

ad CS MS-014

OCT 13 1982

Docket No. 50-267

Mr. O. R. Lee
Vice-President, Production
Public Service Company of Colorado
P. O. Box 840
Denver, Colorado 80201

Dear Mr. Lee:

SUBJECT: DEGRADED GRID PROTECTION FOR CLASS 1E POWER SYSTEMS.

We are transmitting herewith our subject safety evaluation and its attachment, EG&G's Technical Evaluation Report (TER) dated September 11 1982. We find the electrical systems design modification proposed by PSC to be acceptable. You have provided preliminary technical specification information for these modifications and have committed to formally submit the finalized technical specifications late this year.

The existing undervoltage protection at Fort St. Vrain uses two non-Class 1E relays to monitor the 4160 volt output of the reserve auxiliary transformer. Spurious actuation or failure of one relay will lead to undesired separation of the 480 volt essential buses from the preferred offsite power system, initiation of load shedding on the Class 1E buses and result in unnecessary challenges to the onsite emergency diesel generators. For example, on June 5, 1982, while the reactor was at 15% power, inadvertent actuation of one of these existing non-Class 1E relays resulted in a temporary loss of AC power to all 480 volt Class 1E buses. However, the proposed protective relay system for the 480 volt Class 1E buses meets staff requirements and provides the necessary undervoltage protection for all Class 1E equipment without reliance on the non-Class 1E protective relays.

The above concerns regarding the existing undervoltage protection have been discussed with your staff. If the existing non-Class 1E undervoltage protective relays are to be retained as protection for the 4160 volt non-Class 1E buses, we require that the Class 1E functions, i.e., diesel generator starting 480 volt bus breaker tripping and load shedding on the 480 volt Class 1E buses, be deleted from these relays. These safety functions shall be carried out only by Class 1E protective relay systems to be installed on the 480 volt Class 1E buses.

8211010500 821012
PDR ADDOCK 05000267
P PDR

OFFICE							
SURNAME							
DATE							

Mr. O. R. Lee

-2-

Our safety evaluation is based on our review of your submittals and the LLL technical evaluation report EGG-EA-5926 Rev. 1. Upon resolution of the above open item and review of the technical specifications associated with these design changes, we will issue a supplement to the evaluation report.

Should you have any questions or comments please let us know.

Sincerely,

Original signed by:

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure

1. Safety evaluation

cc: w/enclosure
See next page

DISTRIBUTION

- ✓ Docket File
- Local PDR
- ORB Rdg
- D.Eisenhut
- JHeltemes
- RAClark
- PKreutzer
- OELD
- NSIC
- E.L. Jordan
- J.M.Taylor (1)
- ACRS (10)
- GKuzmycz
- Gray File

OFFICE	DL:ORB#3	DL:ORB#3	DL:ORB#3			
SURNAME	PKreutzer	GKuzmycz:dd	RAClark			
DATE	10/12/82	10/12/82	10/12/82			

Ft. St. Vrain
cc list

James B. Graham, Manager
Licensing and Regulation
East Coast Office
General Atomic Company
2021 K. Street, N. W.
Suite 709
Washington, D. C. 20006

Mr. W. Dickerson
NRC Resident Inspector
16805 Weld County Road 19 1/2
Platteville, Colorado 80651

Director, Division of Planning
Department of Local Affairs
615 Columbine Building
1845 Sherman Street
Denver, Colorado 80203

Chairman, Board of County Commissioners
of Weld County, Colorado
Greeley, Colorado 80631

Regional Representative, Radiation Programs
Environmental Protection Agency
1860 Lincoln Street
Denver, Colorado 80203

Mr. Don Warembourg
Nuclear Production Manager
Public Service Company of Colorado
16805 Weld County Road 19 1/2
Platteville, Colorado 80651

Regional Administrator
Nuclear Regulatory Commission, Region IV
Office of Executive Director for Operations
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011