

R-290 Readiness Checklist

Prepare Your Facility for the Next Generation of Beverage Equipment and Ice Machines

The move from R-404A to R-290 (propane) refrigerants is reshaping commercial beverage and ice equipment. This checklist is designed to help facility managers and is intended as a proactive, ongoing tool. Review each section **before installing new R-290 equipment** and continue regular inspections for safe, efficient operation. Assign responsible staff members for each category, maintain detailed records, and use the insights to optimize maintenance schedules, energy use, and equipment lifespan. Following this checklist ensures your facility is ready for R-290 systems today—and fully prepared for evolving commercial refrigeration standards.

1. Equipment Inventory & Assessment

- ☐ Document all existing beverage & ice machines, including model, age, refrigerant type, and maintenance history.
- ☐ Identify equipment that is nearing end-of-life or is scheduled for replacement with R-290 models.
- ☐ Flag units that have recurring performance or leakage issues to track long-term trends.
- ☐ Note location-specific risks: areas prone to high ambient temperatures, poor ventilation, or customer contact.

2. Safety & Facility Readiness

- ☐ Confirm that all equipment rooms and installation areas have proper ventilation for hydrocarbon refrigerants.
- ☐ Check that fire suppression systems, smoke detectors, and emergency alarms are in proper working order.
- ☐ Identify nearby ignition sources and eliminate or shield them where R-290 systems operate.
- ☐ Verify compliance with UL, ASHRAE, and local codes for flammable refrigerants.
- ☐ Ensure access to Material Safety Data Sheets (MSDS) for all R-290 equipment.

3. Preventive Maintenance Adjustments

- ☐ Update maintenance schedules to include R-290 specific inspection points, such as leak checks with hydrocarbon-safe detectors; refrigerant charge verification; pressure and temperature consistency checks; and compressor and condenser performance inspections.
- ☐ Inspect all hoses, fittings, and connections for wear or corrosion during each preventive maintenance cycle.
- ☐ Maintain logs for each unit including refrigerant type, charge amount, and inspection findings.

4. Staff Awareness & Training

- ☐ Ensure all maintenance and operations personnel understand R-290 hazards and safety procedures.
- ☐ Conduct emergency response drills for refrigerant leaks.
- ☐ Train staff on proper handling, storage, and transportation of R-290 equipment if moved or serviced.
- ☐ Provide a quick-reference R-290 safety guide for all relevant personnel.

5. Operational Monitoring

- ☐ Track energy consumption and temperature stability for each unit to benchmark R-290 efficiency.
- ☐ Monitor ice quality, beverage temperatures, and dispensing consistency to detect performance deviations.
- ☐ Record any abnormal noise, vibration, or equipment shutdowns for follow-up with technicians.
- ☐ Set up alerts for units with digital monitoring capabilities to detect refrigerant or system issues early.

6. Documentation & Reporting

- ☐ Keep a comprehensive log of inspections, maintenance, and operational checks.
- ☐ Record equipment upgrades and R-290 conversions with dates and responsible personnel.
- ☐ Track environmental and energy metrics for sustainability reporting.
- ☐ Use logs to support troubleshooting, audits, and long-term operational planning.

7. Facility-Specific Considerations

- ☐ Identify high-traffic areas that may require additional preventive checks due to frequent use.
- ☐ Consider placement of R-290 units in areas with easy access for maintenance and emergency ventilation.
- ☐ Evaluate seasonal or peak demand periods to ensure units can handle increased cooling loads without compromising safety.