NOTE: Information in this waiver may have been redacted or removed due to issues of proprietary business information or incompatibility with Federal accessibility requirements. To request the information redacted for purposes of accessibility requirements, please email CWSRFWaiver@epa.gov.

Subject: CWSRF AIS WAIVER REQUEST - JOHNSON COUNTY WASTEWATER NELSON WWTF IMPROVEMENTS
Date: Monday, February 19, 2024 1:48:48 PM
Attachments: image003.png
image004.png
Product Specific AIS Waiver Johnson County - Nelson WWTF Improvements.pdf

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Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good afternoon,

KDHE is formally submitting the AIS Project/Product Specific Availability Waiver Request for the Johnson County Wastewater – Nelson WWTF Improvements project funded by CWSRF. The waiver request is for [redacted] Shear Dowels, which are not domestically manufactured. Please find attached the waiver request and associated documentation.

Please note, this request was submitted by [redacted] the contractor for the project., to the general SRF AIS email on February 13, 2024.

If you have any questions or any additional information is needed, please feel free to reach out to me.

Thanks,

Ryan Eldredge, PE
Environmental Engineer – Bureau of Water
785-296-5528 (Office) | 785-213-2144 (Cell) Ryan.Eldredge@ks.gov
Water Permitting & Compliance Section – Municipal Permitting and Engineering Unit
1000 SW Jackson St, Ste. 420, Topeka, KS 66612

Protect and improve the health and environment of all Kansans

From: Ryan Eldredge [KDHE]
To: Ryan Eldredge [KDHE]
Subject: FW: Product Specific AIS Waiver Johnson County - Nelson WWTF Improvements
Date: Monday, February 19, 2024 1:10:33 PM
Attachments: image001.png

To whom it may concern,

I am writing in regard to the Nelson Wastewater Treatment Facility Improvements Project located in Mission, KS. I need to apply for a product-specific waiver for [redacted] Shear Dowels. These shear dowels are required for our projects expansion joints. These specific shear bars were the main component in the engineer's design for the expansion joint. Please see the information below, as requested on page 17 of 19 in the attached 'ais_lunch_and_learn_project_and_product_specific_waivers.'

Project Description

Loan Recipient: Johnson County Wastewater
Project Name: Nelson Wastewater Treatment Facility Improvements Project
Short Paragraph Explaining the Project:

The Nelson Wastewater Treatment Facility (WWTF) is Johnson County Wastewater's (JCW) oldest treatment facility, dating back to the 1940s. A significant portion of the facility is at or near the end of its useful service life. The treatment technology currently in place is not capable of meeting future water quality standards. JCW looked at ways to control costs long-term and minimize future rate increases while meeting environmental standards and maintaining Johnson County's quality of life. Replacement of the facility with newer technologies and provisions for adding expanded future wet weather treatment was determined to be the most cost-effective way to meet future regulations and provide a long-term treatment solution for our customers.

Project Schedule: Please see the attached 'Visual Schedule.'
Relevant Excerpt from Project Pans: Please see attached 'Relevant Project Plans.' Please reference GREEN marks. (pink text is additions by the engineer that are only relevant to the installation of the product)

Justification of the Use of the Non-Domestic Product

Description of the non-domestic product:

Th e [redacted] Shear Dowel is a two-part, high-capacity system. Additional steel plates around the dowel and associated sleeve engage more concrete to allow higher load resistance within the system. [redacted] allows for longitudinal movement only.

Why the Non-Domestic Product is Needed:

The [redacted] Shear Dowel is required for all expansion joints as the engineer's design specifies. These shear dowels will allow the structures to transfer the joint shear loads. This is to avoid uneven settlement and displacement of the concrete structures.

Quantity and Quality: 400

Cost: [redacted]

Supporting Documentation

Loan recipient's efforts to find available domestic sources: These products are not manufactured in the USA. [redacted] is a German company that manufactures these specific shear bars in Poland.

Information from Domestic Suppliers indicating availability: See attached 'Statement From Supplier'

Statement from Supplier Non-Domestic availability of product: See attached 'Lockable Dowel Declaration'

[redacted]

[redacted]

Lockable Dowel ESDQ 20 LD / HLDQ 30 LD Shear Load Connectors Product Declaration

This product declaration provides information regarding the design and quality control of the Lockable Dowel shear load connector series for post tensioning slabs.
Lockable Dowel shear load connectors are used in lot of countries around the world for many years e.g. United Kingdom, Australia and New Zealand, USA. In these countries millions of Lockable dowels are successfully in use.

Design of Lockabel Dowels

The design model is based on generally acknowledged principles. The reliability of the design model is demonstrated by the good agreement between failure tests and calculated ultimate loads.

All failure modes are considered:

a) Restriction due to the moment-shear-interaction in the dowel (according to EN 1993-1-1, -1-8:2005).
b) Restriction due to a shear-stud-failure in the contact area between concrete and dowel (according to EN 1993-1-1, -1-8:2005 and EN 1994-1-1).
c) Restriction due to the strength of the concrete compression struts (according to EN 1992-1-1:2004).
d) Restriction due to the strength of reinforcement (according to the principles of Eligehausen-model).

Due to the ductile behavior of the system and the very reliable structural design model, the load strength of the Lockable Dowles can be predicted with excellent accuracy. This positive circumstance is based on an extensive research and development activity in the field for over four decades.

Quality Control Measures

The Lockable Dowels are produced in our production plant in Kalisz (Poland). The quality of the products is guaranteed by an internal production control plan according to an ISO 9001:2008 certified management system.
The material quality of the dowels is guaranteed by the 3.1 certificate according to EN10204. The design, production process, and quality control are audited three times a year by independent institutions.

Confirmation

The herein provided information is confirmed by:

13.02.2024