

ORDINANCE NO. 76-5

AN ORDINANCE AMENDING THE HERNANDO COUNTY PLUMBING CODE BY ESTABLISHING A SOLAR HEATER STANDARDS CODE AS PART OF THE PLUMBING CODE; PROVIDING FOR DEFINITIONS; PROVIDING TECHNICAL REQUIREMENTS FOR SOLAR HEATERS; PROVIDING CRITERIA FOR ISSUANCE OF PERMITS; PROVIDING FOR QUALIFICATIONS OF SOLAR HEATER INSTALLERS; PROVIDING A PENALTY; PROVIDING AN EFFECTIVE DATE

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF HERNANDO COUNTY, FLORIDA:

SECTION 1. The Hernando County Plumbing Code, Hernando County Ordinance No. 71-5, is hereby amended by adding thereto Article V to be identified as the Hernando County Solar Heater Standards Code, which said Article V shall constitute all sections contained herein.

SECTION 2. PURPOSE AND FINDINGS: This Code is designed to establish basic requirements for the design and material usage on the solar water heaters. Permits shall be required on all units prior to installation on all projects. Prior to suitability of a solar unit being accepted, the manufacturers of such solar heaters shall submit to the Building Official of Hernando County the basic design criteria, listing materials to be used, average weight per square foot, the type of circulating pump to be used, and recommended procedures for connecting to the potable water system or swimming pool.

Provisions of this Code are primarily intended to supplement the applicable existing codes, such as the Standard Plumbing Code, the Standard Mechanical Code, the Standard Building Code, the applicable swimming pool code, the National Electric Code and the Florida State Department of Health Regulations. However, the Building Official shall require sufficient evidence to enable him to judge that the solar heating device and the method of installation does, in fact, meet the requirements

of these codes and does provide for the safety, health and welfare of the people of Hernando County, Florida.

SECTION 3. CERTIFICATION OF SOLAR HEATING DEVICES:

In order to furnish the Building Official with sufficient data to approve a solar heating device for installation, each manufacturer must submit a certified pre-qualification form certified by a professional engineer registered in the State of Florida to include the following information:

- a. Engineering drawings showing the basic configuration with overall dimensions, pipes, pumps, electrical connections, materials used and details of anchoring system.
- b. Photograph showing prospective of unit.
- c. Operating weight of unit.

SECTION 4. REQUIREMENTS FOR ISSUANCE OF PERMIT: No person, firm or corporation shall do or cause to be done the installation, alteration or replacement of any solar heating device or system without first having obtained the proper permit from the Building Official. The following are the requirements for the issuance of the permit: Each solar device shall be installed by a certified contractor, except a home owner may install a solar device on his own home for his own personal noncommercial use; however, he must comply with all provisions of the applicable codes.

SECTION 5. DEFINITIONS:

- a. SOLAR HEATER - Any unit designed to circulate a liquid through metal or plastic piping or enclosed grillage for the purpose of heating the liquid.
- b. CERTIFIED MANUFACTURER - An individual or a corporation engaged in the business of fabricating solar heaters.

- c. CERTIFIED CONTRACTOR - A certified plumber or mechanical contractor who carries a current certificate of competency in Hernando County, Hernando County Construction Licensing Board, or with the State Construction Licensing Board.
- d. Solar heaters connected to the residential swimming pool and not connected to the potable water system may be installed by the swimming pool contractor.
- e. PLASTIC PIPE HEATER - A solar heater whose basic liquid carrier is assembled of P.V.C. piping or grillage system.
- f. COPPER PIPE HEATER - A solar heater whose basic liquid carrier is assembled of copper pipe with soldered joints.
- g. IRON PIPE HEATER - A solar heater whose basic liquid carrier is assembled of threaded iron pipe.

SECTION 6. APPROVAL OF SOLAR HEATING UNITS: Sealed engineering drawings shall be submitted to the Building Official for approval. The Building Official may request additional data and submittal of a sample, or he may require an in-factory inspection to assure the quality control of the manufacturer of the specific unit. Final approval shall be in writing, listing the name of the equipment and the name of the manufacturer.

SECTION 7. CERTIFICATION OF INSTALLERS:

- a. All solar heaters connected to potable water systems (including public swimming pools) shall be installed in accordance with the Standard Plumbing Code and/or Hernando County Swimming Pool Code and

State Health Department Regulations.

- b. Solar heaters connected to potable water systems shall be classified as plumbing fixtures and shall be installed and connected by a certified master plumber.
- c. Solar heaters connected to mechanical heating systems shall be classed as mechanical equipment and shall be installed by a certified mechanical contractor.
- d. Installers connecting to nonpotable water systems shall be registered by the Hernando County Building Department. Installers shall submit data for registration, as follows:
 - 1. Trade name of units under this registration.
 - 2. Manufacturer's name.
 - 3. Number of years working in this field or related field.
 - 4. Three business references.
 - 5. Three personal references.
- e. Certification or registration in this field does not permit this contractor to connect electric. Electrical work shall be installed by a master electrician.

SECTION 8. PLASTIC PIPE HEATERS: Solar heaters manufactured of plastic pipe shall be manufactured of C.P.V.C. (chlorinated poly vinyl chloride) rigid pipe manufactured in accordance with ASTM D-2846-73 system standards, and listed in the Plastic Pipe Institute. This system is limited to residential swimming pools only.

SECTION 9. COPPER PIPE HEATERS: Solar heaters manufactured of copper piping-copper pipe shall be of type "L" soft

or rigid or better. Joints shall be brazed, silver solder or 95.5 solder. Copper shall be used as the reflecting or heat absorbing material. Dissimilar metals which could cause chemical reactions shall not be used with copper.

SECTION 10. IRON PIPE HEATERS: Solar heaters manufactured of iron piping may be wrought iron, galvanized steel or brass. Joints in wrought iron shall be either welded or threaded. Joints in galvanized steel shall be threaded, while joints in brass shall be brazed or threaded. Dissimilar metals which could cause chemical reaction shall not be used in manufacture of iron pipe heaters.

SECTION 11. DESIGN CRITERIA: The following items shall be used in the design of solar heaters:

- a. AQUASTAT OR WATER LIMIT THERMOSTAT WITH SENSOR DEVICE - These units shall be installed to control the flow of water through the solar heater.
- b. CIRCULATING PUMP - This unit would be an in-line pump to circulate the water through the solar heater. This unit would not be required if the design and location of heater and storage tank would govern the natural flow of the water.
- c. Temperature and pressure relief valve to be located to permit the unit to bleed if the temperature and pressure exceeded the allowable load.
- d. Air vent to be located to bleed the excess air from the system to permit proper flow of liquids.
- e. Shut-offs shall be located to permit the removal of the heater without disrupting water service to the rest of the fixtures in the building.

- f. Drains shall be attached to drain the unit to permit work to be accomplished on a dry heater. Check valves as required to prevent the liquid to flow in the reverse direction in the heater.
- g. Collector casing shall be made of metal or treated wood to prevent rot. The collector shall be basically water tight, and shall be designed to permit condensation and excess water to drain.
- h. All structural members of the solar device which are exposed to the elements shall be constructed of noncorrosive materials or other materials properly protected from corrosion, rust or decay.
- i. Units which are not an integral part of the building shall be securely anchored to withstand 100 MPH wind.
- j. All glass or plastic used on the solar heater device shall comply with the glazing requirements of the applicable sections and the current amendments of the Standard Building Code.
- k. The solar heating system shall have a means of regulating the maximum temperature of the circulating fluid such as a temperature and pressure relief valve, a piping system drain valve and a collector box condensate drain, unless the box is vaportight.
- l. The solar heater piping and casing shall be grounded electrically in accordance with the National Electric Code.
- m. Solar heating devices which are mounted

external to the building and are not an integral part of the building shall be securely anchored to withstand 100 MPH wind, in accordance with Chapter 12 of the Standard Building Code.

- n. The solar heater piping and casing shall be grounded electrically and properly wired in accordance with the National Electrical Code.

SECTION 12. Storage tanks from a solar water collector which are installed in an attic, or on a roof must be placed over a weight bearing wall or partition, or be securely supported and approved by the Building Inspector.

SECTION 13. PENALTIES: Violations of this Ordinance are a misdemeanor and shall be prosecuted according to the provisions of Florida Statutes for violations of County Ordinances. Violations of this Ordinance shall also constitute grounds for suspension or removal of a contractor or subcontractor's certificate of competency.

SECTION 14. EFFECTIVE DATE: This Ordinance shall become effective immediately upon passage according to the provisions of Florida Statutes.

ADOPTED in Regular Session in Brooksville, Hernando County, Florida, this 1st day of June, 1976.

BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY, FLORIDA

By  ADRIAN W. BELL, JR., CHAIRMAN

Attest  HAROLD WILLIAM BROWN, CLERK