

# CATEGORY 1

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SUBJECT: Clarifies one fission product barrier threshold value as requested by staff on 961024.

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Indiana Michigan  
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October 25, 1996

AEP:NRC:1192E

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2  
PROPOSED EMERGENCY ACTION LEVELS  
RESPONSE TO REQUEST FOR CLARIFICATION  
(TAC NOs. M89878 and M89879)

The purpose of this letter is to clarify one fission product barrier threshold value as requested by your staff on October 24, 1996. The "Loss" threshold value for containment barrier 3.4 currently reads, "Primary to secondary leakage greater than technical specification limit AND UNCONTROLLED release of secondary coolant from the associated steam generator is occurring". Your staff proposed, and we agreed to, the following change to that threshold value: "Primary to secondary leakage greater than technical specification limit AND release of secondary coolant from the associated steam generator to the environment is occurring".

Page 4 of 26, revision 2, of PMP 2080 EPP.101, "Emergency Classification", the EAL basis document for containment barrier 3.4 - steam generator secondary side release, and page 12.3-72, revision xx of the emergency plan have been changed and are provided in the attachment to this letter.

We remain available to answer any additional questions that the NRC staff might have.

Sincerely,

E. E. Fitzpatrick  
Vice President

jen

Attachment

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9611010307 961025  
PDR ADOCK 05000315  
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U. S. Nuclear Regulatory Commission  
Page 2

AEP:NRC:1192E

cc: A. A. Blind  
A. B. Beach  
MDEQ - DW & RPD  
NRC Resident Inspector  
J. R. Padgett

ATTACHMENT TO AEP:NRC:1192E

PMP 2080 EPP.101, "Emergency Classification"  
Page 4 of 26, Revision 2

Donald C. Cook Nuclear Plant Emergency Plan  
Page 12.3-72, Revision xx

EAL Basis Document  
Containment Barrier 3.4 - Steam Generator Secondary Side Release

FISSION PRODUCT BARRIER REFERENCE TABLE

3. CONTAINMENT BARRIER Applicable Modes: 1,2,3,4	
LOSS	POTENTIAL LOSS
<p>3.3L <u>Containment Integrity</u></p> <p>Unisolable breach of containment. -OR- Containment pressure/sump level NOT performing consistent with expected conditions. -OR- Rapid unexplained containment pressure or sump level decrease following pressure increase caused by LOCA. -OR- Entry into ECA-1.2, LOCA OUTSIDE CONTAINMENT. -OR-</p> <p>3.4L <u>SG Secondary Side Release</u></p> <p>Primary to secondary leakage rate greater than technical specification limit. -AND- Release of secondary coolant from the associated steam generator to the environment is occurring. -OR-</p> <p>3.7L <u>SEC Judgement</u></p>	<p>3.1P <u>Critical Safety Function Status</u></p> <p>Containment Critical Safety Function Status Tree - RED. -OR-</p> <p>3.2P <u>Containment Pressure</u></p> <p>Hydrogen greater than 4%. -OR- Containment spray systems both inoperable OR fail to auto start on HI-HI containment pressure. -OR- Both containment air recirculation fans inoperable OR fail to auto start on HI-HI containment pressure. -OR- Containment pressure exceeds 12 psig. -OR- Containment hydrogen concentration greater than 0.5% AND key hydrogen control equipment (Containment air recirculation/hydrogen skimmer systems, electric hydrogen recombiners OR igniters) inoperable. -OR-</p> <p>3.5P <u>Containment Radiation</u></p> <p>Containment area radiation greater than 1000 R/hr. -OR- Assessment of core damage greater than 20% clad failure. -OR-</p> <p>3.6P <u>Core Exit Thermocouples</u></p> <p>Core Cooling Critical Safety Function Status Tree - RED. -AND- Restoration procedures are not effective within 15 minutes. -OR-</p> <p>3.7P <u>SEC Judgement</u></p>

**FISSION PRODUCT BARRIER REFERENCE TABLE**

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**DONALD C. COOK NUCLEAR PLANT  
BASIS FOR EMERGENCY ACTION LEVELS  
FISSION PRODUCT BARRIERS**

**FISSION PRODUCT BARRIER NAME, LOSS/POTENTIAL LOSS, & DESCRIPTION**

**CONTAINMENT BARRIER 3.4 - STEAM GENERATOR SECONDARY SIDE RELEASE**

**THRESHOLD VALUE**

**LOSS:**

Primary to secondary leakage rate greater than technical specification limit AND release of secondary coolant from the associated steam generator to the environment is occurring

**POTENTIAL LOSS:**

None

**MODE APPLICABILITY**

1,2,3,4

**BASIS (References)**

**NORMAL CHARGING MODE** - The normal charging flow path through the volume control system including design and alternate flow paths, and flow to reactor coolant pump seals.

**LOSS** - Secondary side release paths to the environment include atmospheric relief valves and main steam safety valves, the condenser air ejectors, and the gland seal vent. A release path to the environment should be considered to exist if a main steam

**FPB 3.4 - SECONDARY SIDE RELEASE**

safety or an atmospheric relief is failed open. Containment LOSS due to steam releases via the steam jet air ejector and gland seal vent monitors should be declared on the basis of dose assessments rather than by direct application of the fission product barrier table. The technical specification limit is one gallon per minute through all steam generators or 500 gallons per day through any one steam generator.

For smaller breaks, not exceeding the capacity of one charging pump in the NORMAL CHARGING MODE, an ALERT classification will result if the ruptured steam generator is isolated. If the steam generator remains unisolated, this EAL will be a discriminator for SITE AREA AND GENERAL EMERGENCIES.

**POTENTIAL LOSS** - None

**DEVIATION FROM NUMARC:** None