



NUCLEAR ENERGY SERVICES, INC.
NES DIVISION

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February 24, 1978
Reference No. NSG-687

Secretary, U.S. Nuclear
Regulatory Commission
Washington, DC 20555

Attention: Chief, Docketing and
Service Section

Subject: Request for Withholding
(Nondisclosure) of Documents

Reference: Crystal River Unit No. 3, Spent Fuel
Storage Facility Modification

Gentlemen:

Nuclear Energy Services, Inc. hereby requests that certain drawings and specifications be withheld from public disclosure on the basis that the information contained therein is of a confidential commercial nature and constitutes trade secrets which are the proprietary property of Nuclear Energy Services, Inc. The documents of concern include Nuclear Energy Services, Inc. Drawings: 80A1487, 80A1488, 80E1489, 80E1490, 80D1491, 80D1492, 80D1493, 80E1494, 80D1495, 80D1496, 80D1497, 80D1498, 80D1499 and 80D1500. One or more of these documents may be submitted to NRC as supporting information with the licensing amendment for the reference facility modification.

These documents reflect design information and fabrication methods which NES believes are critical to its commercial position in the supply of high density fuel racks and, therefore, are considered to contain trade secrets. In addition, the documents directly describe principles for which NES has entered the patent application process.

To the best knowledge of the undersigned, the listed documents have been held in confidence by NES and NES' clients and subcontractors in the case of the Crystal River Unit 3 Nuclear Power Station license amendment request. These documents have been labeled "Proprietary", dissemination limited, and in the case of the Commission, presumed to have been transmitted and received in confidence.

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POISON MATERIAL DESCRIPTION

Florida Power Corporation stated in Section 3.0, Storage Rack Description, of our January 9, 1978, conceptual design submittal that we were evaluating poison materials for possible use at CR#3. The material selected is a B₄C/Polymer Composite which is a proprietary product of Carborundum Company. This poison material is an improved version of the B₄C Carbon Absorber Plate which has been approved by the NRC.

The Carborundum Company has initiated a Qualification Test Program similar to those performed for the B₄C Carbon Absorber Plate used in the NRC approved rack applications. The test program consists of irradiation testing of the composite material to 2×10^{11} rads, compatibility tests with the borated pool water environment including samples in contact with type 304 stainless steel; and water leachability tests (for trace quantities of prohibited material). The objectives of the irradiation and compatibility tests will be to establish the stability of the B¹⁰ concentration, the strength characteristics (tensile strength, flexural strength) and the dimensional stability (including weight changes). The results of these tests will be furnished to the Commission for review as soon as they are completed.

Additional details concerning the manufacture, testing, and inspection of the poison material are contained within the attached NES Specification - 80A1488.
