FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT NO. 1
REPORTABLE OCCURRENCE NO. 335-B-79-01

TITLE: Ocean Intake Area - Recording Thermographs

A. Description, Analysis and Evaluation

On January 5, 1979, the St. Lucie County sheriff reported to Continental Shelf Associates (CSA) that he had discovered a bouy on the beach approximately one mile south of the St. Lucie Plant. CSA, Florida Power & Light Company's (FPL) supplier of the bouys which support the thermographs in the plant intake and discharge areas, then investigated.

The bouy was identified as the St. Lucie Plant intake area thermograph bouy. The thermograph cages, mooring chain, and cable were all intact, but the thermographs and shackles were lost. The bouy was intertwined with fishing line and net forming a mass of debris weighing over 100 pounds. The cable which connects the bouy with the anchor was broken in a manner indicating that it had rubbed against some object until breaking. The bouy was destroyed since several holes were knocked in it.

Section 3.1.A.6 of the Environmental Technical Specifications (ETS) for the St. Lucie Plant requires that the maximum temperature rise in the zone of mixing be measured using recording thermographs. Therefore, the displacement of the thermograph from its monitoring location is reportable under section 5.6.2.a.2 of the ETS.

B. Cause of Occurrence

A storm causing 8 to 14 foot waves passed through the area of the St. Lucie Plant just prior to the discovery of the bouy on the beach. It appears that the storm caused the netting and debris to become entangled around the bouy and then, the force of the waves on this heavy mass caused it to break free from the anchor.

C. Corrective Action

On January 16, 1979, the bouy was replaced in the intake area and on January 17, 1979 the thermographs were installed on the bouy. A replacement bouy is kept on hand at all times for instances such as this one.

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Florida Power & Light has taken every precaution to prevent loss of the thermographs from the intake and discharge areas. However, they are located on the open ocean in the path of considerable traffic and are not insulated or protected from natural and/or man-made interferences. For these reasons, we are unable to estimate the future reliability of the thermograph stations.

Monitoring of plant parameters which impact the zone of mixing temperature rise has shown no unusual events which might cause the temperature rise to be in excess of 5.5°F which is the maximum allowed by ETS 2.1.1. Therefore, we believe that no significant environmental impact occurred during the time when monitoring was not performed.