



# First Energy Summit

Stratton, Ohio



The gypsum pipe conveyor, constructed on the Sammis River site, is a portion of the \$1.5 billion project expected to reduce emissions of sulfur dioxide by 95% and nitrogen oxide by at least 64% at First Energy's largest coal-burning electric generating plant. The 2.4 mile long hot-dip galvanized conveyor stretching through the countryside is part of a hollow rock waste gypsum disposal facility built on a reclaimed strip mine.

Limestone is used in the scrubbers as a reagent to remove SO<sub>2</sub> from the emissions. During the process, the limestone is converted to synthetic gypsum. The synthetic gypsum is dried and then transported to the facility on the enclosed conveyor belt. The "scrubber sludge" gypsum is then used to make wallboard, further reducing waste.

In keeping with these green efforts, utilizing a 100% natural, recyclable zinc coating for corrosion protection means no VOC's or wasted energy will be expended on maintenance. Hot-dip galvanized steel is highly durable, and will remain maintenance free for 75+ years. Even through the structure's constant exposure to sun, rain, and snow.

The durability of the coating was also necessary because the conveyor was built over steep terrain surrounding the power plant – difficult access for touch-ups and maintenance required by other corrosion protection systems, such as paint. The conveyor also needed a coating that could survive the rough handling conditions of transporting

578,000 tons of limestone annually. Thanks to the dual barrier and cathodic protection of hot-dip galvanized steel, small nicks and abrasions will not compromise the stability of the entire structure.

The owners and community desired an attractive appearance for the structure. As much of the conveyor was built on leased property, the owners wanted a clean, consistent look for the machine, which also crosses public roads. The high quality, consistent finish of hot-dip galvanizing satisfied this need.

Given the high price tag and the public visibility of this project, the progress of this upgrade will be closely watched. Hot-dip galvanized steel will keep the conveyor attractive, durable, maintenance-free, and running efficiently for decades to come.



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Young Galvanizing

**Specifier**  
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**Engineer**  
Koch GM

**Fabricator**  
Classic Conveyor

original equipment manufacturing



American Galvanizers Association