

Project Title: Station Service Transformers Replacement – (transformers TWO and TJO)

Dam and Reservoir Project: Ice Harbor

Estimated Total Cost: \$1-\$3 million

Estimated Schedule for Completion of the Project: Phase 1a: None for this Project
Phase 1: FY2016-2017
Phase 2: FY2017-2019
Expected Physical Completion: FY2019
Current Status as of 6/8/2017: Phase 1 (design)

Summary

The Ice Harbor Dam and Reservoir Project station service is power that is required to operate the electrical components of the dam and reservoir project, including the spillway, some fish passage equipment, the power drainage system, unwatering pump system, and critical control systems necessary to prevent potential flooding of the powerhouse. The power distribution system for station service is normally fed by power from two transformers: TWO and TJO.

Transformer TJO was taken off line on January 25, 2016 due to high gas levels and gas generation rates in the main tank, which could result in the possibility of an explosion if certain gas levels are too high. This leaves Ice Harbor Dam and Reservoir Project with only a single source for station service power through Transformer TWO because Ice Harbor does not have an emergency diesel generator that can serve as a backup if the transformers fail.

A service contract is being initiated with support from the Corps' Hydroelectric Design Center (HDC) and Walla Walla District (NWW) in order to evaluate the condition of Transformer TJO and identify the cause of the rapidly increasing gas levels and determine if the transformer is repairable. Because of the uncertainty of the condition of Transformer TJO and the long lead time of one year to manufacture replacement transformers, NWW and HDC technical staff recommended expediting this project. As a result of the lead time for manufacturing, interim measures will need to be implemented if Transformer TJO is not repairable.