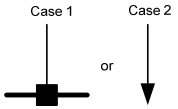
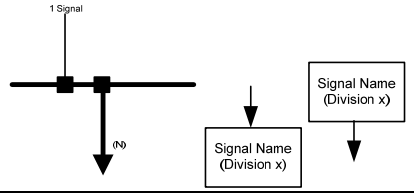
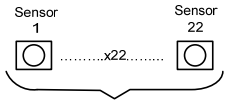
Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 1 of 16

Symbols – Logic Figures	Definition
Deleted	
Deleted	
Deleted	
Deleted	
Deleted	
Deleted	
Deleted	
Deleted	
Deleted	
Deleted	
	Sensor Measurement Signal
Deleted	
Deleted	
Deleted	

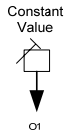
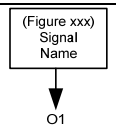
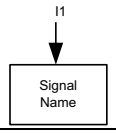
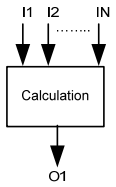
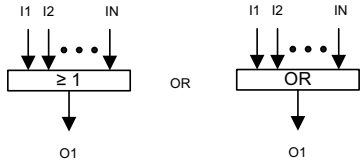
REV 003
EPR3000-I T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 2 of 16

Symbols – Logic Figures	Definition
	Multiple Signals of the Same Type
	Single Signal (2 Cases)
	Signal Transfer Between Divisions
	Signal Sent Elsewhere in Figure
	Signal Received from Elsewhere in Figure
	The logic within the block is duplicated in other divisions of the system.
	Multiple instances of the same type of object. Multiple sensors are given as an example. This convention is also applied to signal arrows and calculation boxes.

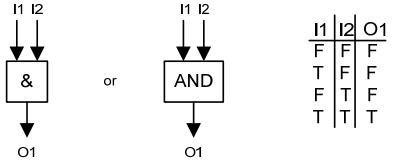
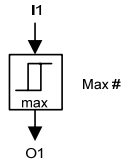
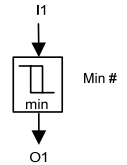
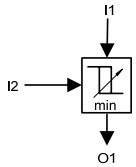
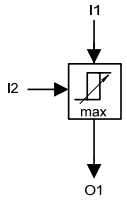
REV 005
EPR3000-2 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 3 of 16

Symbols – Logic Figures	Definition
	Constant Value Generator
	Signal Generated in Another Figure
	Result of Logic or Signal Sent to Another Figure
	"Black Box" Calculation
	OR Function

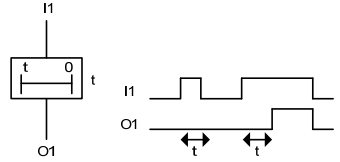
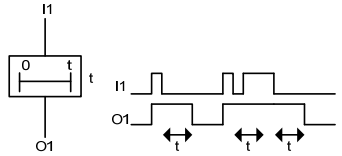
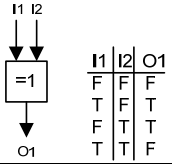
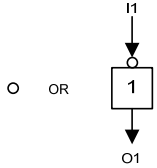
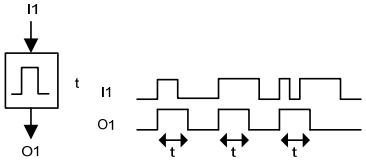
EPR3000-3 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 4 of 16

Symbols – Logic Figures	Definition
	AND Function
	High Threshold
	Low Threshold
	Low Variable Threshold
	High Variable Threshold

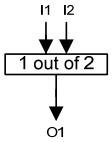
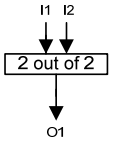
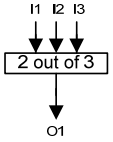
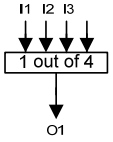
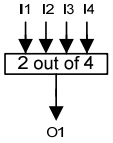
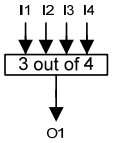
EPR3000-4 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 5 of 16

Symbols – Logic Figures	Definition
	On Time Delay
	Off Time Delay
	XOR Function
	Logic Inversion
	Pulse Function

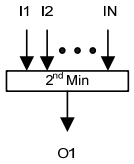
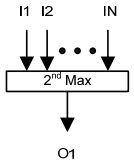
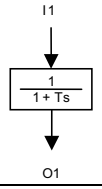
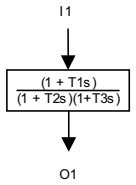
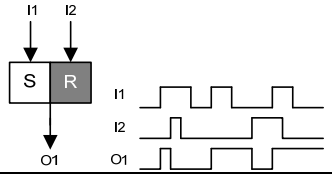
EPR3000-5 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 6 of 16

Symbols – Logic Figures	Definition
	1 out of 2 Function
	2 out of 2 Function
	2 out of 3 Function
	1 out of 4 Function
	2 out of 4 Function
	3 out of 4 Function

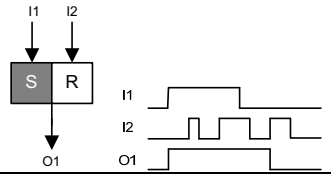
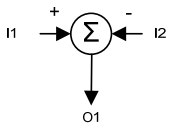
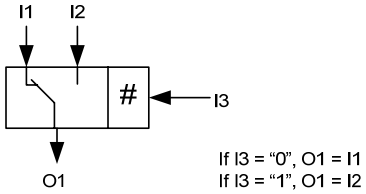
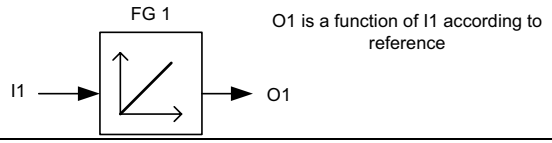
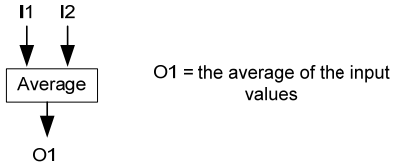
EPR3000-6 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 7 of 16

Symbols – Logic Figures	Definition
	2nd Min Function
	2nd Max Function
	First Order Filter
	Second Order Filter
	Memory with Reset Priority NOTE: Leading edge of I1 going high causes O1 to go high, no matter the state of I2. Leading edge of I2 going high causes O1 to go low, no matter the state of I1.

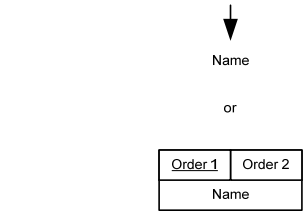
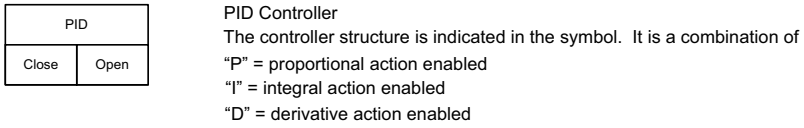
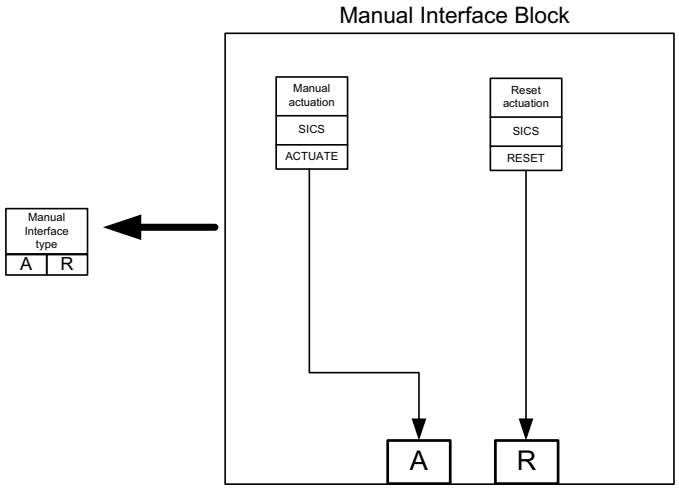
REV 005
EPR3000-7 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 8 of 16

Symbols – Logic Figures	Definition
	Memory with Set Priority NOTE: Leading edge of I1 going high causes O1 to go high, no matter the state of I2. Leading edge of I2 going high causes O1 to go low, only if I1 is in a low state.
	Analog Summation
	Logic Switch
	Function Generator
	Average Function

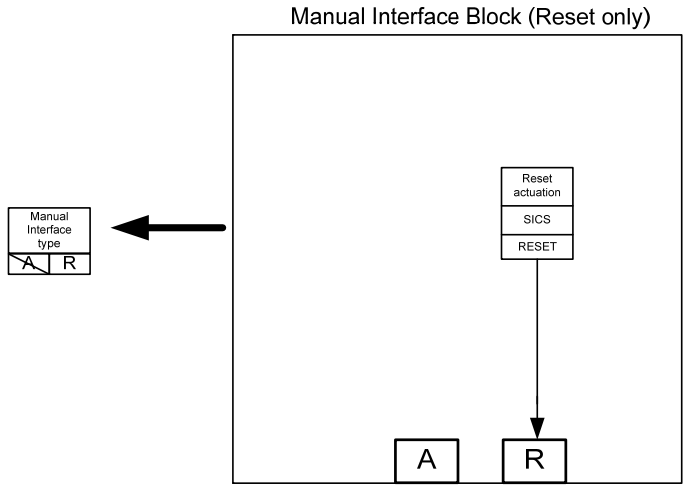
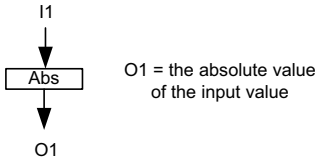
REV005
EPR3000-8 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 9 of 16

Symbols – Logic Figures	Definition
	Outputs to Actuator
	PID Controller
	Manual Interface Block Actuate and Reset

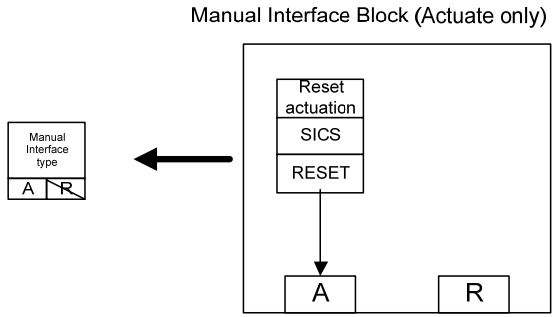
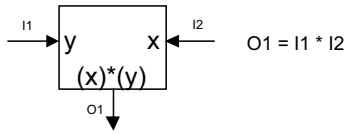
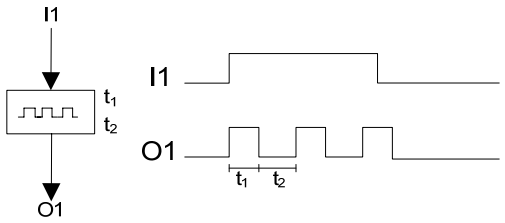
REV 003
EPR3000-9 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 10 of 16

Symbols – Logic Figures	Definition
	Manual Interface Block Reset Only
	Absolute Value Function

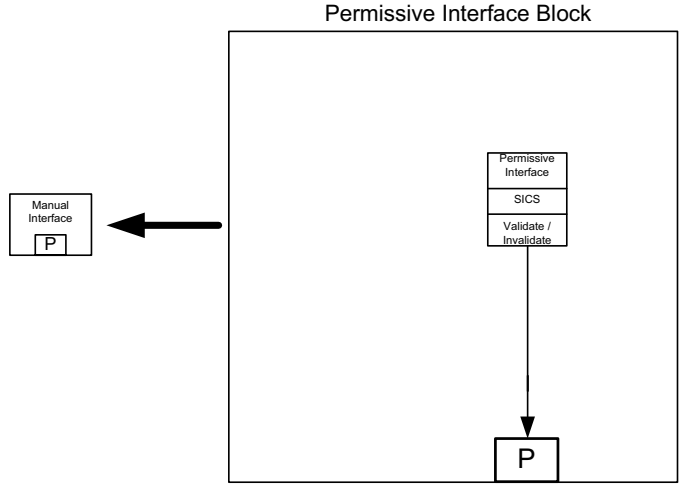
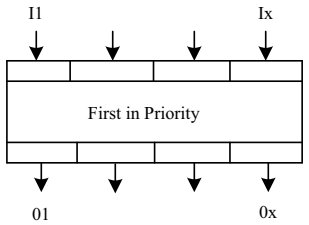
REV 003
EPR3000-10 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 11 of 16

Symbols – Logic Figures	Definition
	Manual Interface Block Actuate Only
	Multiplication Function
	Continuous Pulse Function

REV 005
EPR3000-I I T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 12 of 16

Symbols – Logic Figures	Definition
	Permissive Interface Block
 Binary First in Priority Logic Output 0x is latched = 1 if Input Ix is the first input to = 1 otherwise 0x = 0	Binary First in Priority
<< or >> Line Continuation Symbol	Line Continuation

REV 003
EPR3000-12 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 13 of 16

Acronym	Description
ALU	Actuation & Logic Unit
Amps	Ampere
APU	Acquisition & Processing Unit
Aux	Auxiliary
Blwndn	Blowdown
BYP	Bypass
CI	Containment Isolation
CI-V	Containment Isolation Valve
Cleg	Cold Leg
Cls	Close
CPL	Core Power Level
CRDM	Control Rod Drive Mechanism
C-V	Control Valve
CVCS	Chemical and Volume Control System (KBA)
DEGV	Degraded Voltage
Div	Division
DNB	Departure from Nucleate Boiling
DNBR	Departure from Nucleate Boiling Ratio
dP	Differential Pressure
DT	Doubling Time
D-V	Drain Valve
EDG	Emergency Diesel Generator
EFW	Emergency Feedwater
EFWS	Emergency Feedwater System

EPR3000-13 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 14 of 16

Acronym	Description
Ex	Exercise
FCV	Flow Control Valve
FLD	Full Load
FST	Fast
HL	Hot Leg
HLEG	Hot Leg
HLPD	High Linear Power Density
IMB	Imbalance
IRD	Intermediate Range Detector
I-V	Isolation Valve
LCV	Level Control Valve
LLD	Low Load
LOOP	Loss of Offsite Power
LOV	Loss of voltage
LPD	Linear Power Density
Max	Maximum
MaxRD	Maximum Rod Drop
MCR	Main Control Room
MFW	Main Feedwater
Min	Minimum
MS	Main Steam
MSIV	Main Steam Isolation Valve
MSRCV	Main Steam Relief Control Valve
MSRIV	Main Steam Relief Isolation Valve
MSRT	Main Steam Relief Train

EPR3000-I4 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 15 of 16

Acronym	Description
NF	Neutron Flux
Norm	Normal
NR	Narrow Range
PICS	Process Information and Control System
PIL V	Pilot Valve
PRD	Power Range Detector
Press	Pressure
Psat	Saturation Pressure
PSRV	Pressurizer Safety Relief Valve
PZR	Pressurizer
QROC	Flux Rate of Change
QUAL	Quality
RAU	Remote Acquisition Unit
RCCA	Rod Cluster Control Assembly
RCPS	Reactor Coolant Pump Speed
RCP	Reactor Coolant Pump
RD	Rod Drop
RT	Reactor Trip
SAS	Safety Automation System
SAT	Saturation
SI	Safety Injection
SICS	Safety Information and Control System
SIS	Safety Injection System
SG	Steam Generator
SGPD	Steam Generator Pressure Drop

EPR3000-15 T2

Figure 7.1-1—Chapter 7 Symbol Legend
Sheet 16 of 16

Acronym	Description
SOV	Solenoid Operated Valve
SP	Set Point
SPND	Self Powered Neutron Detector
SSS	Startup Shutdown System
T1, T2, T3, T4	Train 1, Train 2, Train 3, Train 4
TDEGV	Time Delay – Degraded Voltage
TEMP	Temperature
TLOV	Time Delay – Loss of Voltage
U.V.Coil	Under Voltage Coil
VLLD	Very Low Load
VCT	Volume Control Tank
WR	Wide Range

EPR3000-16 T2

Figure 7.1-2—Distributed Control System Functional Architecture

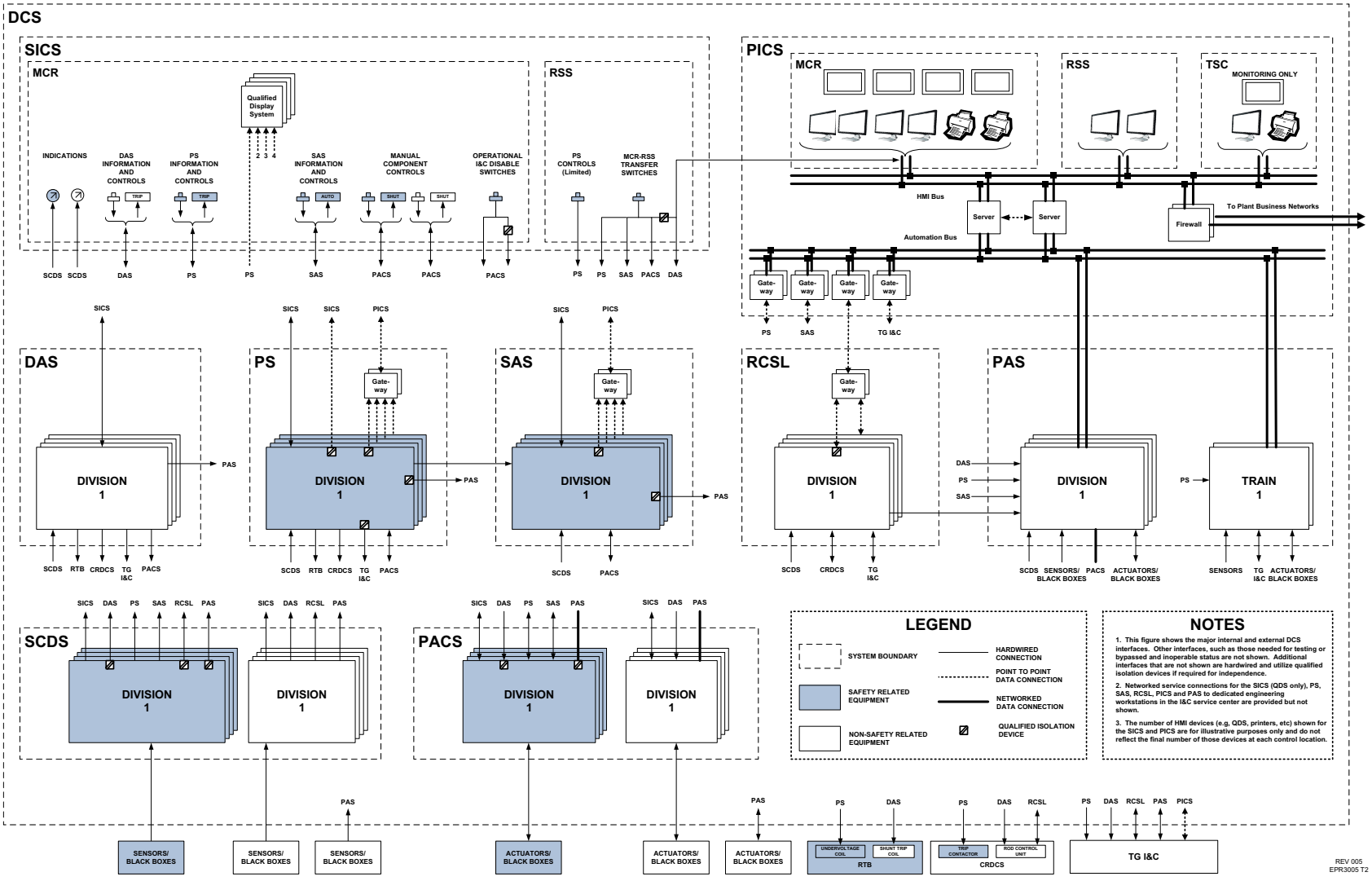


Figure 7.1-3—Safety Information and Control System Architecture (QDS Portion)

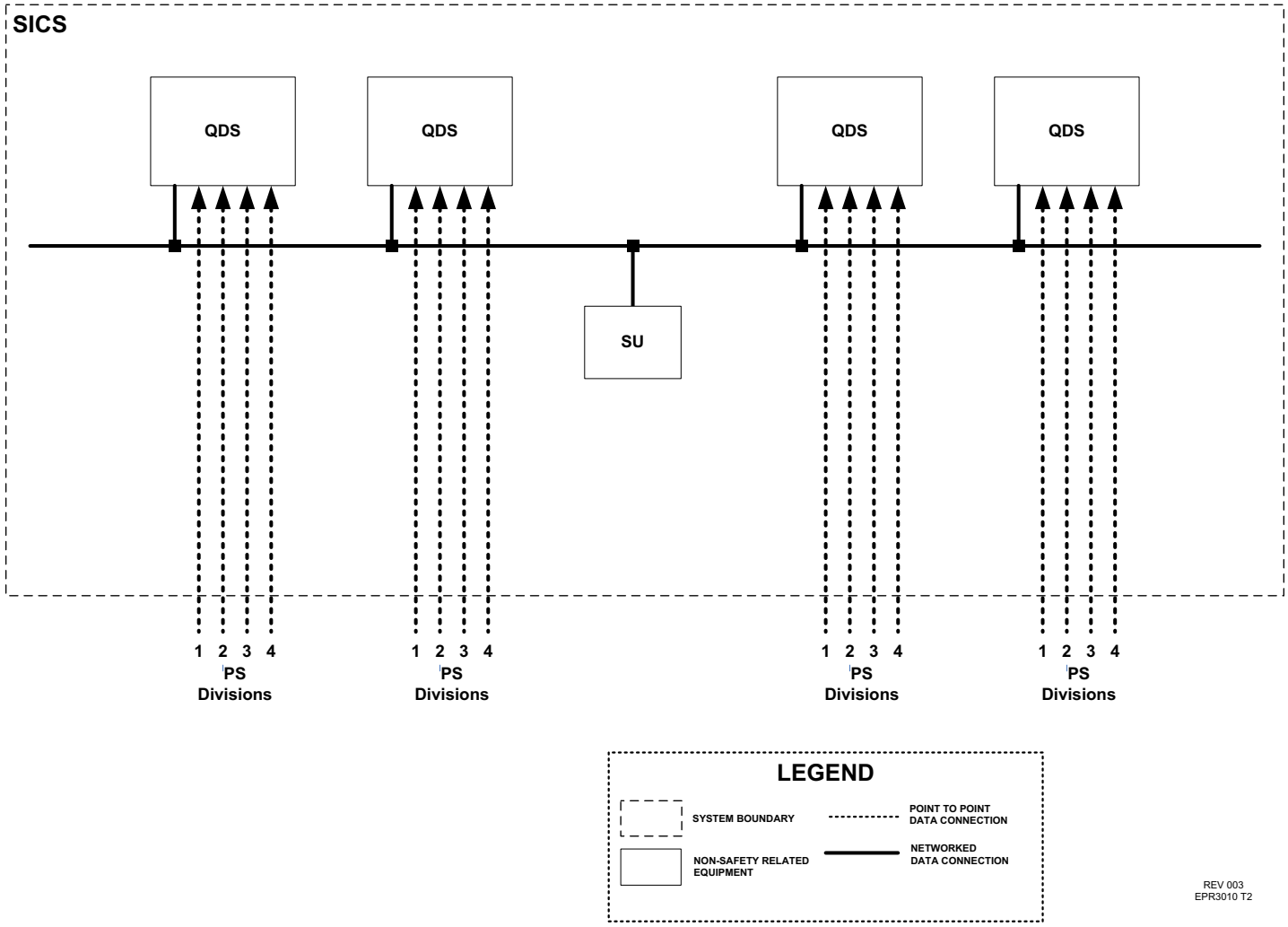


Figure 7.1-4—Deleted

Figure 7.1-5—Deleted

Next File