Representative Reactor Accident Classifications for a PWR System

- INES

EVENT CLASSIFICATION

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Condition

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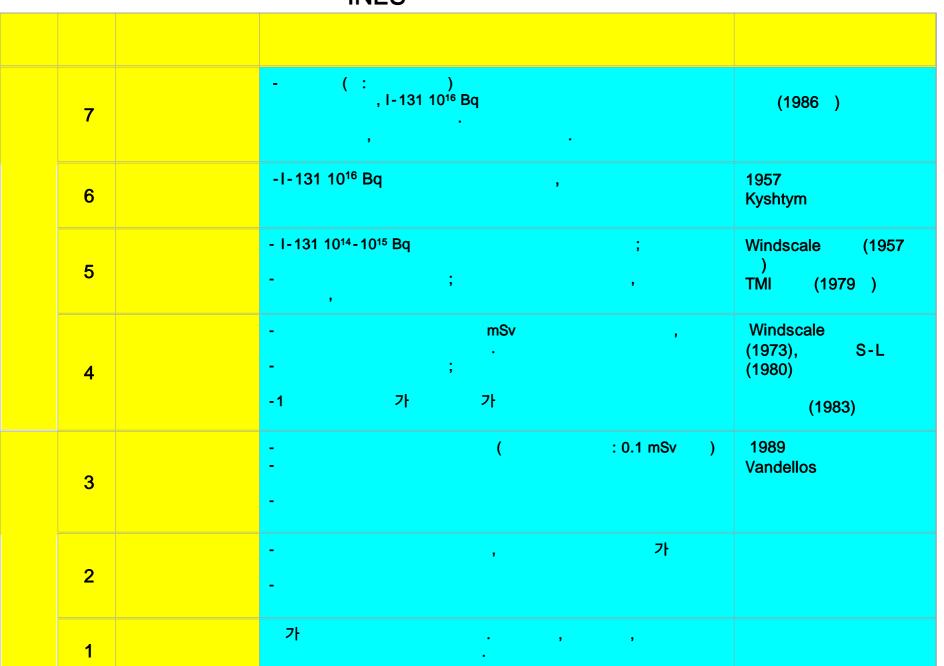
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Table 16-2, Representative Reactor Accident Classifications for a PWR System

Class #	Description	Example(s)
1	Trivial incidents	Small spills; small leaks inside containment
2	Misc. small releases outside containment	Spills; leaks and pipe breaks
3	Rad-waste system failures	Equipment failure; serious malfunction or human error
4	Events that release radioactivity into the primary system	Fuel defects during normal operation; transients outside expended range of variables
5	Events that release radioactivity into the secondary system	Class 4 and heat-exchanger leak
6	Refueling accidents inside containment	Drop fuel element; drop heavy object onto fuel; mechanical malfunction or loss of cooling in transfer tube
7	Accidents to spent fuel outside containment	Drop fuel element; drop heavy object onto fuel; drop shielding cask-loss of cooling to cask; transportation incident on site
8	Accident initiation events considered in the safety analysis report	Reactivity transient; rupture of primary piping; flow decrease; steamline break
9	Hypothetical sequences of failures more severe than Class 8	Successive failure of multiple barriers normally provided and maintained

7	Major Accident	:		
6	Serious Accident	가		
		:		
5	Accident with Off-site Risk	가		
4	(Accident withoud Significant Offsite Risk)	:	;	
			,	
3	Serious Incident		,	- 가 .
2	Incident		;	
	incident			
1	Anomaly			가
0	Below Scale Event Deviation			

#### **INES**



#### **EVENT CLASSIFICATION**

EVENT	PROPOSED	EXISTING TERMINOLOGY					
FREQUENCT RANGE	PLANT CONDITIONS	NRC		ANS			
(PER YEAR)		10 CFR	RG 1,48 ASME CODE*	RG 1,70 REV, 2	N 18,2	N212	N213
PLANNED OPERATIONS	PC-1	NORMAL	NORMAL	NORMAL	CONDITION	NORMAL PCC	PLANT CONDITION A
	PC-2	ANTICIPATED OPERATIONAL	UPSET	MODERATE FREQUENCY	CONDITION II	FREQUENT PPC	PLANT CONDITION B
10 -1		OCCURRENCE S		INEDEOLIENT			
10 -2	PC-3			INFREQUENT INCIDENTS	CONDITION III	INFREQUENT	
10 -3	PC-4		EMERGENCY		•	PPC	PLANT CONDITION C
10 <sup>-4</sup>		ACCIDENTS					
— 10 <sup>-5</sup> —	- PC-5		FAULTED	LIMITING FAULTS	CONDITION IV	LIMITING PPC	PLANT CONDITION D
— 10 <sup>-6</sup> —	NOT CONSIDERED						

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Condition

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                                           10CFR20 " Standards for Protection Against Radiation "フト
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10CFR20

Condition 가

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Condition Reactor Site Criteria "

가 Condition 가

10CFR100 "

# 4가

		Condition I	Condition II	Condition III	Condition IV
			1 1	1	
(	)	- - (P < 1.1 P <sub>de</sub>	(CHF DNB ) 110% <sub>sign</sub> )	- フト - 10CFR100 10% -P < 1.1 P <sub>design</sub>	- (10CFR100) -LOCA
PWR (	)		-	-	- (LOCA) - -

1952	NRX ( )	, (30 MWt)		, 가
1955	EBR-I ( )		40-50%	
1957	Wind - scale ( )	Pu	Wigner Energy ( )	2 (I)
1958	Vinca ( )			1 , 5
1961	SL-1 ( )	/		3 ( ) ,
1965	Venus ( )			
1966	Fermi-1 ( )	(200MWt)	(2 )	가 4
1969	Lucens ( )		ICLOCA	,
1979	TMI-2 ( )	900 MWe 가	PORV , 가	,
1986	Chernobyl-4	1000 MWe LWGR (RBMK)	가 , ,	31 1 ,