Engineering Topics for Loan Recipients

Kim Prisock, P.E. – Water Quality Program

June 27, 2022
Welcome and Introductions

• Who are you?
• Who do you represent?
• What is your project?
• Any questions you are hoping to have answered?
Agenda

- Procurement
- Project Timelines
- Borrower Requirements
- Pre-Construction Meeting
- American Iron and Steel (AIS)
- Build America, Buy America (BABA)

**Goal** – Cover the requirements of the loan that pass through to either the design engineer and/or to the construction contractor
Procurement & Project Timelines
Procurement

• Follow state procurement laws (RCW...)
  • Consulting engineers
  • Low bid construction
  • GCCM
  • Small works roster
  • Equipment

• Include spec insert in the contracts
• Upload a copy of the contract to EAGL
• Work by utility staff/force account
Timelines

ALL PROJECTS

• January 2023 – loan executed
• April 2023 – project work should be started

Step 4 Design & Construction Projects

• One year from the date the loan is executed to complete the design
Project Close Out

Declaration of Construction Complete (WAC 173-240-090)
• Completed by engineer in responsible charge of inspection

Initiation of Operation/ Completion Date(s)
• Date the project is operational
• Tied to repayment of loan
Borrower Requirements
Requirements for the Borrower

SIGNING THE LOAN
- Cost effectiveness certification
- Asset management certification
- Opinion of legal council

CONDITIONS OF THE LOAN
- Implement asset management program
- Construction quality assurance
- Utility energy review
Cost Effectiveness

- Borrower must certify that the project is a cost effective use of resources
- Certification form in EAGL (see right)
- (RECIPIENT) Must complete certification before loan can be signed
Asset Management (Fiscal Sustainability Plan)

- Borrower must certify that they have (or will) implement asset management at the utility
- Certification form in EAGL (see right)
- (RECIPIENT) Must complete certification before loan can be signed

FISCAL SUSTAINABILITY PLAN CERTIFICATION

Instructions:
Please fill in the appropriate fields. Required fields are marked with an *. When done, click the SAVE button.

Fiscal Sustainability Plan Certification
Recipients of funding from the Clean Water State Revolving Fund (CWSRF) for projects involving a publicly owned treatment works must certify that they have prepared a Fiscal Sustainability Plan (FSP) or another plan(s) that contains at least the minimum required elements of a FSP listed below.

The FSP requirement applies to all wastewater or stormwater facility construction or design/construction projects funded in part or in full with CWSRF funds. The FSP must cover the entire system for which funding is provided. If an entire system, Ecology means the following:

- If funding is only for a collection system, then the FSP must cover the entire collection system.
- If the funding is only for a treatment system, then the FSP must cover the entire treatment system.
- If funding is for both a collection system and a treatment system, then the FSP must cover the entire collection system and the entire treatment system.

The minimum required elements of a FSP are:

1. An inventory of critical assets that are part of the system.
2. An evaluation of the condition and performance of the critical assets.
3. A plan to maintain, repair, and replace the critical assets and to fund those activities.
4. A process to evaluate and implement water and energy conservation efforts as part of the plan.

Recipients of a CWSRF loan for wastewater or stormwater facility construction or design/construction projects must complete this certification and submit it to Ecology prior to loan signing.

*Check one of the following boxes and provide the additional information requested below.

☐ By checking this box, the recipient certifies that a plan(s) that contains at least the minimum required elements listed above has been developed and is being implemented. In addition, the recipient agrees that Ecology staff may review the plan(s) during site visits or inspections.

☐ By checking this box, the recipient agrees to develop and implement a Fiscal Sustainability Plan or another plan(s) that contains at least the minimum required elements listed above by the completion date of the CWSRF-funded project. Upon completion of the plan(s), the recipient agrees to recomplete and resubmit this certification as an agreement deliverable. In addition, the recipient agrees that Ecology staff may review the plan(s) during site visits or inspections.

Recipient Name:

Project Name:

System the FSP Addresses:  □ Collection; □ Treatment; □ Both Collection and Treatment *

Recipient Contact Name and Title:

Recipient Contact Phone # and Email Address:

Dates:
Utility Energy Audits

Borrowers must review their utility energy use looking for cost effective energy saving measures.

Third Party Review(s)
  • Power utility
  • ESCO

Reviews completed in past 5 years acceptable

Upload documentation in EAGL
BREAK
Pre-Construction Meeting
& Construction QAP
Pre-Construction Meeting

• PLEASE Invite the Ecology Project Manager to the Pre-Con Meeting

• Requirements on the Contractor (suggest including on pre-con agenda)
  • Project signage
  • Davis Bacon wages
  • Inadvertent discovery plans
  • American Iron and Steel (AIS)
  • Build America, Buy American (BABA)
Construction Quality Assurance Plan
(WAC 173-240-075)

How will “adequate and competent construction inspection” be provided?

The Construction quality assurance plan shall include:

a) Construction schedule, including phasing
b) Construction management organization, lines of communication, and responsibility
c) Quality control testing
d) Change order process- who will initiate, review, negotiate, and approve change orders?
e) Record keeping for as-built drawings, field orders, and change orders
f) Site inspection program
American Iron & Steel (AIS)
AIS Requirement

“No SRF funds shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.”
AIS Products

What products are covered under AIS?

• Is the product a listed product?
• Is the product primarily of iron or steel?
• Is the product permanently incorporated into the project?

Any NO  ➔  Not an “Iron and steel product”

YES TO ALL THREE  ➔  This is an “Iron and steel product”
The product must be produced in the US or be covered by a waiver.
AIS Listed Products

- Lined or unlined pipes or fittings
- Manhole covers
- Municipal castings
- Hydrants
- Tanks
- Flanges
- Pipe clamps and restraints
- Valves
- Structural steel
- Reinforced precast concrete
- Construction materials
Municipal Castings

• Cast iron or steel products
• Melted and cast
• Typically provide access, protection, or housing for components
Reinforced Precast Concrete

• Includes pre-stressed concrete pipe
• Casting of the concrete product must take place in the US
• Reinforcing bar and wire must be produced in the US
• Cement and other raw materials not required to be from the US
AIS Construction Materials- examples

- Wire rod
- Bar, angles
- Concrete reinforcing bar
- Wire
- Wire rope and cables
- Tubing
- Framing
- Joists
- Trusses
- Fasteners (i.e., nuts & 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
- Stationary screens
NOT AIS Construction Materials

Mechanical and electrical components:

- 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
- Dewatering equipment
Documenting AIS Compliance

• Set up two tracking spreadsheets
  • Track every specification section
    • Is this for an “iron and steel product?”
    • Did the manufacturer certify it is domestic?
    • Recipient MUST have a certification from the manufacturer for every “iron, steel, and precast product”
  • Track de minimis items
    • National de minimis waiver
Documenting AIS Compliance (Continued)

Certification letters should:

1. Be from the manufacturer, preferably on manufacturer letterhead
2. Reference recipients specific project
3. List specific products
4. Identify the location where products were manufactured
5. List manufacturing steps
6. Reference AIS requirements
7. Include signature of a company representative

Appendix 5: Sample Certifications

The following information is provided as a sample letter of step certification for AIS compliance. Documentation must be provided on company letterhead.

Date
Company Name
Company Address
City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coiling, galvanizing, cut-to-length, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA’s State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxxx
2. Xxxxx
3. Xxxxx

Such process took place at the following location:

________________________

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative
Other “Buy American” or “Made in the U.S.A.” certifications are not adequate
Example AIS Documentation

Certification Letters Examples

311 and 313 Ductile Iron Service Saddle

Features:
- Certified to NSF/ANSI 61-12.
- Meets applicable AWWA C800 Standards.
- The wide saddle body provides stability on the pipe.
- The gasket is fully cemented in a cavity to hold it in place.
- NPT, AWWA and other threaded outlets available in sizes 5/8" thru 4".
- The gasket’s TaperSeal hydro-mechanical lip enables the saddle to hold high pressures with just a few pounds of torque.
- At recommended torque, the saddle will exceed the working pressure of most standard pipes.
- A closed lug on one side, combined with the bale or strap, acts as a hinge for easier installation.
- Provides maximum support of the pipe for better performance in the tapped area - nearly 360°.

<table>
<thead>
<tr>
<th>Saddle Number</th>
<th>Size</th>
<th>Working Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>311</td>
<td>1&quot;, 12&quot; Nominal</td>
<td>Up to 300 PSI</td>
</tr>
<tr>
<td>313</td>
<td>1&quot;, 18&quot; Nominal</td>
<td>Up to 300 PSI</td>
</tr>
</tbody>
</table>

AIS elements:
- Project reference
- Specific list of products
- Location of manufacturing (city and state)
- Signature of a company representative
- AIS reference
Certification Letters Examples

Example AIS Documentation (Continued)
Example AIS Documentation (Continued)
Strategies for AIS Compliance

Design
• Verify domestic products
• Communicate issues early

Coordinate with your contractor
• Expect the letters with the submittals
• Explain proper certification letters
• Pre-bid and pre-construction conferences
• Clear, consistent communication

Verify if waiver(s) will be needed (product specific or de minimis)
AIS Waivers- Product Specific

- Waivers are available if:
  - A product is not available from domestic sources in sufficient quantity or sufficient quality
- Every product needs an individual waiver
- Waivers are granted by EPA
- Ecology will help prepare waiver request
- If you think you need a waiver, contact Kim Prisock (contact info on last slide) so we can get started
AIS Waivers- de minimis

- National de minimis waiver issued 4/15/2014
- Documentation required for all items intended for covered with de minimis waiver
- Allowed small amount of unknown or non-domestic origin materials:
  - Up to 5% of the total material costs
  - Maximum 1% for any single item
  - De minimis items must be “incidental to the project purpose”
- Need to document the material costs of the project
- “Permission” not needed to include items under de minimis waiver
### AIS Waivers- de minimis example

**National De Minimis Waiver**

- Allows an SRF project to use a small percentage of incidental products of unknown or non-domestic origin
- Up to 5% of total project material cost
- Up to 1% of total project material cost for any single item

<table>
<thead>
<tr>
<th>AIS De Minimis List Example</th>
<th>Total Materials Cost for Project</th>
<th>$185,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
<td><strong>Amount</strong></td>
<td><strong>Cost</strong></td>
</tr>
<tr>
<td>Galvanized Conduit Strap</td>
<td>20</td>
<td>$1.00</td>
</tr>
<tr>
<td>Galvanized Screws</td>
<td>40</td>
<td>$0.05</td>
</tr>
<tr>
<td>4&quot; Stainless Steel Tee</td>
<td>2</td>
<td>$75.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# AIS Documentation Verification

**What to expect during site visits:**

<table>
<thead>
<tr>
<th>American Iron and Steel (AIS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Recipient maintains records for Iron and Steel products?</td>
</tr>
<tr>
<td>□ Spot check of Certifications for completeness and adequacy.</td>
</tr>
<tr>
<td>1. the name of the manufacturer,</td>
</tr>
<tr>
<td>2. what product(s) they are certifying,</td>
</tr>
<tr>
<td>3. what manufacturing processes they were responsible for,</td>
</tr>
<tr>
<td>4. the location of the manufacturing facility, and</td>
</tr>
<tr>
<td>5. a signature of a manufacturer’s responsible party.</td>
</tr>
<tr>
<td>□ Recipient cross checks received equipment against the certifications to ensure compliance</td>
</tr>
<tr>
<td>□ Recipient reviews change orders for AIS requirements</td>
</tr>
<tr>
<td>□ Recipient documentation of <em>de minimis</em> Iron and Steel products</td>
</tr>
<tr>
<td>• Listing of all <em>de minimis</em> products and their material cost.</td>
</tr>
<tr>
<td>• Documentation of the total material cost for the project.</td>
</tr>
<tr>
<td>• Total cost of the <em>de minimis</em> items is less than 5% of the total materials cost.</td>
</tr>
<tr>
<td>□ Has the Recipient had any difficulty finding domestic providers for Iron and Steel products?</td>
</tr>
<tr>
<td>□ Offer the Recipient assistance with a waiver for any Iron and Steel products.</td>
</tr>
</tbody>
</table>
What is BABA?

The Bipartisan Infrastructure Law (BIL)

Public Law No. 117-58

Significant new appropriations for supplemental DWSRF and CWSRF funds for 5 years

Amendments to SDWA 1452 and CWA Title VI
(the SDWA DWSRF and CWA CWSRF authorizing sections)

Build America, Buy America (BABA) Act

BIL is also referred to as:

INFRASTRUCTURE INVESTMENT & JOBS
BIPARTISAN INFRASTRUCTURE DEAL

Office of Water

Slide borrowed from EPA April 2022 BABA Act Implementation Webinar (Slide 6)
BABA Guidance

...is still in the works...

- Guidance from Made in America Office (MIAO) released 4/18/2022:

- Waiting on specific guidance from EPA for SRF programs

- EPA held first webinar for BABA Act Implementation in April 2022
BABA Covered Programs

• State Revolving Fund (SRF) and Water Infrastructure Finance and Innovation Act (WIFIA) programs
  • Not just for BIL-funded projects
  • Expands existing American Iron and Steel (AIS) domestic preference requirements
  • For typical SRF and WIFIA projects, the vast majority of purchased items will now be covered, including many products that have not been in the past
BABA Covered Items

- Iron and Steel
- Manufactured Products
- Construction Materials

Applies to items consumed in, incorporated into or affixed to an infrastructure project (aka permanently incorporated)

- Does not apply to items brought to and removed from the construction site prior to the completion of the infrastructure project (e.g. temporary scaffolding)
- Does not apply to equipment and furnishings that are used at or within the finished infrastructure project (e.g. moveable chairs, desks, portable computer equipment)
BABA- Manufactured Products

• Manufactured in the U.S.

• Cost of components that are mined, produced, or manufactured in the U.S. is greater than 55 percent of the total cost of all components of the manufactured product

• Unless another standard for determining the minimum amount of domestic content has been established under applicable law or regulation
**BABA- Construction Materials**

**Includes:**
- Non-ferrous metals
- Plastic and polymer-based products (including PVC, composite building materials, and polymers used in fiber optic cables)
- Glass (including optic glass)
- Lumber
- Drywall

**Excludes:**
- Items made primarily of iron or steel
- Manufactured products
- Cement and cementitious materials
- Aggregates such as stone, sand, or gravel
- Aggregate binding agents/additives
BABA Waiver Authority

• Pursuant to Section 70914(c) of BABA, EPA may waive Buy America preference where EPA finds that:
  • Applying the domestic content procurement preference would be inconsistent with the public interest (a “public interest waiver”);
  • Types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality (a “nonavailability waiver”); or
  • Inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent (an “unreasonable cost waiver”)

Content borrowed from EPA April 2022 BABA Act Implementation Webinar (Slide 20)
BABA Waiver Principles

- **Time-limited**
  - Agencies should identify a short, definite time frame (e.g., no more than 1-2 years)
  - Ensure domestic producers have prompt access to market

- **Targeted**
  - Waivers that are overly broad will tend to undermine domestic preference policies
  - Broader waivers will receive greater scrutiny from MIAO

- **Conditional**
  - Agencies are encouraged to issue waivers with specific conditions that support the policies of BABA
BABA Implementation

EPA’s next steps include development of program-specific implementation procedures memo

• Assess unanswered questions from MIAO guidance
• Hold listening sessions to help identify questions and solicit initial public input from all stakeholders
• Timeline hasn’t been established
• Balance desire for expedient publication with meaningful procedures

Once EPA has released SRF specific guidance, Ecology publications (e.g. spec inserts, funding guidelines) will be updated, as needed
Proposed BABA Waivers

EPA:
• “Adjustment period” public interest waiver- currently out for public comment
  • Full proposal available at: https://www.epa.gov/cwsrf/build-america-buy-america-baba-waivers-open-public-comment
• De minimis public interest waiver (similar to AIS)

MIAO BABA guidance public waivers for consideration:
• Minor components waiver (similar to AIS manufacturer waiver)
• Small project/award threshold – projects under a certain $ threshold
• Program priority waivers- EPA may examine other program level-waivers

Short-term product specific waivers for products not currently manufactured in the U.S.
Questions & discussion
Resources

- Ecology’s FY23 Water Quality Combined Funding Program Guidelines
- Ecology WQ facility project (funding) resources
- Washington Administrative Code (WAC)
  - General sewer plan (173-240-050)
  - Engineering report aka facility plan (173-240-060)
  - Plans and specifications (173-240-070)
  - Construction quality assurance plan (173-240-075)
  - Declaration of construction complete (173-240-090)
- Revised Code of Washington (RCW)
  - Contracts for Architectural and Engineering Services (39.80.010)
- Davis Bacon wages:
  - Davis Bacon Act on U.S. Department of Labor’s website
  - EPA memo regarding Davis Bacon requirements
  - Guidance for David Bacon compliance
- AIS on EPA’s website
- Build America, Buy America (BABA) on EPA’s website
- Made in America Office (MIAO) website
Thank you!
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