



American Iron and Steel (AIS) Requirements for SRF and WIFIA projects



Clean Water
State Revolving Fund

AIS Construction Materials

April 21, 2021

2:30 PM EST

Presented by

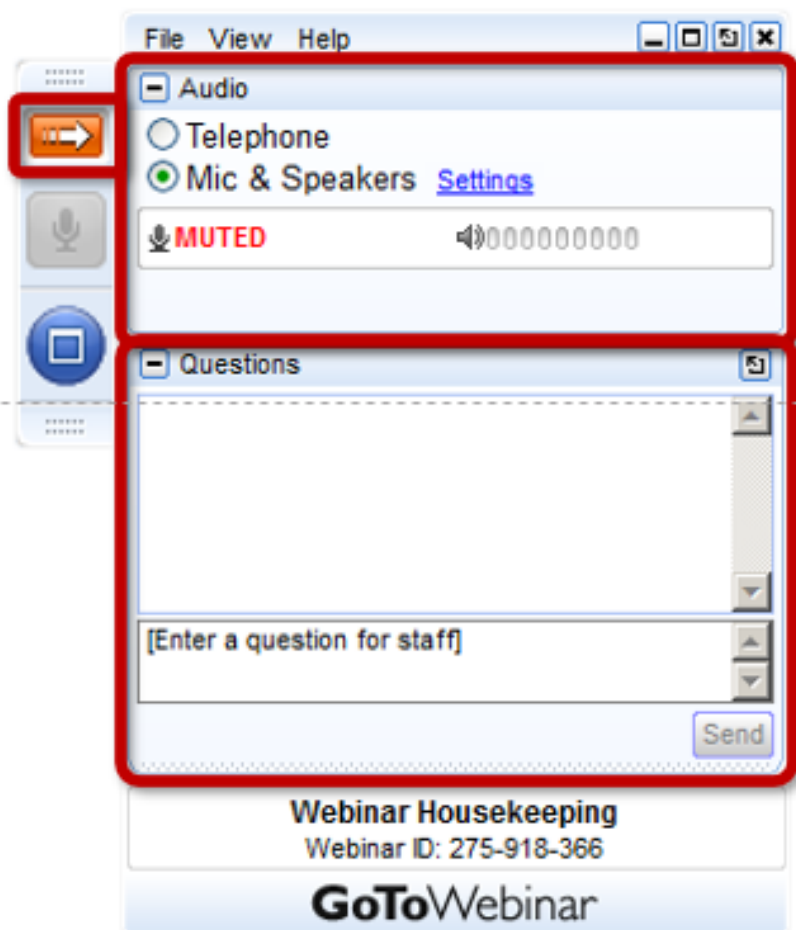
U.S. EPA



Training Logistics

- Presentation by EPA staff and Contractors:
 - Dallas Shattuck, DWSRF Team, shattuck.dallas@epa.gov
 - Tim Connor, CWSRF Team, connor.timothy@epa.gov
 - Derek Sullivan, Cadmus Group
- Questions addressed after the presentation.
- Slides will be posted on EPA's website.

Webcast Logistics



File View Help

Audio

Telephone

Mic & Speakers [Settings](#)

MUTED 0000000000

Questions

[Enter a question for staff]

Send

Webinar Housekeeping
Webinar ID: 275-918-366

GoToWebinar

Your Participation

Join audio:

- Choose **Mic & Speakers** to use VoIP, OR
- Choose **Telephone** and dial using the information provided

Submit questions and comments via the **Questions** panel.

EPA staff will be responding to your written questions throughout the Webcast.

Presentation Topics

- Background
- AIS Requirements
- Listed Products
- What are “Construction Materials”?
- Construction Materials Examples
- Non-Construction Materials
- Non-Construction Materials Examples
- Key Takeaways
- AIS Resources



Background – What is AIS?

- ◎ The "American Iron and Steel" provision requires assistance recipients to use iron and steel products that are produced in the United States for the construction, alteration, maintenance, or repair of a public water system or treatment works (Consolidated Appropriations Act of 2014 P.L. 113-76)
- ◎ The term “iron and steel products” means products made primarily of iron or steel that are permanently incorporated into the project.

Background – AIS Timeline



**AIS Requirement for
CWSRF and DWSRF
Programs**

**Consolidated
Appropriations Act 2014**
Effective through FY 2014

January 17, 2014

**Permanent - AIS Requirement
for CWSRF & WIFIA Programs**

**Water Infrastructure Financing
and Innovation Act and
Water Resources Reform and
Development Act**

June 10, 2014

**Extended AIS
Requirement for DWSRF
Program through
September 30, 2023**

**America's Water
Infrastructure Act 2018**

October 23, 2018

Listed Products Covered by the AIS Requirement

- ◉ Lined or unlined pipes and fittings
- ◉ Manhole Covers
- ◉ Municipal Castings
- ◉ Hydrants
- ◉ Tanks
- ◉ Flanges
- ◉ Pipe Clamps and restraints
- ◉ Valves
- ◉ Structural Steel
- ◉ Reinforced precast concrete; and
- ◉ Construction materials

What are “Construction Materials”?

- Construction materials are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems.
- Some of these products may overlap with other listed products such as “structural steel”.

What are “Construction Materials”?

- ⦿ All construction materials greater than 50% iron or steel by material cost must comply with AIS.
- ⦿ Q&As 21 and 22 of 2014 [AIS Implementation Memorandum](#) provide a list of example products that would be covered by (or excluded from) the AIS product category “Construction Materials.”

Construction Materials, Specific Examples

Access ramps

Aeration pipes and fittings (separate from aeration/blowers)

Baffle curtains

Bar

Bathroom stalls

Beam clamps

Cable hanging systems

Clarifier tanks

Concrete reinforcing bar, wire, and fibers

Condensate sediment trap



Construction Materials, Examples Continued

Decking

Digester covers

Dome structures

Door hardware

Doors

Ductwork

Fasteners

Fencing and fence tubing

Fire escapes



Construction Materials, Examples Continued

Flap gates

Framing

Generic hanging brackets

Grating

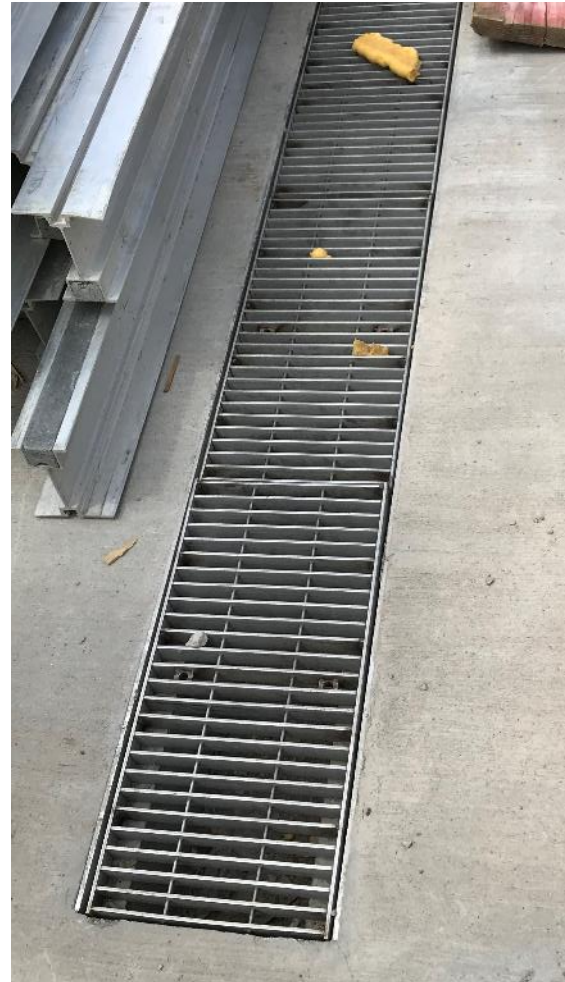
Guardrails

HVAC registers, diffusers, and grilles (non-mechanical)

Ladders

Lifting hooks, J-bar, connectors within, and anchors for concrete

Lockers



Construction Materials, Examples Continued

Manbasket/personnel platform

Manhole steps

Non-mechanical (aka stationary) louvers/dampers

Overhead rolling door/uplifting door (manual open, no motor)

Pipe hangers

Pipe supports

Pitless adaptors

Pre-fab steel building/shed (simple structure, unfurnished)



Construction Materials, Examples Continued

Railings

Roofing

Service saddles

Sinks

Stairs

Static mixers (non-motorized mixers)

Stationary screens

Surface drains

Tapping sleeves



Construction Materials, Examples Continued

Tipping bucket

Tubing

Valve stems, including extensions and brackets (excluding handwheels, actuators and support structures)

Wall panels

Wall sleeve/floor sleeve

Welding rods

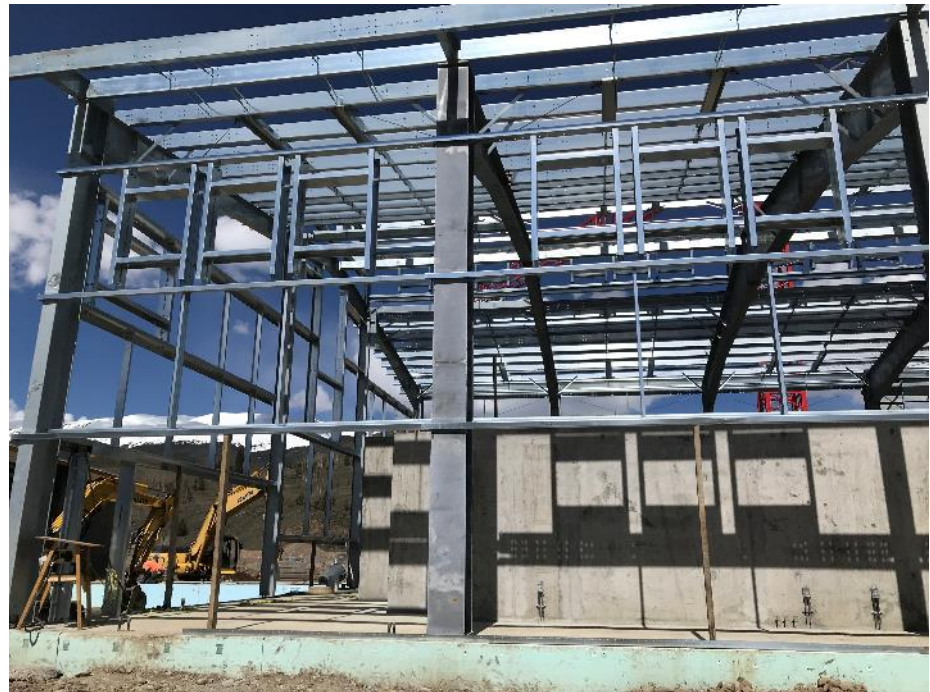
Well casing and screens

Wire

Wire cloth

Wire rod

Wire rope and cables



Non-Construction Materials

- ⦿ Mechanical and electrical components, equipment and systems are not considered construction materials.
- ⦿ Mechanical equipment is typically that which has motorized parts and/or is powered by a motor.
- ⦿ Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

Non-Construction Materials, Specific Examples

Actuator support structures

Aeration nozzles and injectors

Aerators

Analytical instrumentation

Analyzers (e.g., ozone, oxygen)

Automated water fill stations

Blowers/aeration equipment

Boilers, boiler systems

Chemical injection quill

Chemical injectors

Clarifier mechanisms/arms

Compressors

Controls and switches



Non-Construction Materials, Specific Examples

Conveyors

Cranes

Desiccant air dryer tank

Dewatering equipment

Dewatering roll-offs

Disinfection systems

Drives (w/VFDs)

Electric/pneumatic/manual valve operators (actuators)

Electrical cabinetry and housings

Electrical conduit

Electrical junction boxes

Electronic door lock

Elevator systems (hydraulic, etc.)

Emergency life systems (e.g., eye wash stations, emergency showers, fire suppression systems)



Non-Construction Materials, Specific Examples

Exhaust fan

Fall protection anchor points

Filters (and appurtenances)

Flocculators

Fluidized bed incinerators

Galvanized anodes/cathodic protection

Gear reducers

Generators

Geothermal systems

Grinders

Heat exchangers

HVAC (excluding ductwork)



Non-Construction Materials, Examples Continued

HVAC louvers, intake and exhaust
grates, and dampers (mechanical
appurtenances)

Instrumentation

Laboratory equipment

Ladder fall prevention system

Ladder safety posts

Lighting fixtures

Lightning and grounding rods

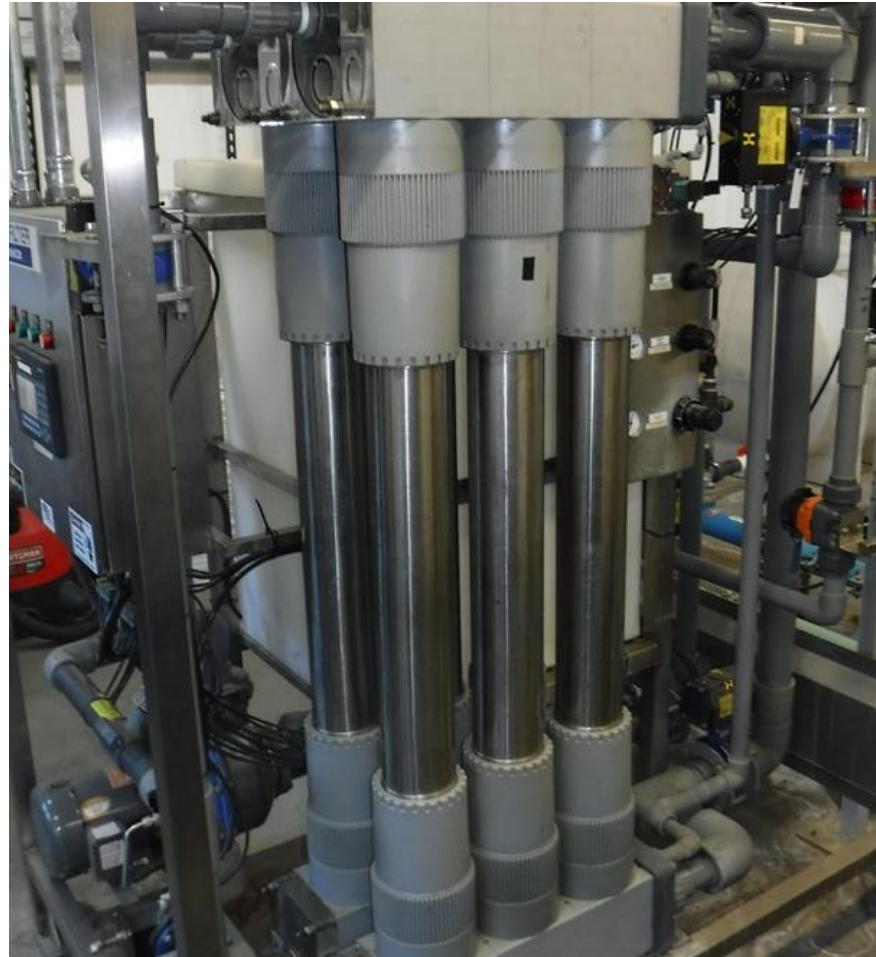
Membrane bioreactor systems

Membrane filtration systems

Metal office furniture

Meters (including flow, wholesale,
water, and service connection)

Motorized doors (unit)



Non-Construction Materials, Examples Continued

Motorized mixers

Motorized screens (traveling screens)

Motors

Pelton wheel

Pipeline flash reactors (injectors)

Plate settlers

Precast concrete without steel reinforcement

Presses (including belt presses)

Pressure gauges

Pump cans/barrels and strainers

Pumps

Rakes

Safety climb cable



Non-Construction Materials, Examples Continued

Sampling stations (excluding hydrants)

Scrubbers

Sensors

Sequencing Batch Reactor (SBR)

Shelving

Slide, sluice, and weir gates

Spray header unit

Steel cabinets (interior/furniture)

Supervisory control and data acquisition (SCADA)

Tracer wire

Voltage transformer

Water electrostatic precipitators (WESP)

Water heaters



Key Takeaways

- ◎ [EPA's 2014 Implementation Memo](#) provides examples of construction materials. This list is not exhaustive.
- ◎ Generally, these are iron or steel products permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems.
- ◎ Non-construction materials are mechanical and electrical components, and may have motorized parts, be powered by electricity, or part of the electrical distribution system.
- ◎ State and EPA contacts are available to assist during implementation of SRF-funded projects.



Where can I find EPA AIS resources?

- Website: <http://www.epa.gov/cwsrf/state-revolving-fund-american-iron-and-steel-ais-requirement> (Or just search “SRF AIS”)
- Website Contents
 - Guidance: Implementation memorandum and subsequent Q&A documents to assist SRF recipients in complying with AIS requirements
 - Training Materials
 - Waivers: Information about project-specific and national waivers, and the waiver process



Clean Water
State Revolving Fund



American Iron and Steel (AIS) Requirements for SRF and WIFIA projects

THANK YOU!

AIS Questions:

- SRF_AIS@epa.gov

EPA AIS website:

<http://www.epa.gov/cwsrf/state-revolving-fund-american-iron-and-steel-ais-requirement>