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The Transfer

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MAR 24 1997

The corner of State and Adams is taking on a new look as girders have risen and equipment is being installed in Unicom Thermal Technologies' new district cooling plant.

The plant, architecturally designed to complement other buildings in the area, rises four stories above ground and will feature retail shops on the first floor.

Conversion and connection of customer buildings to the system will begin in January as scheduled. Chilled water will begin flowing through the pipes in late spring, with official service to customers beginning in May 1995. (See page 2 for more on plant construction.)

Unicom
Thermal
Technologies

ON LINE

When Northwind Inc. was formed in the summer of 1993, the vision for the company was clear: offer district cooling service to buildings in Chicago's Loop. The goal: to give them an alternative to on-site cooling system maintenance costs and eliminate their concerns about chlorofluorocarbon (CFC) phaseout.

More than a year later, we're pleased to say that not only is that vision being realized, but it is expanding as well. During the past year, we've met with dozens of potential customers and talked with them about their buildings' space-conditioning needs. What we heard is that while building owners and managers are definitely interested in the prospect of district cooling, many are also interested in district heating service in the near future.

It only made sense, then, for us

to respond to customers' needs and put district heating on our business agenda. In fact it's one of the reasons that Northwind Inc. recently became Unicom Thermal Technologies Inc. The name not only more aptly

District cooling is the process by which chilled water is produced at a central source and piped underground to area buildings to meet their air-conditioning needs.

reflects our range of energy-related offerings, it also ties us directly with our parent firm, Unicom Corporation.

As part of a family of energy companies and as a sister company of ComEd, we understand what high-quality service, responsiveness and reliability mean to customers. And we're ready to provide it. Most of you have probably seen our first chilled-water production plant under construction at State and Adams and the accompanying

construction of our new piping network in adjacent streets. All work is right on schedule. We will be able to bring our first district cooling customers on line in May 1995.

Through our quarterly newsletter, "The Transfer," we'll provide you with information on our construction progress, the response we're receiving in the marketplace, more details about future system development and operating recommendations for those already using the service.

In this era of the information superhighway, we know it's important to keep you on line with our thoughts and plans. If you have any questions or comments about Unicom's district cooling system, please give us a call at (312) 634-3200. We're pleased to have this opportunity to bring district cooling and its many benefits to the downtown Chicago community.

Robert D. Fredericksen

Robert D. Fredericksen
Vice President and General Manager

STATE AND ADAMS PLANT TAKING SHAPE

Site demolition occurred in mid-summer and it didn't take long for girders to go up for Unicom's new district cooling plant at State and

Adams. Progress has been swift. In fact, cooling equipment is now being installed.

The plant's chilled-water expansion tanks, located on the second floor, were the first items installed in the new facility. The ice storage tanks were installed in early November on the third and fourth floors.

The second, third and fourth floors are dedicated to chillers, pumps and ice modules. Nearly 60 ice tanks will provide innovative ice storage capabilities for the system to reduce costs and enhance system reliability. The plant's cooling capacity will be 25,000 tons.

Although the plant will be only temporarily enclosed during the winter to allow for additional equipment installation, the building's permanent facade will be completed by early next spring. The exterior will be a limestone-colored precast concrete to match its retail surroundings.

While work continues at State and Adams, plans are being made for Unicom's second district cooling plant at Franklin and VanBuren. Service from the second plant is currently scheduled to be available in 1996.



On site at the new State and Adams Plant were, from left to right, Pepper Construction Co. employees Jim Senorski, John Lally, Terry Ferguson and Jim Wilson.

PIPING SYSTEM: UNDER CONSTRUCTION

Chilled-water supply and return piping has been installed in more than 2,000 feet of trenches in the streets adjacent to the State and Adams Plant, making Unicom the first company to install district cooling pipe in Chicago's Loop. The piping is just the beginning of an extensive network that will continue to expand throughout the area next spring and summer.

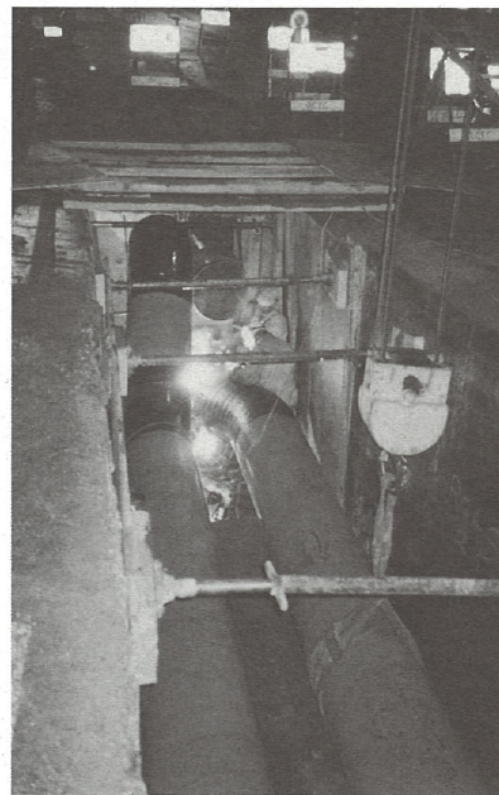
Piping construction is being performed during the night to ease traffic and pedestrian congestion and impact. "We've been extremely pleased with how the project has gone," says Stan Gent, director of operations. "We've gotten extremely good cooperation from Ted Maynard at the City's Department of Transportation and the entire Board of Underground. That's really had a positive impact on the work we've had to do."

Reliable Contracting & Equipment Company is in charge of the system's piping construction, starting their trench work in early

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evening and closing up all trenches again by 6 a.m. "Since Chicago has such an extensive infrastructure in place, our challenge has been to thread the new pipeline through and around existing utilities," explains Gerald Giebelhausen, Reliable's vice president. "But it's gone quite smoothly. We've done an extensive amount of utility work in the area, so that knowledge and experience has definitely helped us keep the project on track."

Reliable was purchased by its present ownership in 1977 and is located on the fringe of Chicago's Loop. With up to 210 employees during its peak summer season and about 140 during the winter, Reliable has handled numerous large underground piping projects



Construction crews weld the 24-inch steel pipe during their night shift to avoid traffic delays and disruption.

for large organizations such as the City of Chicago, Abbott Laboratories, Argonne Laboratories and all of the area's major utilities.

CFCs: A CALL TO ACTION

Leaders from all points of the globe are sounding a clarion call to action: we must minimize the damage to the earth's stratospheric ozone layer by reducing ozone depletion caused by chlorine-based refrigerants such as chlorofluorocarbons (CFCs). Worldwide protocols have provided a framework for regulation and legislation in individual countries. Under the Clean Air Act amendments of 1990, the U.S. Environmental Protection Agency has promulgated refrigerant phaseout and handling regulations.

Many building owners, managers and operators are finding the effects of these amendments significant.

For some buildings it may mean a wholesale changeout of their on-site cooling systems. For others, less radical measures will be needed.

In Chicago, building owners and managers now have an air-conditioning alternative that frees them from the CFC dilemma: district cooling. Since Unicom's main plant will provide customers with chilled water that can be directly used for air conditioning, customers will no longer have to deal with refrigerant regulation, phaseout or handling concerns. Plus, Unicom will produce the chilled water at a plant that does not use CFCs, benefiting the environment from the start.

But wherever you currently stand in the refrigerant dilemma, it's important to know the facts related to the changes on the way.

- CFCs, including R-11 and R-12, will no longer be produced in the United States beginning January 1, 1996.
- HCFC-22 is banned for use in new equipment as of January 1, 2010.
- Complete HCFC-22 production phaseout is effective January 1, 2020.
- Complete HCFC-123 production phaseout is effective January 1, 2030.
- The release of any refrigerants to the atmosphere when servicing equipment is prohibited.
- Maintenance technicians must be certified in the use of recovery and recycling equipment.

continued

- Certified recovery and/or recycling equipment must be used to capture refrigerants.
- Substantial leaks in air conditioning and refrigeration equipment with a charge of greater than 50 pounds must be repaired.
- Warning labels must be placed on all storage containers of refrigerants.
- A violation of these regulations could result in a fine of up to \$25,000 per day. Some fines already assessed for the violations of EPA's earlier rules totaled over \$100,000.

If you have additional questions about CFC use and phaseout, feel free to contact us at (312) 634-3200. We have refrigerant documentation that may provide you with more details as you evaluate your cooling alternatives.

UNICOM HOSTS ENVIRONMENTAL GROUPS

On Thursday, October 6, Unicom held a dialogue with local environmental organizations regarding the company's new district cooling system and its relationship to the environment.

Unicom representatives presented the company's mission, the target market for the service, the environmental issues addressed by the service and the company's plans for the future. The discussion centered around Unicom's ability to provide solutions to ozone depletion, global warming and energy planning.

John Mitola, Unicom's director of business development, reported that as customers connect to Unicom's district cooling service,

their use of thousands of pounds of CFC refrigerants is eliminated.

Attendees included representatives from the Department of Environment, the Center for Neighborhood Technology, the Environmental Law and Policy Center of the Midwest, Greenpeace and Sierra Club.

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The telephone number is (312) 634-3200. For information specifically related to construction, please call (312) 634-3225. Unicom Thermal Technologies Inc. was formerly Northwind Inc.



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COOLING NEEDED EVEN IN COLD CLIMATES

It doesn't seem to make sense: Minneapolis, Minn., in the heart of the snow belt, has one of the largest commercial district cooling systems in the nation. But cold climate and all, the district cooling system in Minneapolis has thrived since it began operation in 1972.

District cooling systems, no matter where constructed, have shown phenomenal growth rates. (See accompanying chart.) The system in Hartford, Conn. — the nation's first commercial district cooling operation — is nearly 12 times the size it was in 1962. In Los Angeles alone, 21.4 million square feet of space uses district cooling service. In all, commercial district cooling systems air condition over 115 million square feet of U.S. building space.

But why the growth in air conditioning use even in cold climates? The list of reasons continue to grow. Much of it is a response to the worldwide phaseout of CFCs in addition to the trend toward outsourcing,

denser building occupancy, tighter building envelopes and increased computer use. And that means cooling is needed year-round, not just during the heat of the summer.

District cooling is ideally suited to year-round use since customers take only as much chilled water as they need for their particular applications. They don't have to activate

one large chiller to handle a much-smaller air-conditioning load in the shoulder or winter seasons, making the Chicago area a perfect fit for district cooling. In fact, this very flexibility is just one reason building owners and managers in other cities nationwide are finding district cooling to be a cost-effective solution to meet their air-conditioning needs.

District cooling systems nationwide have seen significant growth since their construction.

