



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

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OFFICE OF WATER

DECISION MEMORANDUM

SUBJECT: Public Interest Waiver of American Iron and Steel Requirements to Columbus
Ohio for Steel Fiber Reinforcement

FROM: *Sheila E. Grace*
For Andrew D. Sawyers, Director
Office of Wastewater Management

The EPA is hereby granting a public interest waiver pursuant to the "American Iron and Steel" requirements of the Clean Water Act Section 608 under the authority of Section 608(c)(1) to Columbus, Ohio for the purchase of non-domestic steel fiber reinforcement to be used in the production of precast segmental tunnel liners. This waiver permits the use of steel fiber reinforcement manufactured outside of the United States in Columbus' Blacklick Creek Sanitary Interceptor Sewer (BCSIS) project. This is a project specific waiver and only applies to the use of the specified product for the proposed project funded by the Clean Water State Revolving Fund. Any other project funded by either the Clean Water or Drinking Water State Revolving Fund that wishes to use the same product must apply for a separate waiver based on the specific project circumstances.

Rationale: According to Section 608 of the Clean Water Act, CWSRF assistance recipients must use specific domestic iron and steel products that are produced in the United States if the project is funded through the SRFs. EPA has the authority to determine whether it is necessary to waive this requirement based on certain circumstances set forth in Section 608(c)(1) of the Clean Water Act. The provision states that, "[the requirements] shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency ...finds that (1) applying [the requirements] would be inconsistent with the public interest."

Columbus intends to use steel fiber reinforcement in the production of precast segmental tunnel liners as part of the BCSIS project. The project consists of installing approximately 23,000 linear feet of 10-ft diameter reinforced concrete segment sewer. Once constructed, the BCSIS will provide additional sanitary sewer capacity for a developing portion of the City's sewer collection system.

Columbus applied for a public interest waiver from the AIS requirements for the use of a non-domestic brand of steel fiber reinforcement, citing issues of schedule disruption and a lack of field demonstration with the domestic brand. According to Columbus, the manufacturer of the precast segmental tunnel liners uses a custom production facility that has been specifically designed to handle the non-domestic fibers. Columbus asserts that using a different brand of steel fiber reinforcement would require the manufacturer to significantly redesign the production facility – modifications to the facility would include lengthy re-testing periods, purchase of significant new manufacturing equipment and controls, and other startup activities possibly delaying the project by 12 to 14 months. Columbus asserts that the impacts would result in unacceptable delays, significantly higher costs and may affect the quality of the ultimate product.

The EPA conducted market research and solicited public comments on Columbus's public interest waiver

request. EPA's market research indicated that there may be domestic alternatives that meet the technical specification of the project, but these fibers have not been utilized in precast segmental tunnel lining projects without the incorporation of additional reinforcement.

EPA considered the assertions from public comments to Columbus' public interest waiver request, including comments claiming that domestic alternatives would not result in significant project delays, that the chosen segment manufacturer had unduly dismissed a domestic alternative product, that a domestic alternative product would meet the performance requirements, and that the engineering design failed to consider the domestic alternative sufficiently when provided opportunity to do so in their process. The Agency researched these claims from the public commenters and found them to be without merit. The Agency learned that changes to the segment manufacturing process would be significant and delays could occur on the order asserted by Columbus. The Agency determined that the segment manufacturer fully considered the domestic alternative and, in fact, found it to have failed a key demonstration test. The Agency determined that the domestic alternative did not have equivalent field demonstration experience and also did not meet the geometric requirements specified for the manufacturing process. Finally, the Agency found the design engineering team had considered the domestic alternatives but found the product to be a high risk design element based on reasonable professional judgment.

Although there are domestic alternatives, Columbus has provided sufficient justification that it should utilize the non-domestic product for the BCSIS project. The EPA is hereby granting a waiver from the AIS requirements to Columbus. This waiver permits the purchase of the specified non-domestic steel fiber reinforcement documented in the state of Ohio's waiver request submittal on behalf of the applicant dated September 13, 2016.

If you have any questions concerning the contents of this memorandum, please contact Timothy Connor, Chemical Engineer, Wastewater Infrastructure Division, at connor.timothy@epa.gov or (202) 566-1059.