

Guidance Document Number 29 American Iron and Steel

Authority:

The Water Resources Reform and Development Act (WRRDA) of 2014 amended the Clean Water Act to require that all CWSRF funded and co-funded projects meet American Iron and Steel Requirements (AIS). Additionally, language in the Appropriations Acts since 2014 require AIS compliance for DWSRF funded and co-funded projects. EPA provides AIS guidance on its website at: <https://www.epa.gov/cwsrf/state-revolving-fund-american-iron-and-steel-ais-requirement>. A table of products requiring AIS is included at the end of this document.

The following is a description of recommended best practices, organized topically, to assist all affected parties with compliance with Federal AIS requirements.

ENGINEERING DESIGN REQUIREMENTS AND BEST PRACTICES:

1. In design, engineers must specify required products from manufacturers that are AIS compliant in both the plans and the specifications.
 - a. Read the FAQs about AIS available through the EPA website to understand what products require AIS compliance.
 - b. Check to see if there are any waivers available for products that are difficult to source as AIS compliant. Be mindful of any expiration dates associated with the waivers.
 - c. Contact AIS staff at EPA Headquarters (SRF_AIS@epa.gov) if there are items that you may be having a hard time finding compliant manufacturers. Be sure to copy FED engineering staff assigned to your project.
 - d. Identify products that may be problematic in advance and seek approval for their use or find alternative products.
 - e. Apply for waivers through FED engineering staff assigned to your project as soon as it is known that a waiver may be needed.
2. In design, determine lead times on items to determine if there are critical path components with long procurement periods.
 - a. Specialty valves and large sized valves have been problematic across the country.

ENGINEERING CONSTRUCTION REQUIREMENTS AND BEST PRACTICES:

1. At pre-bid meeting, loan recipient, engineer of record, and FED construction engineer need to discuss AIS compliance requirements and any issues like lead times, waiver requirement process, etc.
2. At pre-construction meeting/contract signing, engineer of record should provide a listing of needed AIS manufacturing certifications to the FED construction engineer for tracking purposes for compliance.
3. Engineer of record must collect AIS manufacturing certifications. We recommend that certifications are collected concurrently with shop drawing submittals for all covered products so that no approvals are made for non-

complying products. Check to make sure that certifications meet the manufacturing certification requirements (below).

4. In construction, keep a copy of the submittal log available at all times on site in the event that the project is field audited by state or federal SRF staff for AIS compliance.
5. Give a complete copy of the submittal and certification log to the loan recipient in the event they are audited after the fact at project completion.
6. Do not approve the installation or payment for items that are non-compliant.
7. If fraud, waste, abuse or any violation of the law is suspected, FED and the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-888-546-8740 or OIG_Hotline@epa.gov. More information can be found at the [OIG Hotline website \(http://www.epa.gov/office-inspector-general/epa-oig-hotline\)](http://www.epa.gov/office-inspector-general/epa-oig-hotline).

CONTRACTOR BEST PRACTICES

1. Obtain and submit product certifications for all AIS material products to the Engineer of Record as part of the shop drawing process, even when there are no submittal requirements for the product otherwise.
 - a. Example: fasteners, door and window hardware, and other seemingly incidental items
 - b. Note: Many manufacturers require that AIS certification is required on the original purchase order to receive the certifications.
2. Keep an ongoing list of all material costs for the project as well as any product receipts, certifications, and waivers. You will need these if the project uses the *de minimus* waiver, or if you are audited. Make this list available to the loan recipient and the engineer of record.
3. Read the FAQs about AIS available through the EPA website to understand what products require AIS compliance.
4. Do not assume that waivers are available or easy to get.
5. Do not install non-compliant components unless a waiver has been approved.
6. Check to make sure that AIS certifications meet the certification requirements (below).
7. Keep open communication on procurement issues and long lead times and associated schedule issues with the loan recipient and the engineer.
8. The Association of General Contractors publishes additional information related to best practices for this and other similar requirements.
9. If a noncompliant item is installed without a waiver in place, you may be required to remove the item and/or be subject to other penalties.
10. Contractor should provide AIS Manufacturers' Certifications and materials list with each pay request.

LOAN RECIPIENT BEST PRACTICES

1. Keep copies of all project related documents in the event that you are audited for compliance.
2. Do not accept installation of noncompliant items unless there is a waiver in place and do not approve the installation or payment to the contractor for items that are noncompliant.
3. Seek any waivers as early as possible.

4. Project completion certificate cannot be issued until the project is AIS complaint.
5. If a noncompliant item is installed without a waiver in place, you may be required to remove the item and/or be subject to other penalties.

AIS CERTIFICATION REQUIREMENTS

There are five requirements for each AIS certification:

1. What is the product? The certification should list the specific product(s) delivered to the project site.
2. Where was it made? The certification should include the name of the manufacturer and the location of the foundry, mill, or factory where the product was manufactured listing the City and State. The manufacturing location listed should not be the company headquarters.
3. To whom was the product delivered? The certification should include the name of the project and the jurisdiction where the product was delivered.
4. Signature of a company representative.
5. A statement that the product meets all AIS requirements.

If you have questions about AIS certifications contact Chris Rottler: Chris.Rottler@Vermont.gov.

VERMONT FED REQUIREMENTS & BEST PRACTICES

1. FED Financial Management Staff must include specific AIS contract language in the SRF loan agreement.
2. FED Staff should conduct site visits of projects during construction and review documentation demonstrating proof of compliance.
3. If a potentially non-compliant product is identified, the FED Staff should notify the loan recipient of the apparent unauthorized use of the non-domestic component, including a proposed corrective action, and should be given the opportunity to reply. If unauthorized use is confirmed, the FED Staff can take one or more of the following actions: request a waiver where appropriate; require the removal of the non-domestic item; or withhold payment for all or part of the project. Only EPA can issue waivers to authorize the use of a non-domestic item. EPA may use remedies available to it under the Clean Water Act, the Safe Drinking Water Act, and 40 CFR part 31 grant regulations, in the event of a violation of a grant term and condition. It is recommended that FED work collaboratively with EPA to determine the appropriate corrective action, especially in cases where the FED is the one who identifies the item in noncompliance or there is a disagreement with the assistance recipient. If fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-888-546-8740 or OIG_Hotline@epa.gov. More information can be found at this website: <http://www.epa.gov/oig/hotline.htm>.

Water Infrastructure

FINANCING PROGRAMS

CLEAN WATER STATE REVOLVING FUND (CWSRF)
DRINKING WATER STATE REVOLVING FUND (DWSRF)

Products Requiring AIS Compliance

Iron or Steel Products: Lined or unlined pipes or fittings; Manhole Covers; Municipal Castings (defined in more detail below); Hydrants; Tanks; Flanges; Pipe clamps and restraints; Valves; Structural steel (defined in more detail below); Reinforced precast concrete; and Construction materials (defined in more detail below).

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 what is also considered “structural steel”. This includes, but is not limited to, the following products: wire rod, bar, angles, concrete reinforcing bar, wire, wire cloth, wire rope and cables, tubing, framing, joists, trusses, fasteners (i.e., nuts and bolts), welding rods, decking, grating, railings, stairs, access ramps, fire escapes, ladders, wall panels, dome structures, roofing, ductwork, surface drains, cable hanging systems, manhole steps, fencing and fence tubing, guardrails, doors, and stationary screens.

Structural Steel: A Structural steel is rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees and zees. Other shapes include H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

Municipal Castings: Access Hatches; Ballast Screen; Benches (Iron or Steel); Bollards; Cast Bases; Cast Iron Hinged Hatches, Square and Rectangular; Cast Iron Riser Rings; Catch Basin Inlet; Cleanout/Monument Boxes; Construction Covers and Frames; Curb and Corner Guards; Curb Openings; Detectable Warning Plates; Downspout Shoes (Boot, Inlet); Drainage Grates, Frames and Curb Inlets; Inlets; Junction Boxes; Lampposts; Manhole Covers, Rings and Frames, Risers; Meter Boxes; Service Boxes; Steel Hinged Hatches, Square and Rectangular; Steel Riser Rings; Trash receptacles; Tree Grates; Tree Guards; Trench Grates; and Valve Boxes, Covers and Risers.

Products Exempt from AIS Compliance

Products not made from Iron or Steel. Products made from copper, plastic, wood, etc.

Not 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. The following examples (including their appurtenances necessary for their intended use and operation) are NOT considered construction materials: pumps, motors, gear reducers, drives (including variable frequency drives (VFDs)), electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators), mixers, gates, motorized screens (such as traveling screens), blowers/aeration equipment, compressors, meters, sensors, controls and switches, supervisory control and data acquisition (SCADA), membrane bioreactor systems, membrane filtration systems, filters, clarifiers and clarifier mechanisms, rakes, grinders, disinfection systems, presses (including belt presses), conveyors, cranes, HVAC (excluding ductwork), water heaters, heat exchangers, generators, cabinetry and housings (such as electrical boxes/enclosures), lighting fixtures, electrical conduit, emergency life systems, metal office furniture, shelving, laboratory equipment, analytical instrumentation, and dewatering equipment.

Water Infrastructure

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