

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 71694

Date: May 26, 1972

Title: Loss of Offsite Power at Palisades

The failure sequence was:

1. With the plant in a hot standby condition, the left channel safety injection system test button was pushed to initiate a quarterly test.
2. This resulted in a loss of offsite power due to the spurious operation of a differential relay on the 1-2 startup transformer. The actuation of the relay was due to unbalanced sensing currents from a current transformer — a result of the incompatibility of the installed current transformer with the 345 KV - 2.4 KV step-down situation.

Corrective action:

The differential relays were removed from startup transformers 1-1 and 1-2. High-side overcurrent and instantaneous overcurrent relays were installed.

Design purpose of failed system or component:

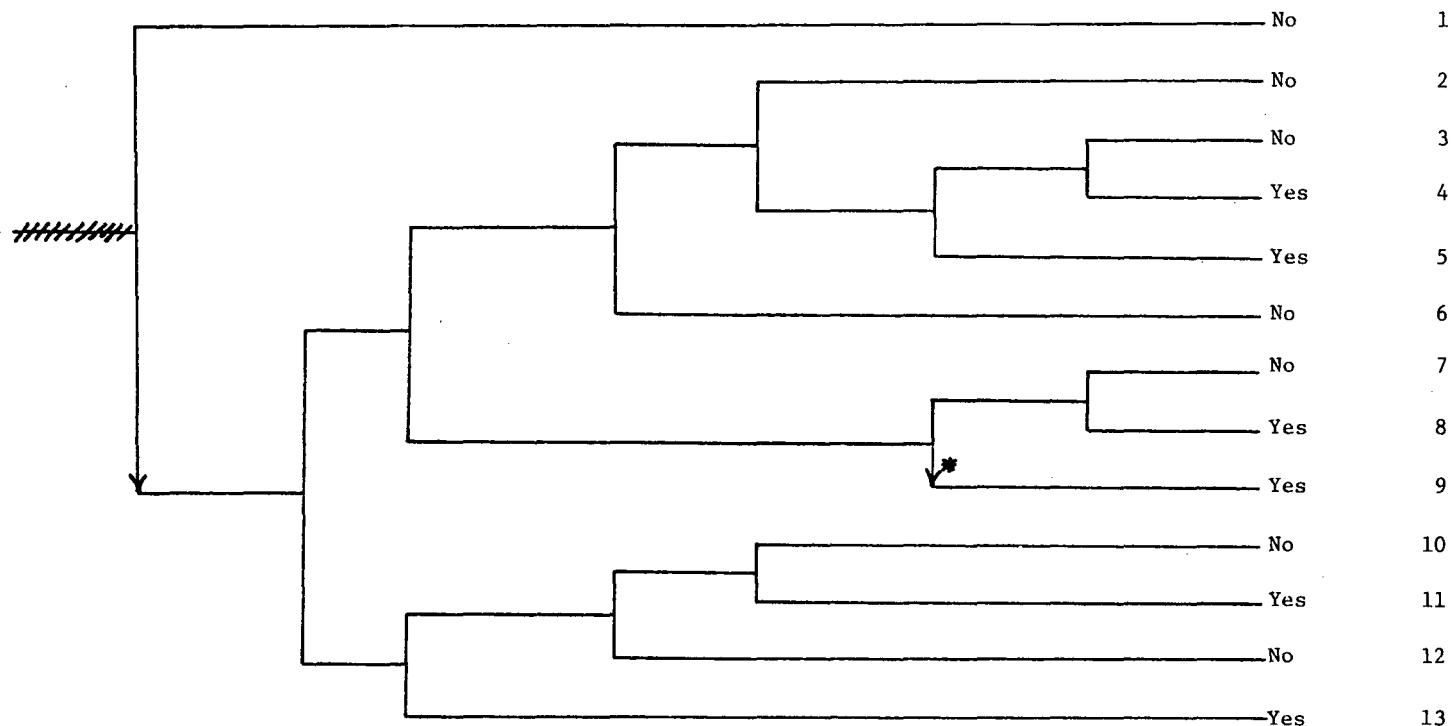
The differential relays provided overcurrent protection for the startup transformer.

Unavailability of system per WASH 1400:^{*} Offsite power: $2 \times 10^{-5}/\text{hr}$

Unavailability of component per WASH 1400:^{*} —

^{*}Unavailabilities are in units of per demand D^{-1} . Failure rates are in units of per hour HR^{-1} .

Loss of Offsite Power	Turbine Generator Runs Back and Assumes House Loads	Emergency Power	Auxiliary Feedwater and Secondary Heat Removal	PORV Demanded	PORV or PORV Isolation Valve Closure	High Pressure Injection	Long Term Core Cooling	Potential Severe Core Damage	Sequence No.
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NSIC 71694 — Sequence of Interest for Loss of Offsite Power at Palisades

*Not included in operating procedures

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 71694

DATE OF LER: May 26, 1972

DATE OF EVENT: May 17, 1972

SYSTEM INVOLVED: Offsite power

COMPONENT INVOLVED: Startup transformer

CAUSE: Improperly chosen differential relay

SEQUENCE OF INTEREST: Loss of offsite power

ACTUAL OCCURRENCE: Loss of offsite power during testing

REACTOR NAME: Palisades

DOCKET NUMBER: 255

REACTOR TYPE: PWR

DESIGN ELECTRICAL RATING: 805 MWe

REACTOR AGE: 1.0 yr

VENDOR: CE

ARCHITECT-ENGINEERS: Bechtel

OPERATORS: Consumers Power Corp.

LOCATION: **5 miles south of South Haven, Michigan**

DURATION: N/A

PLANT OPERATING CONDITION: Hot standby

SAFETY FEATURE TYPE OF FAILURE: (a) inadequate performance; (b) failed to start;
(c) made inoperable; (d) _____

DISCOVERY METHOD: During testing

COMMENT: The incompatible current transformer had been installed
prior to criticality