

# MANUAL HARD COPY DISTRIBUTION DOCUMENT TRANSMITTAL 2009-42730

<u>USER INFORMATION</u>

₿**ÈR**LACH\*ROSE∕Λ

EMPL#:028401 CA#: 0363

Address: MCSA2

Phone#. 254-3194

TRANSMITTAL INFORMATION:

TO: CERLACH\*ROSE\_M

10/05/2009

LOCATION: USNRC

FROM: NUCLEAR RECORDS DOCUMENT CONTROL CENTER (NUCSA-2)

THE FOLLOWING CHANGES HAVE OCCURRED TO THE HARDCOPY OR ELECTRONIC MANUAL ASSIGNED TO YOU. HARDCOPY USERS MUST ENSURE THE DOCUMENTS PROVIDED MATCH THE INFORMATION ON THIS TRANSMITTAL. WHEN REPLACING THIS MATERIAL IN YOUR HARDCOPY MANUAL, ENSURE THE UPDATE DOCUMENT ID IS THE SAME DOCUMENT ID YOU'RE REMOVING FROM YOUR MANUAL. TOOLS FROM THE HUMAN PERFORMANCE TOOL BAG SHOULD BE UTILIZED TO ELIMINATE THE CHANCE OF ERRORS.

ATTENTION: "REPLACE" directions do not affect the Table of Contents, Therefore no TOC will be issued with the updated material.

TRM2 - TECHNICAL REQUIREMENTS MANUAL UNIT 2

REMOVE MANUAL TABLE OF CONTENTS DATE: 09/18/2009

ADD MANUAL TABLE OF CONTENTS DATE: 10/02/2009

CATEGORY: DOCUMENTS TYPE: TRM2

AOO 1 Nrr  $\sim$  Page  $^2$  of  $^2$ 

ID: TEXT 3.7.11 REMOVE: REV:0

ADD: REV: 1

CATEGORY: DOCUMENTS TYPE: TRM2

ID: TEXT B3.7.11 REMOVE: REV:0

ADD: REV: 1

CATEGORY: DOCUMENTS TYPE: TRM2

ID: TEXT LOES ADD: REV: 53

REMOVE: REV:52

ANY DISCREPANCIES WITH THE MATERIAL PROVIDED, CONTACT DCS @ X3107 OR X3136 FOR ASSISTANCE. UPDATES FOR HARDCOPY MANUALS WILL BE DISTRIBUTED WITHIN 3 DAYS IN ACCORDANCE WITH DEPARTMENT PROCEDURES. PLEASE MAKE ALL CHANGES AND ACKNOWLEDGE COMPLETE IN YOUR NIMS INBOX UPON COMPLETION OF UPDATES. FOR ELECTRONIC MANUAL USERS, ELECTRONICALLY REVIEW THE APPROPRIATE DOCUMENTS AND ACKNOWLEDGE COMPLETE IN YOUR NIMS INBOX.

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

## Table Of Contents

Issue Date:

10/02/2009

Procedure Name Rev Issue Date Change ID Change Number

TEXT LOES 53 10/02/2009

Title: LIST OF EFFECTIVE SECTIONS

TEXT TOC 16 09/16/2009

Title: TABLE OF CONTENTS

TEXT 1.1 0 11/19/2002

Title: USE AND APPLICATION DEFINITIONS

TEXT 2.1 1 02/04/2005

Title: PLANT PROGRAMS AND SETPOINTS PLANT PROGRAMS

TEXT 2.2 8  $\sqrt{05}\sqrt{14/2009}$ 

Title: PLANT PROGRAMS AND SETPOINTS INSTRUMENT TRIP SETPOINT TABLE

Title: APPLICABILITY TECHNICAL REQUIREMENT FOR OPERATION (TRO) APPLICABILITY

TEXT 3.1.1 11/09/2007

Title: REACTIVITY CONTROL SYSTEMS ANTICIPATED TRANSIENT WITHOUT SCRAM ALTERNATE ROD

INJECTION (ATWS-ARI) INSTRUMENTATION

TEXT 3.1.2 0 11/19/2002

Title: REACTIVITY CONTROL SYSTEMS CONTROL ROD DRIVE (CRD) HOUSING SUPPORT

TEXT 3.1.3 4 05/14/2009

Title: REACTIVITY CONTROL SYSTEMS CONTROL ROD BLOCK INSTRUMENTATION

TEXT 3.1.4 0 11/19/2002

Title: REACTIVITY CONTROL SYSTEMS CONTROL ROD SCRAM ACCUMULATORS INSTRUMENTATION AND

CHECK VALVE

TEXT 3.2.1 8 05/14/2009

Title: CORE OPERATING LIMITS CORE OPERATING LIMITS REPORT (COLR)

LDCN 4712

Page <u>1</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.3.1 0 11/19/2002

Title: INSTRUMENTATION RADIATION MONITORING INSTRUMENTATION

TEXT 3.3.2 2 11/09/2007

Title: INSTRUMENTATION SEISMIC MONITORING INSTRUMENTATION

TEXT 3.3.3 2 11/09/2007

Title: INSTRUMENTATION METEOROLOGICAL MONITORING INSTRUMENTATION

TEXT 3.3.4 5 05/23/2008

Title: INSTRUMENTATION TRM POST-ACCIDENT MONITORING INSTRUMENTATION

TEXT 3.3.5 0 11/19/2002

Title: INSTRUMENTATION THIS PAGE INTENTIONALLY LEFT BLANK

TEXT 3.3.6 2 10/19/2005

Title: INSTRUMENTATION TRM ISOLATION ACTUATION INSTRUMENTATION

TEXT 3.3.7 1 11/09/2007

Title: INSTRUMENTATION MAIN TURBINE OVERSPEED PROTECTION SYSTEM

TEXT 3.3.8 1 10/22/2003

Title: INSTRUMENTATION TRM RPS INSTRUMENTATION

TEXT 3.3.9 3 05/14/2009

Title: INSTRUMENTATION LPRM UPSCALE ALARM INSTRUMENTATION

TEXT 3.3.10 1 12/14/2004

Title: INSTRUMENTATION REACTOR RECIRCULATION PUMP MG SET STOPS

TEXT 3.3.11 1 10/22/2003

Title: INSTRUMENTATION MVP ISOLATION INSTRUMENTATION

TEXT 3.3.12 0 04/16/2009

Title: WATER MONITORING INSTRUMENTATION

Page <u>2</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.4.1 1 04/26/2006

Title: REACTOR COOLANT SYSTEM REACTOR COOLANT SYSTEM CHEMISTRY

TEXT 3.4.2 1 04/16/2009

Title: REACTOR COOLANT SYSTEM STRUCTURAL INTEGRITY

TEXT 3.4.3 1 11/09/2007

Title: REACTOR COOLANT SYSTEM REACTOR COOLANT SYSTEM (RCS)

TEXT 3.4.4 2 05/14/2009

Title: REACTOR COOLANT SYSTEM REACTOR RECIRCULATION FLOW AND ROD LINE LIMIT

TEXT 3.4.5 1 04/26/2006

Title: REACTOR COOLANT SYSTEM REACTOR VESSEL MATERIALS

TEXT 3.5.1 1 02/04/2005

Title: ECCS AND RCIC ADS MANUAL INHIBIT

TEXT 3.5.2 1 11/09/2007

Title: ECCS AND RCIC ECCS AND RCIC SYSTEM MONITORING INSTRUMENTATION

TEXT 3.5.3 0 11/19/2002

Title: ECCS AND RCIC LONG TERM NITROGEN SUPPLY TO ADS

TEXT 3.6.1 0 11/19/2002

Title: CONTAINMENT VENTING OR PURGING

TEXT 3.6.2 0 11/19/2002

Title: CONTAINMENT SUPPRESSION CHAMBER-TO-DRYWELL VACUUM BREAKER POSITION INDICATION

TEXT 3.6.3 0 11/19/2002

Title: CONTAINMENT SUPPRESSION POOL ALARM INSTRUMENTATION

TEXT 3.6.4 0 11/19/2002

Title: CONTAINMENT PRIMARY CONTAINMENT CLOSED SYSTEM BOUNDARIES

Page 3 of 15 Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.7.1 0 11/19/2002

Title: PLANT SYSTEMS EMERGENCY SERVICE WATER SYSTEM (ESW) SHUTDOWN

TEXT 3.7.2 0 11/19/2002

Title: PLANT SYSTEMS ULTIMATE HEAT SINK (UHS) AND GROUND WATER LEVEL

TEXT 3.7.3.1 2 04/16/2009

Title: PLANT SYSTEMS FIRE SUPPRESSION WATER SUPPLY SYSTEM

TEXT 3.7.3.2 3 04/16/2009

Title: PLANT SYSTEMS SPRAY AND SPRINKLER SYSTEMS

TEXT 3.7.3.3 3 04/16/2009

Title: PLANT SYSTEMS CO2 SYSTEMS

TEXT 3.7.3.4 2 04/16/2009

Title: PLANT SYSTEMS HALON SYSTEMS

TEXT 3.7.3.5 2 04/16/2009

Title: PLANT SYSTEMS FIRE HOSE STATIONS

TEXT 3.7.3.6 2 04/16/2009

Title: PLANT SYSTEMS YARD FIRE HYDRANTS AND HYDRANT HOSE HOUSES

TEXT 3.7.3.7 1 04/26/2006

Title: PLANT SYSTEMS FIRE RATED ASSEMBLIES

TEXT 3.7.3.8 7 11/09/2007

Title: PLANT SYSTEMS FIRE DETECTION INSTRUMENTATION

TEXT 3.7.4 1 04/26/2006

Title: PLANT SYSTEMS SOLID RADWASTE SYSTEM

TEXT 3.7.5.1 0 11/19/2002

Title: PLANT SYSTEMS MAIN CONDENSER OFFGAS HYDROGEN MONITOR

Page <u>4</u> of <u>15</u>

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.7.5.2

0 11/19/2002

Title: PLANT SYSTEMS MAIN CONDENSER OFFGAS EXPLOSIVE GAS MIXTURE

TEXT 3.7.5.3

1 04/26/2006

Title: PLANT SYSTEMS LIQUID HOLDUP TANKS

TEXT 3.7.6

2 06/27/2008

Title: PLANT SYSTEMS ESSW PUMPHOUSE VENTILATION

TEXT 3.7.7

2 09/05/2008

Title: PLANT SYSTEMS MAIN CONDENSER OFFGAS PRETREATMENT LOGARITHMIC RADIATION MONITORING INSTRUMENTATION

TEXT 3.7.8

6 : 06/21/2007

Title: PLANT SYSTEMS SNUBBERS

TEXT 3.7.9

1 08/28/2006

Title: PLANT SYSTEMS CONTROL STRUCTURE HVAC

TEXT 3.7.10

1 12/14/2004

Title: PLANT SYSTEMS SPENT FUEL STORAGE POOLS (SFSPS)

TEXT 3.7.11

1 10/02/2009

Title: PLANT SYSTEMS

TEXT 3.8.1

2 02/04/2005

Title: ELECTRICAL POWER PRIMARY CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

TEXT 3.8.2.1

2 11/09/2007

Title: ELECTRICAL POWER MOTOR OPERATED VALVES (MOV) THERMAL OVERLOAD PROTECTION -CONTINUOUS

TEXT 3.8.2.2

2 12/14/2004

Title: ELECTRICAL POWER MOTOR OPERATED VALVES (MOV) THERMAL OVERLOAD PROTECTION - AUTOMATIC

TEXT 3.8.3

0 11/19/2002

Title: ELECTRICAL POWER DIESEL GENERATOR (DG) MAINTENANCE ACTIVITIES

Page <u>5</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.8.4 1 02/04/2005

Title: ELECTRICAL POWER 24 VDC ELECTRICAL SUBSYSTEM

TEXT 3.8.5 0 11/19/2002

Title: ELECTRICAL POWER DEGRADED VOLTAGE PROTECTION

TEXT 3.8.6 0 11/19/2002

Title: ELECTRICAL POWER EMERGENCY SWITCHGEAR ROOM COOLING

TEXT 3.8.7 1 06/15/2009

Title: BATTERY MAINTENANCE AND MONITORING PROGRAM

TEXT 3.9.1 0 11/19/2002

Title: REFUELING OPERATIONS DECAY TIME

TEXT 3.9.2 0 11/19/2002

Title: REFUELING OPERATIONS COMMUNICATIONS

TEXT 3.9.3 0 11/19/2002

Title: REFUELING OPERATIONS REFUELING PLATFORM

TEXT 3.10.1 1 04/26/2006

Title: MISCELLANEOUS SEALED SOURCE CONTAMINATION

TEXT 3.10.2 1 04/09/2007

Title: MISCELLANEOUS SHUTDOWN MARGIN TEST RPS INSTRUMENTATION

TEXT 3.10.3 1 04/26/2006

Title: MISCELLANEOUS INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)

TEXT 3.11.1.1 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS LIQUID EFFLUENTS CONCENTRATION

TEXT 3.11.1.2 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS LIQUID EFFLUENTS DOSE

Page <u>6</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.11.1.3 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS LIQUID WASTE TREATMENT SYSTEM

TEXT 3.11.1.4 1 12/14/2004

Title: RADIOACTIVE EFFLUENTS LIQUID RADWASTE EFFLUENT MONITORING INSTRUMENTATION

TEXT 3.11.1.5 2 05/02/2007

Title: RADIOACTIVE EFFLUENTS RADIOACTIVE LIQUID PROCESS MONITORING INSTRUMENTATION

TEXT 3.11.2.1 3 04/26/2006

Title: RADIOACTIVE EFFLUENTS DOSE RATE

TEXT 3.11.2.2 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS DOSE - NOBLE GASES

TEXT 3.11.2.3 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS DOSE - IODINE, TRITIUM, AND RADIONUCLIDES IN PARTICULATE

FORM

TEXT 3.11.2.4 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS GASEOUS RADWASTE TREATMENT SYSTEM

TEXT 3.11.2.5 3 11/14/2006

Title: RADIOACTIVE EFFLUENTS VENTILATION EXHAUST TREATMENT SYSTEM

TEXT 3.11.2.6 4 09/16/2009

Title: RADIOACTIVE EFFLUENTS RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

TEXT 3.11.3 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS TOTAL DOSE

TEXT 3.11.4.1 3 04/26/2006

Title: RADIOACTIVE EFFLUENTS MONITORING PROGRAM

TEXT 3.11.4.2 2 04/26/2006

Title: RADIOACTIVE EFFLUENTS LAND USE CENSUS

Page 7 of 15 Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.11.4.3 1 04/26/2006

Title: RADIOACTIVE EFFLUENTS INTERLABORATORY COMPARISON PROGRAM

TEXT 3.12.1 0 11/19/2002

Title: LOADS CONTROL PROGRAM CRANE TRAVEL-SPENT FUEL STORAGE POOL

TEXT 3.12.2 4 04/17/2008

Title: LOADS CONTROL PROGRAM HEAVY LOADS REQUIREMENTS

TEXT 3.12.3 0 11/19/2002

Title: LOADS CONTROL PROGRAM LIGHT LOADS REQUIREMENTS

TEXT B3.0 4 05/23/2008

Title: APPLICABILITY BASES TECHNICAL REQUIREMENT FOR OPERATION (TRO) APPLICABILITY

TEXT B3.1.1 1 11/09/2007

Title: REACTIVITY CONTROL SYSTEM BASES ANTICIPATED TRANSIENT WITHOUT SCRAM ALTERNATE ROD INJECTION (ATWS-ARI) INSTRUMENTATION

TEXT B3.1.2 0 11/19/2002

Title: REACTIVITY CONTROL SYSTEM BASES CONTROL ROD DRIVE (CRD) HOUSING SUPPORT

TEXT B3.1.3 3 04/10/2007

Title: REACTIVITY CONTROL SYSTEM BASES CONTROL ROD BLOCK INSTRUMENTATION

TEXT B3.1.4 0 11/19/2002

Title: REACTIVITY CONTROL SYSTEM BASES CONTROL ROD SCRAM ACCUMULATORS INSTRUMENTATION AND CHECK VALVE

TEXT B3.2.1 0 11/19/2002

Title: CORE OPERATING LIMITS BASES CORE OPERATING LIMITS REPORT (COLR)

TEXT B3.3.1 0 11/19/2002

Title: INSTRUMENTATION BASES RADIATION MONITORING INSTRUMENTATION

TEXT B3.3.2 1 11/09/2007

Title: INSTRUMENTATION BASES SEISMIC MONITORING INSTRUMENTATION

Page <u>8</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.3.3 2 11/09/2007

Title: INSTRUMENTATION BASES METEOROLOGICAL MONITORING INSTRUMENTATION

TEXT B3.3.4 3 11/09/2007

Title: INSTRUMENTATION BASES TRM POST ACCIDENT MONITORING (PAM) INSTRUMENTATION

TEXT B3.3.5 2 11/09/2007

Title: INSTRUMENTATION BASES THIS PAGE INTENTIONALLY LEFT BLANK

TEXT B3.3.6 3 10/19/2005

Title: INSTRUMENTATION BASES TRM ISOLATION ACTUATION INSTRUMENTATION

TEXT B3.3.7 1 11/09/2007

Title: INSTRUMENTATION BASES MAIN TURBINE OVERSPEED PROTECTION SYSTEM

TEXT B3.3.8 1 10/22/2003

Title: INSTRUMENTATION BASES TRM RPS INSTRUMENTATION

TEXT B3.3.9 3 05/14/2009

Title: INSTRUMENTATION BASES LPRM UPSCALE ALARM INSTRUMENTATION

TEXT B3.3.10 1 12/18/2008

Title: INSTRUMENTATION BASES REACTOR RECIRCULATION PUMP MG SET STOPS

TEXT B3.3.11 1 10/22/2003

Title: INSTRUMENTATION BASES MVP ISOLATION INSTRUMENTATION

TEXT B3.3.12 0 04/16/2009

Title: WATER MONITORING INSTRUMENTATION

TEXT B3.4.1 0 11/19/2002

Title: REACTOR COOLANT SYSTEM BASES REACTOR COOLANT SYSTEM CHEMISTRY

TEXT B3.4.2 1 04/16/2009

Title: REACTOR COOLANT SYSTEM BASES STRUCTURAL INTEGRITY

Page 9 of 15 Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.4.3 1 11/09/2007

Title: REACTOR COOLANT SYSTEM BASES HIGH/LOW PRESSURE INTERFACE LEAKAGE MONITOR

TEXT B3.4.4 0 : 11/19/2002

Title: REACTOR COOLANT SYSTEM BASES REACTOR RECIRCULATION FLOW AND ROD LINE LIMIT

TEXT B3.4.5 0 11/19/2002

Title: REACTOR COOLANT SYSTEM BASES REACTOR VESSEL MATERIALS

TEXT B3.5.1 0 11/19/2002

Title: ECCS AND RCIC BASES ADS MANUAL INHIBIT:

TEXT B3.5.2 1 11/09/2007

Title: ECCS AND RCIC BASES ECCS AND RCIC SYSTEM MONITORING INSTRUMENTATION

TEXT B3.5.3 1 11/09/2007

Title: ECCS AND RCIC BASES LONG TERM NITROGEN SUPPLY TO ADS

TEXT B3.6.1 0 11/19/2002

Title: CONTAINMENT BASES VENTING OR PURGING

TEXT B3.6.2 0 11/19/2002

Title: CONTAINMENT BASES SUPPRESSION CHAMBER-TO-DRYWELL VACUUM BREAKER POSITION

INDICATION

TEXT B3.6.3 1 04/19/2007

Title: CONTAINMENT BASES SUPPRESSION POOL ALARM INSTRUMENTATION

TEXT B3.6.4 1 12/14/2004

Title: CONTAINMENT BASES PRIMARY CONTAINMENT CLOSED SYSTEM BOUNDARIES

TEXT B3.7.1 0 11/19/2002

Title: PLANT SYSTEMS BASES EMERGENCY SERVICE WATER SYSTEM (SHUTDOWN)

TEXT B3.7.2 0 11/19/2002

Title: PLANT SYSTEMS BASES ULTIMATE HEAT SINK (UHS) GROUND WATER LEVEL

Page <u>10</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.7.3.1 2 01/07/2008

Title: PLANT SYSTEMS BASES FIRE SUPPRESSION WATER SUPPLY SYSTEM

TEXT B3.7.3.2 2 04/26/2006

Title: PLANT SYSTEMS BASES SPRAY AND SPRINKLER SYSTEMS

TEXT B3.7.3.3 0 11/19/2002

Title: PLANT SYSTEMS BASES CO2 SYSTEMS

TEXT B3.7.3.4 1 04/26/2006

Title: PLANT SYSTEMS BASES HALON SYSTEMS

TEXT B3.7.3.5 1 04/26/2006

Title: PLANT SYSTEMS BASES FIRE HOSE STATIONS

TEXT B3.7.3.6 1 04/26/2006

Title: PLANT SYSTEMS BASES YARD FIRE HYDRANTS AND HYDRANT HOSE HOUSES

TEXT B3.7.3.7 0 11/19/2002

Title: PLANT SYSTEMS BASES FIRE RATED ASSEMBLIES

TEXT B3.7.3.8 1 01/12/2004

Title: PLANT SYSTEMS BASES FIRE DETECTION INSTRUMENTATION

TEXT B3.7.4 0 11/19/2002

Title: PLANT SYSTEMS BASES SOLID RADWASTE SYSTEM

TEXT B3.7.5.1 0 11/19/2002

Title: PLANT SYSTEMS BASES MAIN CONDENSER OFFGAS HYDROGEN MONITOR

TEXT B3.7.5.2 0 11/19/2002

Title: PLANT SYSTEMS BASES MAIN CONDENSER OFFGAS EXPLOSIVE GAS MIXTURE

TEXT B3.7.5.3 0 11/19/2002

Title: PLANT SYSTEMS BASES LIQUID HOLDUP TANKS

Page <u>11</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.7.6 2 06/27/2008

Title: PLANT SYSTEMS BASES ESSW PUMPHOUSE VENTILATION

TEXT B3.7.7 2 01/31/2008

Title: PLANT SYSTEMS BASES MAIN CONDENSER OFFGAS PRETREATMENT LOGARITHMIC RADIATION

MONITORING INSTRUMENTATION

TEXT B3.7.8 3 06/21/2007

Title: PLANT SYSTEMS BASES SNUBBERS

TEXT B3.7.9 1 12/14/2004

Title: PLANT SYSTEMS BASES CONTROL STRUCTURE HVAC

TEXT B3.7.10 1 12/14/2004

Title: PLANT SYSTEMS BASES SPENT FUEL STORAGE POOLS

TEXT B3.7.11 1 10/02/2009

Title: STRUCTURAL INTEGRITY

TEXT B3.8.1 1 02/04/2005

Title: ELECTRICAL POWER BASES PRIMARY CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT

PROTECTIVE DEVICES

TEXT B3.8.2.1 0 11/19/2002

Title: ELECTRICAL POWER BASES MOTOR OPERATED VALVES (MOV) THERMAL OVERLOAD PROTECTION -

CONTINUOUS

TEXT B3.8.2.2 1 09/17/2004

Title: ELECTRICAL POWER BASES MOTOR OPERATED VALVES (MOV) THERMAL OVERLOAD PROTECTION -

AUTOMATIC

TEXT B3.8.3 0 11/19/2002

Title: ELECTRICAL POWER BASES DIESEL GENERATOR (DG) MAINTENANCE ACTIVITIES

TEXT B3.8.4 0 11/19/2002

Title: ELECTRICAL POWER BASES 24 VDC ELECTRICAL POWER SUBSYSTEM

TEXT B3.8.5 0 11/19/2002

Title: ELECTRICAL POWER BASES DEGRADED VOLTAGE PROTECTION

Page <u>12</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.8.6 1 02/04/2005

Title: ELECTRICAL POWER BASES EMERGENCY SWITCHGEAR ROOM COOLING

TEXT B3.8.7 1 06/15/2009

Title: BATTERY MAINTENANCE AND MONITORING PROGRAM

TEXT B3.9.1 0 11/19/2002

Title: REFUELING OPERATIONS BASES DECAY TIME

TEXT B3.9.2 0 11/19/2002

Title: REFUELING OPERATIONS BASES COMMUNICATIONS

TEXT B3.9.3 0 11/19/2002

Title: REFUELING OPERATIONS BASES REFUELING PLATFORM

TEXT B3.10.1 0 11/19/2002

Title: MISCELLANEOUS BASES SEALED SOURCE CONTAMINATION

TEXT B3.10.2 1 04/10/2007

Title: MISCELLANEOUS BASES SHUTDOWN MARGIN TEST RPS INSTRUMENTATION

TEXT B3.10.3 0 11/19/2002

Title: MISCELLANEOUS BASES INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)

TEXT B3.11.1.1 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES LIQUID EFFLUENTS CONCENTRATION

TEXT B3.11.1.2 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES LIQUID EFFLUENTS DOSE

TEXT B3.11.1.3 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES LIQUID WASTE TREATMENT SYSTEM

TEXT B3.11.1.4 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES LIQUID RADWASTE EFFLUENT MONITORING INSTRUMENTATION

Page <u>13</u> of <u>15</u> • Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.11.1.5 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES RADIOACTIVE LIQUID PROCESS MONITORING

INSTRUMENTATION

TEXT B3.11.2.1 1 12/14/2004

Title: RADIOACTIVE EFFLUENTS BASES DOSE RATE

TEXT B3.11.2.2 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES DOSE - NOBLE GASES ...

TEXT B3.11.2.3 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES DOSE - IODINE, TRITIUM, AND RADIONUCLIDES IN

PARTICULATES FORM

TEXT B3.11.2.4 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES GASEOUS RADWASTE TREATMENT SYSTEM

TEXT B3.11.2.5 4 11/14/2006

Title: RADIOACTIVE EFFLUENTS BASES VENTILATION EXHAUST TREATMENT SYSTEM

TEXT B3.11.2.6 1 01/27/2004

Title: RADIOACTIVE EFFLUENTS BASES RADIOACTIVE GASEOUS EFFLUENT MONITORING

INSTRUMENTATION

TEXT B3.11.3 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES TOTAL DOSE

TEXT B3.11.4.1 2 01/06/2006

Title: RADIOACTIVE EFFLUENTS BASES MONITORING PROGRAM

TEXT B3.11.4.2 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES LAND USE CENSUS

TEXT B3.11.4.3 0 11/19/2002

Title: RADIOACTIVE EFFLUENTS BASES INTERLABORATORY COMPARISON PROGRAM

TEXT B3.12.1 1 10/04/2007

Title: LOADS CONTROL PROGRAM BASES CRANE TRAVEL-SPENT FUEL STORAGE POOL

Page <u>14</u> of <u>15</u> Report Date: 10/02/09

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.12.2 0 11/19/2002

Title: LOADS CONTROL PROGRAM BASES HEAVY LOADS REQUIREMENTS

TEXT B3.12.3 0 11/19/2002

Title: LOADS CONTROL PROGRAM BASES LIGHT LOADS REQUIREMENTS

TEXT 4.1 0 09/27/2003

Title: ADMINISTRATIVE CONTROLS ORGANIZATION

TEXT 4.2 0 09/27/2003

Title: ADMINISTRATIVE CONTROLS REPORTABLE EVENT ACTION

TEXT 4.3 0 09/27/2003

Title: ADMINISTRATIVE CONTROLS SAFETY LIMIT VIOLATION

TEXT 4.4 1 12/18/2008

Title: ADMINISTRATIVE CONTROLS PROCEDURES & PROGRAMS

TEXT 4.5 0 09/27/2003

Title: ADMINISTRATIVE CONTROLS REPORTING REQUIREMENTS

TEXT 4.6 0 09/27/2003

Title: ADMINISTRATIVE CONTROLS RADIATION PROTECTION PROGRAM

TEXT 4.7 0 09/27/2003 .

Title: ADMINISTRATIVE CONTROLS TRAINING TO A STATE OF THE STATE OF THE

Section	<u>Title</u>	Effective Date
TOC	TABLE OF CONTENTS	09/08/2009
1.0	USE AND APPLICATION Page TRM / 1.0-1 Page TRM / 1.0-2 Page TRM / 1.0-3	08/31/1998 10/04/2002 08/31/1998
2.0	PLANT PROGRAMS     Page 2.0-1     Pages TRM / 2.0-2 and TRM 2.0-3     Page TRM / 2.0-4     Page TRM / 2.0-5     Page TRM / 2.0-6     Page TRM / 2.0-7     Page TRM / 2.0-8     Pages TRM / 2.0-9 through TRM / 2.0-11     Page TRM / 2.0-12     Pages TRM / 2.0-13 and TRM / 2.0-14     Page TRM / 2.0-15	08/31/1998 01/28/2005 06/25/2002 04/12/1999 04/15/2009 05/15/2008 04/15/2009 11/15/2004 04/15/2009 11/15/2004 11/15/2005
3.0	APPLICABILITY Pages TRM / 3.0-1 and TRM / 3.0-2 Page TRM / 3.0-3 Page TRM / 3.0-4	04/14/2008 03/15/2002 11/30/2005
3.1	REACTIVITY CONTROL SYSTEMS Page TRM / 3.1-1 Pages TRM / 3.1-2 through TRM / 3.1-5 Page TRM / 3.1-6 Page TRM / 3.1-7 Page TRM / 3.1-8 Pages TRM / 3.1-9 and TRM / 3.1-9a Page TRM / 3.1-10	10/31/2007 08/31/1998 03/27/2007 04/15/2009 03/27/2007 02/18/1999 02/18/1999
3.2	CORE OPERATING LIMITS REPORT Page TRM / 3.2-1 Pages TRM / 3.2-2 through TRM / 3.2-54	08/31/1998 04/17/2009
3.3	INSTRUMENTATION Pages TRM / 3.3-1 through TRM / 3.3-3 Pages TRM / 3.3-4 and TRM / 3.3-5 Page 3.3-6 Page TRM 3.3-7 Page 3.3-8	07/16/1999 10/31/2007 08/31/1998 10/31/2007 08/31/1998

Section	<u>Title</u>	Effective Date
	Page TRM / 3.3-9	04/12/2007
	Page TRM / 3.3-9a	12/17/1998
	Page TRM / 3.3-10	10/31/2007
	Page TRM / 3.3-11	06/02/2005
	Page TRM / 3.3-11a	04/14/2008
	Page TRM / 3.3-12	03/30/2001
	Page TRM / 3.3-13	09/13/2005
	Page TRM / 3.3-14	12/14/1998
	Page TRM / 3.3-15	10/22/2003
	Page TRM / 3.3-16	06/27/2001
	Page TRM / 3.3-17	06/14/2002
	Page TRM / 3.3-18	10/31/2007
	Pages TRM / 3.3-19 and TRM / 3.3-20	10/22/2003
	Page TRM / 3.3-21	04/15/2009
	Page TRM / 3.3-21a	11/15/2004
	Pages TRM /3.3-21b through TRM / 3.3-21d	03/27/2007
	Page TRM / 3.3-22	12/03/2004
	Pages TRM / 3.3-23 and TRM / 3.3-24	05/16/2003
	Page TRM / 3.3-25	10/22/2003
	Pages TRM / 3.3-26 and TRM / 3.3-27	04/07/2009
3.4	REACTOR COOLANT SYSTEM	•
	Page TRM / 3.4-1	03/31/2006
	Pages 3.4-2 through 3.4-5	10/23/1998
	Pages TRM / 3.4-6 through TRM / 3.4-8	04/01/2009
	Page 3.4-9	08/31/1998
	Page 3.4-10	10/31/2007
	Page 3.4-11	08/31/1998
	Page TRM / 3.4-12	04/17/2009
	Page TRM / 3.4-13	03/31/2006
3.5	EMERGENCY CORE COOLING AND RCIC	
	Page TRM / 3.5-1	01/28/2005
	Pages 3.5-2 and 3.5-3	08/31/1998
	Page TRM / 3.5-4	10/31/2007
	Pages 3.5-5 through 3.5-7	08/31/1998
3.6	CONTAINMENT	
	Pages 3.6-1 through 3.6-4	08/31/1998
	Page TRM / 3.6-5	01/07/2002
	Page 3.6-6	08/31/1998
	Pages TRM / 3.6-7 through TRM / 3.6-9	12/31/2002
		•

Section	<u>Title</u>	Effective Date
3.7	PLANT SYSTEMS	
	Pages TRM / 3.7-1 and TRM / 3.7-2	07/29/1999
	Page 3.7-3	08/31/1998
	Page TRM / 3.7-4	03/31/2006
	Page TRM / 3.7-5	04/07/2009
	Pages TRM / 3.7-6 through TRM / 3.7-8	08/02/1999
	Pages TRM / 3.7-9 and TRM / 3.7-10	04/07/2009
	Page TRM / 3.7-11	01/21/2000
	Page TRM / 3.7-12	08/02/1999
	Page TRM / 3.7-13	04/07/2009
	Page TRM / 3.7-14	08/09/2005
	Pages TRM / 3.7-15 and TRM / 3.7-16	08/02/1999
	Page TRM / 3.7-17	04/07/2009
	Page TRM / 3.7-18	08/02/1999
	Page TRM / 3.7-19	04/07/2009
	Pages TRM / 3.7-20 through TRM / 3.7-22	08/02/1999
	Page TRM / 3.7-23	04/07/2009
	Page TRM / 3.7-24	03/31/2006
	Pages TRM / 3.7-25 and TRM / 3.7-26	08/02/1999
	Page TRM / 3.7-27	10/31/2007
	Page TRM / 3.7-28	11/29/2006
	Page TRM / 3.7-29	11/16/2001
	Page TRM / 3.7-30	11/30/2005
	Page TRM / 3.7-31	11/16/2001
	Page TRM / 3.7-32	01/09/2004
•	Page TRM / 3.7-33	10/05/2002
	Page TRM / 3.7-34	03/31/2006
	Pages TRM / 3.7-35 and TRM / 3.7-36	02/01/1999
	Pages 3.7-37 through 3.7-38	08/31/1998
	Page TRM / 3.7-39	03/31/2006
	Page TRM / 3.7-40	02/14/2005
	Page TRM / 3.7-40a	06/20/2008
	Page TRM / 3.7-41	09/04/2008
	Page TRM / 3.7-42	08/31/1998
	Pages TRM / 3.7-43 through TRM / 3.7-45	10/05/2006
	Page TRM / 3.7-46	06/07/2007
	Page TRM / 3.7-47	10/05/2006
	Page TRM / 3.7-48	06/07/2007
	Page TRM / 3.7-49	03/09/2001
	Page TRM / 3.7-50	08/16/2006
	Page TRM / 3.7-51	12/03/2004
	Page TRM / 3.7-52	04/15/2003
	Page TRM / 3.7-53	07/29/1999
	Page TRM / 3.7-54	04/01/2009
,	Page TRM / 3.7-55	09/25/2009
	Page TRM / 3.7-56	04/01/2009

Section	<u>Title</u>	Effective Date
3.8	ELECTRICAL POWER Page TRM / 3.8-1 Pages TRM / 3.8-2 and TRM / 3.8-3 Page TRM / 3.8-4 Pages TRM / 3.8-5 and TRM / 3.8-6 Pages TRM / 3.8-7 through TRM / 3.8-10 Page TRM / 3.8-11 Page TRM / 3.8-12	04/02/2002 01/28/2005 01/31/2005 04/02/2002 10/31/2007 08/10/2004 12/03/2004
	Pages 3.8-13 and 3.8-14 Page TRM / 3.8-15 Pages TRM / 3.8-16 and TRM / 3.8-17 Page 3.8-18 Page TRM / 3.8-19 Page TRM / 3.8-20 Pages TRM / 3.8-21 through TRM / 3.8-23 Pages 3.8-24 and 3.8-25 Page TRM / 3.8-26 Page TRM / 3.8-27 Pages TRM / 3.8-28 and TRM / 3.8-29	08/31/1998 01/28/2005 04/02/2002 02/01/1999 04/02/2002 02/01/1999 06/06/1999 08/31/1998 05/28/2009 11/29/2006 05/28/2009
3.9	REFUELING OPERATIONS Pages 3.9-1 through 3.9-3	08/31/1998
3.10	MISCELLANEOUS Page TRM / 3.10-1 Pages 3.10-2 through 3.10-4 Pages TRM / 3.10-5 and TRM / 3.10-6 Page TRM / 3.10-7	03/31/2006 08/30/1998 03/27/2007 03/31/2006
3.11	RADIOACTIVE EFFLUENTS Page TRM / 3.11-1 Pages 3.11-2 through 3.11-3 Page TRM / 3.11-4 Page 3.11-5 Page TRM / 3.11-6 Pages 3.11-7 through 3.11-9 Page TRM / 3.11-10 Pages 3.11-11 and 3.11-12 Page TRM / 3.11-13 Page TRM / 3.11-14 Pages 3.11-15 and 3.11-16 Page TRM / 3.11-17	03/31/2006 08/31/1998 03/31/2006 08/31/1998 03/31/2006 08/31/1998 12/03/2004 08/31/1998 04/12/2007 12/03/1004 09/01/1998 03/31/2006

<u>Section</u>	<u>Title</u>	Effective Date
	Page 3.11-18	08/31/1998
	Page TRM / 3.11-19	08/15/2005
	Pages TRM / 3.11-20 and TRM / 3.11-21	03/31/2006
	Page TRM / 3.11-22	04/02/2002
	Page TRM / 3.11-23	11/14/2006
	Page TRM / 3.11-24	05/13/2005
	Page TRM / 3.11-25	04/12/2007
	Pages TRM / 3.11-26 and TRM / 3.11-27	01/21/2004
	Page TRM / 3.11-28	09/08/2009
	Page TRM / 3.11-29	12/03/2004
	Pages TRM 3.11-30 through TRM / 3.11-32	01/21/2004
	Page TRM / 3.11-33	03/31/2006
	Page 3.11-34	08/31/1998
	Page TRM / 3.11-35	03/31/2006
	Pages TRM / 3.11-36 through TRM / 3.11-39	11/30/2005
	Pages 3.11-40 through 3.11-44	08/31/1998
	Page TRM / 3.11-45	03/31/2006
	Page 3.11-46	08/31/1998
	Page TRM / 3.11-47	03/31/2006
3.12	LOADS CONTROL PROGRAM	
	Pages TRM / 3.12-1 through TRM / 3.12-3	02/05/1999
	Page TRM / 3.12-4	03/14/2008
	Page TRM / 3.12-5	02/05/1999
4.0	ADMINISTRATIVE CONTROLS	
	Pages TRM / 4.0-1 through TRM / 4.0-3	08/31/1998
	Page TRM / 4.0-4	12/11/2008
	Pages TRM / 4.0-5 through TRM / 4.0-8	08/31/1998

Section	<u>Title</u>	Effective Date
B 3.0	APPLICABILITY BASES Pages TRM / B 3.0-1 through TRM / B 3.0-3 Page TRM / B 3.0-4 Page TRM / B 3.0-5 Page TRM / B 3.0-6 Page TRM / B 3.0-7 Pages TRM / B 3.0-8 through TRM / B 3.0-10 Pages TRM / B 3.0-11 and TRM / B 3.0-12 Pages TRM / B 3.0-13 and TRM / B 3.0-14 Page TRM / B 3.0-15	08/31/1998 01/10/2007 04/14/2008 08/31/1998 04/12/2007 08/31/1998 03/15/2002 11/30/2005 03/15/2002
B 3.1	REACTIVITY CONTROL SYSTEMS BASES Page TRM / B 3.1-1 Pages TRM / B 3.1-2 and TRM / B 3.1-3 Page B 3.1-4 Pages TRM / B 3.1-5 through TRM / B 3.1-7 Page TRM / B 3.1-8	07/13/1999 10/31/2007 08/31/1998 03/27/2007 02/18/1999
B 3.2	CORE OPERATING LIMITS BASES Page B 3.2-1	08/31/1998
B 3.3	Page TRM / B 3.3-1 Pages TRM / B 3.3-2 and TRM / B-3.3-2a Pages TRM / B 3.3-3 and TRM / B 3.3-3a Pages TRM / B 3.3-4 and TRM / B 3.3-5 Pages TRM / B 3.3-6 through TRM / B 3.3-9 Page B 3.3-10 Pages TRM / B 3.3-11 and TRM / B 3.3-12 Page TRM / B 3.3-13 Page TRM / B 3.3-14 Page TRM / B 3.3-14 Page TRM / B 3.3-14b Pages TRM / B 3.3-15 through TRM / B 3.3-17 Pages TRM / B 3.3-18 and TRM / B 3.3-19 Pages TRM / B 3.3-19a and TRM / B 3.3-19b Page TRM / B 3.3-19d and TRM / B 3.3-19e Page TRM / B 3.3-20 Page TRM / B 3.3-21 Page TRM / B 3.3-22 Page TRM / B 3.3-23 Pages TRM / B 3.3-24 and TRM / B 3.3-25	04/07/2000 10/31/2007 10/31/2007 05/30/2006 10/31/2007 08/31/1998 09/13/2005 12/03/2004 06/25/2002 10/31/2007 06/14/2002 10/22/2003 03/27/2007 04/17/2009 03/27/2007 12/11/2008 05/16/2003 05/16/2003 04/07/2009

Section	<u>Title</u>	Effective Date
B 3.4	REACTOR COOLANT SYSTEM BASES Page TRM / B 3.4-1 Pages TRM / B 3.4-2 and TRM / B3.4-3 Pages TRM / B 3.4-4 and TRM / B 3.4-4a Page TRM / B 3.4-5 Page B 3.4-6	08/31/1998 04/01/2009 10/31/2007 10/15/1999 08/31/1998
B 3.5	ECCS AND RCIC BASES Pages B 3.5-1 and B 3.5-2 Pages TRM / B 3.5-3 and TRM / B 3.5-3a Page B 3.5-4 Page TRM / B 3.5-5	08/31/1998 10/31/2007 08/31/1998 10/31/2007
B 3.6	CONTAINMENT BASES Page TRM / B 3.6-1 Page TRM / B 3.6-2 Page B 3.6-3 Page TRM / B 3.6-4 Page TRM / B 3.6-5 Page TRM / B 3.6-6 Pages TRM / B 3.6-7 through TRM / B 3.6-11	07/26/2001 02/01/1999 08/31/1998 03/29/2007 04/04/2007 12/03/2004 12/31/2002
B 3.7	PLANT SYSTEMS BASES     Pages B 3.7-1 and B 3.7-2     Pages TRM / B 3.7-3 and TRM / B 3.7-3a     Page TRM / B 3.7-4     Page TRM / B 3.7-5     Pages TRM / B 3.7-6 and TRM / B 3.7-6a     Pages TRM / B 3.7-7 and TRM / B 3.7-7a     Page TRM / B 3.7-8     Page TRM / B 3.7-9     Page TRM / B 3.7-10     Pages TRM / B 3.7-10     Pages TRM / B 3.7-12 through TRM / B 3.7-11a     Pages TRM / B 3.7-12 through TRM / B 3.7-14     Pages TRM / B 3.7-15 and TRM / B 3.7-16     Pages B 3.7-17 through B 3.7-20     Page TRM / B 3.7-21     Pages TRM / B 3.7-22 and TRM / B 3.7-23     Pages TRM / B 3.7-24 through TRM / B 3.7-29     Page TRM / B 3.7-30     Pages TRM / B 3.7-32     Page TRM / B 3.7-33	08/31/1998 12/27/2007 03/31/2006 08/02/1999 03/31/2006 08/02/1999 03/31/2006 08/02/1999 03/31/2006 08/02/1999 01/09/2004 02/01/1999 08/31/1998 02/14/2005 06/20/2008 01/30/2008 10/05/2006 06/07/2007 10/05/2006 03/09/2001 04/15/2003

*****		
<u>Section</u>	<u>Title</u>	Effective Date
	Page TRM / B 3.7-34 Page TRM / B 3.7-35 Pages TRM / B 3.7-36 and TRM / B 3.7-37 Page TRM / B 3.7-38 Pages TRM / B 3.7-39 and TRM / B 3.7-40	12/03/2004 07/05/2000 04/01/2009 09/25/2009 04/01/2009
B 3.8	Page TRM / B 3.8-1 Pages TRM / B 3.8-2 and TRM / B 3.8-2a Page TRM / B 3.8-3 Page TRM / B 3.8-3a Page TRM / B 3.8-4 Page TRM / B 3.8-4 Page TRM / B 3.8-4 Page TRM / B 3.8-5 Pages TRM / B 3.8-6 through TRM / B 3.8-16 Page TRM / B 3.8-17 Pages TRM / B 3.8-18 through TRM / B 3.8-20 Pages TRM / B 3.8-21 through TRM / B 3.8-24	04/02/2002 01/28/2005 04/02/2002 04/02/2002 04/02/2002 08/10/2004 08/31/1998 04/02/2002 01/28/2005 11/29/2006 05/28/2009
B.3.9	REFUELING OPERATIONS BASES Pages B 3.9-1 and B 3.9-2 Pages B 3.9-3 through B 3.9-7	08/31/1998 10/23/1998
B 3.10	MISCELLANEOUS BASES Page B 3.10-1 Pages TRM / B 3.10-2 and TRM / B 3.10-3 Pages TRM / B 3.10-4 and TRM / B 3.10-5	08/31/1998 03/27/2007 08/23/1999
B 3.11	Pages B 3.11-1 through B 3.11-9 Page TRM / B 3.11-10 Pages TRM/B 3.11-11 and TRM/B 3.11-11a Pages TRM/B 3.11-12 and TRM/B 3.11-13 Page TRM / B 3.11-14 Page TRM / B 3.11-15 Pages B 3.11-16 through B 3.11-19 Page TRM / B 3.11-20 Page TRM / B 3.11-20 Page TRM / B 3.11-21 Pages TRM / B 3.11-22 and TRM / B 3.11-23 Page TRM / B 3.11-24 and TRM / B 3.11-25 Pages B 3.11-26 through B 3.11-27	08/31/1998 02/01/1999 04/07/2000 02/01/1999 12/03/2004 02/01/1999 08/31/1998 04/02/2002 04/02/2002 05/13/2005 11/14/2006 05/13/2005 01/21/2004 08/31/1998

Section	<u>Title</u>	Effective Date
	Pages TRM / B 3.11-28 and TRM / B 3.11-29 Page TRM / B 3.11-30 Pages B 3.11-31 through B 3.11-35 Page TRM / B 3.11-36	11/30/2005 12/03/2004 08/31/1998 02/12/1999
B.3.12	LOADS CONTROL PROGRAM BASES Page TRM / B 3.12-1 Pages TRM / B 3.12-2 and TRM / B 3.12-3	09/19/2007 02/05/1999

TRM2 text LOES.doc 9/25/09

- 3.7 Plant Systems
- 3.7.11 Structural Integrity
- TRO 3.7.11 ASME Code Class 1, 2, and 3 pressure retaining components and structural support components shall maintain structural integrity.

	CONDITION		REQUIRED ACTION	COMPLETION TIME
A.	Required Action A.1 shall be completed if this Condition is entered  Unevaluated indication or failed inspection is found in ASME Code Class 1, 2, or 3 pressure retaining component(s) or structural support component(s)	A.1	Evaluate the impact of the indication or failed inspection on OPERABILITY and structural integrity of associated systems, structures, or components	72 hours
B.	Required Action and associated Completion Time of Condition A not met.	B.1	Declare the associated systems, structures or components inoperable	Immediately
				(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Structural integrity (including through-wall flaws) of any ASME Coc Class 1 component(s) n maintained		Immediately
	C.2 Declare the affected components inoperable	Immediately
D. Structural integrity (including through-wall flaws) of any ASME Coo Class 2 or Class 3	D.1 Perform an immediate determination of operability  AND	lmmediately
component(s) not maintained	D.2 Perform a prompt determination of operability (engineering evaluation) if applicable	24 hours
E. Structural integrity of an ASME Code Class 1, 2, or 3 structural support component(s) not maintained	E.1 Perform an immediate determination of operability  AND	Immediately
maintained	E.2 Perform a prompt determination of operability (engineering evaluation) if required	24 hours
F. The pressure retaining component(s) are not OPERABLE	F.1 Declare the associated systems, structures or components inoperable	Immediately

TECHNICAL REQUIREMENT	SURVEILLANCE
-----------------------	--------------

	SURVEILLANCE	FREQUENCY	
TRS 3.7.11.1	Perform inservice inspection of ASME Section XI Code Class 1, 2, and 3 Components	In accordance with Inservice Inspection Program	

#### BASES

#### TRO

The inspection programs for ASME Code Class 1, 2, and 3 components ensure that the structural integrity of these components will be maintained at an acceptable level throughout the life of the plant. This requirement identifies appropriate actions to be taken upon discovery of indications or flaws in components that affect the structural integrity in piping and components.

This requirement applies to all ASME Code Class 1, 2, and 3 piping and components.

In addition to these piping and components, structural support components such as pipe hangers, vendor catalog items, supplementary steel, base plates, welds, bolts, etc are considered part of the scope of this TRO.

Snubbers are not considered part of the scope of this TRO. They are part of the scope of TRO 3.7.8.

The inservice inspection program for ASME Code Class 1, 2 and 3 components will be performed in accordance with Section XI of the ASME - Boiler and Pressure Vessel Code and applicable addenda as required by 10CFR Part 50.55a(g) except where specific written relief has been granted by the NRC pursuant to 10 CFR Part 50.55a(g)(6)(i). (Reference 1)

#### **ACTIONS**

The Actions are defined to ensure proper corrective measures are taken in response to the inoperable components.

#### <u>A.1</u>

Upon finding an "indication," ISI personnel will conduct further investigation. During the time frame of these investigations, no Condition Reports (CR) are generated and no Technical Requirement is considered not met.

At such time as the above examinations indicate that an "unevaluated indication" exists (i.e., an indication which fails to meet the acceptance criteria of the ASME or applicable code, the requirements of an endorsed ASME Code Case, or an NRC approved alternative), a CR will be written and forwarded for review. In addition this TRO will be declared "not met" and Condition A will be entered. As stated in a Note for Condition A, an evaluation of all "unevaluated indications" must be completed. If the "indication" is found to impact the structural integrity or OPERABILITY of the component, system, or structure, the appropriate TRO Condition shall be

**BASES** 

**ACTIONS** 

A.1 (continued)

entered. If the evaluation determines that the flaw does not impact the component, systems, or structure OPERABILITY or structural integrity, the "indication" becomes an "evaluated indication" and the TRO is considered met and the Actions Table is exited. The 72 hour Completion Time provides a reasonable amount of time to perform the necessary evaluations.

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) 50.55a(g), structural integrity must be maintained in conformance with American Society of Mechanical Engineers (ASME) Code Section XI for those parts of a system that are subject to ASME Code requirements. 10 CFR 50.55a(g)(4) requires, "Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and preservice examination requirements, set forth in Section XI..."

ASME Section XI, Article IWA 3000 contains weld examination flaw acceptance standards. If flaws are found in components for which ASME Section XI has no acceptance standards, then the construction code is to be used to establish the acceptance standards. This is supported by Subarticle IWA-3100(b) which states "if acceptance standards for a particular component, Examination Category, or examination method are not specified in this Division [Division 1] then flaws that exceed the acceptance standards for materials and welds specified in the Section III Edition applicable to construction of the component shall be evaluated to determine disposition."

The ASME Code contains requirements describing acceptable means of performing preservice and inservice inspection of welds and certain other locations in piping, vessels, and other pressure boundary components. For preservice and inservice inspections, the ASME Code also specifies acceptable flaw sizes based on material type, location, and service of the system within which the flaw is discovered. If the flaw exceeds these specified acceptance flaw sizes, the ASME Code describes an alternate method by which a calculation may be performed to evaluate the acceptability of the flaw. While ASME Section XI does not specifically provide flaw acceptance standards for components other than those specified in Table IWX-2500-1, its methods and standards may be applied to other components when appropriate.

## **BASES**

#### **ACTIONS**

## A.1 (continued)

The table below summarizes the NRC accepted methods available for evaluating structural integrity of flaws in components (including supports) classified as ASME Code Class 1, Class 2, and Class 3 components.

Pipe Class/Energy	ASME Code Section XI/ Construction Code	NRC Approved Alternative e.g. RG approved Code Case	Code Case N-513 <sup>(1)</sup>	GL 90-05
Class 1/HE <sup>(2)</sup>	X	Х		
Class 21HE	· X	X		
Class 2/ME <sup>(3)</sup>	Χ	X	X	
Class 3/HE	X	X		X
Class 3/ME	х	X	Х	Х

- (1) Refer to RG 1.147 for the latest revision acceptable to the NRC, and any conditions placed upon the code case.
- (2) HE High Energy Maximum operating temperature greater than 200° F or maximum operating pressure greater than 275 psig.
- (3) ME Moderate Energy Maximum operating temperature equal to or less than 200° F or maximum operating pressure equal to or less than 275 psig.

## <u>B.1</u>

If the evaluation of operability can not be completed within the required Completion Time, the component shall be declared inoperable and the appropriate LCOs and TROs entered.

#### **BASES**

## ACTIONS (continued)

## <u>C.1</u>

When ASME Class 1 components do not meet ASME Code or construction code acceptance standards, the requirements of an NRC endorsed ASME Code Case, or an NRC approved alternative, then an immediate operability determination cannot conclude a reasonable expectation of operability exists and the components are inoperable. Satisfaction of Code acceptance standards is the minimum necessary for operability of Class 1 pressure boundary components because of the importance of the safety function being performed.

TS LCO 3.4.4, RCS Operational Leakage, does not permit any reactor coolant pressure boundary leakage. Upon discovery of leakage from a Class 1 pressure boundary component (pipe wall, valve body, pump casing, etc.) the component must be declared inoperable.

## D.1 and D.2

When ASME Class 2 or Class 3 components do not meet ASME Code or construction code acceptance standards, the requirements of an NRC endorsed ASME Code Case, or an NRC approved alternative, then a determination of whether the degraded or nonconforming condition results in a TS/TRM-required SSC or a TS/TRM-required support SCC being inoperable must be made. In order to determine the component is OPERABLE under an immediate operability determination, the degradation mechanism must be readily apparent. To be readily apparent, the degradation mechanism must be discernable from visual examination (such as external corrosion or wear), or there must be substantial operating experience with the identified degradation mechanism in the affected system. In addition, detailed non-destructive examination data may be necessary to determine that a component is OPERABLE under an immediate operability determination. If detailed non-destructive examination is necessary and the examination cannot be completed within 24 hours, the component should be declared inoperable and the appropriate TS/TRM action statement entered. There is no indeterminate state of operability.

The time frame for flaw characterization and engineering analysis should be no longer than a reasonable time frame for completing the actions. NRC views that 24 hours is a reasonable maximum time frame for this assessment.

#### BASES

## ACTIONS (continued)

## <u>E.1</u>

Structural support components are required to be OPERABLE by the TS or TRM, or they are related support functions for SCCs in the TS or TRM. Examples of structural degradation are concrete cracking and spalling, excessive deflection or deformation, water leakage, rebar corrosion, missing or bent anchor bolts, and degradation of door and penetration sealing. If the support structure is degraded, the support structure's capability of performing its specified function shall be assessed. As long as the identified degradation does not result in exceeding acceptance limits specified in applicable design codes and standards referenced in the design basis documents, the affected structure is either operable or functional.

## F.1

Once a component is evaluated for structural integrity using criteria acceptable to the NRC staff and determined to be unacceptable, the component has to be declared inoperable and the TRO or LCO action statements for the applicable system must be followed.

#### TRS

The TRSs are defined to be performed at the specified Frequency to ensure that the Structural Integrity requirements are maintained.

The Frequency for the TRS is defined by the Inservice Inspection (ISI) Program.

#### REFERENCES

- 1. 10 CFR Part 50.
- Regulatory Issue Summary 2005-20, Rev. 1, "Revision to Guidance Formerly Contained in NRC Generic Letter 91-18, 'Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability."