

PROJECT CASE STUDY

FARGO LANDFILL TRANSFER STATION & BALING FACILITY

The City of Fargo owns and operates a municipal solid waste landfill in the northwest part of the city. The major issues facing modern landfill are leachate, odor and litter control. The most effective way to control or prevent blowing litter at this landfill would be to unload garbage inside a building and bale it prior to placement in the landfill. As a result, the landfill completed construction of a new transfer station and baling facility in May 2007.

In addition, the landfill discovered that only 2/3 of the 1200 cfm produced from the methane gas extraction wells was being used and the other third of the gas was available for other uses. It was determined that the use of a methane gas-powered generator could produce twice the amount of electricity currently being consumed at the landfill. In addition, a methane gas generator would produce sufficient waste heat to meet the heating needs of the new transfer station. The total project cost was \$948,400 and featured a 3-1/2 year payback.

Lectrus was contacted by Ziegler CAT to design and build an enclosure to house the CAT G3516 gas engine, heat exchanger and 4.16kV switchgear, transformer, distribution panel, heater and other associated equipment. Lectrus built the 12ft W x 10ft H x 41ft L walk-in NEMA 3R enclosure and integrated all power generation and distribution equipment at the Lectrus South Dakota Operation. With a total of 90 tons of lifting capacity available, the 10-ton CAT engine was placed on the robust, custom-built skid base with ease. All mechanical and piping work was performed by long-time Lectrus partner Midwestern Mechanical, who provided certified pipefitters to Lectrus for the project. The completed enclosure was seamlessly delivered and commissioned on-site in May 2007.



PROJECT PROFILE

// PROJECT //

Fargo Landfill Transfer Station & Baling Facility

// LOCATION //

City of Fargo, North Dakota

// MARKET SEGMENT //

Solid Waste Landfill

// EQUIPMENT PROTECTED //

Gas engine, heat exchanger, switchgear & associated equipment

// PRODUCT //

Gas Engine Enclosure

// ENCLOSURE SIZE //

12ft W x 10ft H x 41ft L

// DATE COMMISSIONED //

May 2007

// CUSTOMER //

Ziegler CAT

// OWNER //

City of Fargo

lectrus®

ENGINEERED TO SPEC. BUILT TO LAST.

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