

## **Chief Joseph CO2 Fire Protection System**

The existing high pressure CO2 fire suppression systems protect the main generating units, station service generators, oil storage room, oil purification room and the station service transformer vault. The system consists of original 1954 equipment, except for the equipment on Units 17-27. The supply bottles, accessories, fittings, and actuator control heads have been in service for over 40 years. Spare parts are no longer manufactured and the spares inventory is nearly exhausted. The current system uses CO2 in areas beyond the generators, where discharge presents a safety risk to workers routinely in those areas. A code review has identified numerous areas of non-compliance with current codes and standards, including NFPA 12 and 851, NFPA 101 (Life Safety Code), OSHA and Army Corps Guide Specifications.

This project will redesign and construct a new fire protection system, with special emphasis on personnel safety. The existing CO2 systems serving the oil storage room, oil purification room, and the station service transformer vault will be removed and replaced with a single water mist system designed in accordance with NFPA 750. The water mist system eliminates the potential for a discharge of toxic gas in these routinely occupied spaces, increasing personnel safety.