

**MONTEREY PENINSULA WATER
SUPPLY PROJECT**

REQUEST FOR PROPOSALS

FOR THE

CONSTRUCTION OF CASTROVILLE PIPELINE

Issue Date: May 31, 2019

Due Date: July 23, 2019

ADDENDUM NO. 1

July 2, 2019



**CALIFORNIA
AMERICAN WATER**

Pacific Grove, California

**Monterey Peninsula Water Supply Project
Request for Proposals
Construction of Castroville Pipeline
Addendum No. 1**

Section 1. Questions and Answers. Questions that have been received from potential Proposers and California American Water’s answers to those questions are attached hereto as Exhibit A.

Section 2. Revised Request for Proposals. The Monterey Peninsula Water Supply Project Request for Proposals for the Construction of Castroville Pipeline is hereby revised as follows:

LOCATION	CHANGE																														
Title Page	REPLACE: “Due Date: July 22, 2019” WITH: “Due Date: July 23, 2019”																														
Section 1 - Introduction	Page 1-5, Section 1.3, Proposal Submittal, first sentence REPLACE: “NO LATER THAN 3:00 P.M., PACIFIC DAYLIGHT TIME (“PDT”), ON JULY 22, 2019” WITH: “NO LATER THAN 3:00 P.M., PACIFIC DAYLIGHT TIME (“PDT”), ON JULY 23, 2019”																														
Section 3 – Description of Procurement Process	<p>Page 3-1, Section 3.1, Procurement Process Schedule</p> <p>REPLACE :</p> <table border="1"> <thead> <tr> <th>RFP Process</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>RFP and draft Contract issued to Pre-qualified Respondents</td> <td>May 31, 2019</td> </tr> <tr> <td>RFP Mandatory Pre-Proposal meeting</td> <td>June 18, 2019</td> </tr> <tr> <td>Written questions and comments on RFP and draft Contract due</td> <td>July 1, 2019</td> </tr> <tr> <td>CAWC issues addendum to RFP distributing answers to written questions</td> <td>July 8, 2019</td> </tr> <tr> <td>Project Proposals due</td> <td>July 22, 2019</td> </tr> <tr> <td>Selection of preferred Proposer(s)</td> <td>July 31, 2019</td> </tr> <tr> <td>Final draft Contract and all Proposals to Governance Committee for recommendation</td> <td>August 14, 2019</td> </tr> <tr> <td>Governance Committee meeting</td> <td>August 21, 2019</td> </tr> <tr> <td>Contract execution</td> <td>August 30, 2019</td> </tr> </tbody> </table> <p>WITH:</p> <table border="1"> <thead> <tr> <th>RFP Process</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>RFP and draft Contract issued to Pre-qualified Respondents</td> <td>May 31, 2019</td> </tr> <tr> <td>RFP Mandatory Pre-Proposal meeting</td> <td>June 18, 2019</td> </tr> <tr> <td>Written questions and comments on RFP and draft Contract due</td> <td>July 1, 2019</td> </tr> <tr> <td>CAWC issues addendum to RFP and distributes answers to written questions</td> <td>July 2, 2019</td> </tr> </tbody> </table>	RFP Process	Date	RFP and draft Contract issued to Pre-qualified Respondents	May 31, 2019	RFP Mandatory Pre-Proposal meeting	June 18, 2019	Written questions and comments on RFP and draft Contract due	July 1, 2019	CAWC issues addendum to RFP distributing answers to written questions	July 8, 2019	Project Proposals due	July 22, 2019	Selection of preferred Proposer(s)	July 31, 2019	Final draft Contract and all Proposals to Governance Committee for recommendation	August 14, 2019	Governance Committee meeting	August 21, 2019	Contract execution	August 30, 2019	RFP Process	Date	RFP and draft Contract issued to Pre-qualified Respondents	May 31, 2019	RFP Mandatory Pre-Proposal meeting	June 18, 2019	Written questions and comments on RFP and draft Contract due	July 1, 2019	CAWC issues addendum to RFP and distributes answers to written questions	July 2, 2019
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LOCATION	CHANGE
	CAWC issues addendum to RFP and distributes any additional answers to written questions as CAWC deems necessary or desirable July 8, 2019
	Project Proposals due July 23, 2019
	Selection of preferred Proposer(s) July 31, 2019
	Final draft Contract and all Proposals to Governance Committee for recommendation August 14, 2019
	Governance Committee meeting August 21, 2019
	Contract execution August 30, 2019
Section 4 – Proposal Requirements	Page 4-3, Section 4.3.1, Proposal Deadline, third paragraph, second sentence: REPLACE: “on or before 3:00 P.M. PDT on July 22, 2019” WITH: “on or before 3:00 P.M. PDT on July 23, 2019”
Section 4 – Proposal Requirements	Page 4-6, Section 4.4.2.E, Section 3.0: Technical Proposal: ADD: Additionally, the Proposer shall include a table in this section of the Proposal listing the iron and steel products that must be produced in the United States in order to comply with the “American Iron and Steel (AIS)” requirement for Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) recipients. The table shall list the procurement lead time and price for each product requiring AIS compliance. The Proposer should refer to the United States Environmental Protection Agency (EPA) website for guidance (https://www.epa.gov/cwsrf/american-iron-and-steel-requirement-guidance-and-questions-and-answers).

Section 3. AIS Requirement. For the convenience of the Proposers, California American Water has attached as Exhibit B to this Addendum a copy of the document posted on the EPA website as [American Iron and Steel Requirement Guidance \(PDF\)](#) (20 pp, 633 K, March 20, 2014) with certain highlights and notes added by California American Water engineering staff.

Section 4. Revised Specifications and Bid Package. Certain Specifications and the Bid Package have been revised. Please refer to [Exhibit C](#) and [Exhibit D](#) attached hereto.

-END-

Exhibit A to Addendum No. 1

Questions and Answers

No.	Question and Answer
1.	Question: Section 1500, part 1.02.B.1 – Shop Drawings: Clarify if this section means line drawings for the entire ductile pipeline showing the location of every fitting, valve, curve, outlet, etc., or just standard product brochure submittals.
	Answer: Line drawings for the entire ductile pipeline are required showing the location of every fitting, valve, curve, outlet, etc.
2.	Question: Section 15200, part 2.02.A.2.a.1 – Resilient Seated Gate Valves: We request that Clow Valves be named in the specifications as an approved and acceptable alternative to Mueller.
	Answer: The Clow Valve is not approved as an equivalent product to the listed Mueller valve. The submitted Clow Valve has an AWWA rated operating pressure of 250 psi and a UL listed operating pressure of 200 psi. The Mueller valve as specified in the technical specifications Section 15200, Part 2.02.A.2.a.1 is rated for 350 psi for both AWWA and UL.
3.	Question: Section 15200, parts 2.02.C and D – Rubber Seated Butterfly Valves (25 to 150 psi and 250 psi services): We request that Val-Matic butterfly valves be named as an approved and acceptable alternative to Mueller. Specification sections 15200, parts 2.02.E, 2.03, 2.04 and applicable sections of part 15201 would be part of this request.
	Answer: Per the Pipeline Details Plan Set, Sheet M10, Detail 2, butterfly valves are used when valves larger than 12-inches are required. No butterfly valves are proposed as part of the Project.
4.	Question: Section 02565, part 2.1.D: Request that 18-foot ductile iron pipe lay lengths be acceptable. The currently specified 20-foot requirement limits you to one supplier.
	Answer: 18-foot ductile iron pipe lay lengths are acceptable. See <u>Exhibit C</u> .
5.	Question: Section 02565, part 2.5.A – Tapping Sleeves: We request the Ford FTSS Stainless Steel Tapping Sleeve be named as an approved and acceptable alternative.
	Answer: Ford FTSS Stainless Steel Tapping Sleeves are an approved alternative. See <u>Exhibit C</u> .

No.	Question and Answer
6.	<p>Question: The bid schedule includes three items that are called out as “ALLOWANCE” items. Bid item 1 “Preconstruction Activities, Community Outreach & Permits”, Bid Item 28 “Repair of Irrigation Lines & Drain Tiles”, and Bid Item 40 “New PG&E Service at CAW Nashua Meter Station”. The bid form does not show a dollar amount for these three bid items and after reviewing the measurement and payment section of the specifications, it also does not define what the value is to be set at for these three allowances bid items. Bid Item 40 “New PG&E Service at CAW Nashua Meter Station” does in fact say that the dollar amount shall not exceed \$50,000 dollars but does not say what it should be. Typically, when an agency or owner of a project has an allowance bid item, that agency or owner will determine what that fixed dollar amount shall be so that you don’t have variables from the bidding contractors on work that is completely undefined. I am requesting that CAW provide the proposed dollar amount for these three bid items so that bids can be evaluated fairly.</p>
	<p>Answer: The Bid Package has been revised. See <u>Exhibit D</u>.</p>
7.	<p>Question: Is the percentage of DBE’s to be utilized a goal or a requirement?</p>
	<p>Answer: It is CAWC’s expectation that contractors provide the minimum percentage of the total Proposal price for DBE work as described in Section 2.9 of the RFP. Historically, proposers have been able to achieve the DBE percentages. This Project has many opportunities to use DBE provided products and services. Proposers who do not meet the minimum DBE percentage will be scored accordingly in the “Business and Financial Criteria” section of the evaluation. Proposers should provide supporting documentation of their efforts and selection of DBEs in their Proposals. If a Proposer encounters difficulty locating DBEs, please email the Procurement Contract set forth in RFP section 3.6.</p>

-END-

Exhibit B to Addendum No. 1

American Iron and Steel Requirement Guidance



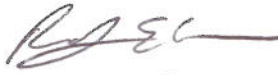
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460


MAR 20 2014

OFFICE OF WATER

MEMORANDUM

SUBJECT: Implementation of American Iron and Steel provisions of P.L. 113-76,
Consolidated Appropriations Act, 2014

FROM: For Andrew D. Sawyers, Director 
Office of Wastewater Management (4201M)

Peter C. Grevatt, Director 
Office of Ground Water and Drinking Water (4601M)

TO: Water Management Division Directors
Regions I - X

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an “American Iron and Steel (AIS)” requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Federal Fiscal Year 2014.

Section 436 also sets forth certain circumstances under which EPA may waive the AIS requirement. Furthermore, the Act specifically exempts projects where engineering plans and specifications were approved by a State agency prior to January 17, 2014.

The approach described below explains how EPA will implement the AIS requirement. The first section is in the form of questions and answers that address the types of projects that must comply with the AIS requirement, the types of products covered by the AIS requirement, and compliance. The second section is a step-by-step process for requesting waivers and the circumstances under which waivers may be granted.

Implementation

The Act states:

Sec. 436. (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12) 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.

(2) In this section, the term “iron and steel products” means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the “Administrator”) finds that—

(1) applying subsection (a) would be inconsistent with the public interest;

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

(e) The Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out

the provisions described in subsection (a)(1) for management and oversight of the requirements of this section.

(f) This section does not apply with respect to a project if a State agency approves the engineering plans and specifications for the project, in that agency's capacity to approve such plans and specifications prior to a project requesting bids, prior to the date of the enactment of this Act.

The following questions and answers provide guidance for implementing and complying with the AIS requirements:

Project Coverage

1) What classes of projects are covered by the AIS requirement?

All treatment works projects funded by a CWSRF assistance agreement, and all public water system projects funded by a DWSRF assistance agreement, from the date of enactment through the end of Federal Fiscal Year 2014, are covered. The AIS requirements apply to the entirety of the project, no matter when construction begins or ends. Additionally, the AIS requirements apply to all parts of the project, no matter the source of funding.

2) Does the AIS requirement apply to nonpoint source projects or national estuary projects?

No. Congress did not include an AIS requirement for nonpoint source and national estuary projects unless the project can also be classified as a 'treatment works' as defined by section 212 of the Clean Water Act.

3) Are any projects for the construction, alteration, maintenance, or repair of a public water system or treatment works excluded from the AIS requirement?

Any project, whether a treatment works project or a public water system project, for which engineering plans and specifications were approved by the responsible state agency prior to January 17, 2014, is excluded from the AIS requirements.

4) What if the project does not have approved engineering plans and specifications but has signed an assistance agreement with a CWSRF or DWSRF program prior to January 17, 2014?

various public laws have extended the CWSRF/DWSRF to year 2023

The AIS requirements do not apply to any project for which an assistance agreement was signed prior to January 17, 2014.

5) What if the project does not have approved engineering plans and specifications, but bids were advertised prior to January 17, 2014 and an assistance agreement was signed after January 17, 2014?

If the project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the approval date for purposes of the exemption in section 436(f).

6) What if the assistance agreement that was signed prior to January 17, 2014, only funded a part of the overall project, where the remainder of the project will be funded later with another SRF loan?

If the original assistance agreement funded any construction of the project, the date of the original assistance agreement counts for purposes of the exemption. If the original assistance agreement was only for planning and design, the date of that assistance agreement will count for purposes of the exemption only if there is a written commitment or expectation on the part of the assistance recipient to fund the remainder of the project with SRF funds.

7) What if the assistance agreement that was signed prior to January 17, 2014, funded the first phase of a multi-phase project, where the remaining phases will be funded by SRF assistance in the future?

In such a case, the phases of the project will be considered a single project if all construction necessary to complete the building or work, regardless of the number of contracts or assistance agreements involved, are closely related in purpose, time and place. However, there are many situations in which major construction activities are clearly undertaken in phases that are distinct in purpose, time, or place. In the case of distinct phases, projects with engineering plans and specifications approval or assistance agreements signed prior to January 17, 2014 would be excluded from AIS requirements while those approved/signed on January 17, 2014, or later would be covered by the AIS requirements.

8) What if a project has split funding from a non-SRF source?

Many States intend to fund projects with “split” funding, from the SRF program and from State or other programs. Based on the Act language in [section 436](#), which requires that American iron and steel products be used in any project for the construction, alteration, maintenance, or repair of a public water system or treatment works receiving SRF funding between and including ~~January 17, 2014 and September 30, 2014~~, any project that is funded in whole or in part with such funds must comply with the AIS requirement. A “project” consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all contracts and assistance agreements awarded are closely related in purpose, time and place. This precludes the intentional splitting of SRF projects into separate and smaller contracts or assistance agreements to avoid AIS coverage on some portion of a larger

the state revolving fund has been extended to year 2023

project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which case, separate contracts or assistance agreement for SRF and State or other funding would carry separate requirements.

9) What about refinancing?

If a project began construction, financed from a non-SRF source, prior to January 17, 2014, but is refinanced through an SRF assistance agreement executed on or after January 17, 2014 and prior to October 1, 2014, AIS requirements will apply to all construction that occurs on or after January 17, 2014, through completion of construction, unless, as is likely, engineering plans and specifications were approved by a responsible state agency prior to January 17, 2014. There is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to January 17, 2014.

10) Do the AIS requirements apply to any other EPA programs, besides the SRF program, such as the Tribal Set-aside grants or grants to the Territories and DC?

No, the AIS requirement only applies to funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12)

Covered Iron and Steel Products

11) What is an iron or steel product?

For purposes of the CWSRF and DWSRF projects that must comply with the AIS requirement, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

Contractor's to note these products that are required to be domestically produced for both Castroville & Slant Well Civil Projects

- Lined or unlined pipes or fittings; ductile iron
- Manhole Covers;
- Municipal Castings (defined in more detail below); cast iron, ductile iron
- 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).

12) What does the term ‘primarily iron or steel’ mean?

‘Primarily iron or steel’ places constraints on the list of products above. For one of the listed products to be considered subject to the AIS requirements, it must be made of greater than 50% iron or steel, measured by cost. The cost should be based on the material costs.

13) Can you provide an example of how to perform a cost determination?

For example, the iron portion of a fire hydrant would likely be the bonnet, body and shoe, and the cost then would include the pouring and casting to create those components. The other material costs would include non-iron and steel internal workings of the fire hydrant (i.e., stem, coupling, valve, seals, etc). However, the assembly of the internal workings into the hydrant body would not be included in this cost calculation. If one of the listed products is not made primarily of iron or steel, United States (US) provenance is not required. An exception to this definition is reinforced precast concrete, which is addressed in a later question.

14) If a product is composed of more than 50% iron or steel, but is not listed in the above list of items, must the item be produced in the US? Alternatively, must the iron or steel in such a product be produced in the US?

The answer to both question is no. Only items on the above list must be produced in the US. Additionally, the iron or steel in a non-listed item can be sourced from outside the US.

15) What is the definition of steel?

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel and other specialty steels.

16) What does ‘produced in the United States’ mean?

Production in the United States of the iron or steel products used in the project requires that all manufacturing processes, including application of coatings, must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives. All manufacturing processes includes processes such as melting, refining, forming, rolling, drawing, finishing, fabricating and coating. Further, if a domestic iron and steel product is taken out of the US for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the

material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components do not have to be of domestic origin.

17) Are the raw materials used in the production of iron or steel required to come from US sources?

No. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-US sources.

18) If an above listed item is primarily made of iron or steel, but is only at the construction site temporarily, must such an item be produced in the US?

No. Only the above listed products made primarily of iron or steel, permanently incorporated into the project must be produced in the US. For example trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel.

19) What is the definition of 'municipal castings'?

Municipal castings are cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings are:

- 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.

20) What is 'structural steel'?

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.

21) What is a 'construction material' for purposes of the AIS requirement?

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.

22) What is not considered a 'construction material' for purposes of the AIS requirement?

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.

23) If the iron or steel is produced in the US, may other steps in the manufacturing process take place outside of the US, such as assembly?

No. Production in the US of the iron or steel used in a listed product requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

24) What processes must occur in the US to be compliant with the AIS requirement for reinforced precast concrete?

While reinforced precast concrete may not be at least 50% iron or steel, in this particular case, the reinforcing bar and wire must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin.

If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered to be a construction material and must be produced in the US.

Compliance

25) How should an assistance recipient document compliance with the AIS requirement?

In order to ensure compliance with the AIS requirement, specific AIS contract language must be included in each contract, starting with the assistance agreement, all the way down to the purchase agreements. Sample language for assistance agreements and contracts can be found in Appendix 3 and 4.

EPA recommends the use of a step certification process, similar to one used by the Federal Highway Administration. The step certification process is a method to ensure that producers adhere to the AIS requirement and assistance recipients can verify that products comply with the AIS requirement. The process also establishes accountability and better enables States to take enforcement actions against violators.

Step certification creates a paper trail which documents the location of the manufacturing process involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer,

processor, etc) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification can be quite simple. Typically, it includes the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Attached, as Appendix 5, are sample certifications. These certifications should be collected and maintained by assistance recipients.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor, or contractor, may provide a certification asserting that all manufacturing processes occurred in the US. While this type of certification may be acceptable, it may not provide the same degree of assurance. Additional documentation may be needed if the certification is lacking important information. Step certification is the best practice.

26) How should a State ensure assistance recipients are complying with the AIS requirement?

In order to ensure compliance with the AIS requirement, States SRF programs must include specific AIS contract language in the assistance agreement. Sample language for assistance agreements can be found in Appendix 3.

States should also, as a best practice, conduct site visits of projects during construction and review documentation demonstrating proof of compliance which the assistance recipient has gathered.

27) What happens if a State or EPA finds a non-compliant iron and/or steel product permanently incorporated in the project?

If a potentially non-compliant product is identified, the State should notify the assistance 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 State 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 the State work collaboratively with EPA to determine the appropriate corrective action, especially in cases where the State 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>.

28) How do international trade agreements affect the implementation of the AIS requirements?

The AIS provision applies in a manner consistent with United States obligations under international agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to such agreements. In general, SRF assistance recipients are not signatories to such agreements, so these agreements have no impact on this AIS provision. In the few instances where such an agreement applies to a municipality, that municipality is under the obligation to determine its applicability and requirements and document the actions taken to comply for the State.

Waiver Process

The statute permits EPA to issue waivers for a case or category of cases where EPA finds (1) that applying these requirements would be inconsistent with the public interest; (2) iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent.

In order to implement the AIS requirements, EPA has developed an approach to allow for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow States, on behalf of the assistance recipients, to apply for waivers of the AIS requirement directly to EPA Headquarters. Only waiver requests received from states will be considered. Pursuant to the Act, EPA has the responsibility to make findings as to the issuance of waivers to the AIS requirements.

Definitions

The following terms are critical to the interpretation and implementation of the AIS requirements and apply to the process described in this memorandum:

Reasonably Available Quantity: The quantity of iron or steel products is available or will be available at the time needed and place needed, and in the proper form or specification as specified in the project plans and design.

Satisfactory Quality: The quality of iron or steel products, as specified in the project plans and designs.

Assistance Recipient: A borrower or grantee that receives funding from a State CWSRF or DWSRF program.

Step-By-Step Waiver Process

Application by Assistance Recipient

Each local entity that receives SRF water infrastructure financial assistance is required by section 436 of the Act to use American made iron and steel products in the construction of its project. However, the recipient may request a waiver. Until a waiver is granted by EPA, the AIS requirement stands, except as noted above with respect to municipalities covered by international agreements.

The waiver process begins with the SRF assistance recipient. In order to fulfill the AIS requirement, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American made iron and steel products. It is essential that the assistance recipient include the AIS terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 3 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Proper and sufficient documentation must be provided by the assistance recipient. A checklist detailing the types of information required for a waiver to be processed is attached as Appendix 1.

Additionally, it is strongly encouraged that assistance recipients hold pre-bid conferences with potential bidders. A pre-bid conference can help to identify iron and steel products needed to complete the project as described in the plans and specifications that may not be available from domestic sources. It may also identify the need to seek a waiver prior to bid, and can help inform the recipient on compliance options.

In order to apply for a project waiver, the assistance recipient should email the request in the form of a Word document (.doc) to the State SRF program. It is strongly recommended that the State designate a single person for all AIS communications. The State SRF designee will review the application for the waiver and determine whether the necessary information has been included. Once the waiver application is complete, the State designee will forward the application to either of two email addresses. For CWSRF waiver requests, please send the application to: cwsrfwaiver@epa.gov. For DWSRF waiver requests, please send the application to: dwsrfwaiver@epa.gov.

Evaluation by EPA

After receiving an application for waiver of the AIS requirements, EPA Headquarters will publish the request on its website for 15 days and receive informal comment. EPA Headquarters will then use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the State designee that a waiver request has been approved or denied as soon as such a decision has been made. Granting such a waiver is a three-step process:

1. Posting – After receiving an application for a waiver, EPA is required to publish the application and all material submitted with the application on EPA’s website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: http://water.epa.gov/grants_funding/aisrequirement.cfm
2. Evaluation – After receiving an application for waiver of the AIS requirements, EPA Headquarters will use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.
3. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program, and post the signed waiver on our website. The assistance recipient should keep a copy of the signed waiver in its project files.

Public Interest Waivers

EPA has the authority to issue public interest waivers. Evaluation of a public interest waiver request may be more complicated than that of other waiver requests so they may take more time than other waiver requests for a decision to be made. An example of a public interest waiver that might be issued could be for a community that has standardized on a particular type or manufacturer of a valve because of its performance to meet their specifications. Switching to an alternative valve may require staff to be trained on the new equipment and additional spare parts would need to be purchased and stocked, existing valves may need to be unnecessarily replaced, and portions of the system may need to be redesigned. Therefore, requiring the community to install an alternative valve would be inconsistent with public interest.

EPA also has the authority to issue a public interest waiver that covers categories of products that might apply to all projects.

EPA reserves the right to issue national waivers that may apply to particular classes of assistance recipients, particular classes of projects, or particular categories of iron or steel products. EPA may develop national or (US geographic) regional categorical waivers through the identification of similar circumstances in the detailed justifications presented to EPA in a waiver request or requests. EPA may issue a national waiver based on policy decisions regarding the public's interest or a determination that a particular item is not produced domestically in reasonably available quantities or of a sufficient quality. In such cases, EPA may determine it is necessary to issue a national waiver.

If you have any questions concerning the contents of this memorandum, you may contact us, or have your staff contact Jordan Dorfman, Attorney-Advisor, State Revolving Fund Branch, Municipal Support Division, at dorfman.jordan@epa.gov or (202) 564-0614 or Kiri Anderer, Environmental Engineer, Infrastructure Branch, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Attachments

Appendix 1: Information Checklist for Waiver Request

The purpose of this checklist is to help ensure that all appropriate and necessary information is submitted to EPA. EPA recommends that States review this checklist carefully and provide all appropriate information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

Items	✓	Notes
<p>General</p> <ul style="list-style-type: none"> • Waiver request includes the following information: <ul style="list-style-type: none"> — Description of the foreign and domestic construction materials — Unit of measure — Quantity — Price — Time of delivery or availability — Location of the construction project — Name and address of the proposed supplier — A detailed justification for the use of foreign construction materials • Waiver request was submitted according to the instructions in the memorandum • Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with the prime contractor 		
<p>Cost Waiver Requests</p> <ul style="list-style-type: none"> • Waiver request includes the following information: <ul style="list-style-type: none"> — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers 		
<p>Availability Waiver Requests</p> <ul style="list-style-type: none"> • Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested: <ul style="list-style-type: none"> — Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials — Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers. — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials • Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought • Has the State received other waiver requests for the materials described in this waiver request, for comparable projects? 		

Appendix 2: HQ Review Checklist for Waiver Request

Instructions: To be completed by EPA. Review all waiver requests using the questions in the checklist, and mark the appropriate box as Yes, No or N/A. Marks that fall inside the shaded boxes may be grounds for denying the waiver. If none of your review markings fall into a shaded box, the waiver is eligible for approval if it indicates that one or more of the following conditions applies to the domestic product for which the waiver is sought:

1. The iron and/or steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
2. The inclusion of iron and/or steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Review Items	Yes	No	N/A	Comments
Cost Waiver Requests <ul style="list-style-type: none"> • Does the waiver request include the following information? <ul style="list-style-type: none"> — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — A sufficient number of bid documents or pricing information from domestic sources to constitute a reasonable survey of the market • Does the Total Domestic Project exceed the Total Foreign Project Cost by more than 25%? 				
Availability Waiver Requests <ul style="list-style-type: none"> • Does the waiver request include supporting documentation sufficient to show the availability, quantity, and/or quality of the iron and/or steel product for which the waiver is requested? <ul style="list-style-type: none"> — Supplier information or other documentation indicating availability/delivery date for materials — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of materials • Does supporting documentation provide sufficient evidence that the contractors made a reasonable effort to locate domestic suppliers of materials, such as a description of the process for identifying suppliers and a list of contacted suppliers? • Based on the materials delivery/availability date indicated in the supporting documentation, will the materials be unavailable when they are needed according to the project schedule? (By item, list schedule date and domestic delivery quote date or other relevant information) • Is EPA aware of any other evidence indicating the non-availability of the materials for which the waiver is requested? Examples include: <ul style="list-style-type: none"> — Multiple waiver requests for the materials described in this waiver request, for comparable projects in the same State — Multiple waiver requests for the materials described in this waiver request, for comparable projects in other States — Correspondence with construction trade associations indicating the non-availability of the materials • Are the available domestic materials indicated in the bid documents of inadequate quality compared those required by the project plans, specifications, and/or permits? 				

Appendix 3: Example Loan Agreement Language

ALL ASSISTANCE AGREEMENT MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN SRF ASSISTANCE AGREEMENTS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE LAW:

Comply with all federal requirements applicable to the Loan (including those imposed by the 2014 Appropriations Act and related SRF Policy Guidelines) which the Participant understands includes, among other, requirements that all of the iron and steel products used in the Project are to be produced in the United States (“American Iron and Steel Requirement”) unless (i) the Participant has requested and obtained a waiver from the Agency pertaining to the Project or (ii) the Finance Authority has otherwise advised the Participant in writing that the American Iron and Steel Requirement is not applicable to the Project.

Comply with all record keeping and reporting requirements under the Clean Water Act/Safe Drinking Water Act, including any reports required by a Federal agency or the Finance Authority such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the Clean Water Act/Safe Drinking Water Act and this Agreement may be a default hereunder that results in a repayment of the Loan in advance of the maturity of the Bonds and/or other remedial actions.

Appendix 4: Sample Construction Contract Language

ALL CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN ALL CONTRACTS IN PROJECTS THAT USE SRF FUNDS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE OR LOCAL LAW:

The Contractor acknowledges to and for the benefit of the City of _____ (“Purchaser”) and the _____ (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

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 (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, 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. XXXX
2. XXXX
3. XXXX

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

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

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are 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. XXXX
2. XXXX
3. XXXX

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

Exhibit C to Addendum No. 1

Revised Specification Section 02565: Ductile Iron Pipe

PART 1 GENERAL

1.1 THE REQUIREMENT

- A. The CONTRACTOR shall provide AWWA approved-lined and coated ductile iron pipe and appurtenances complete in place, in accordance with the Contract Documents.

1.2 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Commercial Standards

ASTM A536	Standard Specification for Ductile Iron Castings
AWWA C104	Cement-Mortar Lining for Ductile-Iron Pipe and Fittings
AWWA C105	Polyethylene Encasement for Ductile Iron Pipe Systems
AWWA C110	Ductile Iron and Grey Iron Fittings
AWWA C111	Rubber-Gasketed Joints for Ductile-Iron Pressure Pipe and Fittings
AWWA C115	Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges
AWWA C116	Protective Fusion-Bonded Epoxy Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings
AWWA C150	Thickness Design of Ductile-Iron Pipe
AWWA C151	Ductile Iron Pipe, Centrifugally Cast
AWWA C153	Ductile-Iron Compact Fittings
AWWA C600	Installation of Ductile-Iron Mains and Their Appurtenances

- B. Other Standards: CAW Standard Specifications

1.3 CONTRACTOR SUBMITTALS

- A. Furnish Shop Drawings of pipe, fittings and appurtenances in accordance with the Special Provisions, the requirements of the referenced standards and the following supplemental requirements as applicable:

-
1. Certified dimensional drawings of all fittings and appurtenances
 2. For all pipes, provide line layout and marking diagrams which indicate the specific number of each fitting and the location and the direction of each fitting in the completed line. In addition, the line layouts shall include: The pipe station and invert elevation at all changes in grade or horizontal alignment; all elements of curves and bends, both in horizontal and vertical alignment; and the limits of each reach of restrained joints, or of concrete encasement.
- B. **Certifications:** The CONTRACTOR shall furnish a certified affidavit of compliance for all pipe and other products or materials furnished under this Section and as specified in the referenced standards and the following supplemental requirements:
1. Physical and chemical properties
 2. Hydrostatic test reports
- C. The CONTRACTOR shall be responsible for performing and paying for sampling and testing as necessary for the certifications.
- D. Provide witnessed testing of joint bonding performance.
- E. Provide design of cathodic protection system in accordance with Section 13110 – Cathodic Protection. Provide and install the approved cathodic protection system. Alternately, ductile iron pipe can be supplied with special zinc coating applied at the factory by the pipe manufacturer suitable for high corrosivity conditions.

1.4 QUALITY ASSURANCE

- A. **Tests:** Except as modified herein, all materials used in the manufacture of the pipe shall be tested in accordance with the requirements of the referenced standards as applicable.
- B. The CONTRACTOR shall perform said material tests at no additional cost to the OWNER. The ENGINEER shall have the right to witness all testing conducted by the CONTRACTOR; provided, that the CONTRACTOR's schedule is not delayed for the convenience of the ENGINEER.
- C. In addition to those tests specifically required, the ENGINEER may request additional samples of any material including lining and coating samples for testing by the OWNER. The additional samples shall be furnished as a part of the WORK.

- D. **Inspection:** Pipe shall be subject to inspection at the place of manufacture in accordance with the provisions of the referenced standards, as supplemented by the requirements herein. The CONTRACTOR shall notify the ENGINEER in writing of the manufacturing starting date not less than 14 calendar days prior to the start of any phase of the pipe manufacture.
- E. During the manufacture of the pipe, the ENGINEER shall be given access to all areas where manufacturing is in process and shall be permitted to make all inspections necessary to confirm compliance with the Specifications.

PART 2 PRODUCTS

2.1 PIPE GENERAL

- A. Lined and coated ductile iron pipe shall conform to the latest AWWA standards C151 and C110, subject to the supplemental requirements in this Section. The pipe diameter and pressure class shall be as shown on the Contract Documents.
- B. **Markings:** The CONTRACTOR shall legibly mark materials in accordance with the laying schedule and marking diagram. Each fitting shall be marked at each end with top field centerline.
- C. **Handling and Storage:** The pipe shall be handled as a minimum at the 1/3 points by use of wide slings, padded cradles, or other devices designed and constructed to prevent damage to the pipe coating/exterior. The use of chains, hooks, or other equipment that might injure the pipe coating/exterior will not be permitted. Stockpiled pipe shall be supported on padded skids, sand or earth berms free of rock exceeding 3 inches in diameter, sand bags, or suitable means so that the coating will not be damaged. The pipe shall not be rolled and shall be secured to prevent accidental rolling.
- D. **Laying Lengths:** Nominal pipe laying lengths shall be 18 or 20 ft. (Bid Addendum No. 1)
- E. **Finish:** The pipe shall have smooth dense interior surfaces and shall be free from fractures, excessive interior surface crazing, and roughness.
- F. **Bonding and Electrical Conductivity:** Where a corrosion protection system is being designed and installed, all pipe joints shall be bonded for electrical conductivity. The CONTRACTOR shall furnish and install all materials required for joint bonding. Joint bonds shall be exothermically welded to the pipe barrel.

2.2 SPECIALS AND FITTINGS

- A. Fittings for ductile iron pipe shall conform to the requirements of AWWA

C110 or AWWA C153. Push-on joint fittings shall be designed for a water working pressure of 350 psi. Restrained push-on joints fittings shall be designed for a water working pressure of 350 psi for sizes 4" through 24" and 250 psi for sizes 30" through 36".

2.3 DESIGN OF PIPE

- A. The pipe shall be designed, manufactured, tested, inspected, and marked according to AWWA C150 and C 151 except where modified by this Section.
- B. **Pipe Dimensions:** The pipe shall be of the diameter and class indicated.
- C. **Fitting Dimensions:** The fittings shall be of the diameter and class indicated.
- D. **Joint Design:** Ductile iron pipe and fittings shall be furnished with mechanical joints, push-on joints, flanged joints, or restrained joints as required.
 - 1. Mechanical and push-on joints shall conform to AWWA C111. Bolts for mechanical joint glands shall be high strength, low alloy steel bolts only. Bolt manufacturers certification of compliance must accompany each shipment. NSS Cor-Ten T-Bolts or approved equal.
 - 2. Restrained joints shall be "**Flex-Ring**" restrained joint by **American Ductile Iron Pipe** or "**TR FLEX**" restrained joint by **U.S. Pipe** or **McWane Ductile**.
 - 3. Joint restraining devices that impart point loads and/or wedging action on the pipe wall as a means of joint restraint shall not be allowed unless there are no other options for joint restraint available. Undersuch circumstances, the CONTRACTOR may propose such devices provided the following conditions are met and the request is made as a substitution:
 - a. A formal request for substitution is submitted stating the location(s) where the devices are intended to be used and a statement from the device manufacturer and the pipe manufacturer that the proposed device is appropriate for the intended installation and rated at least for the class of the pipe being supplied.
 - b. A statement from the pipe manufacturer is provided accepting the use of the retaining devices and indicating that the use of such devices will in no way affect the warranty of the pipe and/or the performance of the pipe.
 - c. The manufacturer of the device and the pipe manufacturer jointly provide instruction on the proper installation of the device to the

personnel installing the units and provide certification to the OWNER that the installers are adequately trained in the installation of the units and that all warranties are in full affect for the project.

- d. The devices shall be **Megalug Model 1100** as manufactured by **EBAA Iron** or equal. For bell-and-spigot ends with rubber gaskets, the clearance between the bells and spigots shall be such that when combined with the gasket groove configuration and the gasket itself, will provide watertight joints under all operating conditions when properly installed. The CONTRACTOR shall require the pipe manufacturer to submit details complete with significant dimensions and tolerances and also to submit performance data indicating that the proposed joint has performed satisfactorily under similar conditions. In the absence of a history of field performance, the results of a test program shall be submitted.
- e. Pipe gaskets shall be NBR for all pipe installed north of the seismic fitting on the north side of the Monte Road Bridge. Gaskets shall be SBR at all other locations.

2.4 EXTERIOR PROTECTION OF PIPE

- A. **Exterior Coating of Exposed Piping:** The exterior surfaces of pipe which will be exposed to the atmosphere inside structures or above ground shall be thoroughly cleaned and then given a shop coat of rust-inhibitive primer, epoxy paint and finish, conforming to the requirements of Section 09900- Paints and Coatings.
- B. **Exterior Coating of Buried Piping:** The exterior of the pipe shall have an asphaltic coating.

2.5 SERVICE HARDWARE AND APPURTENANCES

- A. **Tapping Sleeves:** Mueller H-304MJ stainless steel tapping sleeve, Ford FTSS stainless steel tapping sleeve or equal. (Bid Addendum No. 1)
- B. **Service Saddles:** ¾" to 2" outlet size shall be JCM 438 stainless steel threaded outlet tapping sleeve or equal.
- C. **Corporation Stops:** Ford F 1000 or equal.
- D. **Shell Cutter:** Mueller Co, Pipeline Products, or approved equal for ductile iron pipe. Shell cutters shall be tungsten carbide tipped, designed for an easy fit through valves, and shall have large slots for debris removal. "Drill-bit" type cutters shall not be used.

PART 3 EXECUTION

3.1 INSTALLATION OF PIPE

- A. The CONTRACTOR shall inspect each pipe and fitting prior to installation to insure that there are no damaged portions of the pipe. Pipe damaged prior to Substantial Completion shall be repaired or replaced by the CONTRACTOR.
- B. Before placement of pipe in the trench, each pipe or fitting shall be thoroughly cleaned of any foreign substance which may have collected thereon and shall be kept clean at all times thereafter. For this purpose, the openings of all pipes and fittings in the trench shall be closed during any interruption to the WORK.
- C. **Pipe Laying:** The pipe shall be installed in accordance with AWWA C600.
- D. Pipe shall be laid directly on the bedding material. No blocking will be permitted, and the bedding shall be such that it forms a continuous, solid bearing for the full length of the pipe. Excavations shall be made as needed to facilitate removal of handling devices after the pipe is laid. Bell holes shall be formed at the ends of the pipe to prevent point loading at the bells or couplings. Excavation shall be made as needed outside the normal trench section at field joints to permit adequate access to the joints for field connection operations and for application of coating on field joints.
- E. Each section of pipe shall be laid in the order and position shown on the laying schedule. Each section shall be laid to the set line and grade, within approximately one inch plus or minus.
- F. Where necessary to raise or lower the pipe due to unforeseen obstructions or other causes, the ENGINEER may change the alignment and/or the grades. Such change shall be made by the deflection of joints, by the use of bevel adapters, or by the use of additional fittings. However, in no case shall the deflection in the joint exceed 75 percent of the maximum deflection recommended by the pipe manufacturer. No joint shall be misfit any amount that will be detrimental to the strength and water tightness of the finished joint.
- G. Except for short runs that may be permitted by the ENGINEER, pipes shall be laid uphill on grades exceeding 10 percent. Pipe that is laid on a downhill grade shall be blocked and held in place until sufficient support is furnished by the following pipe to prevent movement. Bends shall be properly installed as indicated.
- H. **Cold Weather Protection:** No pipe shall be installed upon a foundation into which frost has penetrated or at any time that there is a danger of the formation of ice or penetration of frost at the bottom of the excavation before backfilling occurs.

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- I. **Pipe and Specials Protection:** The openings of all pipe and specials shall be protected with suitable bulkheads to prevent unauthorized access by persons, animals, water or any undesirable substance. At all times, means shall be provided to prevent the pipe from floating.
 - J. **Pipe Cleanup:** As pipe laying progresses, the CONTRACTOR shall keep the pipe interior free of all debris. The CONTRACTOR shall completely clean the interior of the pipe of all sand, dirt, mortar splatter, and any other debris following completion of pipe laying and shall perform any necessary interior repairs prior to testing and disinfecting the completed pipeline.

3.2 RUBBER GASKETED JOINTS

- A. **Rubber Gasketed Joints:** Immediately before jointing pipe, the bell end of the pipe shall be thoroughly cleaned, and a clean rubber gasket shall be placed in the bell groove. The spigot end of the pipe and the inside surface of the gasket shall be carefully cleaned and lubricated. The lubricant shall be suitable for lubricating the parts of the joint for assembly and be a compound listed as in compliance with NSF Standard 61. The lubricant shall be nontoxic, shall not support the growth of bacteria, and shall have no deleterious effects on the gasket material. The spigot end of the pipe section shall then be inserted into the bell of the previously laid joint and telescoped into its proper position. Tilting of the pipe to insert the spigot into the bell will not be permitted.

3.3 INSTALLATION OF PIPE APPURTENANCES

- A. Installation of service saddles and water service lines require drilling or tapping equipment approved by the saddle manufacturer.
- B. Installation of tapping sleeves will also require tapping valves. The drilling or tapping equipment shall be approved for use with tapping sleeve and valve manufacturer.
- C. Installation of Valves: Valves shall be handled in a manner to prevent any injury or damage to any part of the valve. Joints shall be thoroughly cleaned and prepared prior to installation. The CONTRACTOR shall adjust all stem packing and operate each valve prior to installation to insure proper operation.
- D. Valves shall be installed so that the valve stems are plumb and in the location indicated.

3.4 CORROSION CONTROL

- A. Polyethylene encasement shall be provided for all pipe and fittings.
- B. Joint Bonding: Except where otherwise indicated, all buried pipe joints shall be

TECHNICAL SPECIFICATIONS
DIVISION 2: SITE WORK
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bonded. The pipe shall be cleaned to bare bright metal at the point where the bond is installed. And the bonding cable attached with an exothermic weld.

3.5 FIELD TESTING AND DISINFECTION

- A. Field testing and disinfection and water mains shall conform to the requirements of Section 01656 - Pressure Pipeline Testing and Disinfection.

END OF SECTION

Exhibit D to Addendum No. 1

Revised Bid Package

Bid Addendum No. 1

CAW MONTEREY PENINSULA WATER SUPPLY PROJECT

BID ITEM	APPROX. QTY.	UNIT	DESCRIPTION WITH UNIT PRICE (PRICE IS INCLUSIVE OF ALL APPLICABLE TAXES, PROFIT, INSURANCE, BONDS AND OTHER OVERHEAD)	UNIT PRICE	TOTAL ITEM PRICE
1	1	ALLOW.	Pre-Construction Activities, Community Outreach & Permits	\$30,000	
2	1	LS	General Overhead, Bonding and Insurance		
3	1	LS	Mobilization/Demobilization		
4	1	LS	Environmental Requirements, Erosion Control and SWPPP		
5	4350	LF	Silt and Exclusion Fencing		
6	1	LS	Health and Safety Compliance		
7	15	Ea	Utility Potholing		
8	1	LS	Staking/Surveying/As-Built Drawings		
9	1	LS	Traffic Control		
10	1	LS	Trench Shoring		
11	1	LS	Trench Dewatering		
12	1	LS	Jack and Bore under RR at Dole Entry		
13	160	LF	Install 8" Pipeline in Steel Casing (Hwy 183)		
14	1	LS	HDD 400 LF 8" Fused PVC under Tembladero Slough		
15	9138	LF	Provide and Install 12" DI Pipe		
16	8400	LF	Provide and Install 8" DI Pipe with NBR Gaskets for CCSD Portion		
17	180	LF	Provide and Install 8" DI Pipe with NBR Gaskets for CAW Portion		
18	258	EA	NBR Gaskets for about 5063 LF of 12" DI Pipe (for 20 ft sticks of pipe)		
19	1	LS	Chain Link Fencing, Concrete Pads and Grading at 3 Meter Stations		
20	1	LS	Cathodic Protection for CAW Portion Metallic Pipelines and Appurtenances Cathodic Protection System or Zinc-Coated DIP. Circle One		
21	1	LS	Cathodic Protection for CCSD Portion Metallic Pipelines and Appurtenances Cathodic Protection System or Zinc-Coated DIP. Circle One		
22	1	LS	Restoration of Pavement Markings		
23	97	TONS	AC Pavement		
24	1	LS	Lead Testing and Abatement for Caltrans at Hwy 183		
25	4571	CY	Soil Disposal (Non-hazardous)		
26	48400	SF	Seeding (CA Native Mix)		
27	1	LS	Electrical and Instrumentation Testing and Startup		
28	1	ALLOW.	Repair of Irrigation Lines and Drain Tiles	\$10,000	
Valves/Appurtenances					
29	6	EA	Install 12" Gate Isolation Valve		
30	5	EA	Install 8" Gate Isolation Valve		
31	8	EA	2" Combination ARVs		
32	9	EA	Pump out Blowoff Assembly		
CAW Lapis Road Meter Station					
33	1	LS	Lapis Flow Meter in Vault		
34	1	LS	Electrical and Instrumentation at Lapis FM (Solar)		
CAW Nashua Road Meter Station					

Bid Addendum No. 1

CAW MONTEREY PENINSULA WATER SUPPLY PROJECT

35	1	LS	CSIP Tie-In (12" Tee & 12" GV & 12" x 8" reducer)		
36	1	LS	8" RPP Backflow Prevention Device		
37	1	LS	8" Pressure Regulating Station in Vault		
38	1	LS	8" Actuated Valve in Vault		
39	1	LS	Electrical and Instrumentation at CAW Nashua Road Meter Station		
40	1	ALLOW.	PG&E Service at CAW Nashua Road Meter Station	\$50,000	
41	1	LS	PLC/SCADA Programming for CAW (Lapis and Nashua)		
CCSD Nashua Road Meter Station					
42	1	LS	8" Flow Meter in Vault		
43	1	LS	Electrical and Instrumentation at CCSD Nashua Road Meter Station (Solar)		
44	1	LS	PLC/SCADA Programming for CCSD		
Monte Road Bridge Crossing					
45	2	EA	Provide and Install Welded Steel Pipe Casings in Bridge Abutments		
46	3450	LB	Miscellaneous Metal (Bridge)		
47	830	LF	12" Ductile Iron Pipe between Seismic Joints, Epoxy coated		
48	1	LS	Erect waterline pipe hanger system (bridge)		
49	2	EA	Provide and Install PC Concrete Utility Vault		
50	2	EA	Provide and Install Seismic Joint in Vault		
51	1	LS	Concrete Barrier 736 (Railing connection)		
					Total

Alternate Bid Items

A	3450	LB	Provide All Misc. Metals for Bridge in 316 Stainless Steel		
B	8400	LF	Provide and Install 8" Fusible PVC Pipe for CCSD Portion		