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OYSTER CREEK NUCLEAR GENERATING STATION Forked River, New Jersey 08731

Licensee Event Report
Reportable Occurrence No. 50-219/78-14/3L-0

Report Date

September 22, 1978

Occurrence Date

August 24, 1978

#### Identification of Occurrence

Reactor power operation with the power supplies available to the auxiliary electrical power system below that required in paragraph 3.7.A of the Technical Specifications. This event is considered to be a reportable occurrence as defined in the Technical Specifications, paragraph 6.9.2.b.2.

#### Conditions Prior to Occurrence

The event occurred when the turbine was tripped during a routine shutdown.

Power:

Reactor, ~200 MWt

Electric, O MWe

Flow:

Recirculation,  $4.8 \times 10^5$  gpm Feedwater,  $8.5 \times 10^5$  lb/hr

Reactor Pressure:

1020 psig

Stack Gas Activity: 1.55 x 104 µci/sec

### Description of Occurrence

During a routine plant shutdown on August 24, 1978, the power sources for the auxiliary electrical power system did not meet the requirements for reactor power operation as specified in paragraph 3.7.A of the Technical Specifications. When the turbine was manually tripped at approximately 10:21 p.m., all 230 KV circuit breakers opened simultaneously and isolated the two 230 KV transmission lines from the ring bus in the plant switchyard. Normally, only the two 230 KV circuit breakers which isolate the generator from the bus would have opened. The first of the tripped breakers necessary to restore the 230 KV power supply was reclosed within one minute of the trip.

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### Apparent Cause of Occurrence

The cause of the simultaneous trip of the 230 KV breakers is being investigated. The Relay Department will be monitoring the 230 KV line voltage and current during the next shutdown. Additionally, all switchyard protective relaying will be tested during the outage.

### Analysis of Occurrence

At the time of the event, the plant auxiliary load was being supplied through the two startup transformers which is normal for a routine shutdown. The isolation of the 230 KV power supply removed one of the two sources for off site auxiliary power. During the brief period of time the 230 KV supply was isolated, the plant auxiliary power was supplied from the 34.5 KV system. The general objective of the auxiliary power system is to assure an adequate supply of power with at least one active and one standby source of power available for operation of equipment required for safe plant shutdown, to maintain a safe shutdown condition, and to operate the required safety related equipment following an accident. This incident has minimal safety significance, for with the 230 KV power supply isolated, power for shutdown or engineered safety feature equipment was available from two active sources, 34.5 KV lines, and two standby sources, the diesel generators. Additionally, the duration of the isolation was minimal.

## Corrective Action

The need for corrective action will be determined after the investigation is complete.

# Failure Data

Not applicable.

# RESPONSE TO ENCLOSURE QUESTIONS REPORTABLE OCCURRENCE 50-219/78-14

Neither Section A or B Enclosure Questions are directly pertinent since the two offsite power supplies were not interrupted. The report describes details of the event. For greater clarity some further details will be given below.

Reference to Attachment I, page 1 of 1 indicates how the offsite power supplies are arranged. Loss of both 230 KV feeds to the separate 34.5KV buses leaves each 34.5KV bus energized through feeds to the 34.5KV transmission system. Therefore, offsite power was not lost during the event. However, since the Oyster Creek Technical Specifications require both 230KV lines to be available, the event constituted a reportable occurrence.

The event occurred on August 24, 1978 and the duration was less than one minute since breakers were quickly reset and reclosed manually after determining that no real fault was indicated. During this brief period of time there was a sudden excess power flow on the 34.5KV distribution system. Due to the brevity of duration, voltage levels could not be recorded by Oyster Creek operators. However, since there was no indication of any abnormal equipment operation at a time when there was maximum system realignment activities in progress (during normal shutdown of plant), the voltage drop which may have occurred was considered to be minimal. The effect of the event, therefore, was not one of voltage excursion or system low voltage, but was more properly described as a transient excess power flow on the 34.5KV system which was quickly corrected.