

## Preparing Air Conditioning Systems for Cold Weather

Proper end-of-season lay-up requires that you check for signs of trouble that may have developed during the operating season and observe proper maintenance procedures.

When cooling is no longer required, the refrigerant in open drive, positive pressure systems should be pumped down to a receiver or the condenser and isolated to prevent leakage from the system. In low pressure systems, a positive pressure should be maintained to prevent moisture and air from entering the system.

Absorption units should have their solution tested for contaminants and inhibitor strength. All adjustments and changes to the solution should be made at this time.

Cooling towers should be drained of all water and flushed. All water lines and condensers subject to possible freezing should be drained and lines blown out with air, or an anti-freeze solution should be circulated through the water systems. All control circuits should be turned off and tagged to prevent unauthorized operation of the system.

Freezstats and dampers controlling outside air should be checked and adjusted for proper operation. Air cooled condensers should be inspected for damage. Fan belts may be loosened or, preferably, removed for indoor storage.

Annual maintenance should be performed, including an acidity test on refrigerant oil. Compressor maintenance should be scheduled now with full or partial dismantling and inspection, as recommended. This should include draining, checking, and cleaning of oil reservoirs, oil filters and strainers. Inlet damper or guide vane mechanisms should be inspected for cracks or wear, and lubricated as necessary. Condenser tubes should be cleaned; controls and safety devices should be checked for proper operation; a purge unit, where used, should be overhauled; cooling towers, nozzles and filters should be cleaned.

Pressure gages and thermometers should be calibrated and adjusted. Motors should be served by cleaning the openings and lubricating the bearings. Motors subject to weather or airborne contaminants should be covered. Other annual maintenance of the system as recommended by the manufacturer should be performed.

By following proper lay-up procedures, the owners and operators of air conditioning equipment will not only eliminate the causes of many costly accidents, but also benefit by knowing that the equipment will be ready to operate – following proper start-up procedure – with the greatest degree of reliability during the next cooling season.