CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9703190157 DOC. DATE: 97/03/10 NOTARIZED: NO DOCKET #
FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
AUTH. NAME AUTHOR AFFILIATION
BYRAM, R. G. Pennsylvania Power & Light Co.
RECIP. NAME - RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Provides response to NRC staff RAI dtd 970115 re electrical isolation at Susquehanna SES.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 12
TITLE: OR Submittal: General Distribution

NOTES: 05000387

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD1-2 LA	1	1	PD1-2 PD	1	1
	POSLUSNY, C	1	1			
INTERNAL:	ACRS	1	1	FILE CENTER 01	1	1
	NRR/DE/ECGB/A	1	1	NRR/DE/EMCB	1	1
	NRR/DRCH/HICB	1	1	NRR/DSSA/SPLB	1	1
	NRR/DSSA/SRXB	1	1	NUDOCS-ABSTRACT	1	1
	OGC/HDS2	1	0			
EXTERNAL:	NOAC	1	1	NRC PDR	1	1
NOTES:		1	1			

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM OWFN 5D-5(EXT. 415-2083) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 15 ENCL 14

mnf

CATEGORY 1 DOCUMENT

PP&L Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

Robert G. Byram
Senior Vice President-Nuclear
610/774-7502
Fax: 610/774-5019

MAR 1 0 1997

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
RESPONSE TO REQUEST FOR ADDITIONAL
INFORMATION DATED JANUARY 15, 1997
CONCERNING ELECTRICAL ISOLATION
PLA-4566 FILE R41-2

Docket Nos. 50-387
and 50-388

This letter provides the response to the NRC staff's request for additional information dated January 15, 1997, concerning electrical isolation at Susquehanna SES.

QUESTION 1.0

Appendix L includes cables that connect:

Q device to Q device with isolation,
Q device to blank device with isolation,
Q device to N/A device with contact to coil isolation, and
Q device to non-1E device with N/A isolation

Please explain these interfaces and their isolation function.

RESPONSE:

EC-QDET-1002 Rev 1, Appendix L (PLA-4535, dated November 27, 1997) was reviewed to determine all the cables for each of the interfaces identified in Question 1.0 The following lists all the cables of concern and evaluates each cable interface.

A001

190015

Q device to Q device with isolation

The cables that connect Q devices to Q devices as listed in EC-QDET-1002 Rev 1, Appendix L, page 270 are:

PK1Q7001P, PK2Q70011, and PK2Q7001U

PK1Q7001P and PK2Q70011 connect the Instrument Gas Solenoid Valve Loss of Power Relay contacts to Bypass Indication Panel 1(2)C694. The Bypass Indication System, which is important to plant operation and qualified as Q, performs No Safety Function to mitigate the Design Basis Accident (DBA). However the Instrument Gas Solenoid Valve circuits which contain the loss of power relays are required to operate and isolate for the DBA. For failures in the Bypass Indication System, isolation to prevent these failures from migrating to the Instrument Gas Solenoid Valve circuits is provided through Contact to Coil isolation of the Loss of Power Relays.

PK2Q7001U connects the RHR Service Water Spray Pond Riser Drain Valve Loss of Power Relay contacts and Control Switch contacts to Bypass Indication Panel 2C694. The Bypass Indication System, which is important to plant operation and qualified as Q, performs No Safety Function to mitigate the Design Basis Accident (DBA). However the RHR Service Water Spray Pond Riser Drain Valve circuits which contain the loss of power relays and the control switches are required to operate for the DBA. For failures in the Bypass Indication System, isolation to prevent these failures from migrating to the RHR Service Water Spray Pond Riser Drain Valve circuits is provided through Contact to Coil isolation of the Loss of Power Relays and contact to contact isolation of the control switches.

Q device to blank device with isolation

No instances of Q device to blank device with isolation were found in EC-QDET-1002 Rev 1, Appendix L. However, cables RK1Q0628J and RK1Q0628K in Appendix L do not have Separation Groups listed for the "to" devices. These cable connect HV-16116A2 and HV-16108A2 circuits to Safety Parameter Display System (SPDS) Isolation Mux XIT-15701B. The valves are Drywell Isolation valves which are required to operate for the DBA. The SPDS Mux contains isolation devices to prevent failures in the SPDS system from migrating to the HV-16116A2 and HV-16108A2 circuits.

Q device to N/A device with contact to coil isolation

The cables that connect Q device to N/A device with contact to coil isolation, as listed in EC-QDET-1002 Rev 1, Appendix L are:

NK1PE4244 and NK1PE4289

These cables connect the RBM Channel A and RBM Channel B System Bypass switch to contacts from the RBM Channel A and RBM Channel B trip relays. The RBM Channel A and the RBM Channel B input signals are derived from APRM Channel C and APRM Channel D respectively. For failures in the System Bypass Switch and the connecting cables, isolation to prevent these failures from migrating to the APRM Channel A and Channel C circuits is provided through Contact to Coil isolation of the RBM Channel A and Channel B Trip Relays.

Q device to non-1E device with N/A isolation

The cables that connect Q device to N/A device with contact to coil isolation, as listed in EC-QDET-1002 Rev 1, Appendix L are:

NK1Q2001A, NK1Q2001B and NM1Q2000H

These cables connect LSH-C12-1N013E, G to relay coils whose contacts are inputs to the computer. LSH-C12-1N013E and LSH-C12-1N013G are classified as Q and sense the SCRAM Discharge Volume High Level. These level switches are pressure boundaries only. These level switches have been analyzed in EC-QDET-1001 Rev 0, page 102 to show that for faults on the switch output leads, the pressure boundary of the switch remains functional.

The switching action of LSH-C12-1N013E and LSH-C12-1N013G is obtained through the use of a magnetic attracting sleeve, actuated by a float and a switch mechanism. These two basic component assemblies are separated by a non-magnetic, pressure tight enclosing tube. A switch and magnet are assembled to a swinging arm which operates on precision pivot sockets.

For impressed voltage faults on the switch output leads, the pressure tight enclosing tube will not be damaged and the pressure boundary of the switch remains functional.

Shorting and opening of the switch output leads has no effect on the pressure tight enclosing tube. Therefore, the pressure boundary of the switch remains functional.

QUESTION 2.0

Is there any single random failure in this analysis which should meet the "second random failure" requirement of paragraph 4.7.3, "Single Random Failure" of IEEE 279?

RESPONSE:

IEEE 279-1971 paragraph 4.7.3 states "Where a single random failure can cause a control system action that results in a generating station condition requiring protective action and can also prevent proper action of a protection channel designed to protect against the condition, the remaining redundant protection channels shall be capable of providing the protective action even when degraded by a second random failure."

The single random failures, which as stated in EC-QDET-1002 Rev 1, page 5, are faults in the raceway systems which result in:

- Open circuit of all cables in the raceways containing the cables in the GE affiliated instrument circuits
- Short circuit of all cables in the raceways containing the cables in the GE affiliated instrument circuits

- Impressed voltages up to 250 VDC nominal (288 V Max) on all cables in the raceways containing the cables in the GE affiliated circuits.

The single failures (faults in the raceways containing the cables in the GE affiliated circuits) in some instances result in signals which initiate protective actions. No signal whose failure (i.e., faults in raceway) could cause the need for the protective action can also prevent the protective action. Refer to NEDO-10139 "Compliance of Protection Systems to Industry Criteria: General Electric BWR Nuclear Steam Supply System".

QUESTION 3.O

Appendices A and E

How can the closure of residual heat removal system (RHR) valves, reactor water cleanup system (RWCU) valve and reactor core isolation cooling (RCIC) valve be categorized as "fail in the safe direction?"

RESPONSE:

The RHR, RWCU and RCIC valves that are categorized as fail in the safe direction are Primary Containment Isolation Valves. Their safety function is to CLOSE to isolate Primary Containment. For certain failure modes as listed in Appendices A and E, these valves receive a spurious close signal. Since the safety function of these valves is to close, the failure modes results in the safety function being performed, therefore these valves were categorized as fail in the safe direction.

The RHR Primary Containment Isolation valves that close due the single failure modes in Appendix A are HV-E11-1F022 and HV-E11-1F009. These valves are the Division I RHR Shutdown Cooling Inboard Isolation Valve and the Division I Reactor Head Spray Inboard Isolation Valve respectively.

HV-E11-1F022 is a normally closed valve which is opened only during shutdown cooling to admit RHR for RPV head spray. The RHR Head Spray function is non-safety-related. During LOCA conditions, this valve receives a signal to close.

HV-E11-1F009 is the shutdown cooling suction line inboard isolation valve. During normal operation this valve is closed and it is only opened during shutdown cooling to provide a flow path of water from the Reactor to the RHR System. During LOCA conditions, this valve receives a signal to close.

The shutdown cooling mode removes the decay heat and sensible heat from the reactor primary system to permit cooldown of the reactor and maintain it in cold shutdown for refueling and serving. The shutdown cooling mode is a non-safety-related function.

The RWCU Primary Containment Isolation valves that close due the single failure modes in Appendix A an E are HV-G33-1F001 and HV-G33-1F004. Closure of these valves does not initiate actuation of safety systems. Loss of RWCU due to closure of the isolations may affect the reactor water chemistry and eventually require the unit to be shutdown because water chemistry is out of limits.

The RCIC Primary Containment Isolation valve that closes due to single failure modes in Appendix A is HV-E51-1F008 which is the RCIC Outboard Steam Line Isolation Valve. This valve is normally open to correspond to the necessary valve lineup for automatic RCIC initiation. The RCIC System provides coolant inventory in the reactor vessel following a reactor vessel isolation event accompanied by a loss of coolant flow from the Feedwater System. This is a non-safety-related function for the RCIC System.

QUESTION 4.0

Appendix B

Non-1E pressure and speed indication of high pressure core injection system (HPCI) are used in station blackout Emergency Operating Procedure. Justify its categorization as "no failure mode for station blackout."

RESPONSE:

The Non-quality related instruments listed in EO-100-30 "Unit 1 Response to Station Blackout" as being available during a Station Blackout are:

HPCI	RCIC
PI-E41-1R603	PI-E51-1R601
PI-E41-1R606	PI-E51-1R603
SI-E41-1R604	PI-E51-1R604
	SI-15001A

Regulatory Guide 1.155 "Station Blackout" allows the use of Non-quality related instruments for Station Blackout. Per Appendix B of Regulatory Guide 1.155, the equipment used for Station Blackout is not required to meet single failure criteria, redundancy, diversity and seismic qualification. No LOCA is postulated during the Station Blackout.

These instruments are required to:

- Meet system functional requirements
- Maintain environmental conditions acceptable for the required equipment
- Meet quality assurance requirements associated with Station Blackout.

The above listed instruments were supplied as part of the HPCI and RCIC Systems and meet the functional requirements.

The above listed instruments are located in the Control Structure where the temperature is maintained within the operating limits of the instruments during a Station Blackout.

PP&L meets NRC Station Blackout quality assurance for these Non-quality related instruments by selectively applying portions of the Operational Quality Assurance Program, and requiring contractors or subcontractors to provide a Quality Assurance Program consistent with the provisions of Regulatory

Guide 1.155. NDAP-QA-0155 "Quality Assurance Requirements for Station Blackout" provides the QA Program for Station Blackout. This program is less stringent than that required for safety grade equipment and meets the guidance in Regulatory Guide 1.155.

Based upon the above, it is concluded that there is no failure mode for these instruments for Station Blackout.

QUESTION 5.0

Appendix D

Indicating instrument is CISH-E11-1R001A. What does TRS-E11-1R601 indicate?

RESPONSE:

The input that is lost to Temperature Recorder TRS-E11-1R601 due to faults in the raceways that contain the cable to the GE affiliated instrument CISH-E11-1R001A is RHR Suppression Pool Suction Temperature. Temperature Recorder TRS-E11-1R601 has been evaluated in EC-QDET-1002 Rev. 1, Appendix A.

QUESTION 6.0

Appendix E

Pages 134a and 134b - Non-class 1E fuse in the non-1E recorder can not be credited to open before the class 1E circuit breaker and also this fuse can not be relied upon to protect other connected 1E or Q loads from a fault in the non-1E recorder.

RESPONSE:

FSAR Section 8.1.6.1(q)(5) describes the isolation systems used at Susquehanna SES. This FSAR Section defines an isolation system as two separate overcurrent devices (isolation method iii and v) placed in series in a circuit to minimize any failure in the non-Class 1E equipment from causing unacceptable influences in the Class 1E system. The type of isolation devices used actuated by overcurrent are breakers and fuses. One of the overcurrent devices of the isolation scheme is Class 1E and located in or adjacent to the Class 1E equipment. The other is non-Class 1E and is located at or near the non-Class 1E equipment. The basis for the selection of the two devices in series are:

a) Both devices are of different type and different electrical characteristic to eliminate the possibility of a common mode failure due to a manufacturing defect.

b) The devices are selected to minimize the effects on the Class 1E power supply against faults in the non-Class 1E equipment.

c) The devices are coordinated to clear the fault in the non-class 1E equipment without tripping the Class 1E main source breaker.

d) During a seismic event, the Class 1E devices feeding to non-class 1E equipment will provide adequate circuit isolation in the event of a non-class 1E equipment failure."

The isolation system for the non-Class 1E Temperature Recorder TR-E41-1R605 meets the above requirements

The loads connected to the same 120 VAC circuit breaker as TR-E41-1R605 are 1) 120/24V Transformer B21H-T2 and 2) Power Supply ES-B21-1K613B.

The 120/24 Transformer B21H-T2 supplies the NSSS Division II MOV Test Indication circuit. This circuit is for Indicating that the MOV Overloads are in service in the MOV circuit when the valves are being tested. This circuit provides indication only and is not required to mitigate a Design Basis Accident (DBA). Loss of the power supply to this circuit due to failures in the TR-E41-1R605 circuit is acceptable since this circuit provides indication only which is not required for a DBA.

The Power Supply ES-B21-1K613B supplies LITS-B21-1N026C "RPV Wide Range Level". This instrument is a Barton Model 760 and consists of differential pressure unit, local meter indicator, high/low limit switches and an electronic transmitter. The movement in the bellows of the differential unit is converted to rotation of the torque tube shaft which drives the meter indicator, high/low limit switches and an electronic transmitter.

The safety function of the pressure differential unit is to provide a pressure boundary. The safety function of the high/low limit switches provides an initiating signal to the Nuclear Steam Supply Shutoff System logic. The electronic transmitter circuit provides input to the computer which is not required for a DBA.

The meter indicator movement and the high/low limit switch assemblies are mounted within the instrument case with the electronic transmitter components and associated power supplies. The torque tube shaft rotational output drives the meter indicator movement and also the cam with two lobes that operate the high/low switches.

The electronic transmitter is also driven by the rotation of the torque tube shaft. Actual conversion of the torque tube shaft rotation to an electronic signal is accomplished by the proportional flexing of a beam cantilever beam on which are mounted piezo-resistive strain gages. These strain gages, when flexed, generate a proportional electronic signal that is then amplified by the transmitter circuit and made available at the instrument output.

Failures in the TR-E41-1R605 circuit:

The loss of the power supply to the electronic transmitter portion of LITS-B21-1N026C due to failures in the TR-E41-1R605 circuit is acceptable since:

- The electronic transmitter provides indication only which is not required for a DBA.
- Loss of power does not affect the differential pressure unit, thus pressure boundary is maintained

- Loss of power does not affect the high/low switches, thus initiation of the Nuclear Steam Supply Shutoff System logic is available when required.

Based upon the above, the isolation system of the Class 1E circuit breaker in series with the non Class 1E fuse at TR-E41-1R605 is within the Current Licensing Basis for Susquehanna SES even with the Class 1E circuit breaker tripping for failures in the TR-E41-1R605 circuit because no Class 1E circuits are interrupted.

QUESTION 7.0

Appendices F, G and H

a) Will the closure of RWCU system primary containment isolation (PCI) valves (number of valves were not identified) indirectly cause a reactor trip, initiate actuation of safety systems, or affect plant operation? How can the closure of these valves be categorized as "fail in safe direction?"

b) Does the neutron flux scram for loss of intermediate range monitor (IRM) selector switch and average power range monitor (APRM) trip cause half or a full scram? Justify the "single failure" and "fail in safe direction" categorization.

RESPONSE:

a) The RWCU Primary Containment Isolation valves that close due the single failure modes in Appendix F are HV-G33-1F001 and HV-G33-1F004. Closure of these valves does not initiate actuation of safety systems. Loss of the RWCU due to closure of the isolations may affect the reactor water chemistry and eventually require the unit to be shutdown because water chemistry is out of limits.

The RWCU valves that are categorized as fail in the safe direction are Primary Containment Isolation Valves. Their safety function is to CLOSE to isolate Primary Containment. For certain failure modes as listed in Appendix F, these valves receive a spurious close signal. Since the safety function of these valves is to close, the failure modes results in the safety function being performed, therefore these valves were categorized as fail in the safe direction.

b) The loss of intermediate range monitor (IRM) selector switch and average power range monitor (APRM) trip results in a full scram. IRM Channels A, C, E, G and APRM Channels A, C, E makeup the inputs to RPS "A" trip logic and IRM Channels B, D, F, H and APRM Channels B, D, F makeup the inputs to RPS "B" trip logic. For the single failures in Appendices F, G and H, RPS "A" and RPS "B" trip logics can be initiated resulting in a full scram.

The full scram is the safety function of the IRM and LPRM Trip Channels. These systems perform their safety function with a single failure. The full scram is not a result of the failure of the GE affiliated instruments. Therefore the IEEE 279-1971 single failure criteria is met.

Since the failure modes in Appendices F, G and H result in safety function of the IRM and LPRM Trip Channels being performed (i.e., initiate a scram), these trip channels were categorized as fail in the safe direction.

QUESTION 8.0

Appendices J and K contents stated on page 8 (4th paragraph of section B) are different from those included in the submittal. Correct appendices should be provided.

RESPONSE:

The Appendices have been corrected. The corrected Appendices are Appendices K and L. Corrected page 8 is attached.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-7531.

Very truly yours,

R. G. Byram

Attachment

copy: NRC Region I
Mr. K. Jenison, NRC Sr. Resident Inspector
Mr. C. Poslusny, NRC Sr. Project Manager

NUCLEAR ENGINEERING

CALCULATION / STUDY COVER SHEET
and
NUCLEAR RECORDS TRANSMITTAL SHEET

File # R2-1

1. Page 1 of 397 Total

*2. TYPE: STUDY >3. NUMBER: EC-QDET-1002 >4. REVISION: 2

5. TRANSMITTAL#: _____ *>6. UNIT: 1 *>7. QUALITY CLASS: Q *>8. DISCIPLINE: E

>9. DESCRIPTION: SINGLE FAILURE ANALYSIS FOR GE SUPPLIED INSTRUMENTS CONNECTED TO CLASS 1E CIRCUITS

SUPERSEDED BY: EC-

10. Alternate Number: _____ 11. Cycle: _____

12: Computer Code or Model used: _____ Fiche ☐ Disks ☐ Am't _____

13. Application: SINGLE FAILURE ANALYSIS

*>14 *Affected Systems:* _____

** If N/A then line 15 is mandatory.

*>15. NON-SYSTEM DESIGNATOR: QDET

16. Affected Documents: EC-QDET-1001, SEA-EE-180

17. References: EC-QDET-1001, IEEE 384-1974, IEEE 279-1971, IEEE 379-1977, IEEE 352-1975, NEDO-10139, NE56719, DBD005, SEA-EE-183, SEA-EE-184, SEA-JNPE-198, E-1012

18. Equipment / Component #: _____

19. DBD Number: DBD005

>20. PREPARED BY	>21. REVIEWED BY
Print Name JOHN P. AKUS	Print Name JOHN J. WINDERS JR.
Signature John P. Akus 1/30/97	Signature John J. Winders Jr.
>22. APPROVED BY / DATE	23. ACCEPTED BY PP&L / DATE
Print Name JOHN A. BARTOS II	Print Name
Signature John A. Bartos 1/30/97	Signature

TO BE COMPLETED BY NUCLEAR RECORDS

NR-DCS SIGNATURE/DATE

ADD A NEW COVER PAGE FOR EACH REVISION

* Verified Fields
> REQUIRED FIELDS

PP&L	ENGINEERING CALCULATION STUDY REVISION DESCRIPTION SHEET
REVISION NO: 2	CALCULATION NUMBER: EC-QDET-1002

This form shall be used to record the purpose or reason for the revision, indicate the revised pages and / or affected sections and give a short description of the revision.
Check (x) the appropriate function to *add*, *replace* or *remove* the affected pages.

Revised Pages	Affected Sections	Add	Rpl	Rmv	Description / Purpose of Revision
1	study		X		Cover Sheet - Replace Place Rev 1 Cover Sheet in Backup
1a	study		X		Revision Sheet - Replace Place Rev 1 Rev Sheet in Backup
8	study		X		Replace Sheet

REVISION TYPE: (check one)	☐ *SUPERSEDED BY CALCULATION NUMBER* EC- ☐ *FULL REVISION* ☒ *PAGE FOR PAGE*

7.0 REFERENCES

SEA-JNPE-198 (EC-062-0536)	Regulatory Guide 1.97 Instruments
EC-QDET-1001	Evaluation of Affiliated Circuits supplied by General Electric
FSAR	Chapter 6 and 8
NPE-89-004	Coping Assessment for the SSES During Station Blackout
SEA-JNPE-161	Instrumentation Availability During Station Blackout
NDAP-QA-0155	Quality Assurance Requirements for Station Blackout
E0-100-30	Unit 1 Response to Station Blackout

8.0 EVALUATION

In order to provide an overview of the GE supplied affiliated circuits, the GE affiliated circuits in Table 1 have been broken down into typical categories as requested by the NRC. Figures 1 -9 represent these categories. The category 10 circuits in Revision 0 of this study have been included in category 2 for this Revision.

The affiliated instrument circuits supplied by GE for Susquehanna SES Unit 1 are listed in Table 1. These affiliated instrument circuits were previously identified in EC-QDET-1001. This table also includes the cable connecting the Q component to the Non Class 1E component.

At Susquehanna SES, the cables for the GE supplied affiliated instrument circuits can be routed through the PCGG Floor Modules in the Upper and Lower Relay Rooms. These Floor Modules may contain Class 1E cables. Once the GE supplied affiliated instrument circuit cables exit the Floor Modules they are routed through Non Class 1E raceway.

For each GE affiliated instrument circuit, a Single Failure Analysis was performed and documented in the Appendices listed in Table 1. The Single Failure Analysis accounted for the common mode failure of the Non Class 1E component in the GE affiliated circuit and the Single Random Failure of a fault in the raceway system containing the cable for the GE affiliated circuit. All Q components connected to cables in contact with the GE affiliated circuit cable were analyzed for the effects of the faults in the raceways. The list of Q components connected to cables in contact with the GE affiliated cable for each GE affiliated circuit are listed in the Appendix L. The evaluation of the effects of the raceway faults on the Q components is included in Appendix K. | R2

The Electrical Separation Group identifiers, listed in E-1012 "Specification for Electrical Separation Criteria", were used to determine the Division/Channel for the Q classified components.

Cables assigned to Division/Channel and Division Affiliated/Chanel Affiliated separation groups are addressed in the Single Failure Analysis as Loss of the Division/Channel. Therefore, there is no need for analysis of individual components connected to these cables.

The result of the Single Failure Analysis shows that each GE affiliated circuit meets the acceptance criteria and that the common mode failure along with the single random failure in the raceway system does not prevent proper protection action at the system level when required. In all cases the redundant Division (Channels) is available to perform the protection action. Also in all cases the stated safety function for each of the GE affiliated circuits is maintained.