

Westinghouse Electric Corporation **Energy Systems** 

Box 055 Pittsburgh Pennsylvania 15230-0355

> DCP/NRC1174 NSD-NRC-97-5479 Docket No.: 52-003

December 9, 1997

Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555

ATTENTION: T. R. QUAY

## SUBJECT: RESPONSES TO STAFF REQUESTS REGARDING THE AP600 INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC) - RADIATION MONITORING

Dear Mr. Quay:

Enclosed are three copies of Westinghouse's response to RAI 640.160 related to comments on Section 3.5, "Radiation Monitoring" of Revision 3 of the AP600 Certified Design Material as requested in a lever from the staff dated October 9, 1997.

This submittal closes, from Westinghouse's perspective, open item 6060. As a result, the Westinghouse status column will be changed to "Closed" in the Open Item Tracking System (OITS). The NRC should review this response and inform Westinghouse of the status of the open items to be designated in the "NRC Status" column of the OITS.

Please contact Mr. Eugene J. Piplica at (412) 374-5310 if you have any questions concerning this transmittal.

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Brian A. McIntyre, Manager Advanced Plant Safety and Licensing

jml

Enclosure

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cc: J. M. Sebrosky, NRC (w/Enclosure)

- J. N. Wilson, NRC (w/Enclosure)
- N. J. Liparulo, Westinghouse (w/o Enclosure)

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### RESPONSES TO NRC REQUEST FOR ADDITIONAL INFORMATION



#### Question 640.160

Re: Section 3.5 -Radiation Monitoring

Table 3.5-5, Area Radiation Monitors, lists only the following two radiation monitors: Primary Sampling Room and Technical Support Center Area Monitor. Presumably these two monitors are listed because they are used during emergency response conditions to monitor area dose rates in vital areas. The control room is a vital area where plant personnel will be stationed following an accident and therefore the main control room area monitor should be included in Table 3.5-5. Also, the output from the containment high range area monitor serves as one of the Engineered Safety Feature Actuation Signals. Modify Table 3.5-5 to include the main control room and containment high range area monitors and any other area monitor which would be used to monitor dore rates in vital areas following an accident.

#### Response:

The AP600 radiation monitors listed in ITAAC 3.5 tables are organized in groups according to the functions they perform as follows:

- Table 3.5-1Airborne radiation monitors that are seismically qualifiedTable 3.5-2Process radiation monitors with non-safety related functionsTable 3.5-3Effluent radiation monitors with non-safety related functions
- Table 3.5-4 Airborne radiation monitors with non-safety related functions
- Table 3.5-5 Area radiation monitors with non-safety related functions

All AP600 system related radiation monitors are included in one of the above tables.

The radiation monitors listed in Table 3.5-5 are not the only ones which provide signals that are displayed on the remote shutdown panel. Table 3.5-5 is not intended to list all radiation monitors displayed on the remote shutdown panel. No revision of Table 3.5-5 is required because the area monitors for the containm. It and the MCR supply air duct are already listed in Table 3.5-1 as these radiation monitors are seismically qualified.

However, a review of the Tables in CDM Section 3.5 indicated that the Containment Atmosphere monitor listed as the last entry in Table 3.5-2 was seismically qualified and has been deleted from Table 3.5-2 and added to Table 3.5-1 as indicated below. A note is also added to Table 3.5-1 with respect to the MCR Radiation Monitoring Package.

SSAR Section 11.5 provides a complete discussion of the radiation monitors, types used, their ranges and location of displays.

SSAR Revision:

None



640.160-1



## ITAAC Revision:

Tables 3.5-1 and Tables 3.5-2 of CDM Section 3.5, "Radiation Monitoring" will be revised as follows:

	Table 3.5-1						
Equipment Name	Tag No.	Seismic Cat. I	Class 1E	Qual. for Hørsh Envir.	Safety- Related Display		
Containment High Range Monitor	PXS-RE160	Yes	Yes	Yes	Yes		
Containment High Range Monitor	PXS-RE161	Yes	Yes	Yes	Yes		
Containment High Range Monitor	PXS-RE162	Yes	Yes	Yes	Yes		
Containment High Range Monitor	PXS-RE163	Yes	Yes	Yes	Yes		
MCR Radiation Monitoring Package A <sup>(1)</sup>	VBS-RE01A	Yes	Yes	No	Yes		
MCR Radiation Monitoring Package B <sup>(1)</sup>	VBS-RE01B	Yes	Yes	No	Yes		
Containment Atmosphere Monitor (Gaseous)	PSS-RE026	Yes	No	No	No		
Containment Atmosphere Monitor (N13)	PSS-RE027	Yes	No	No	No		

Notes: 1. Each MCR Radiation Monitoring Package includes particulate, iodine and gaseous raditiation monitors.

# RESPONSES TO NRC REQUEST FOR ADDITIONAL INFORMATION

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Table 3.5-2 Process Radiation Monitors				
Equipment List	Equipment No.			
Steam Generator Blowdown	BDS-RE010			
Steam Generator Blowdown	BDS-RE011			
Component Cooling Water	CCS-RE001			
Main Steam Line	SGS-RE026			
Main Steam Line	SGS-RE027			
Service Wate: Blowdown	SWS-RE008			
Primary Sampling System Liquid Sample	PSS-RE050			
Primary Sampling System Gaseous Sample	PSS-RE 2			
Containment Air Filtration Exhaust	VFS-RE001			
Gaseous Radwaste Discharge	WGS-RE017			
Containment Atmosphere (Gaseous)	PSS-RE026			



640.160-3