DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
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IN REPLY REFER TO:

WEC.C 19-257

March 15, 2019

Ms. Sina Pruder, Chief
Wastewater Branch
Environmental Management Division
Hawaii State Department of Health
2827 Waimano Home Road, #207
Pearl City, Hawaii 96782

Dear Ms. Pruder:

SUBJECT: Project Waiver Request for American Iron and Steel Requirements
Honouliuli Wastewater Treatment Plant Secondary Treatment - Phase 1B Secondary Compliance Facilities
Clean Water State Revolving Fund Project C150051-81

The City and County of Honolulu, Department of Environmental Service (CCH-ENV) is seeking a waiver for the subject project based on the lack of availability of the product. The CCH-ENV proposes to use one (1) 66" and four (4) 60" butterfly valves manufactured by [redacted] that do not comply with the American Iron and Steel Requirements.

GENERAL BACKGROUND:

Project Description

The subject project is the construction and implementation of a secondary treatment system at the Honouliuli Wastewater Treatment Plant Secondary Treatment – Phase 1B Secondary Compliance Facilities, specifically with construction of a new aeration basin, several secondary clarifiers, and the associated facilities to divert flow and operate the equipment. The subject secondary treatment system is designed to handle the entire flow of the WWTP, which services the South-West region of Oahu (several cities). As such, the equipment, piping, valves, etc. are much larger than typical service requirements. Furthermore, most of the equipment installed will be in the service of 'primary effluent' wastewater which is highly corrosive and drives material selection requirements to promote lifetime longevity.

Geography

In order to understand the reason behind this waiver request, it is important to understand the challenges presented by the geographic characteristics of the City and County of Honolulu. The wastewater facilities are affected by a harsh coastal environment, as the island is surrounded by the Pacific Ocean and are regularly subjected to salt air and blowing sand due to prevailing trade winds. The salt air rapidly accelerates corrosion of metallic equipment, piping/conduits, and valves, and blowing sand can accumulate and cause equipment failures due to clogging and gumming.

The location of the subject valves on the project site is also of considerable importance. The five proposed valves are all located in the sub-basement of the Aeration Basin which is four floors below ground in a narrow corridor. In order to service or replace these valves will take a large-scale specialty contractor activity due to their location and size. This factor combined with the highly corrosive nature of the effluent is the primary driver of a designer selecting 316SS internal components with maximum life longevity (which are not domestically available) over other materials (which are domestically available).

About the butterfly valves

The proposed valves quoted by [redacted] were the only valves presented to the contractor that met the specification (ductile iron body with 316SS disc, shaft and internals). The butterfly valve components are manufactured in China and assembled and tested in Houston, Texas.

Many other manufacturers presented the contractor with alternate materials options for the disc component (a large and critical piece of the valve) that did not meet the specification. As stated above, the specification is very clear that the disc needs to be 316SS and it is the contactors opinion that this is due to the environment resistance and longevity of life as stated above.

The only option presented to the contractor to meet both the specification and American Iron and Steel (AIS) requirements is a complete custom fabrication of the valves, however this option was given a quoted lead time of greater than one-year after receipt of order.

WAIVER REQUEST DETAILS:

- **Description of the foreign and domestic construction materials**
  The butterfly valves have a ductile iron body with 316SS disc, shaft, and all other internal components.

- **Unit of measure**
  The unit of measure is each.

- **Quantity**
  One (1) 66" and four (4) 60"

- **Price**
  [redacted] to [redacted] for the 60" butterfly valves
  [redacted] for the 66" butterfly valve

- **Time of delivery or availability**
  The proposed [redacted] butterfly valves have a quoted lead time of 32 weeks after receipt of order. The custom option offered by [redacted] was quoted a lead time of greater than one-year when shipping to Hawaii is considered.

- **Location of the construction project**
  Honouliuli Wastewater Treatment Plant
  91-1000 Geiger Road
  Ewa Beach, Hawaii 96706

- [redacted]

- **A detailed justification for the use of foreign construction materials**
  The justification behind this waiver request is the lack of availability of a product manufactured in the USA that meets both the specification and AIS requirements. The only proposed option that complies with AIS and meets the specification is to custom fabricate the entire valve for this specific project which will cause 4 plus months in delays to the critical path of a very large project.

  These are very large, non-standard valves sizes. The major components, primarily the disc, is not sourced in the USA. See attached letter (Attachment 1) from the vendor. The quote for the butterfly valves to be purchased is provided in Attachment 2. The contractor is unable to find any vendor who has a product who can meet the project specification (Attachment 3) and AIS requirements. Multiple vendors were contacted and took exemption to the AIS requirement and quoted import valves, or took exemption to the 316SS disc of the valve which is required by specification. The quotes for the multiple vendors are provided in Attachment 4.

The only way to meet the specification as it currently reads and AIS requirements without a waiver is to custom produce these specific valves. The contractor found two vendors [redacted] who say they can do this, but both have quoted lead times on the order of one-year. This lead time would significantly delay the project schedule. The contractor needs the valves by November 2019 to keep on schedule.

Should you have any questions, please contact Justin Nii from our Division of Wastewater Engineering and Construction at 768-8765.

Sincerely,

Lori M.K. Kahikina, P.E.
Director

Attachments

JN:lh