

STATION PROCEDURE CHANGE REQUEST

17-51-2-B

JUN 29 1981

MA

PROCEDURE TITLE Classification of GSEP conditions NUMBER EP/IP 330-1

DATE 6-8-81

update as attached

Reason for change

to change the activity levels to a better number as calculated by John Golden & approved by F. Rescek

M.J. Andrews 6-8-81
REQUESTOR & DATE

ORIGINATOR: Perform safety analysis on reverse and forward to Station Review.

FORM 17-51-2-B: PROCEDURE GROUP 2

Station Review Copy

8107070460 810629
CF ADOCK 05000295
CF

Is a change to the Technical Specifications needed? YES _____ NO

Is the probability of an occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the SAR increased?

YES _____ NO BECAUSE:

No, the level of safety of the plant is not increased.

Is the possibility for an accident or malfunction of a different type than any previously evaluated in the SAR created?

YES _____ NO BECAUSE:

as above

Is the margin of safety, as defined in the basis for any Technical Specification, reduced?

YES _____ NO BECAUSE:

as above

REQUESTED BY *M.J. Andrews* DATE *6-8-81*

STATION REVIEW

APPROVED

NOT APPROVED



R. B. ...

6-9-81
DATE

R. Howard

6-9-81
DATE

R.H.D.

6/11/81
DATE

AUTHORIZED FOR USE

S. A. ...

6-29-81
DATE

CLASSIFICATION OF GSEP CONDITIONS

EPIP 330-1

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This procedure contains 17 pages.

APPROVED <i>H.L. Goersen</i>
DATE <u>6-29-81</u>

JUN 29 1981

TABLE ZA 5-1 (CONT)

CONDITIONS	UNUSUAL EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY
14) Loss of Fission Product Barriers		<p>A. $> 2 \times 10^2$ R/hr Primary Containment Activity, or</p> <p>B. Loss of 1 of the following 3 fission product barriers:</p> <p>1) Cladding: grab sample results > 300 uci/cc equivalent of I-131</p> <p>2) Reactor Coolant System:</p> <p>a) Containment pressure > 2 psig</p> <p>b) Containment temperature $\geq 150^\circ\text{F}$</p> <p>c) Containment humidity $> 50\%$</p> <p>3) Primary Containment</p> <p>a) Containment pressure > 25 psig</p> <p>b) Containment temperature $> 200^\circ\text{F}$</p> <p>c) Loss of containment integrity when containment integrity is required.</p>	<p>A. $> 4 \times 10^2$ R/hr Primary Containment Activity, or</p> <p>B. Loss of 2 of the following 3 fission product barriers:</p> <p>1) Cladding: grab sample results > 300 uci/cc equivalent of I-131</p> <p>2) Reactor Coolant System:</p> <p>a) Containment pressure > 2 psig,</p> <p>b) Containment temperature $> 150^\circ\text{F}$</p> <p>c) Containment humidity $> 50\%$</p> <p>3) Primary Containment</p> <p>a) Containment pressure > 47 psig</p> <p>b) Containment temperature $> 200^\circ\text{F}$</p> <p>c) Loss of containment integrity when containment integrity is required.</p>	<p>A. $> 2 \times 10^3$ R/hr Primary Containment Activity, or</p> <p>B. Loss of 2 of the following 3 fission product barriers with an imminent loss of the third barrier:</p> <p>1) Cladding: grab sample > 300 uci/cc equivalent of I-131</p> <p>2) Reactor Coolant System:</p> <p>a) Containment pressure > 2 psig</p> <p>b) Containment temperature $> 150^\circ\text{F}$, or</p> <p>c) Containment humidity $> 50\%$</p> <p>3) Primary Containment</p> <p>a) Containment pressure > 52 psig, or</p> <p>b) Containment temperature $> 200^\circ\text{F}$, or</p> <p>c) Loss of containment integrity when containment integrity is required.</p>

TABLE ZA 5-1 (CONT)

CONDITIONS	UNUSUAL EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY
18) Radiation Releases From the Plant	1) Gaseous Effluents 10CFR20 instantaneous release limits (10CFR20.105) are exceeded as measured by effluent monitoring or counting instrumentation.	1) Gaseous Effluents > 10 times the 10CFR20 instantaneous release limits (10CFR20.105) as measured by the effluent monitoring or counting instrumentation.	1) Gaseous Effluents Effluent monitors detect level corresponding to > 50 mR/hr No core damage 2.3×10^6 uCi/sec Core Damage Suspected 8.9×10^5 uCi/sec for 1/2 hour or > 500 mR/hr No Core Damage 2.3×10^7 uCi/sec Core Damage Suspected 8.9×10^6 uCi/sec	1) Gaseous Effluents Effluent monitors detect levels corresponding to > 1 Rem/hr whole body at the site boundary. This condition exists when: No Core Damaged $Q/u > 1.8 \times 10^7$ $u = \frac{\text{meter}}{\text{sec}}$ Core Damaged $Q/u > 7.1 \times 10^6$ where Q=release rate in uCi/sec u=mean wind speed in <u>meters/sec</u>

TABLE ZA 5-2 (CONT)

EMERGENCY ACTION LEVELS FOR RADIOACTIVITY IN LIQUID EFFLUENTS

GSEP CLASSIFICATION	BASIS	EMERGENCY ACTION LEVEL ^a	
		GROSS BETA/GAMMA	TRITIUM
UNUSUAL EVENT	Parallel logic to the NRC EAL for airborne release: T.S. limit < Release \leq 10xT.S. limit	1×10^{-7} C (Ci/ml) $_$ 10^{-6}	3×10^{-3} C (Ci/ml) 3×10^{-2}
ALERT	Lower limit based on EPA's suggested 10 mrem whole body limit for drinking water alert level ^b Upper limit based on FDA's pre- ventive level of 500 mrem whole body OR Release 10xT.S. limit	40 A(Ci) 2000 ^c C (Ci/ml) 10^{-6}	500 A(Ci) $_$ 20,000 C (Ci/ml) 3×10^{-2}
SITE EMERGENCY	Lower limit based on FDA's preventive level Upper level based on FDA's emergency level of 5000 mrem whole body	2000 A(Ci) $_$ 20,000	2×10^4 A(Ci) $_$ 2×10^5
GENERAL EMERGENCY	In excess of FDA's emergency level	A(Ci) 2×10^4	A(Ci) 2×10^5

a EALS are measured or estimated to be in discharge water flow.

b Unofficial EPA guidance.

c Assumptions:

- Water dilution of 10^{10} liters (typical for any station).
- Weighted concentration limit of 0.2 Ci/l for FDA's preventive level (assumes a mixture of 1% each I-131, Sr-90; 10% Sr-89; 44% each Cs-134, Cs-137).
- Dose from Cs-134 is twice that from Cs-137 per unit of activity consumed.

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TABLE ZA 5-3 (CONT)

ZION EMERGENCY ACTION LEVELS

Transportation Accident

- A. A vehicle transporting radioactive materials or non-radioactive Hazardous materials to or from a Commonwealth Edison generating station is involved in a situation in which:
 - 1. Fire, breakage or suspected radioactive contamination occurs involving a shipment of radioactive material or;
 - 2. As a direct result of Hazardous materials,
 - (a) A person is killed; or
 - (b) A person receives injuries requiring hospitalization; or
 - (c) Estimated carrier or other property damage exceeds \$50,000.
- B. Any other condition involving Hazardous material transportation and equivalent to the criteria in Item A.

FINAL