GUIDELINES FOR PERMITS ASSOCIATED WITH THE REPAIR OF FLOOD DAMAGED HOMES AND BUILDINGS

Permits

A building permit is required prior to making repairs to flood damaged homes and buildings

- While there are no permits required to do the “clean-up” associated with the project (the removal of drywall and damaged carpet, doors, etc.), a building permit is required prior to installation of the drywall and prior to repair of any electrical, plumbing, or mechanical (HVAC) system damage.

- When you arrive at the Department of Inspections you will see a Permit Technician.

- To acquire a permit you must fill out a permit application. Upon filling out and submitting your application to the inspection office, there it must be reviewed by the building inspector. After its reviewed by the building inspector, the inspector determines whether or not to issue the permit. NO work should be done until this process is complete.

- At the time of application you must have the name of the property owner, proper street address and/or the tax map and parcel number to insure proper identification of the property.

- Some applications may require approvals from other departments such as the Flood Plain Coordinator (for assistance with floodplain and storm water issues and to ensure compliance with FEMA requirements). When this occurs the Permit Technician will act as your counselor, providing you with information and person that will aid you in obtaining these approvals.

- The inspection division will field check for compliance with Building, Electrical, Plumbing, Energy Code and Gas/Mechanical Codes. When you have completed the work, the inspectors will give you a final inspection for the work you have done and had inspected.

- All permit should be visibly placed where the work is to be performed.
When an owner obtains his or her own building permit, he or she becomes totally responsible for the code compliance of the construction project including subcontractors and not the contractor – even if a contractor is hired and the construction do not comply with all codes.

The repair and inspection sequence for flood damaged properties:

- Now that you have your building permit, the next step is to secure the services of a licensed electrical contractor and a licensed HVAC contractor to inspect electrical and/or HVAC equipment which may have been submerged in flood waters. Note, **All Sub-Contractors shall pull permits when working directly for the homeowner.**

Do not install drywall or cover the electrical or HVAC systems until the following has been completed:

The licensed electrical and HVAC contractors will obtain electrical and/or HVAC permits associated with the repair and/or replacement of any submerged electrical, HVAC systems or any part thereof. The licensed contractors will complete their work and call the department for inspections and approvals.

An moisture inspection is required by the building inspector before insulation can be installed. (NC building code requires moisture levels to be 19% or less) Call the inspections office and request for your moisture test through the permit technician. After moisture level is checked and approved by the building inspector, he will submit results to permit technician. Then insulation can be installed.

Insulation must then be installed in the exterior walls and floors to meet the requirements of the adopted energy codes. Walls must be insulated with R-13 and Floors must be insulated with R-19 and Ceilings R-30.

Before hanging the drywall, you will call the Building Inspection Department and request an “Insulation inspection”. Upon receiving our approval of the Insulation inspection, you are then free to hang the drywall and complete the remainder of the repairs.

**GUIDELINES FOR REPAIR OF ELECTRICAL SYSTEMS EXPOSED TO FLOOD WATER**

If your electrical system, or parts of your electrical system not rated for wet locations, have been flooded and your electricity has been cut off, to have power restored/reconnected you must:

Have a licensed electrical contractor come inspect your electrical system. He must come to the inspections office and get a permit first. He must submit a letter on his letterhead stating the work he has done and that it is safe to re-energize the power.
If the electrical contractor finds your system is ok to re-energize, he will call for a service release permit, this will trigger us to send an inspector to meet the contractor at your residence/building. If the system passes inspection, we will notify the power company to reconnect the power. The electrical contractor shall then obtain an electrical permit to repair the unacceptable part of the system.

When repairs are completed the contractor will call for an inspection. If the remaining portion of the system passes inspection, then it may be connected to the energized part of the system by the contractor.

All parts of an electrical system (including all electrical devices, outlet, switches, equipment and some wiring) not rated for wet locations, which have been submerged in flood waters will have to be replaced by a licensed electrical contractor. Repair or reconditioning of electrical equipment should only be attempted when in direct consultation with and following instructions from the equipment manufacturer.

**GUIDELINES FOR WATER HEATERS EXPOSED TO FLOOD WATERS**

The Department of Inspections urges you to use extreme caution when restarting any Water Heating Equipment that has been submerged or water damaged during flooding. Prior to re-starting any equipment you should have a licensed Plumbing or Mechanical contractor inspect the equipment. The replacement of a residential water heater does require a permit. It would require a permit if you were to change the fuel type (example: going from electric to gas or from gas to electric).

**Whether a water heater uses gas, or electricity, if it was exposed to flood water. The unit should be replaced.**

A new water heater is a relatively small investment, and replacing it is fairly easy to do. If the water heater was more than five years old, the chances are good that a new unit will be more efficient, which will save the homeowner money.

In a gas unit, valves and controls can corrode and cause it to malfunction. In an electric unit, the thermostat and controls can corrode and cause malfunction.

In both types, the insulation surrounding the unit will likely be contaminated and will be nearly impossible to disinfect. In addition, the insulation takes a great deal of time to dry and can lead to corrosion of the tank from the outside. Even if water heater components have been cleaned and the unit seems to operate properly, parts may corrode in the future and create a very hazardous condition.

Both gas and electric water heaters have a pressure relief valve that can corrode and stick after being exposed to flood water. This is a very hazardous condition. Homeowners should be sure, therefore, to replace this valve as well.
GUIDELINES FOR RE-STARTING WATER DAMAGED HEATING AND COOLING EQUIPMENT

The Department of Inspections urges you to use extreme caution when re-starting any Heating or Cooling Equipment that has been submerged or water damaged during flooding. Prior to re-starting any equipment you should have a licensed Mechanical contractor inspect the equipment and clean or repair as necessary prior to putting back in use.

Below are some guidelines to help determine if replacement is the better choice than repair.

Gas Furnaces and Boilers: If there is any question whether flood water has reached a gas furnace or boiler, it should be checked by a qualified NC licensed contractor. This equipment has gas valves and controls that are especially vulnerable to water damage from flood damage that might not be visible. Corrosion begins inside the valves and controls, and damage may not be apparent, even if the outside of the device is clean and dry. At a minimum, this damage can result in reliability problems.

Electric Furnaces: An electric furnace consists of electrically heated coils, a fan to provide air circulation across the coils, and controls that include safety relays. As with a gas furnace, an electric furnace is susceptible to corrosion and damage from flood water, creating potential reliability problems or safety hazards. If there is any question whether flood water has reached an electric furnace, homeowners should have it checked by a NC licensed contractor.

Propane Heating: Use extreme caution where there is the potential for propane leaks and have propane equipment checked, re-paired and/or replaced by a contractor as quickly as possible after a flood. In every case, contractors must replace all valves and controls that have been in contact with flood water. The gas pressure regulator on a propane system should also be checked. This regulator contains a small vent hole to sense outside pressure. For effective gas pressure regulation, this hole must always remain unobstructed. During a flood, debris can easily plug the hole, causing dangerous malfunction or corrosion.

Radiant Floor Heat: With this type of heating system, electrically heated cables or tubing circulating a fluid are embedded underneath or within the flooring material. The cables warm the floor, which in turn warms the room by radiant heat. If the floor becomes wet from a flood, it can weaken and perhaps crack and may need replacement. Both electrical cables and tubing can be damaged due to a wet floor. Therefore, a qualified professional should be consulted to determine whether the system can continue to be used.

Heat Pumps and Air Conditioning Systems: Split air conditioning and heat pump systems have power and control wiring between the indoor and outdoor parts of the system, and piping through which refrigerant flows through the system. If flood water has repositioned either the indoor or outdoor units of a split system even by a small amount, there is a potential for refrigerant leaks. The system will then require major repair or full replacement. If the refrigerant system remains intact after the flood, the entire system should be cleaned, dried and disinfected. Homeowners should have a NC licensed mechanical contractor check the indoor and outdoor units' electrical and refrigeration connections, including all control circuits. The decision to
repair or replace should be made after consultation with a qualified professional on a case by case basis

**Ductwork:** If a house under storm repair contains a central forced air system, attention should also be paid to the ductwork. A contractor will not try to salvage duct insulation that has been in contact with flood water, but will replace it because it is impossible to decontaminate. The contractor also will clean, dry and disinfect the ductwork itself. A thorough job will require disassembling the duct-work, but the silver lining is that such repairs will allow the contractor to seal joints in the ductwork and improve insulation to reduce heat and cooling loss.

**Mold:**

Be aware that mold might be present if your house was flooded.

Wet items such as furniture and rugs should be taken outside to dry out

Remove all drywall that has been submerged.

Use fans and dehumidifiers to remove excess moisture from your home. Fans should be placed at a window or door to blow the air outwards rather than inwards, so not to spread the mold.

To remove or prevent mold growth from hard surfaces use commercial products, soap and water, or a bleach solution of 1 cup of bleach in 1 gallon of water

*Please call the health department if any mold issues occur*
*Health Director- Wesley Smith  252-448-9111*

*Please do not hesitate to contact our office with any questions regarding inspections*

*Permit technician : Vester Freeman  252-448-1221*

*Inspector Mr.Alton Wilson 252-349-6521*

*Inspector Mr.Paul Ingram 252-229-3900*