



General Electric Company  
175 Curtner Avenue, San Jose, CA 95125

March 13, 1990  
PRC89-25.NRC  
MFN-017-90

U.S. Nuclear Regulatory Commission  
Mail Station P1-137  
Office of Nuclear Reactor Regulation  
Washington, D. C. 20555

Attention Carl H. Berlinger, Chief  
Generic Communications Branch

**Subject: Germane to Safety - Core Spray Motor Air Deflector Design**

Please find the attached memo of my telephone call to you of March 13, 1990. Although the NRC resident inspector is fully aware of the failed Core Spray (CS) motor at one the BWR/4 plant, this call provided further information about the cause of the core spray motor failure, and GE's recommendation to inspect the other currently installed CS motor.

Very truly yours,

G. B. Stramback  
Safety Evaluation Programs Manager

Attachment

cc: L. S. Gifford (GE-Rockville)  
P. W. Marriott (GE)  
R. C. Mitchell (GE)  
PRC File

9003210250 900314  
PDR PT21 EMVGENE  
90 PDC

IE19  
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## MEMO OF TELEPHONE CALL

DATE: March 13, 1990  
TIME: 1:20 PM  
PERSON CALLING: G. B. Stramback  
PERSON CALLED: Carl Berlinger (NRC-NRR, 301-492-1168)  
SUBJECT: Core Spray Motor Air Deflector Design

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Carl Berlinger was called in order to inform the NRC of a condition determined to be not reportable but considered to be Germane-to-Safety. This condition is unique to one BWR/4 plant, at a dual unit site. No other BWR utilities are affected. This conclusion was based upon GE's evaluation as to reportability under 10 CFR Part 21.

### Background

During inspection of a failed Core Spray (CS), motor model number 5K6346XC94A (Serial No. FGJ602001) at the GE Apparatus Service Center, it was determined that the motor failure discovered at one BWR/4 plant resulted from an electrical short to ground between the stator coil end turns and the lower air deflector. A number of the coils within a 270 degree arc were either touching or very close to the lower air deflector. The motor had been assembled with a lower air deflector having minimal clearance between the air deflector and the stator end turns. Part number review of the lower air deflector showed that the failed motor had a 114B4731ABP1 number. Another motor with the same model number had a 262B636AR air deflector number with an acceptable clearance between parts.

A review of the GE San Jose Motor Plant design documents revealed that a design change had been made to the air deflector shape and coil position in the same time period as the manufacture of the dual unit BWR/4 CS motors. The first two motors incorporated all of these changes while the second two CS motors (including Serial No. FGJ602002) did not have the deflector change (to # 262B636AR) per the parts list. It was also concluded from the document search that no other 5K6346 frame size motors using the same mechanical parts list as the failed motor are at other nuclear plants.