

15-124-3P Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters

Construction Contract 15-124-3P Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters is being financed by the Clean Water State Revolving Fund (SRF). The SRF program is administered by the Illinois Environmental Protection Agency and receives a portion of its money to fund these types of projects from the U.S. Environmental Protection Agency. SRF programs operate in each state to provide communities the resources necessary to build, maintain, and improve the infrastructure that protects one of our most valuable resources: water.

Service Area: Stickney

Location: Stickney Water Reclamation Plant – Cicero, Illinois

Engineering Consultant: In-house

General Contractor: Independent Mechanical Industries, Inc.

Contract Award Amount: \$4,094,860.00

Award Date: September 14, 2017

Contract Duration: 365 Calendar Days

Project Description: This project will convert two of the new gravity concentration tanks into fermenters and install a pumping station to pump the fermentate directly into the West Side primary effluent conduit feeding the secondary aeration batteries. This project will also install a gas detection system for the new gravity concentration tank building.

Project Justification: The District is pursuing Enhanced Biological Phosphorus Removal at the Stickney WRP for the recovery of phosphorus and meeting a new regulatory limit for phosphorus in the effluent. The fermentation of primary solids will result in an additional production of volatile fatty acids which will be fed directly in secondary treatment. The additional volatile fatty acids will be utilized in the Enhanced Biological Phosphorus Removal process, resulting in a more stable and better performing process. Additionally, code requirements for an enclosed gravity concentration tank area requires the installation of a combustible gas detection system.

