Stakeholder Management and Expert Witness Testimony

Tetra Tech's 316(b) team frequently facilitates public meetings to help resolve conflict. Whether providing consulting advice or working in a full-service capacity directly with the general public and regulatory agency staff, we focus on understanding concerns, cooperating with all stakeholders, and achieving positive outcomes.

Services: • Expert witness testimony • Public meeting facilitation • Conflict resolution • Stakeholder communications • Community relations and surveys • Scoping/comment response • Administrative record compilation

Ahead of the Curve

- Experts in the 316(b) rule with demonstrated knowledge of regulatory requirements and engineering solutions.
- Depth of resources and geographic coverage ensuring national competence and local delivery.
- "One-stop shop" to satisfy any 316(b) challenge, including: NPDES/ SPDES permitting, sampling design, biological monitoring, engineering design, economic analyses, and compliance option evaluations.
- Consistent high quality and financial strength to stand behind large projects.

Company Facts:

- 13,000 employees
- Annual revenue: \$2.5 billion (FY2014)
- NASDAQ Symbol: TTEK
- Geographic reach: More than 300 offices worldwide

For more information:

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