



Oregon

Kate Brown, Governor

Department of Transportation

Technical Leadership Center
ODOT Bridge Section MS #4
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FILE CODE:

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FHWA
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Subject: Buy America Waiver Request for I-5 Interstate Bridge(NB)
Trunnion Shaft Replacement Project, KN19651

The Oregon Department of Transportation is requesting a waiver to the Buy America requirements under 23 CFR 625.410(c)(1)(i) for the I-5: Interstate Bridge (NB) Trunnion Shaft Replacement Project, Key Number 19651. The waiver being requested is for the rolling element bearing units that support the trunnion shaft, on the basis that these bearing units are not produced in the United States in sufficient and reasonably available quantities.

The Interstate 5 NB Bridge over the Columbia River, Bridge 01377A is a vertical lift movable bridge. In 1997 the sheaves, trunnion shafts, bearing units, and counterweight cables at the top of the north tower were replaced due to trunnion cracking. The east side of the trunnion on the south tower has developed a crack which has grown from 4.0" long to 6.5" long in two years, but which has not grown in depth. The sheaves, trunnions, bearing units, and counterweight cables at the top of the north tower will be replaced in the upcoming project.

The project is estimated to cost \$11 million, while the cost of the four rolling element bearing units that are not produced in the United States is estimated at \$40,000 each (\$160,000 for the project). These bearing units have a 17.3" inner diameter and a radial load capacity of 816,000 pounds each, with a matched housing/support.

Project requirements cannot be met with domestic product because there is no known domestic supplier that can reasonably assure Buy America compliance. Known suppliers of these units are The Timken Company located in the United States, and SKF and FAG, both located in Germany. Timken has been contacted repeatedly but cannot confirm Buy-America status at this time (see attached latest email message).

The State has searched all known large bearing manufacturers and Timken, the only known domestic supplier of this class of bearing units, has significant uncertainty of their product's Buy America status which jeopardizes our ability to deliver this critical, time-sensitive project.

It is not practical or reasonable to re-design the project to use an alternate domestic product, as the alternate product (plain journal bearings) have 1000 times more frictional resistance than the roller bearings on the north tower. Both towers must have the same trunnion bearing type for reliable lifting of the span. There is not a known equal domestic product.

Ray Bottenberg, PE, SE
Bridge Preservation Managing Engineer

RDB/jdj

Attachment

Cc: Bruce Johnson, ODOT State Bridge Engineer
Larry McKinley, Office of Project Letting Unit Manager