

FLORIDA POWER & LIGHT COMPANY  
ST. LUCIE UNIT NO. 1  
REPORTABLE OCCURRENCE NO. 335-B-78-05

Title: Discharge Zone of Mixing - Recording Thermographs

A. Description, Analysis and Evaluation

On September 21, 1978 the bouy which holds the recording thermograph in the discharge area of the ocean was found on the beach near the St. Lucie Plant. The metal array which holds the thermograph as well as the thermograph was still attached to the bouy.

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

B. Cause of Occurrence

The cable holding the thermograph bouy had come unattached from the anchor at the ocean bottom. Investigation of the cable has yielded no information about how it was released. Based on past experience, the most likely causes for separation of the bouy and anchor are tampering by fishermen and collision with boats which may subsequently pull the bouy free.

C. Corrective Action

On September 23, 1978, a replacement bouy and thermograph were installed in the discharge area. A replacement bouy is presently kept on hand at all times for installation in instances like this one.

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As was explained in R.O. 335-B-78-01, 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 have 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.