# UNDERFLOOR HEATING

NARCOMEY CONSTRUCTION SERVICES, LLC

## BACKGROUND INFORMATION

- The retrofit of underfloor heating using horizontal drilling was First introduced in 1992 by Pat Ferguson along with herb Woolley of James E. Choate and associates and Americold Logistics technicians.
  - THE REASON FOR DESIGNING THIS SYSTEM WAS DUE TO MANY PROBLEMS WITH FLOOR HEAVING BECAUSE OF EXISTING FLOOR HEAT SYSTEM FAILURES.
- AFTER THE SYSTEM PROVED TO BE SUCCESSFUL, IT BECAME THE GO TO SOLUTION FOR MANY LOGISTICS COMPANIES ACROSS THE COUNTRY.
- THESE UNDERFLOOR HEATING SYSTEMS HAVE BEEN BEING INSTALLED FOR ABOUT 30 YEARS.

## WHY CORRECT FLOOR HEAVING ISSUES?

- INTERRUPTION OF OPERATIONS
- Building Structure Compromised
- OSHA VIOLATIONS-SAFETY CONCERNS
- LONG TERM REPAIR EXPENSES
- LOST PRODUCTION TIME
- LOST RENTAL INCOME

## PURPOSE

- THE PURPOSE OF THE SYSTEM IS TO STOP THE HEAVING BUT MORE IMPORTANTLY TO THAW THAT GROUND OUT FOR THE FREEZER SLAB TO SETTLE BACK INTO PLACE.
- Some of the options companies consider for solving these issues are:
  - BREAKING UP CONCRETE AND LAYING NEW GLYCOL
    - Shuts down facility so no revenue coming in
    - All product and racking has to be moved to different location
    - CONCRETE NEEDS TO BE SAWCUT, DEMOED, HAULED OFF THROUGHOUT THE FACILITY
    - NEW GLYCOL LINES NEED TO BE LAID
    - Concrete Poured Back and Cures for 21 days
    - ALL INVENTORY AND RACKING REINSTALLED
  - HORIZONTALLY DRILLED UNDERFLOOR HEATING
    - Facility stays operational throughout construction. Only thing needed inside is pallets moved where drill will take place to track the drill head. One man will be inside tracking
    - DRILLING OCCURS OUTSIDE OF FACILITY. DRILLING WILL GO DIRECTLY INTO FROST
    - Heat trace wire is installed in pipes and wired up by electrician
    - ONCE EVERYTHING IS INSTALLED. NCS SHOOTS BENCHMARKS TO TRACK PROGRESS AND TEST ALL SYSTEMS

## COST CONSIDERATIONS

#### • UNDERFLOOR HEATING

- COST OF DRILLING AND WIRE INSTALL
- ELECTRICAL COST
- REPLACING CONCRETE SLAB
  - LOST REVENUE FROM OPERATIONAL SHUTDOWN
  - Shipping product to another facility
  - Take down racking and storage
  - DEMO AND HAUL OF CONCRETE
  - LAYING NEW GLYCOL
  - POURING BACK CONCRETE
  - Remobilize racking and install

## INSTALLATIONS HAVE BEEN COMPLETED IN MULTIPLE STATES SUCH AS:



## MOST RECENT JOBS

- Associated Grocers Baton Rouge, LA
- A LA CARTE FOODS BELLE ROSE, LA
- FROZEN FOOD EXPRESS LANCASTER, TX
- FREDS FOOD CLUB ROCKY MOUNT, NC
- LINEAGE LOGISTICS SOLON, OH
- Americold Logistics Montgomery, AL
- PLEASE REACH OUT FOR REFERENCES



# PHOTOS



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