Department, 101 Washington Street, Toms River, NJ 08753.

The Licensee performed inspections of the OCNGS reactor vessel and its internal safety-related components in accordance with the requirements of ASME Code, Section XI, and the NRC staff has reviewed the Licensee's inservice inspection programs, as discussed below.

Cracking of the core spray piping was first detected during Licensee inspections at OCNGS in 1978, and its extent has been evaluated by the Licensee during each subsequent outage. The core spray piping was repaired in 1978 and 1980. Since that time, additional visual inspections by the Licensee have not identified any significant degradation of the piping or of the repairs made to the piping. The NRC's review of the Licensee's inspection results and disposition during the 14R outage, documented in NRC Inspection Report 50–219/92–22, dated March 19, 1993, and a letter to GPUN dated November 18, 1994, regarding the 15R inspection concluded that the Licensee inspections and dispositions of core spray system findings were appropriate.

The Licensee first detected cracking of the top guide in 1991 and has closely monitored it in successive outages. The NRC staff conducted an inspection in June 1991, and concluded that the Licensee's disposition of the top guide crack as "acceptable as is" was adequate. The results of the inspection were reported in NRC Inspection Report 50-219/91-21, dated August 9, 1991 During an NRC inspection conducted in December 1992 and January 1993, the NRC staff evaluated the results of a remote visual inspection of the top guide conducted by General Electric Corporation for GPUN. The staff evaluated the quality of the Licensee's visual inspection of the top guide and agreed with the Licensee's determination that the top guide was acceptable to "use as is". The results of the inspection were reported in NRC Inspection Report 50-219/92-22, dated March 19, 1993.

The Licensee notified the NRC staff during an October 11, 1994, telephone call that additional cracking in the top guide had been found. The Licensee also reported that cracks found in earlier inspections of the top guide had not shown any measurable growth. In addition, during the refueling outage for Cycle 15 of operation (15R refueling outage), which began in September 1994, the Licensee assessed all the cracks that had been identified to ensure they would not jeopardize the structural integrity or function of the top guide.

It should be noted that the location of the cracks that have been detected in the OCNGS top guide is different from that in the foreign reactor cited in the NIRS letter of December 13, 1994, and the subject of GE RICSIL-071. Moreover, both the top guide and the core plate at OCNGS are components of a GE BWR while the foreign plant is a non-GE BWR. Furthermore, the OCNGS core plate is bolted in place, and the top guide is restrained vertically by holddown devices and horizontally by lateral supports. These configurations result in a highly redundant structure, and even if cracking similar to that observed in the foreign plant were to occur, it would not adversely affect the safety of the plant, and these components could still perform their safety-related functions.

The BWROG has addressed the issue of cracking in the internal components of reactor pressure vessels by recommending that BWR licensees perform inspections of various components pursuant to vendor recommendations of the General **Electric Company.** Among inspections recommended by the BWROG are examination of core spray spargers, core shrouds, top guides, return line nozzles, and in-core instrumentation, which in the case of OCNGS are the intermediate power range monitors. The BWROG has also formed the Boiling Water Reactor Vessels & Internals Project (BWRVIP), chaired by five nuclear industry vice presidents, to develop a proactive program to address and mitigate cracking in reactor pressure vessel internal components. NRC staff correspondence with the BWRVIP, staff evaluation of the BWRVIP generic submittals, summaries of meetings with the BWRVIP, and staff assessments of plant-specific submittals in regard to these subjects are also available to the public for review at the local public document room of each BWR plant.

The Licensee inspected the following safety-related components during the 15R refueling outage, which began in September 1994: core spray sparger and annular piping, steam dryer and separator assembly, core shroud head bolts, core support plate holddown bolts, guide rod and steam dryer support brackets, feedwater spargers, top guide assembly, four intermediate-power range monitors, one low-power range monitor, core shroud brackets, conical support to shell weld, and the core shroud. Cracking was observed on the core shroud and a steam dryer bracket, and required repairs to these components were made. Minor cracking was observed on the core spray piping, a tack weld on the keeper bolt of the

feedwater spargers, and the top guide cross beams. None of these cracks would have prevented the components from performing their normal operating and postulated accident functions. These indications were dispositioned as is. The Licensee submitted results of its core shroud inspection and its core spray sparger inspection to the NRC in separate letters, both dated November 3, 1994. As a result of a conference call on January 19, 1995, the Licensee submitted a summary of the results of its inspections of reactor vessel internal components performed during the 15R refueling outage. By a letter dated March 16, 1995, in accordance with 10 CFR § 50.55a(g) and ASME Section XI, IWA 6220, (1986 Edition with no addenda), GPUN forwarded the reports of its inservice inspection activities conducted during the 15R refueling outage. In the report GPUN lists the inspections performed and discusses unacceptable indications of certain components and their disposition. Inservice inspection of reactor vessel internal components is required by the ASME Code and the licensee's inservice inspection program for future outages provides assurance that degradation of components will be detected and appropriate action will be taken. The documents discussed above are available at the Commission's Public Document Room, the Gelman Building, 2120 L Street NW., Washington, DC, and at the local public document room located at the Ocean County Library, Reference Department, 101 Washington Street, Toms River, NJ 08753.

The Licensee's inspection of the OCNGS core shroud found that one of the ten circumferential welds (the H4 weld) had indications of substantial cracking. To ensure shroud integrity under all postulated accidents, the Licensee elected to install a modification, consisting of ten stabilizing tie-rods, designed to ensure that the core shroud would perform its design functions under normal operation and postulated accidents even if it were to develop 360° through-wall cracks. The NRC staff reviewed this modification and issued a safety evaluation on November 25, 1994, which concluded that the core shroud modification proposed by the Licensee is acceptable and, therefore, is approved. The safety evaluation is also available at the public document rooms previously listed.

On the basis of the NRC staff's review of various plant-specific and industry programs implemented by the Licensee, the NRC staff concluded that the Licensee took appropriate actions to address embrittlement and cracking in,