

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 73655

Date: August 18, 1972

Title: Loss of Offsite Power at Indian Point 1

The failure sequence was:

1. Reactor trip, RCP trip, MFW pump trip due to reduced voltage on plant buses due to external causes (grid disturbance).
2. Complete loss of offsite power.

Corrective action;

1. An emergency air compressor was started to provide control air.
2. Steam driven emergency feedwater pumps were used to provide steam generator cooling. Reactor cooling was provided by natural circulation.

Design purpose of failed system or component:

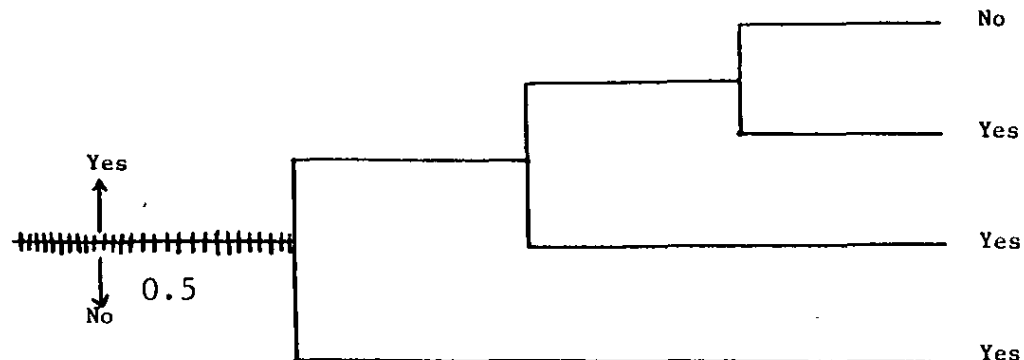
1. Offsite power provided the only source of electric power to plant components when the unit generator was not operating.

Unavailability of system per WASH 1400:* loss of 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 with reactor at power	Onsite power available (Instrument power)	Emergency control air available	Emergency feedwater available	Potential Severe Core Damage
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P_{SCD} was assumed equal to other LOOP P_{SCD} 's for plants with a turbine driven auxiliary feed pump

$$P = 5.7E-4 \text{ (SC} = 32\text{)}$$

NSIC 73655 - Sequence of Interest for Loss of Offsite Power at Indian Point 1

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 73655

DATE OF LER: August 18, 1972

DATE OF EVENT: July 20, 1972

SYSTEM INVOLVED: Off-site ac power

COMPONENT INVOLVED: Transmission lines

CAUSE: Undervoltage condition

SEQUENCE OF INTEREST: Loss of Offsite Power

ACTUAL OCCURRENCE: Undervoltage condition.

REACTOR NAME: Indian Point 1

DOCKET NUMBER: 50-3

REACTOR TYPE: PWR

DESIGN ELECTRICAL RATING: 265 MWe

REACTOR AGE: 10.4 yr

VENDOR: B&W

ARCHITECT-ENGINEERS: Consolidated Edison Co.

OPERATORS: Consolidated Edison Co.

LOCATION: 3 miles SW of Peekskill, NY

DURATION: N/A

PLANT OPERATING CONDITION: 95% power

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

DISCOVERY METHOD: Operational event.

COMMENT: —