

YOUR GUIDE TO SECTION 316(b) OF THE CLEAN WATER ACT

On May 19, 2014, Section 316(b) of the Clean Water Act was finalized by the United States Environmental Protection Agency (EPA). The rule regulates the mortality rates for fish and aquatic life that encounter cooling water intake structures at existing power plants, industrial sites, and manufacturing facilities.

The ruling requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impacts: impingement and entrainment.

Section 316(b) applies to roughly 1,065 electric power plants, chemical manufacturers, and petroleum refiners in the United States that withdraw at least 2 million gallons of cooling water per day (mgd) and use at least 25% of that water for cooling purposes.

Traveling water screens equipped with fish buckets, a low-pressure wash, and a fish handling and return system minimize adverse environmental impacts caused by once-through cooling water systems. **The EPA concluded that the best technology available (BTA) for minimizing impingement mortality was “modified traveling screens,”** and specifically noted in the rule that Hydrolox™ screen designs have “shown promise in reducing impingement mortality.” Hydrolox screens qualify as a BTA based on criteria (5) and (7) listed in the following excerpt from Section 316(b) of the Clean Water Act.

BTA Standards for Impingement Mortality for Existing Units at Existing Facilities

The final rule requires that existing facilities subject to this rule must comply with one of the following seven alternatives identified in the national BTA standard for impingement mortality:

1. Operate a closed-cycle recirculating system;
2. Operate a cooling water intake structure that has a maximum through-screen design intake velocity of 0.5 fps;
3. Operate a cooling water intake structure that has a maximum through-screen intake velocity of 0.5 fps;
4. Operate an offshore velocity cap;
5. Operate a modified traveling screen that the Director determines meets the definition and that the Director determines is the best technology available for impingement reduction;
6. Operate any other combination of technologies, management practices, and operational measures that the Director determines is the best technology available for impingement reduction; or
7. Achieve the specified impingement mortality performance standard.

316(b) MILESTONES

2018

Compliance is tied to NPDES renewal:

- If permit expires before July 14, 2018, may request an alternate schedule for submitting data.
- If permit expires after July 14, 2018, submit appropriate “r” studies with application.

May 19, 2014

EPA issues final §316(b) affecting existing facilities withdrawing more than 2 mgd.

2011

EPA issues proposed §316(b) rule affecting existing facilities withdrawing more than 2 mgd; EPA accepts comments from interested parties.

2010

California and New York issue policy statements making closed-cycle cooling the §316(b) benchmark technology.

2007

§316(b) Phase II Rule Remanded – Best Professional Judgement Reinstated

2006

§316(b) Phase III Rule Enacted – Offshore Oil and Gas Facilities

2004

§316(b) Phase II Rule Enacted – Large Existing Electric Generating Plants

2001

§316(b) Phase 1 Rule Enacted – New Facilities

1972

Enactment of Clean Water Act §316(b)

Hydrolox Screens: Designed for 316(b) Compliance

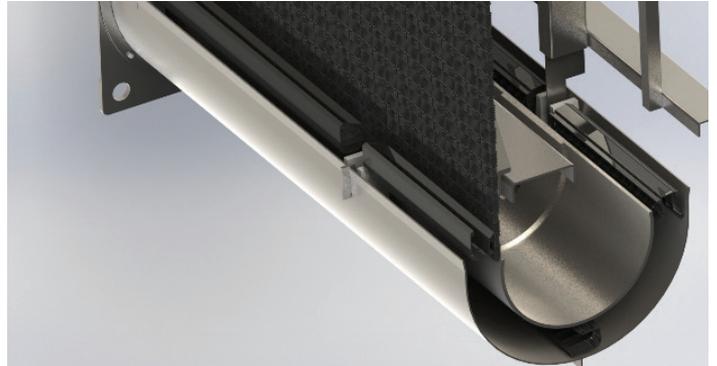
1. Unique cantilevered head section ensures accurate fish delivery.
2. Ristroph-style fish collection bucket complies with regulations.
3. Innovative design allows 24/7 operation as needed.
4. Patented boot seal with static shoe prevents aquatic life and debris from entering through bottom of screen.
5. Full-width, chainless positive drive system reduces risk of catastrophic failure and decreases O&M costs.
6. Proprietary tensioning system with take-up arm actively maintains correct screen tension. Deck-level indicator eliminates guesswork and related maintenance.
7. Optimized spray bars virtually eliminate debris carryover.
8. Smooth, impact-, and abrasion-resistant surface is fully sealable along the sides, less likely to bio-foul, noncorrosive, and easy to clean.

In addition to being 316(b) compliant, Hydrolox traveling water screens are the only engineered polymer chainless screens that provide long-lasting, cost-effective, and virtually maintenance-free performance. Backed by expert project management and industry-leading warranties, Hydrolox screens address the needs of water-extracting facilities across all industries.

Contact Hydrolox for more information on how these innovative solutions can help with your compliance needs.



Ristroph-style fish collection bucket complies with regulations.



Patented boot seal prevents aquatic life and debris from entering through bottom of screen.



Full-width, chainless positive drive system reduces risk of catastrophic failure.



Optimized spray bars reduce debris carryover.

North America, 301 Plantation Road, New Orleans, LA 70123, Toll Free: 1-866-586-2825
Europe, Lemelerbergweg 31A, 1101 AH Amsterdam, Netherlands, Toll Free: 00800-3344-5544
info@hydrolox.com