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TRANSMITTAL INFORMATION:

TO:        GERLACH\*ROSEY M            10/18/2019

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.

TRM1 - TECHNICAL REQUIREMENTS MANUAL UNIT 1

REMOVE MANUAL TABLE OF CONTENTS    DATE: 10/08/2019

ADD        MANUAL TABLE OF CONTENTS    DATE: 10/17/2019

CATEGORY: DOCUMENTS    TYPE: TRM1

*ADD  
NRR*

ID: TEXT 3.10.3  
REMOVE: REV:2

ADD: REV: 3

CATEGORY: DOCUMENTS TYPE: TRM1  
ID: TEXT B3.10.3  
REMOVE: REV:1

ADD: REV: 2

ANY DISCREPANCIES WITH THE MATERIAL PROVIDED, CONTACT DCS @ X3171 OR X3194 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.

# SSES MANUAL

Manual Name: TRM1

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

## Table Of Contents

Issue Date: 10/17/2019

<u>Procedure Name</u>	<u>Rev</u>	<u>Issue Date</u>	<u>Change ID</u>	<u>Change Number</u>
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Title: TABLE OF CONTENTS				
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Title: USE AND APPLICATION DEFINITIONS				
TEXT 2.1	2	04/28/2015		
Title: PLANT PROGRAMS AND SETPOINTS PLANT PROGRAMS				
TEXT 2.2	10	01/31/2014		
Title: PLANT PROGRAMS AND SETPOINTS INSTRUMENT TRIP SETPOINT TABLE				
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Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

TEXT 3.3.1	0	11/18/2002	Title: INSTRUMENTATION RADIATION MONITORING INSTRUMENTATION
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TEXT 3.3.3	2	11/09/2007	Title: INSTRUMENTATION METEOROLOGICAL MONITORING INSTRUMENTATION
TEXT 3.3.4	11	06/29/2017	Title: INSTRUMENTATION TRM POST-ACCIDENT MONITORING INSTRUMENTATION
TEXT 3.3.5	0	11/18/2002	Title: INSTRUMENTATION THIS PAGE INTENTIONALLY LEFT BLANK
TEXT 3.3.6	5	03/05/2019	Title: INSTRUMENTATION TRM ISOLATION ACTUATION INSTRUMENTATION
TEXT 3.3.7	2	11/10/2015	Title: INSTRUMENTATION MAIN TURBINE OVERSPEED PROTECTION SYSTEM
TEXT 3.3.8	1	10/22/2003	Title: INSTRUMENTATION INTENTIONALLY LEFT BLANK
TEXT 3.3.9	3	04/17/2008	Title: OPRM INSTRUMENTATION CONFIGURATION
TEXT 3.3.10	1	12/14/2004	Title: INSTRUMENTATION REACTOR RECIRCULATION PUMP MG SET STOPS
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TEXT 3.4.2	1	04/16/2009	Title: REACTOR COOLANT SYSTEM INTENTIONALLY LEFT BLANK
TEXT 3.4.3	1	11/09/2007	Title: REACTOR COOLANT SYSTEM HIGH/LOW PRESSURE INTERFACE LEAKAGE MONITORS
TEXT 3.4.4	2	04/17/2008	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 3.4.6	2	04/25/2013	Title: REACTOR RECIRCULATION SINGLE LOOP OPERATION SLO FLOW RATE RESTRICTION
TEXT 3.5.1	2	03/05/2019	Title: ECCS RPV WATER INVENTORY CONTROL AND RCIC SYSTEM ADS MANUAL INHIBIT
TEXT 3.5.2	2	03/05/2019	Title: ECCS RPV WATER INVENTORY CONTROL AND RCIC SYSTEM ECCS RPV WATER INVENTORY CONTROL AND RCIC MONITORING INSTRUMENTATION
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TEXT 3.7.2	0	11/18/2002	Title: PLANT SYSTEMS ULTIMATE HEAT SINK (UHS) AND GROUND WATER LEVEL
TEXT 3.7.3.1	4	02/16/2017	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	4	05/16/2016	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
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TEXT 3.7.5.2	0	11/18/2002	Title: PLANT SYSTEMS MAIN CONDENSER OFFGAS EXPLOSIVE GAS MIXTURE
TEXT 3.7.5.3	1	04/26/2006	Title: PLANT SYSTEMS LIQUID HOLDUP TANKS
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TEXT 3.7.10	1	12/14/2004	Title: PLANT SYSTEMS SPENT FUEL STORAGE POOLS (SFSPS)
TEXT 3.7.11	1	11/01/2018	Title: STRUCTURAL INTEGRITY
TEXT 3.8.1	2	04/05/2010	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
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Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

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TEXT 3.10.4	2	04/17/2008	Title: INTENTIONALLY LEFT BLANK



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Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

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
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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	11/18/2002	Title: RADIOACTIVE EFFLUENTS GASEOUS RADWASTE TREATMENT SYSTEM
TEXT 3.11.2.5	4	07/03/2013	Title: RADIOACTIVE EFFLUENTS VENTILATION EXHAUST TREATMENT SYSTEM
TEXT 3.11.2.6	8	06/29/2017	Title: RADIOACTIVE EFFLUENTS RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION
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TEXT 3.11.4.2	2	04/26/2006	Title: RADIOACTIVE EFFLUENTS LAND USE CENSUS
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Title: ADMINISTRATIVE CONTROLS TRAINING

TEXT B3.0 5 03/05/2015

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

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

TEXT B3.1.2 0 11/19/2002

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

TEXT B3.1.3 4 12/18/2017

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TEXT B3.1.4 0 11/19/2002

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TEXT B3.2.1 0 11/19/2002

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

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Title: INSTRUMENTATION BASES RADIATION MONITORING INSTRUMENTATION

TEXT B3.3.2 2 03/31/2011

Title: INSTRUMENTATION BASES SEISMIC MONITORING INSTRUMENTATION

TEXT B3.3.3 3 12/18/2008

Title: INSTRUMENTATION BASES METEOROLOGICAL MONITORING INSTRUMENTATION

TEXT B3.3.4 7 06/29/2017

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

TEXT B3.3.5 2 11/09/2007

Title: INTENTIONALLY LEFT BLANK

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Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

TEXT B3.3.6	6	03/05/2019	Title: INSTRUMENTATION BASES TRM ISOLATION ACTUATION INSTRUMENTATION
TEXT B3.3.7	2	11/10/2015	Title: INSTRUMENTATION BASES MAIN TURBINE OVERSPEED PROTECTION SYSTEM
TEXT B3.3.8	1	10/22/2003	Title: INTENTIONALLY LEFT BLANK
TEXT B3.3.9	4	01/03/2019	Title: OPRM INSTRUMENTATION
TEXT B3.3.10	3	08/09/2010	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	1	04/02/2019	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: INTENTIONALLY LEFT BLANK
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

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Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

TEXT B3.4.6	3	01/03/2019	Title: REACTOR RECIRCULATION SINGLE LOOP OPERATION SLO FLOW RATE RESTRICTION
TEXT B3.5.1	1	03/05/2019	Title: ECCS RPV WATER INVENTORY CONTROL AND RCIC SYSTEM ADS MANUAL INHIBIT
TEXT B3.5.2	2	03/05/2019	Title: ECCS RPV WATER INVENTORY CONTROL AND RCIC SYSTEM ECCS RPV WATER INVENTORY CONTROL AND RCIC MONITORING INSTRUMENTATION
TEXT B3.5.3	2	03/05/2019	Title: ECCS RPV WATER INVENTORY CONTROL AND RCIC SYSTEM 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	2	04/17/2008	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
TEXT B3.7.3.1	4	02/16/2017	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

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Manual Name: TRM1

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

TEXT B3.7.3.3 1 01/03/2019

Title: PLANT SYSTEMS BASES CO2 SYSTEMS

TEXT B3.7.3.4 4 06/19/2019

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 3 09/27/2012

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

TEXT B3.7.6 4 06/04/2013

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

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TEXT B3.7.8	4	01/31/2014	Title: PLANT SYSTEMS BASES SNUBBERS
TEXT B3.7.9	3	03/05/2019	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	2	11/01/2018	Title: STRUCTURAL INTEGRITY
TEXT B3.8.1	2	03/10/2010	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	1	11/14/2013	Title: ELECTRICAL POWER BASES DEGRADED VOLTAGE PROTECTION
TEXT B3.8.6	3	03/05/2019	Title: ELECTRICAL POWER BASES EMERGENCY SWITCHGEAR ROOM COOLING
TEXT B3.8.7	2	06/04/2013	Title: BATTERY MAINTENANCE AND MONITORING PROGRAM

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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	1	03/12/2019	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	03/31/2006	Title: MISCELLANEOUS BASES SHUTDOWN MARGIN TEST RPS INSTRUMENTATION
TEXT B3.10.3	2	10/17/2019	Title: MISCELLANEOUS BASES INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)
TEXT B3.10.4	1	04/17/2008	Title: INTENTIONALLY LEFT BLANK
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
TEXT B3.11.1.5	0	11/19/2002	Title: RADIOACTIVE EFFLUENTS BASES RADIOACTIVE LIQUID PROCESS MONITORING INSTRUMENTATION



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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	5	07/03/2013	Title: RADIOACTIVE EFFLUENTS BASES VENTILATION EXHAUST TREATMENT SYSTEM
TEXT B3.11.2.6	2	09/08/2016	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	5	03/05/2015	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
TEXT B3.12.2	1	12/03/2010	Title: LOADS CONTROL PROGRAM BASES HEAVY LOADS REQUIREMENTS

# SSES MANUAL

Manual Name: TRM1

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 1

TEXT B3.12.3

0

11/19/2002

Title: LOADS CONTROL PROGRAM BASES LIGHT LOADS REQUIREMENTS

## 3.10 MISCELLANEOUS

## 3.10.3 Independent Spent Fuel Storage Installation (ISFSI)

TRO 3.10.3 All loaded Horizontal Storage Modules (HSMs) shall be OPERABLE.

APPLICABILITY: At all times.

## ACTIONS

## NOTE

The provisions of TRO 3.0.4 are not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Complete blockage of any HSM air inlet or outlet (front wall and roof birdscreen).	A.1 Clear blockage.	40 hours
B. An HSM otherwise inoperable.	B.1 Initiate actions to restore the HSM to OPERABLE status.	Immediately
C. Concrete temperature > 350°F for more than 24 hours.	C.1 Initiate actions to move the associated DSC to an OPERABLE HSM.	Immediately
	<u>OR</u> C.2 Initiate actions to move the associated DSC to the Cask Storage Pit/Spent Fuel Pool.	Immediately

## TECHNICAL REQUIREMENT SURVEILLANCE

## -----NOTE-----

Performance of TRS 3.10.3.1 and TRS 3.10.3.2 is dependent upon which Certificate of Compliance Number 1004 Revision the HSM is loaded in accordance with.

SURVEILLANCE	FREQUENCY
TRS 3.10.3.1 Verify Front Wall and Roof Birdscreens, and spaces between loaded HSMs have no debris that can block the air flow.	24 hours
TRS 3.10.3.2 Verify concrete temperature < 350°F for each loaded HSM.	24 hours

## B 3.10 MISCELLANEOUS

## B 3.10.3 Independent Spent Fuel Storage Installation (ISFSI)

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BASES

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## TRO

The SSES Independent Spent Fuel Storage Installation utilizes the standardized NUHMOS Horizontal Modular System. The standardized NUHMOS system is a horizontal canister system composed of a steel dry shielded canister (DSC) and a reinforced concrete horizontal storage module (HSM). The DSC provides confinement and criticality control for the storage and transfer of irradiated fuel. The HSM houses the DSC and provides for heat removal. An HSM is considered loaded when it houses a DSC containing spent fuel. The HSM is a reinforced concrete unit with penetrations located at the top and bottom of the HSM side walls for air flow. The HSM penetrations are protected from debris intrusions by wire mesh screens during storage operation. Decay heat from the stored fuel bundles is removed by air flow through the penetrations in the HSM. Air enters vents near the bottom of the HSM, circulates and rises around the DSC, and exits through the opening near the top of the HSM. Excessive temperatures can adversely affect the HSM concrete's strength and durability.

The TRO ensures that each HSM has adequate heat removal capability to assure the strength and durability characteristics of each HSM is maintained.

An HSM is considered OPERABLE as long as it meets the requirements of Reference 1. HSMs loaded in accordance with Amendments 0 and 4 require that the air flow-path inlets and outlets are not completely blocked and capable of maintaining concrete temperature < 350°F for HSM OPERABILITY. HSMs loaded in accordance with all other applicable amendments require either that the air flow-path inlets and outlets are not completely blocked or concrete temperature < 350°F for HSM OPERABILITY.

This TRO implements the surveillance requirements required by Reference 1.

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ACTIONS

Action A.1 requires that blockage be removed within 40 hours. The 40 hours as delineated in reference 1 is based on a conservative analysis assuming complete blockage of all air inlets and outlets that indicates that the HSM concrete can reach 350°F. 40 hours is also deemed to be sufficient time to restore cooling to the affected HSM.

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**BASES**

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**ACTIONS**  
(continued)

Action B.1 is provided to address inoperable conditions of the HSM which are not related to heat removal. Actions to restore the HSM to an OPERABLE condition should start immediately and proceed in a time frame commensurate with the evaluation of the condition.

Actions C.1 and C.2 address excessive temperature conditions that could affect the HSM strength and durability by immediately initiating actions to remove the DSC from the HSM. No time requirement for removal is specified in reference 1, however the vendor recommends the DSC be removed within 60 days. Taking immediate action to move the DSC from the HSM is intended to ensure the DSC is removed within the recommended 60 days.

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**TRS**

The Surveillance Requirements are intended to monitor the parameters that ensure that each HSM has adequate heat removal capability so to assure the strength and durability characteristics of each HSM is maintained. The Surveillance Requirements were obtained from reference 1 attachment A.

Performance of TRS 3.10.3.1 and TRS 3.10.3.2 is dependent upon which Certificate of Compliance Number 1004 Amendment the HSM is loaded in accordance with. Amendments 0 and 4 require that both surveillances be performed. All other applicable Amendments allow for the performance of TRS 3.10.3.1 or TRS 3.10.3.2 to verify thermal performance.

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**REFERENCES**

1. Dry Spent Fuel Storage Cask Certificate Of Compliance Number 1004
  2. Safety Evaluation NL-96-055
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