



District Heating

OCTOBER-NOVEMBER 1973

*District
Heating
in
Finland*

*Solid Waste
Recycle Energy
System in
Akron, Ohio*

*District
Heating
in
Sweden*

*Energy
Conservation
in Eugene
Oregon*

*IDHA Board
Addressed by
OEC's Assistant
Director*

*1974
Annual
Meeting
Committees*

SOLID-WASTE PLANT IN NASHVILLE, TENN.

The burning of solid waste — trash and garbage — to create useable energy, is a modern concept that reflects public concern for fuel conservation and air pollution. Now, that approach is being put to practical use. The latest case-in-point is a \$16.5 million solid waste fuel plant facility, being built in Nashville, Tenn., to provide low cost district heating and cooling for the center city's buildings.

Initially, 27 buildings will be linked to the main plant. Connecting the fuel facility to the various buildings will be a vast network of underground pipelines, totalling some three miles, supplied by PERMA-PIPE, a division of Midwesco-Enterprise Inc. of Chicago. The distribution system will utilize four separate lines that are used for the supply and return of steam or chilled water.

The plant itself, which will be operated by Nashville Thermal Transfer Corp., a private, not-for-profit organization, will convert all combustible waste, which isn't recycled for other purposes, into energy. The solid waste will come from the city's trash and garbage.

Heat energy, in the form of high-pressure steam, will be piped to the buildings via an 8,300-plus ft underground pipeline system consisting of 10-¾ to 27 in. diameter conduits containing steam lines one to 20 in. in diameter. The entire steam distribution system will be constructed of Class A PERMA-PIPE, to be fabricated in the Company's Lebanon, Tenn. plant. Manholes will be PERMA-PIPE's shop-fabricated and tested. A large portion (about 10,000 ft) of the chilled water supply and return lines will be PERMA-PIPE's Poly-Therm system.

The fuel plant facility will provide heating and cooling at an anticipated savings of 15 to 50 per cent to the building owners. But equally as important, it is expected to reduce the air pollutants emitted by the buildings by 75 per cent, according to the design engineers, I. C. Thomasson & Associates. In addition, building owners will no longer have to be concerned about fuel shortages, because the project fuel will be essentially 100 per cent solid waste, with stand-by natural gas and oil fuels. Developers of new buildings that will be served by the system will save substantial capital costs by not having to install their own in-building heating and cooling plants.

Still another beneficiary of the new system is the metropolitan government of Nashville. It will realize substantial savings by eliminating the operation of hauling solid waste to various sanitary landfills.

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