



**PETITION FOR DECLARATORY STATEMENT  
BEFORE THE FLORIDA BUILDING COMMISSION**

**Company:** URETEK Holdings, Inc.  
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**DS 2012-097**

**Petitioner's Attorney or Representative:** Robert W. Moody, Jr.  
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**Statute(s), Agency Rule(s), Agency Order(s) and/or Code Section(s) on which the Declaratory Statement is sought:**

2010 Florida Building Code – Residential, Chapter R318.5  
2010 Florida Building Code – Existing Building

**Background:**

URETEK Holdings, Inc. (URETEK) is a Florida-based corporation specializing in soil stabilization utilizing non-intrusive methods to improve the bearing capacity of foundation soils beneath existing structures. This is achieved by injection of a rigid structural geotechnical polymer deep into the base soils beneath the foundation of an earth-supported structure utilizing a proven, highly controllable process. The polymer, as the consequence of a chemical reaction expands rapidly, providing resistive and uplift forces which compact and densify the soils. The material combines with the soil and cures rapidly, providing permanent support and remediation of soils impacted by ground subsidence from sinkhole activity, compaction, erosion, organic decomposition or other natural causes. The polymer, when injected into the earth forms an extremely dense load-bearing component that rivals concrete in density. This process provides

a cost-effective, quick, non-intrusive and environmentally-friendly alternative to traditional methods of mitigating said impacts. The process is covered by at least one valid United States Patent, No. 6634831 B2 titled "Method for Increasing the Bearing Capacity of Foundation Soils for Built Structures" dated October 21, 2003, copy of which is attached and incorporated herewith.

Residential application of this technology is generally limited to **existing** one- and two-family dwellings that are on average twelve to twenty years old. Installation is performed following a detailed set of specifications prepared by a registered Professional Engineer licensed under Chapter 471, F.S., whom carefully evaluates the subsurface geological conditions causing structural failure. The engineer specifies the frequency, depth and application rate of the injection process and in fact monitors the work in process and certifies it to be in compliance with the specifications upon job completion. The injections are typically laid out on approximately five foot intervals around the exterior perimeter foundation walls of an impacted dwelling. Hollow steel injection tubes are driven into the soil from outside the structure at an angle to intersect the centerline of the exterior load-bearing foundation wall at a typical depth ranging from 4.0' to 15.0' below land surface, depending on the location of the weak soil zone as determined by the Professional Engineer. The polymer is then pumped through the tubes under carefully controlled pressure, temperature, mixing ratio and volume. The result of injection under these conditions is rapid expansion of the polymer, which travels through, envelopes, compacts and densifies the soil in this zone whereby it provides uplifting force to restore the bearing capacity of the soil in supporting the overlying foundation.

One future project involves application of the polymer to an approximate 2,000 square foot single-family dwelling that is approximately sixteen years old of masonry wall and spread footing construction. In this example, the polymer is injected deep under the perimeter foundation walls in a process that surgically injects the material at an exact elevation, usually 4.0' below land surface or deeper. The installed polymer is not in contact with the foundation in this application.

A second future project involves application of the polymer to a similar 2,000 square foot single-family dwelling, however in this example there is monolithic slab construction with integral footing in which there is void space beneath the slab as the result of ground subsidence. In this example, the polymer is injected through the slab in a process that fills the voids, penetrates the soils and restores the capability of the soil to accommodate all loads. The installed polymer is in contact with the foundation/slab in this application.

This method has been a preferred option to correct ground subsidence issues and resultant foundation failure in Florida for the last ten years. It is routinely recommended and specified by registered Professional Engineers and registered Professional Geologists. It is also routinely installed by certified General, Building and Residential Contractors. And it is a method that is routinely accepted by insurers providing sinkhole coverage to Florida homeowners. Petitioner alone has performed installation at over eight hundred dwellings this year to date in 2012.

URETEK has successfully provided these services for over ten years in Florida and its affiliates have provided same for over twenty five years worldwide. URETEK is seeking clarification of the referenced code sections to guide conduct in future operations. URETEK Holdings, Inc., licensed as a General Contractor (DBPR License No. CGC1513915) under Chapter 489, F.S., is seeking clarification on the referenced code section, its purpose to seek a uniform interpretation of the new code to provide guidance in future operations. Petitioner seeks these clarifications as a "substantially affected person" under the procedures set forth in Section 553.775, F.S. (2011).

Specifically the code section in the 2010 Florida Building Code – Residential that requires clarification is provided below.

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Chapter 3 – Building Planning

**R318.5 Foam plastic protection.** In areas where the probability of termite infestation is “very high” as indicated in Figure R301.2 (6), extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below grade. The clearance between foam plastics installed above grade and exposed earth shall be at least 6 inches (152 mm).

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**Question No. 1**

**Is the installation of a rigid structural geotechnical polymer into the ground as a method of soil stabilization for an existing building prohibited by the 2010 Florida Building Code, Residential, Chapter 3, Code Section R318.5?**

**Question No. 2**

**Are soil stabilization techniques as discussed herein regulated by 2010 Florida Building Code – Residential and/or Existing Building?**

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**Summary**

Petitioner respectfully believes the answer to both questions outlined above is "NO". Petitioner believes that the soil stabilization work described herein is not regulated by 2010 Florida Building Code – Residential as the referenced code section applies only to new construction as described in Chapter 1, Scope and Administration. Petitioner also believes that

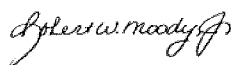
soil stabilization is not regulated in any manner whatsoever, neither for new or existing construction of one- and two-family dwellings by any Florida Building Code and Petitioners work should not be subject to such code(s).

Based upon information and belief of Petitioner, the referenced code section (R318.5) is a termite protection standard applicable to and restricting the installation of foam plastic (low-density insulating products) against the foundation of a residential structure during construction, it's intent being to eliminate the potential for termites to burrow through insulating material to easily travel from subterranean habitat to the above-ground wood and cellulose products found in residential construction. The polymer Petitioner and others use for soil stabilization is generally injected in the methods mentioned above and is not used for its insulating properties. The polymer is an extremely dense product, especially after being incorporated into the soil matrix whereby it creates a permanent monolithic structure. The polymer does not provide habitat, a source of moisture, nutrients, nor a means for termites to readily burrow through. But irregardless of this information, the scope of the referenced code section is applicable to new construction only and should not apply to work performed by Petitioner.

Because applicability of the new 2010 Florida Building Code – Residential (R318.5) is not being interpreted in a uniform manner, it is imperative that a clear and concise interpretation by the Florida Building Commission be made as to the intent and application of the codes. Petitioner fully understands the extensive work of the Commission in developing the new codes for greater safety and improvement for the consumer, and likewise, it would seem reasonable to ensure that the codes are uniformly interpreted. Unfortunately this is not the case as experienced by recent events. Section 553.775(1), Florida Statutes (2011), states: "It is the intent of the Legislature that the Florida Building Code be interpreted by building officials, local enforcement agencies, and the commission in a manner that protects the public safety, health, and welfare at the most reasonable cost to the consumer by ensuring uniform interpretations throughout the state and by providing processes for resolving disputes regarding interpretations of the Florida Building Code which are just and expeditious."

Respectfully submitted,  
URETEK HOLDINGS, INC.

By:



Robert W. Moody, Jr.  
Chief Operating Officer

December 19, 2012