RETROFIT Improvements
Elevate & Secure Outdoor HVAC Equipment
Making Homes Safer in Disasters

Retrofit Opportunity
• Elevating the HVAC compressor can be accomplished at anytime, however, there is a significant expense in extending and recharging the refrigerant line that may warrant accomplishing the retrofit in tandem with an equipment replacement.

Purpose
• To protect outdoor HVAC equipment from water damage during a flood
• To prevent outdoor HVAC equipment from being damaged or becoming a projectile in high winds

Benefits
• Protects the equipment from damage during a hurricane
• Protects the equipment from theft

Illustrations
Retrofit
Option 1:

Summary
HVAC equipment installed outside the house should be elevated to 1’ above the base flood elevation (BFE), just as the living areas of newly-constructed homes are required to be. Equipment normally placed on a pad at grade level (e.g., HVAC compressor) should be secured and raised to a level safely above flood waters.

Cost estimates to have a wooden elevated platform (6’) professionally built run about $500. Relocating the compressor itself, as well as, the emergency disconnect box, extending the refrigerant line, recapturing the old refrigerant and recharging costs about $1,300. Because of the costs, elevating the outside HVAC unit during equipment upgrades should be considered.

Option 2:
Potential Damage

Key Steps

• Outside HVAC compressors can be elevated on a base of masonry, concrete, pressure-treated lumber deck, or existing balcony or porch landing; wherever the equipment will be 1’ or more above the base flood elevation (BFE).

• When elevating compressor, consider installing energy efficient HVAC equipment to receive both energy and disaster preparedness benefits.

• A big part of the cost of relocating HVAC equipment lies with extending and recharging the refrigerant line, so the retrofit will be cheapest when new equipment is installed.

• Several trades will be involved in elevating HVAC equipment (i.e., carpenter, electrician, and HVAC technician).

• Your contractor may have additional ideas on how to improve the safety of your home.

• For more details about this retrofit improvement, please refer to the list of Resources in the section below.

Resources

Federal Alliance for Safe Homes, Floods: Major Appliances – Elevating

FEMA, Home Builder’s Guide to Coastal Construction
http://www.fema.gov/library/viewRecord.do;jsessionid=E34B1F94FFA4B12C81995C6DC000644.Worker2Library?id=2138

http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1420