



# Cook Legacy April eNews

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Cook Legacy eNews is an email newsletter intended to provide our clients and friends with news and insight. Our focus is to provide helpful tips and useful guides on the issues we encounter most frequently. Please [let us know](#) if you would like to see a specific topic covered.

Featured In This Issue:

## Where Are We Going? — EPA 316(b) Regulations

We're taking the next few issues of the Cook Legacy eNews to examine where some of the markets we work in are headed. On March 28, the U.S. Environmental Protection Agency (EPA) proposed regulations under section 316(b) of the Clean Water Act. The regulations set standards for cooling water intake structures regarding the protection of fish and other aquatic organisms. Under the proposed regulations, power plants would have to prevent entrainment and impingement of fish as water is withdrawn from nearby rivers and lakes. The EPA has not identified a single end-of-pipe technology because every plant and body of water is different. However, velocity reduction is mandated by the rule. Where they fit, wedge wire screens are an effective solution because of their fine mesh and hydrodynamic design. Cook Legacy's passive intake screens are a technology-based solution for 316(b) compliance.



Tim Masty is at the fore of new and expanding markets at Cook Legacy. In this first installment of the series, we'll talk with Tim about EPA 316(b) regulations.

**Randy Surface:** What is at the heart of the 316(b) rule?

**TM:** It's as simple as "don't kill fish." Basically the plants need to draw water into their facilities without impingement or entrainment of fish.

**RS:** What does 316(b) practically mean for plant operators and engineers?

**TM:** The biggest impact is that they're going to have cleaner water without killing fish. But the issue for some of these plants is that some of them are old and antiquated. They have to update their equipment to comply with the new rule regarding intake velocity. How they do that is very dependant on water depth and if navigable waterways are in play. Determining what is the best for those plants will be done on a case-by-case basis. Plants are looking for ways to comply with the rule. We will design and try to keep it economical for them.

**RS:** What makes Cook Legacy particularly equipped for helping with 316(b) compliance?

**TM:** There are two reasons from my standpoint. One is that we have experience building cylindrical and flat wedge wire screens. This is a good solution to the issue. And second, we've been involved on the front end of the rule — talking to people involved and working with these engineering firms and power plants. Even when the things were quiet, we were involved with 316(b).

**RS:** Can you give me some background on Cook Legacy's history with the rule?

**TM:** Well it's not a new rule. There has been movement at various points over the past 40 or so years. For instance, we were visiting a power plant in Detroit, MI back in 2004. We walked into the plant and they said "You're just in time. We have to adhere to 316(b)." Then the rule got caught up in the courts.

**RS:** So what's the status of the rule now?

**TM:** It's been through the courts and it's back alive again. There are about 1260 power plants that are affected by the rule. More than half of those are probably fine because they already made modifications due to process reasons.

**RS:** What are the "process reasons" that modifications have already been made?

**TM:** Some plants have said "We want to handle all this debris." Then they implement wedge wire screens. That reduces velocity and they're compliant.

**RS:** What's next for the plants that haven't already taken steps toward compliance?

**TM:** Well, to some degree we'll have to wait until the rule is in effect, but there are some smart things we can be doing now. Once the final rule is enforced, it is a simple matter to see if wedge wire screens fit. We can help with that process even now.

**RS:** So, what is Cook Legacy doing in regard to the rule currently?

**TM:** Because of our knowledge of 316(b), we offer several services to help with conceptual design at sites including conceptual modeling, Pro Forma TIOP (Technology Installation Operation Plans), and hydrodynamic zone of influence studies. We want to keep educating potential customers who will be effected by the 316(b) Rule, but also work with engineering firms so they are ahead of the game when the rule takes effect. They might know about the ruling, but we want to say "We're here to help with this."

Thank you,

Featured Product:

## Cook Legacy Intake Screens

Cook Legacy's intake screen design relies on a synthesis of Computational Fluid Dynamics (CFD), physical modeling, and mechanical calculators to determine the quantity and dimensions of screen components based on performance factors. Cook Legacy Intake Screens combines these to design and build intake screens for efficiency, safety, and flexibility.

- **Efficiency** - Cook Legacy intake screens don't have the operating costs associated with mechanical screens such as power supply and maintenance. Their wedge wire construction allows for maximum filtration.
- **Safety** - Cook Legacy screens are fish-friendly and comply with environmental regulations including EPA 316(b).
- **Flexibility** - The screens can be installed in a variety of locations, such as offshore or even in a bulkhead at the end of existing vertical traveling screen canals.

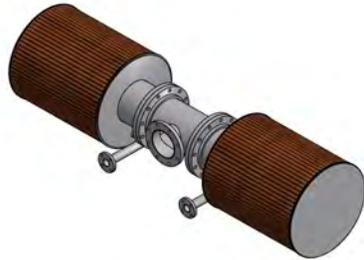


When coupled with Jacquelyn Coating™, an AirBurst System, or an IceBreak™ deicing system, Cook Legacy screens make for a powerful intake solution. If you have a question that Cook Legacy can help with, [contact us](#).

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Case Study:

## Suction Screens for Automatic Fire System Services



Automatic Fire System Services, Inc. (AFSS) located in Missoula, MT, approached Cook Legacy with a special design requirement for a suction screen application. The screen needed to meet specifications required by NFPA-13 and NFPA-20 standards to supply a fire pump that will serve a multimillion dollar generator for a Hydro Dam project.

AFSS faced the daunting challenge of meeting the code requirements as well as the search in finding a specialized vendor that could easily handle the task of designing and constructing this specialized type of suction screen.

"I faced many obstacles and opposition from most of the screen builders who did not want to run the risk of liability for this type of application. The specifications required an added air blow-off feature. The engineering for this type of screen was not easily resourceable. I am very thankful that Cook Legacy and their team came through with the engineering on this project. They are very helpful and reasonably priced in a volatile material market," said Steve Stirm, owner of AFSS.

Cook Legacy's screens provided simple, cost-effective, long-lasting, and low-maintenance solutions for the fire pump application. As screen requirements for NFPA continue to come into focus, Cook Legacy has the ability to engineer water solutions for this and other screen applications and types. If you have a problem that Cook Legacy can help with, please [contact us](#).

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