

## **Federal Emergency Management Agency**

### **Build America Buy America Act Approved Nonavailability Waiver: Central Utah Water Conservancy District Alpine Aqueduct Reach 1 Replacement and Resiliency Project Hazard Resilient Ductile Iron Pipe System**

#### **1. Summary**

Agency: Federal Emergency Management Agency (FEMA)

Waiver: The Federal Emergency Management Agency (FEMA) is issuing a nonavailability waiver of the requirements of section 70914 of the Build America, Buy America Act, included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), for a non-domestic hazard resilient ductile iron pipe system (HRDIP) used in the Alpine Aqueduct Reach 1 Replacement and Resiliency Project for the Central Utah Water Conservancy District (District).

Applicability: This waiver action permits the use of a non-domestic HRDIP system in the Alpine Aqueduct Reach 1 Replacement and Resiliency Project. The product will be obtained by the District and incorporated into the project prior to the expiration date of the waiver.

Waiver Type: Nonavailability of a BABA-compliant domestic product.

Waiver Level: Project-specific waiver.

Summary of items covered in the waiver: Hazard resilient ductile iron pipe system that meets the specifications required for this project including the following required components: socket-spigot pipes, spigot-spigot pipes, S-type collar joints, flanged sockets, flanged spigots, joint tester rings, hydraulic pumps, various accessories (glands, split rings, lock rings with connecting pieces, bolts and nuts, rubber gaskets, backup rings, hook and wire system for assembly), surface repair kit, and emergency repair bands. Of these components, all are iron and steel products, with the exception of the various accessories, hydraulic pumps, and surface repair kit, which are manufactured products.

Waiver Justification Summary: HRDIP system that meets the specifications required for this project are not produced in the United States.

Length of the Waiver: This waiver will be in effect upon approval date and will remain in effect until Feb. 1, 2028, which is the estimated project completion date.

#### **2. Background**

The Buy America Preference set forth in section 70914 of the Build America, Buy America Act, included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), requires all iron,

steel, manufactured products, and construction materials used for infrastructure projects under Federal financial assistance awards be produced in the United States.

Under section 70914(b), FEMA may waive the application of the Buy America Preference, in any case in which it finds that: applying the domestic content procurement preference would be inconsistent with the public interest; 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; or the 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%. All waivers must have a written explanation for the proposed determination; provide a period of not less than 15 days for public comment on the waiver; and be provided to the Office of Management and Budget's Made in America Office for final review.

The existing Alpine Aqueduct Reach 1 (AA-1) pipeline is classified as a Class III Critical Water Supply pipeline in accordance with the functional classes presented in the American Lifelines Alliance (ALA) Seismic Guidelines for Water Pipelines (ALA 2005). Critical Class III pipelines serving large numbers of customers present significant economic impact to the community and a substantial hazard to human life and property in the event of failure. Based on the AA-1 pipeline being a Class III pipeline, the reliability of the pipeline was designed with a minimum performance objective of being able to remain in service following an earthquake having a 5% probability of exceedance in 50 years, or a return interval of 975 years (approximately 1,000 years). Remaining in service is understood to mean that the pipeline can continue to deliver water following a seismic event, even though it may have experienced significant ground displacement, structural damage, and minor leaks at pipe joints, and can remain in service to provide water to users. Following the catastrophic event, the pipeline may need to be taken out of service for repairs or replacement.

The design specifications of the project include features and measures to withstand a large earthquake event on the Wasatch Fault. With a ground displacement of 12.2 feet resulting from a 975-year earthquake, the pipe crossing both the eastern and central strands of the Wasatch Fault Zone must be at least 104 inches in diameter, elongate more than eight feet at each crossing, and rotate adequately to accommodate ground displacement.

The District requested a product specific waiver for an HRDIP system that meets the above specifications and would include several components: socket-spigot pipes, spigot-spigot pipes, S-type collar joints, flanged sockets, flanged spigots, joint tester rings, hydraulic pumps, various accessories, surface repair kit, and emergency repair bands.

### **3. Description of Award**

Title of project: Alpine Aqueduct Reach 1 Replacement and Resiliency Project.

Infrastructure project description and location: The existing Alpine Aqueduct Reach 1 (AA-1) consists of a 90-inch horseshoe shaped tunnel and 90-inch-diameter welded steel pipeline that is a major water supply artery of the District. It is approximately 1.1 miles in length and begins at the 10 million gallon Olmsted Equalization Reservoir at the mouth of Provo Canyon. The

existing AA-1 pipeline delivers water to three treatment plants including the Don A. Christiansen Regional Water Treatment Plant (DACRWTP) in Orem, Utah. It connects to the Jordan Aqueduct which begins near the DACRWTP. The Jordan Aqueduct is operated by the Jordan Valley Water Conservancy District and provides water into Salt Lake County. AA-1 provides water to approximately 1.6 million people living in Utah County and Salt Lake County. The majority of the existing AA-1 pipeline segment crosses through and along the toe of a large landslide complex that has seen ongoing and recent slippage activity along the AA-1 alignment since its installation in the 1980s. The existing AA-1 alignment also crosses three separate splays of the Wasatch Fault Zone. The existing pipeline is at risk of failure because of existing geologic hazards including landslides, crossing of the Wasatch Fault, and seismic shaking.

The project is located on the northeast bench area of Orem, Utah. Anticipated construction work will occur within Orem City streets including 1060 North (between 1560 East and 1360 East) and 1360 East (between 1060 North and approximately 1110 North) and across 1560 East. The remainder of the work is on lands owned by Cascade Seddie LLC and the District.

Description of project: The replacement for the Alpine Aqueduct Reach 1 pipeline consists of the following major elements:

- New tunnel section that is 980 linear feet long with 108-inch steel and mortar lined. The tunnel will include a 65-foot long vertical shaft;
- 4,530 linear feet of 108-inch welded steel pipe with 90-inch connections to the existing Alpine Aqueduct Reach 1;
- 601 linear feet of 104-inch (outside diameter) HRDIP system that meets the specifications required for this project to address the seismic conditions associated with crossing two splays of the Wasatch Fault Zone; and
- Removal of approximately 400 feet of existing 90-inch pipe and concrete headwalls and filling of the remaining and abandoned AA-1 pipe with sand or cellular grout.

Recipient Name: Central Utah Water Conservancy District

Unique Entry Identifier (UEI): D4KQUGUENDM1

Federal Financial Assistance Program: Building Resilient Infrastructure and Communities (BRIC)

Federal Financial Assistance Funding Amount: \$46,648,062

#### **4. Description of Covered Items**

Manufactured products: This waiver permits an exception to the Build America, Buy America Act requirements for the following manufactured product:

- **HRDIP System:**
  - NAICS: 331110
  - PSC: 4710

## **5. Waiver Justification Summary**

Anticipated impact if no waiver is issued: Critical Class III pipelines serving large numbers of customers present significant economic impact to the community and a substantial hazard to human life and property in the event of failure. The current pipeline is at risk of failure due to existing geologic hazards, including landslides, crossing at the Wasatch Fault, and seismic activity, jeopardizing the drinking water supply to 1.6 million people living in Utah County.

Description of efforts made to identify domestic products: During the design phase of the project, the District attempted to find a domestic manufacturer that produced an HRDIP system that met the project's requirements. The District did not find a manufacturer that could meet the elongation, rotation, and size requirements of the project.

FEMA conducted market research to determine if there are domestic manufacturers that can produce or supply an HRDIP system that meets the requirements of the project. The five manufacturers contacted either provided information that confirmed that they could not meet the project's specifications or did not confirm BABAA compliance. Five domestic manufacturers could not meet the requirements of the project. One manufacturer confirmed that their HRDIP system is not produced in the United States.

## **6. Assessment of Cost Advantage of a Foreign-Sourced Product**

Under OMB M-24-02, agencies are expected to assess "whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron, or manufactured products or the use of injuriously subsidized steel, iron, or manufactured products" as appropriate before granting a waiver. FEMA's analysis concluded that this assessment is not applicable to this waiver as this waiver is not based on the cost of foreign-sourced products.

## **7. Solicitation for Comments**

The proposed waiver was simultaneously posted on [FEMA's public facing webpage](#) and the [Made in America website](#) on October 11, 2024, to satisfy the requirement to publish any Build America, Buy America Act Project Waiver to provide the public with 15 days to submit comments. FEMA sought public and industry comments from all interested parties. The comment period for this proposed waiver closed on October 26, 2024. FEMA received two public comments on the waiver request.

The first commentor, Northwest Pipe, stated that their InfraShield product "is a seismic resilient steel water pipe system that can be used for large diameter water systems traversing geohazard areas, including seismic fault crossings."

In the waiver application, the District indicated that they had evaluated InfraShield and stated that the product does not meet the requirements of the project. Upon receipt of the comment from Northwest Pipe, FEMA requested the District consider the comment and provide more details explaining the project requirements that InfraShield could not meet. The District

responded that the project's performance requirements for a 975-year earthquake require accommodating a total ground displacement of 12.2 feet and InfraShield can only accommodate 3.0 feet at the eastern fault crossing (245 feet in length) and 4.3 feet at the central fault crossing (360 feet in length). Therefore, InfraShield can only accommodate 7.3 feet of elongation, which is less than the required 12.2 feet.

The second commentor, Victaulic, stated that they are "able to provide a product to be used in lieu of the 104-inch HRDIP that meets all the domestic requirements as well as the movement requirements of this project." Victaulic indicated that their W257B coupling product would meet the project requirements.

In the waiver application, the District indicated that they had evaluated W257B and stated that the product does not meet the requirements of the project. Upon receipt of the comment from Victaulic, FEMA requested the District consider the comment and provide more details explaining the project requirements that W257B could not meet. The District responded that the design of the W257B coupling would require numerous couplings on either side of a central spool piece, and that for the eastern fault crossing (245 feet in length), that approach would require 133 couplings spaced 13 inches on center with a center spool piece approximately 14 feet long. That approach requires the exact location of faulting to occur along the center spool piece to allow the couplings to function as intended. The District stated that it is impossible to know the exact location where the fault will occur and relying on the fault to occur within the center of a spool section of the Victaulic design presents an unreasonable level of risk that does not meet the AA-1 performance requirements." The District further explained that the W257B product cannot provide rotation and elongation simultaneously, as is required for the total ground displacement of 12.2 feet.

FEMA appreciates the input provided by the commenters. However, the justification for the nonavailability waiver described above was not unsubstantiated by the public's comments. As such, FEMA issues this waiver for the Alpine Aqueduct Reach 1 Replacement and Resiliency Project for the Central Utah Water Conservancy District to purchase and use the hazard resilient ductile iron pipe system (HRDIP) described in Section 4 above.

For more information on the Build America, Buy America Preference, please reference <https://www.fema.gov/grants/policy-guidance/buy-america> or [MadeinAmerica.gov](https://www.madeinamerica.gov).



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