

MANUAL HARD COPY DISTRIBUTION
DOCUMENT TRANSMITTAL 2007-13346

USER INFORMATION:

~~GENRACH*ROSE M EMPL#: 028401 CA#: 0363
Address: NUCSA2
Phone#: 254-3194~~

TRANSMITTAL INFORMATION:

TO: ~~GENRACH*ROSE M~~ 04/04/2007

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: 03/28/2007

ADD MANUAL TABLE OF CONTENTS DATE: 04/03/2007

CATEGORY: DOCUMENTS TYPE: TRM2

ADD1

ID: TEXT 3.2.1
REMOVE: REV:5

ADD: REV: 6

CATEGORY: DOCUMENTS TYPE: TRM2

ID: TEXT LOES
REMOVE: REV:31

ADD: REV: 32

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.

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

Table Of Contents

Issue Date: 04/03/2007

<u>Procedure Name</u>	<u>Rev</u>	<u>Issue Date</u>	<u>Change ID</u>	<u>Change Number</u>
TEXT LOES	32	04/03/2007		
Title: LIST OF EFFECTIVE SECTIONS				
TEXT TOC	9	12/14/2006		
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	5	11/22/2005		
Title: PLANT PROGRAMS AND SETPOINTS INSTRUMENT TRIP SETPOINT TABLE				
TEXT 3.0	2	01/29/2007		
Title: APPLICABILITY TECHNICAL REQUIREMENT FOR OPERATION (TRO) APPLICABILITY				
TEXT 3.1.1	0	11/19/2002		
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	2	11/22/2005		
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	6	04/03/2007		
Title: CORE OPERATING LIMITS CORE OPERATING LIMITS REPORT (COLR)				

SSES MANUAL

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 1 04/26/2006
 Title: INSTRUMENTATION SEISMIC MONITORING INSTRUMENTATION

- TEXT 3.3.3 1 04/26/2006
 Title: INSTRUMENTATION METEOROLOGICAL MONITORING INSTRUMENTATION

- TEXT 3.3.4 2 06/13/2006
 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 0 11/19/2002
 Title: INSTRUMENTATION MAIN TURBINE OVERSPEED PROTECTION SYSTEM

- TEXT 3.3.8 1 10/22/2003
 Title: INSTRUMENTATION TRM RPS INSTRUMENTATION

- TEXT 3.3.9 1 11/22/2004
 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 3.4.1 1 04/26/2006
 Title: REACTOR COOLANT SYSTEM REACTOR COOLANT SYSTEM CHEMISTRY

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.4.2 0 11/19/2002
Title: REACTOR COOLANT SYSTEM STRUCTURAL INTEGRITY

TEXT 3.4.3 0 11/19/2002
Title: REACTOR COOLANT SYSTEM REACTOR COOLANT SYSTEM (RCS)

TEXT 3.4.4 1 12/14/2004
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 0 11/19/2002
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

TEXT 3.7.1 0 11/19/2002
Title: PLANT SYSTEMS EMERGENCY SERVICE WATER SYSTEM (ESW) SHUTDOWN

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.7.2 0 11/19/2002
Title: PLANT SYSTEMS ULTIMATE HEAT SINK (UHS) AND GROUND WATER LEVEL

TEXT 3.7.3.1 1 04/26/2006
Title: PLANT SYSTEMS FIRE SUPPRESSION WATER SUPPLY SYSTEM

TEXT 3.7.3.2 2 04/26/2006
Title: PLANT SYSTEMS SPRAY AND SPRINKLER SYSTEMS

TEXT 3.7.3.3 2 08/18/2005
Title: PLANT SYSTEMS CO2 SYSTEMS

TEXT 3.7.3.4 1 04/26/2006
Title: PLANT SYSTEMS HALON SYSTEMS

TEXT 3.7.3.5 1 04/26/2006
Title: PLANT SYSTEMS FIRE HOSE STATIONS

TEXT 3.7.3.6 1 04/26/2006
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 6 12/14/2006
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

TEXT 3.7.5.2 0 11/19/2002
Title: PLANT SYSTEMS MAIN CONDENSER OFFGAS EXPLOSIVE GAS MIXTURE

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.7.5.3 1 04/26/2006

Title: PLANT SYSTEMS LIQUID HOLDUP TANKS

TEXT 3.7.6 1 03/01/2005

Title: PLANT SYSTEMS ESSW PUMPHOUSE VENTILATION

TEXT 3.7.7 0 11/19/2002

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

TEXT 3.7.8 5 10/12/2006

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 3.8.1 2 02/04/2005

Title: ELECTRICAL POWER PRIMARY CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT
PROTECTIVE DEVICES

TEXT 3.8.2.1 1 12/14/2004

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

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

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.8.6	0	11/19/2002	Title: ELECTRICAL POWER EMERGENCY SWITCHGEAR ROOM COOLING
TEXT 3.8.7	0	12/14/2006	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	0	11/19/2002	Title: MISCELLANEOUS SHUTDOWN MARGIN TEST RPS INSTRUMENTATION
TEXT 3.10.3	1	04/26/2006	Title: MISCELLANEOUS INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)
TEXT 3.10.4	1	08/28/2006	Title: MISCELLANEOUS LEADING EDGE FLOW METER (LEFM)
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
TEXT 3.11.1.3	1	04/26/2006	Title: RADIOACTIVE EFFLUENTS LIQUID WASTE TREATMENT SYSTEM

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.11.1.4 1 12/14/2004
Title: RADIOACTIVE EFFLUENTS LIQUID RADWASTE EFFLUENT MONITORING INSTRUMENTATION

TEXT 3.11.1.5 1 12/14/2004
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 2 12/14/2004
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

TEXT 3.11.4.3 1 04/26/2006
Title: RADIOACTIVE EFFLUENTS INTERLABORATORY COMPARISON PROGRAM

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT 3.12.1	0	11/19/2002	Title: LOADS CONTROL PROGRAM CRANE TRAVEL-SPENT FUEL STORAGE POOL
TEXT 3.12.2	1	10/12/2006	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	2	01/29/2007	Title: APPLICABILITY BASES TECHNICAL REQUIREMENT FOR OPERATION (TRO) APPLICABILITY
TEXT B3.1.1	0	11/19/2002	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	2	11/22/2005	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	0	11/19/2002	Title: INSTRUMENTATION BASES SEISMIC MONITORING INSTRUMENTATION
TEXT B3.3.3	1	02/04/2005	Title: INSTRUMENTATION BASES METEOROLOGICAL MONITORING INSTRUMENTATION

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.3.4 2 06/13/2006
Title: INSTRUMENTATION BASES TRM POST ACCIDENT MONITORING (PAM) INSTRUMENTATION

TEXT B3.3.5 1 06/13/2006
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 0 11/19/2002
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 1 11/22/2004
Title: INSTRUMENTATION BASES LPRM UPSCALE ALARM INSTRUMENTATION

TEXT B3.3.10 0 11/19/2002
Title: INSTRUMENTATION BASES REACTOR RECIRCULATION PUMP MG SET STOPS

TEXT B3.3.11 1 10/22/2003
Title: INSTRUMENTATION BASES MVP ISOLATION INSTRUMENTATION

TEXT B3.4.1 0 11/19/2002
Title: REACTOR COOLANT SYSTEM BASES REACTOR COOLANT SYSTEM CHEMISTRY

TEXT B3.4.2 0 11/19/2002
Title: REACTOR COOLANT SYSTEM BASES STRUCTURAL INTEGRITY

TEXT B3.4.3 0 11/19/2002
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

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

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 0 11/19/2002
Title: ECCS AND RCIC BASES ECCS AND RCIC SYSTEM MONITORING INSTRUMENTATION

TEXT B3.5.3 0 11/19/2002
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 0 11/19/2002
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 1 04/26/2006
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

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

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

TEXT B3.7.6 1 03/01/2005

Title: PLANT SYSTEMS BASES ESSW PUMPHOUSE VENTILATION

TEXT B3.7.7 0 11/19/2002

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

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

TEXT B3.7.8 2 10/12/2006

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 B3.8.1 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

TEXT B3.8.6 1 02/04/2005

Title: ELECTRICAL POWER BASES EMERGENCY SWITCHGEAR ROOM COOLING

TEXT B3.8.7 0 12/14/2006

Title: BATTERY MAINTENANCE AND MONITORING PROGRAM

TEXT B3.9.1 0 11/19/2002

Title: REFUELING OPERATIONS BASES DECAY TIME

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

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	0	11/19/2002
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 B3.10.4	0	11/19/2002
Title: MISCELLANEOUS BASES LEADING EDGE FLOW METER (LEFM)		
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		
TEXT B3.11.2.1	1	12/14/2004
Title: RADIOACTIVE EFFLUENTS BASES DOSE RATE		

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

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	0	11/19/2002
Title: LOADS CONTROL PROGRAM BASES CRANE TRAVEL-SPENT FUEL STORAGE POOL		
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		

SSES MANUAL

Manual Name: TRM2

Manual Title: TECHNICAL REQUIREMENTS MANUAL UNIT 2

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 0 09/27/2003

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

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
TOC	TABLE OF CONTENTS	11/29/2006
1.0	USE AND APPLICATION	
	Page TRM / 1.0-1	08/31/1998
	Page TRM / 1.0-2	10/04/2002
	Page TRM / 1.0-3	08/31/1998
2.0	PLANT PROGRAMS	
	Page 2.0-1	08/31/1998
	Pages TRM / 2.0-2 and TRM 2.0-3	01/28/2005
	Page TRM / 2.0-4	06/25/2002
	Page TRM / 2.0-5	04/12/1999
	Pages TRM / 2.0-6 and TRM / 2.0-7	11/15/2004
	Page TRM / 2.0-8	12/03/2004
	Pages TRM / 2.0-9 through TRM / 2.0-11	11/15/2004
	Pages TRM / 2.0-12 through TRM / 2.0-15	11/15/2005
3.0	APPLICABILITY	
	Pages TRM / 3.0-1 and TRM / 3.0-2	01/10/2007
	Page TRM / 3.0-3	03/15/2002
	Page TRM / 3.0-4	11/30/2005
3.1	REACTIVITY CONTROL SYSTEMS	
	Pages 3.1-1 through 3.1-6	08/31/1998
	Pages TRM / 3.1-7 and TRM / 3.1-8	11/15/2005
	Pages TRM / 3.1-9 and TRM / 3.1-9a	02/18/1999
	Page TRM / 3.1-10	02/18/1999
3.2	CORE OPERATING LIMITS REPORT	
	Page TRM / 3.2-1	08/31/1998
	Pages TRM / 3.2-2 through TRM / 3.2-48	03/08/2007
3.3	INSTRUMENTATION	
	Pages TRM / 3.3-1 through TRM / 3.3-3	07/16/1999
	Page TRM / 3.3-4	03/31/2006
	Pages 3.3-5 and 3.3-6	08/31/1998
	Page TRM 3.3-7	03/31/2006
	Page 3.3-8	08/31/1998
	Pages TRM / 3.3-9 and TRM / 3.3-9a	12/17/1998
	Page TRM / 3.3-10	05/30/2006
	Page TRM / 3.3-11	06/02/2005
	Page TRM / 3.3-11a	05/30/2006
	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

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
	Page TRM / 3.3-16	06/27/2001
	Pages TRM / 3.3-17 and TRM / 3.3-18	06/14/2002
	Pages TRM / 3.3-19 and TRM / 3.3-20	10/22/2003
	Page TRM / 3.3-21	11/15/2004
	Pages TRM /3.3-21a through TRM / 3.3-21d	11/15/2004
	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
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 3.4-6 through 3.4-11	08/31/1998
	Page TRM / 3.4-12	12/03/2004
	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	04/17/2000
	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
3.7	PLANT SYSTEMS	
	Pages TRM / 3.7-1 and TRM / 3.7-2	07/29/1999
	Page 3.7-3	08/31/1998
	Pages TRM / 3.7-4 and TRM / 3.7-5	03/31/2006
	Pages TRM / 3.7-6 through TRM / 3.7-8	08/02/1999
	Page TRM / 3.7-9	03/31/2006
	Page TRM / 3.7-10	08/16/2005
	Page TRM / 3.7-11	01/21/2000
	Pages TRM / 3.7-12 and TRM / 3.7-13	08/02/1999
	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	03/31/2006
	Page TRM / 3.7-18	08/02/1999
	Page TRM / 3.7-19	03/31/2006
	Pages TRM / 3.7-20 through TRM / 3.7-22	08/02/1999
	Pages TRM / 3.7-23 and TRM / 3.7-24	03/31/2006
	Pages TRM / 3.7-25 through TRM / 3.7-27	08/02/1999
	Page TRM / 3.7-28	11/29/2006

LIST OF EFFECTIVE SECTIONS (TECHNICAL REQUIREMENTS MANUAL)

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
	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
	Pages TRM / 3.7-40 and TRM / 3.7-40a	02/14/2005
	Pages 3.7-41 and 3.7-42	08/31/1998
	Pages TRM / 3.7-43 through TRM / 3.7-48	10/05/2006
	Pages TRM / 3.7-48a and TRM / 3.7-48b	10/05/2006
	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
3.8	ELECTRICAL POWER	
	Page TRM / 3.8-1	04/02/2002
	Pages TRM / 3.8-2 and TRM / 3.8-3	01/28/2005
	Page TRM / 3.8-4	01/31/2005
	Pages TRM / 3.8-5 and TRM / 3.8-6	04/02/2002
	Pages TRM / 3.8-7 through TRM / 3.8-10	12/03/2004
	Page TRM / 3.8-11	08/10/2004
	Page TRM / 3.8-12	12/03/2004
	Pages 3.8-13 and 3.8-14	08/31/1998
	Page TRM / 3.8-15	01/28/2005
	Pages TRM / 3.8-16 and TRM / 3.8-17	04/02/2002
	Page 3.8-18	02/01/1999
	Page TRM / 3.8-19	04/02/2002
	Page TRM / 3.8-20	02/01/1999
	Pages TRM / 3.8-21 through TRM / 3.8-23	06/06/1999
	Pages 3.8-24 and 3.8-25	08/31/1998
	Pages TRM / 3.8-26 through TRM / 3.8-29	11/29/2006
3.9	REFUELING OPERATIONS	
	Pages 3.9-1 through 3.9-3	08/31/1998
3.10	MISCELLANEOUS	
	Page TRM / 3.10-1	03/31/2006
	Pages 3.10-2 through 3.10-4	08/30/1998
	Page TRM / 3.10-5	03/08/2003
	Page TRM / 3.10-6	06/05/2002
	Page TRM / 3.10-7	03/31/2006
	Page TRM / 3.10-8	08/16/2006

LIST OF EFFECTIVE SECTIONS (TECHNICAL REQUIREMENTS MANUAL)

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
3.11	RADIOACTIVE EFFLUENTS	
	Page TRM / 3.11-1	03/31/2006
	Pages 3.11-2 through 3.11-3	08/31/1998
	Page TRM / 3.11-4	03/31/2006
	Page 3.11-5	08/31/1998
	Page TRM / 3.11-6	03/31/2006
	Pages 3.11-7 through 3.11-9	08/31/1998
	Page TRM / 3.11-10	12/03/2004
	Pages 3.11-11 and 3.11-12	08/31/1998
	Page 3.11-13	09/01/1998
	Page TRM / 3.11-14	12/03/1004
	Pages 3.11-15 and 3.11-16	09/01/1998
	Page TRM / 3.11-17	03/31/2006
	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 3.11-25	09/01/1998
	Pages TRM / 3.11-26 through TRM / 3.11-28	01/21/2004
	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	09/30/2006
	Page TRM / 3.12-5	02/05/1999
4.0	ADMINISTRATIVE CONTROLS	
	Pages 4.0-1 through 4.0-8	08/31/1998

SUSQUEHANNA STEAM ELECTRIC STATION
LIST OF EFFECTIVE SECTIONS (TECHNICAL REQUIREMENTS MANUAL)

PPL Rev. 32

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
B 3.0	APPLICABILITY BASES	
	Pages TRM / B 3.0-1 through TRM / B 3.0-3	08/31/1998
	Page TRM / B 3.0-4	01/10/2007
	Pages TRM / B 3.0-5 through TRM / B 3.0-10	08/31/1998
	Pages TRM / B 3.0-11 and TRM / B 3.0-12	03/15/2002
	Pages TRM / B 3.0-13 and TRM / B 3.0-14	11/30/2005
	Page TRM / B 3.0-15	03/15/2002
B 3.1	REACTIVITY CONTROL SYSTEMS BASES	
	Pages TRM / B 3.1-1 through TRM / B 3.1-3	07/13/1999
	Page B 3.1-4	08/31/1998
	Pages TRM / B 3.1-5 through TRM / B 3.1-7	11/15/2005
	Page TRM / B 3.1-8	02/18/1999
B 3.2	CORE OPERATING LIMITS BASES	
	Page B 3.2-1	08/31/1998
B 3.3	INSTRUMENTATION BASES	
	Page TRM / B 3.3-1	04/07/2000
	Page B 3.3-2	08/31/1998
	Pages TRM / B 3.3-3 and TRM / B 3.3-3A	01/31/2005
	Pages TRM / B 3.3-4 through TRM / B 3.3-7	05/30/2006
	Pages TRM / B 3.3-8 and TRM / B 3.3-9	03/30/2001
	Page B 3.3-10	08/31/1998
	Pages TRM / B 3.3-11 and TRM / B 3.3-12	09/13/2005
	Page TRM / B 3.3-13	12/03/2004
	Page TRM / B 3.3-14	06/25/2002
	Page TRM / B 3.3-14a	06/14/2002
	Page TRM / B 3.3-14b	06/14/2002
	Page TRM / B 3.3-15	10/22/2003
	Page TRM / B 3.3-16	10/22/2003
	Page TRM / B 3.3-17	10/22/2003
	Pages TRM / B 3.3-18 and TRM / B 3.3-19	11/15/2004
	Pages TRM / B 3.3-19a through TRM / B 3.3.19e	11/15/2004
	Pages TRM / B 3.3-20 and TRM / B 3.3-21	05/16/2003
	Page TRM / B 3.3-22	10/22/2003
	Page TRM / B 3.3-23	05/16/2003
B 3.4	REACTOR COOLANT SYSTEM BASES	
	Pages B 3.4-1 through B 3.4-4	08/31/1998
	Page TRM / B 3.4-5	10/15/1999
	Page B 3.4-6	08/31/1998
B 3.5	ECCS AND RCIC BASES	
	Pages B 3.5-1 through B 3.5-5	08/31/1998
B 3.6	CONTAINMENT BASES	
	Page TRM / B 3.6-1	07/26/2001
	Page TRM / B 3.6-2	02/01/1999
	Page B 3.6-3	08/31/1998

SUSQUEHANNA STEAM ELECTRIC STATION
LIST OF EFFECTIVE SECTIONS (TECHNICAL REQUIREMENTS MANUAL)

PPL Rev. 32

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
	Page TRM / B 3.6-4	09/23/1999
	Page TRM / B 3.6-5	01/07/2002
	Page TRM / B 3.6-6	12/03/2004
	Pages TRM / B 3.6-7 through TRM / B 3.6-11	12/31/2002
B 3.7	PLANT SYSTEMS BASES	
	Pages B 3.7-1 and B 3.7-2	08/31/1998
	Page TRM / B 3.7-3	08/02/1999
	Page TRM / B 3.7-4	03/31/2006
	Page TRM / B 3.7-5	08/02/1999
	Pages TRM / B 3.7-6 and TRM / B 3.7-6a	03/31/2006
	Pages TRM / B 3.7-7 and TRM / B 3.7-7a	08/02/1999
	Page TRM / B 3.7-8	08/02/1999
	Page TRM / B 3.7-9	03/31/2006
	Page TRM / B 3.7-10	08/02/1999
	Pages TRM / B 3.7-10a through TRM / B 3.7-11a	03/31/2006
	Pages TRM / B 3.7-12 through TRM / B 3.7-14	08/02/1999
	Pages TRM / B 3.7-14a and TRM / B 3.7-14b	01/09/2004
	Pages TRM / B 3.7-15 and TRM / B 3.7-16	02/01/1999
	Pages B 3.7-17 through B 3.7-20	08/31/1998
	Pages TRM / B 3.7-21 and TRM / B 3.7-21a	02/14/2005
	Pages TRM / B 3.7-22 and TRM / B 3.7-23	04/07/2000
	Pages TRM / B 3.7-24 through TRM / B 3.7-30	10/05/2006
	Pages TRM / B 3.7-30a and TRM / B 3.7-30b	10/05/2006
	Page TRM / B 3.7-31	12/03/2004
	Page TRM / B 3.7-32	03/09/2001
	Page TRM / B 3.7-33	04/15/2003
	Page TRM / B 3.7-34	12/03/2004
	Page TRM / B 3.7-35	07/05/2000
B 3.8	ELECTRICAL POWER BASES	
	Page TRM / B 3.8-1	04/02/2002
	Pages TRM / B 3.8-2 and TRM / B 3.8-2a	01/28/2005
	Page TRM / B 3.8-3	04/02/2002
	Page TRM / B 3.8-3a	04/02/2002
	Page TRM / B 3.8-4	04/02/2002
	Page TRM / B 3.8-4a	08/10/2004
	Page TRM / B 3.8-5	08/31/1998
	Pages TRM / B 3.8-6 through TRM / B 3.8-16	04/02/2002
	Page TRM / B 3.8-17	01/28/2005
	Pages TRM / B 3.8-18 through TRM / B 3.8-24	11/29/2006

LIST OF EFFECTIVE SECTIONS (TECHNICAL REQUIREMENTS MANUAL)

<u>Section</u>	<u>Title</u>	<u>Effective Date</u>
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 Pages B 3.10-1 through B 3.10-2 Page TRM / B 3.10-3 Pages TRM / B 3.10-4 and TRM / B 3.10-5 Pages TRM / B 3.10-6 and TRM / 3.10-7	08/31/1998 03/08/2003 08/23/1999 04/17/2002
B 3.11	RADIOACTIVE EFFLUENTS BASES 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 3.11-20a Page TRM / B 3.11-21 Pages TRM / B 3.11-22 and TRM / B 3.11-23 Page TRM / B 3.11-23a Pages TRM / B 3.11-24 and TRM / B 3.11-25 Pages B 3.11-26 through B 3.11-27 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	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 11/30/2005 12/03/2004 08/31/1998 02/12/1999
B.3.12	LOADS CONTROL PROGRAM BASES Pages TRM / B 3.12-1 through TRM / B 3.12-3	02/05/1999

3.2 Core Operating Limits Report (COLR)

3.2.1 Core Operating Limits Report (COLR)

TRO 3.2.1 The Core Operating Limits specified in the attached COLR shall be met.

APPLICABILITY: Specified in the referenced Technical Specifications.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Core Operating Limits not met.	A.1 Perform action(s) described in referenced Technical Specification.	Specified in referenced Technical Specifications.

TECHNICAL REQUIREMENT SURVEILLANCE

SURVEILLANCE	FREQUENCY
<p style="text-align: center;">-----NOTE-----</p> <p>No associated Surveillances. Surveillances are implemented in the applicable Technical Specifications.</p>	N/A

Susquehanna SES Unit 2 Cycle 14

CORE OPERATING LIMITS REPORT

**Nuclear Fuels
Engineering**

March 2007



CORE OPERATING LIMITS REPORT REVISION DESCRIPTION INDEX

Rev. No.	Affected Sections	Description/Purpose of Revision
0	ALL	Issuance of this COLR is in support of Unit 2 Cycle 14 operation.

**SUSQUEHANNA STEAM ELECTRIC STATION
Unit 2 Cycle 14
CORE OPERATING LIMITS REPORT**

Table of Contents

1.0	<u>INTRODUCTION</u>	4
2.0	<u>DEFINITIONS</u>	5
3.0	<u>SHUTDOWN MARGIN</u>	6
4.0	<u>AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)</u>	7
5.0	<u>MINIMUM CRITICAL POWER RATIO (MCPR)</u>	9
6.0	<u>LINEAR HEAT GENERATION RATE (LHGR)</u>	21
7.0	<u>ROD BLOCK MONITOR (RBM) SETPOINTS AND OPERABILITY REQUIREMENTS</u>	29
8.0	<u>RECIRCULATION LOOPS - SINGLE LOOP OPERATION</u>	31
9.0	<u>POWER / FLOW MAP</u>	43
10.0	<u>OPRM SETPOINTS</u>	45
11.0	<u>REFERENCES</u>	46

1.0 INTRODUCTION

This CORE OPERATING LIMITS REPORT for Susquehanna Unit 2 Cycle 14 is prepared in accordance with the requirements of Susquehanna Unit 2, Technical Specification 5.6.5. As required by Technical Specifications 5.6.5, core shutdown margin, the core operating limits, RBM setpoints, and OPRM setpoints presented herein were developed using NRC-approved methods and are established such that all applicable limits of the plant safety analysis are met.

2.0 DEFINITIONS

Terms used in this COLR but not defined in Section 1.0 of the Technical Specifications or Section 1.1 of the Technical Requirements Manual are provided below.

- 2.1 The AVERAGE PLANAR EXPOSURE at a specified height shall be equal to the total energy produced per unit length at the specified height divided by the total initial weight of uranium per unit length at that height.
- 2.2 The PELLETT EXPOSURE shall be equal to the total energy produced per unit length of fuel rod at the specified height divided by the total initial weight of uranium per unit length of that rod at that height.
- 2.3 FDLRX is the ratio of the maximum LHGR calculated by the core monitoring system for each fuel bundle divided by the LHGR limit for the applicable fuel bundle type.
- 2.4 LHGRFAC_f is a multiplier applied to the LHGR limit when operating at less than 108 Mlbm/hr core flow. The LHGRFAC_f multiplier protects against both fuel centerline melting and cladding strain during anticipated system transients initiated from core flows less than 108 Mlbm/hr.
- 2.5 LHGRFAC_p is a multiplier applied to the LHGR limit when operating at less than 100% rated power. The LHGRFAC_p multiplier protects against both fuel centerline melting and cladding strain during anticipated system transients initiated from partial power conditions.
- 2.6 MFLCPR is the ratio of the applicable MCPR operating limit for the applicable fuel bundle type divided by the MCPR calculated by the core monitoring system for each fuel bundle.
- 2.7 MAPRAT is the ratio of the maximum APLHGR calculated by the core monitoring system for each fuel bundle divided by the APLGHR limit for the applicable fuel bundle type.
- 2.8 OPRM is the Oscillation Power Range Monitor. The Oscillation Power Range Monitor (OPRM) will reliably detect and suppress anticipated stability related power oscillations while providing a high degree of confidence that the MCPR safety limit is not violated.
- 2.9 N_p is the OPRM setpoint for the number of consecutive confirmations of oscillation half-cycles that will be considered evidence of a stability related power oscillation.
- 2.10 S_p is the OPRM trip setpoint for the peak to average OPRM signal.
- 2.11 F_p is the core flow, in Mlbm / hr, below which the OPRM RPS trip is activated.

3.0 SHUTDOWN MARGIN

3.1 Technical Specification Reference

Technical Specification 3.1.1

3.2 Description

The SHUTDOWN MARGIN shall be equal to or greater than:

- a) 0.38% $\Delta k/k$ with the highest worth rod analytically determined

OR

- b) 0.28% $\Delta k/k$ with the highest worth rod determined by test

Since core reactivity will vary during the cycle as a function of fuel depletion and poison burnup, Beginning of Cycle (BOC) SHUTDOWN MARGIN (SDM) tests must also account for changes in core reactivity during the cycle. Therefore, the SDM measured at BOC must be equal to or greater than the applicable requirement from either 3.2.a or 3.2.b plus an adder, "R". The adder, "R", is the difference between the calculated value of maximum core reactivity (that is, minimum SDM) during the operating cycle and the calculated BOC core reactivity. If the value of "R" is zero (that is, BOC is the most reactive point in the cycle) no correction to the BOC measured value is required.

The SHUTDOWN MARGIN limits provided in 3.2a and 3.2b are applicable in MODES 1, 2, 3, 4, and 5. This includes core shuffling.

4.0 AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)

4.1 Technical Specification Reference

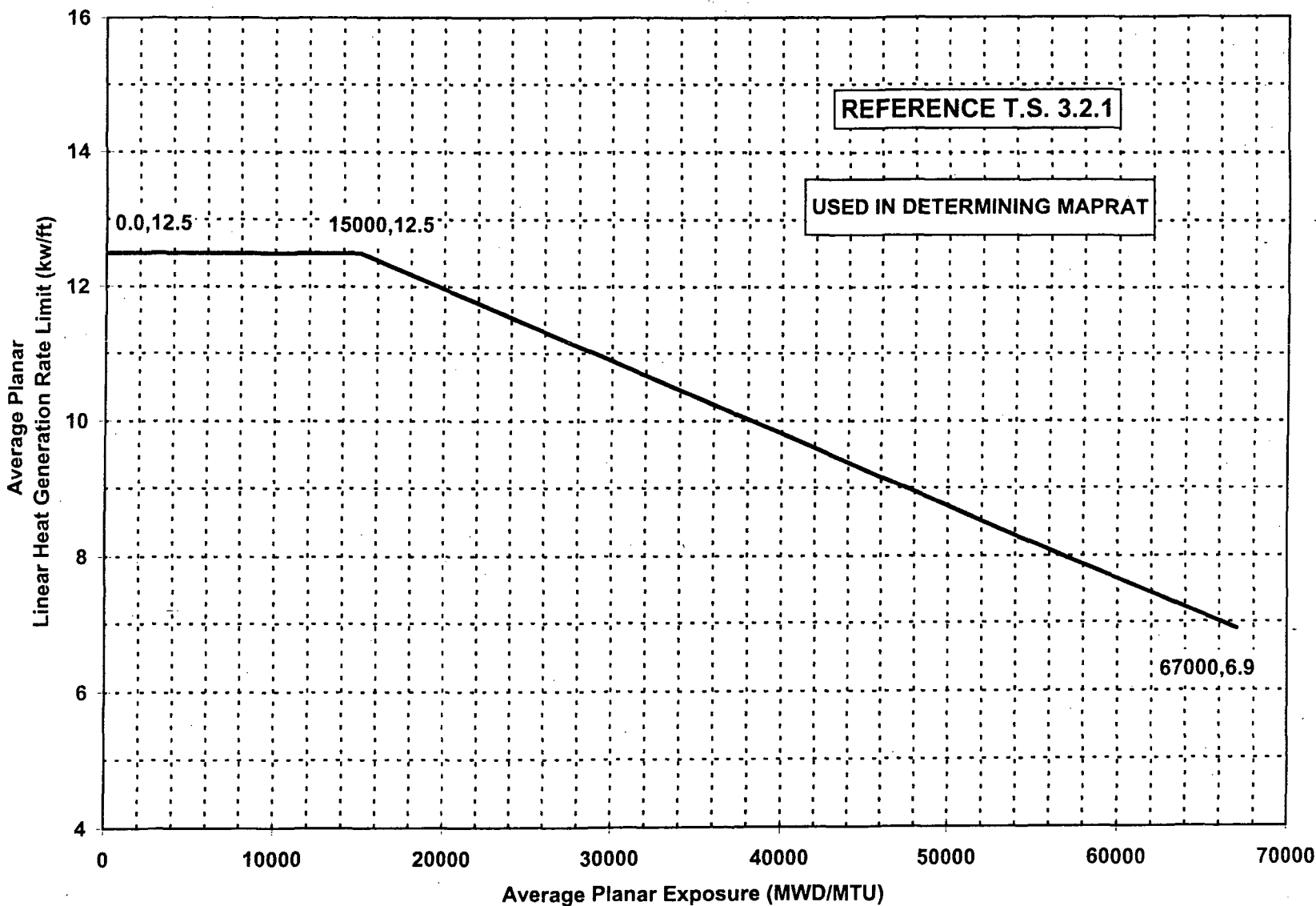
Technical Specification 3.2.1

4.2 Description

The APLHGRs for ATRIUM™-10 fuel shall not exceed the limit shown in Figure 4.2-1.

The APLHGR limits in Figure 4.2-1 are valid for Main Turbine Bypass Operable and Inoperable and EOC-RPT Operable and Inoperable in Two Loop operation. The APLHGR limits for Single Loop operation are provided in Section 8.0.

SSES UNIT 2 CYCLE 14



AVERAGE PLANAR LINEAR HEAT GENERATION RATE LIMIT VERSUS
 AVERAGE PLANAR EXPOSURE TWO LOOP OPERATION
 ATRIUM™-10 FUEL
 FIGURE 4.2-1

SUSQUEHANNA UNIT 2

TRM/3.2-9

EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
 Rev. 0
 Page 8 of 47

5.0 MINIMUM CRITICAL POWER RATIO (MCPR)

5.1 Technical Specification Reference

Technical Specification 3.2.2, 3.7.6, and 3.3.4.1

5.2 Description

The MCPR limit is specified as a function of core power, core flow, average scram insertion time per Section 5.3 and plant equipment operability status. The MCPR limits for all fuel types (ATRIUM™-10) shall be the greater of the Flow-Dependent or the Power-Dependent MCPR, depending on the applicable equipment operability status.

a) EOC-RPT and Main Turbine Bypass Operable

Figure 5.2-1: Flow-Dependent MCPR value determined from BOC to EOC

Figure 5.2-2: Power-Dependent MCPR value determined from BOC to EOC

b) Main Turbine Bypass Inoperable / EOC-RPT Operable

Figure 5.2-3: Flow-Dependent MCPR value determined from BOC to EOC

Figure 5.2-4: Power-Dependent MCPR value determined from BOC to EOC

c) EOC-RPT Inoperable / Main Turbine Bypass Operable

Figure 5.2-5: Flow-Dependent MCPR value determined from BOC to EOC

Figure 5.2-6: Power-Dependent MCPR value determined from BOC to EOC

The MCPR limits in Figures 5.2-1 through 5.2-6 are valid for Two Loop operation.

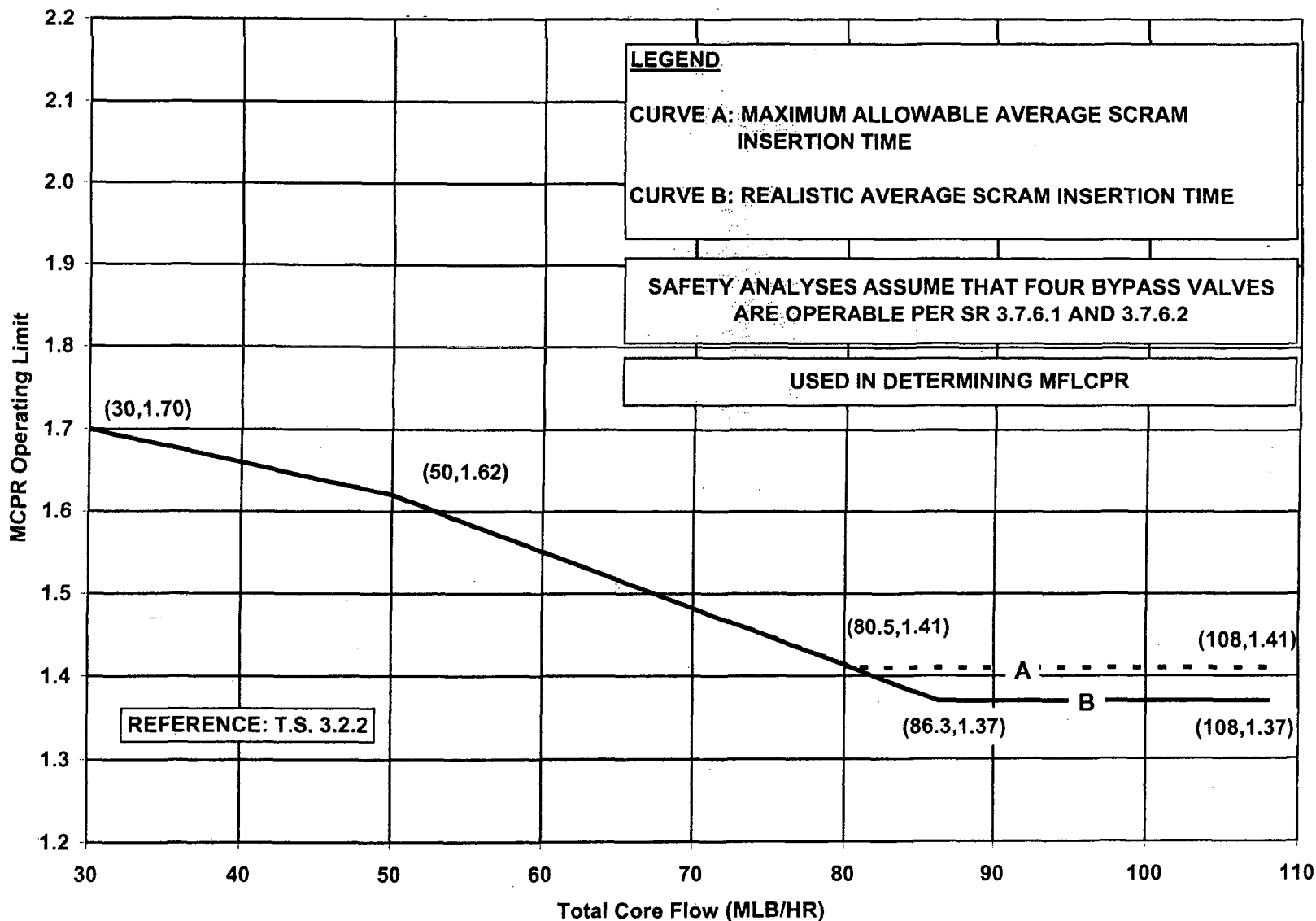
The MCPR limits for Single Loop operation are provided in Section 8.0.

5.3 Average Scram Time Fraction

If the average measured scram times are greater than the Realistic Scram times listed in Table 5.3-1 then the MCPR operating limits corresponding to the Maximum Allowable Average Scram Insertion Time must be implemented. Determining MCPR operating limits based on interpolation between scram insertion times is not permitted. The evaluation of scram insertion time data, as it relates to the attached table should be performed per Reactor Engineering procedures.

EOC-RPT and Main Turbine Bypass Operable

SSES UNIT 2 CYCLE 14



**MCPR OPERATING LIMIT VERSUS TOTAL CORE FLOW
EOC-RPT AND MAIN TURBINE BYPASS OPERABLE
TWO LOOP OPERATION (BOC TO EOC)
FIGURE 5.2-1**

SUSQUEHANNA UNIT 2

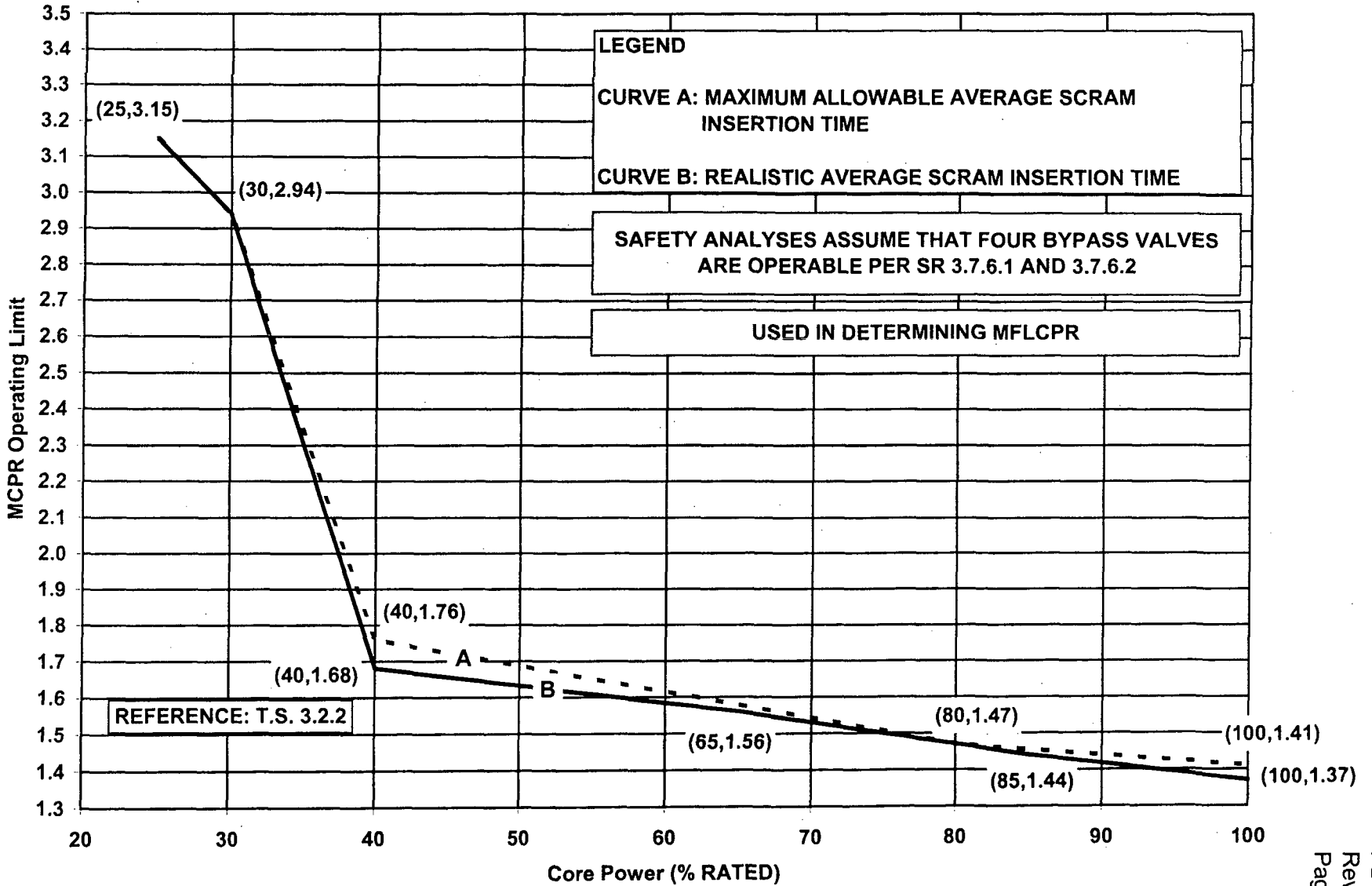
TRM/3.2-13

EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
Rev. 0
Page 12 of 47

SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS CORE POWER
 EOC-RPT AND MAIN TURBINE BYPASS OPERABLE
 TWO LOOP OPERATION (BOC TO EOC)
 FIGURE 5.2-2

SUSQUEHANNA UNIT 2

TRM/3.2-14

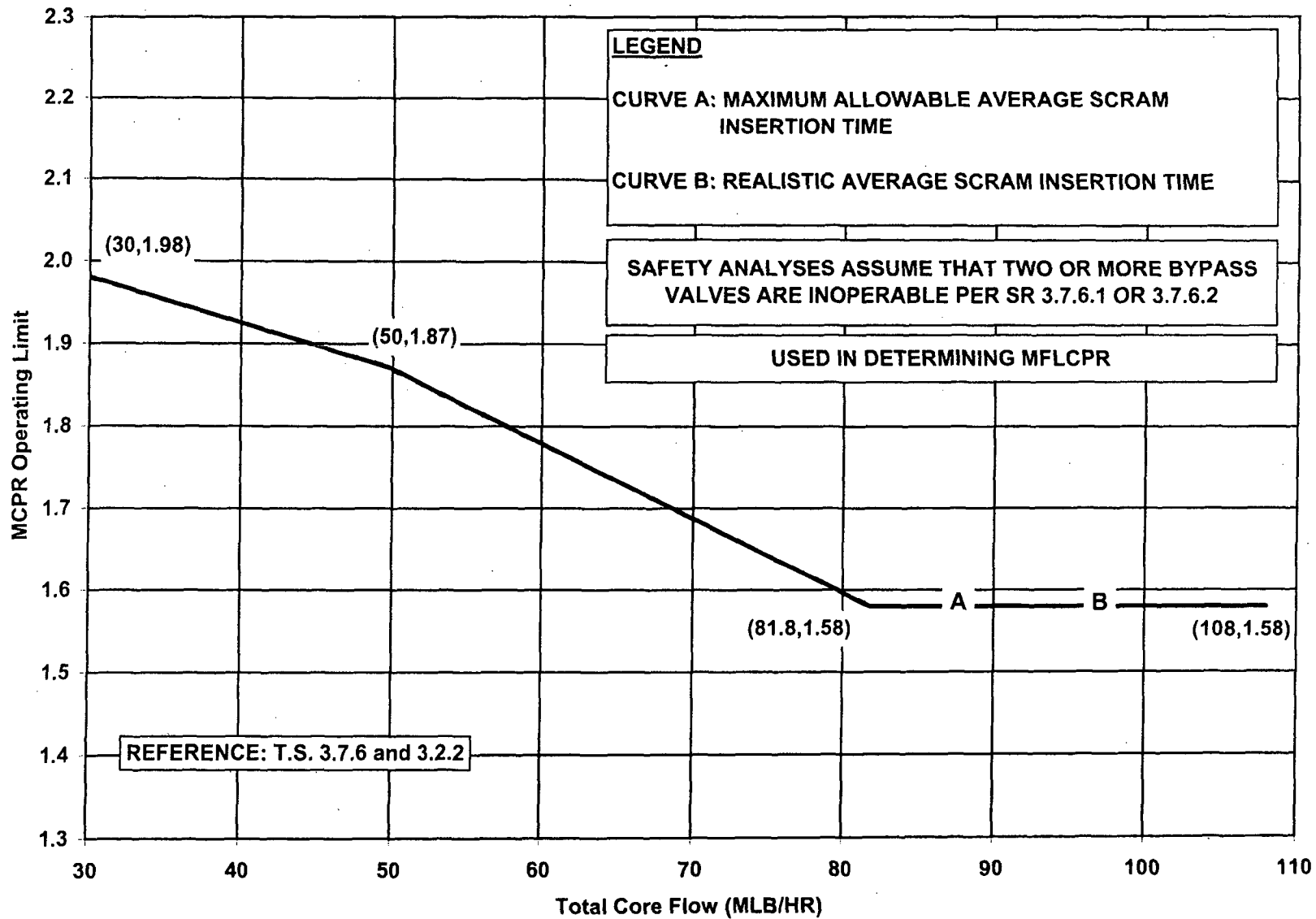
EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
 Rev. 0
 Page 13 of 47

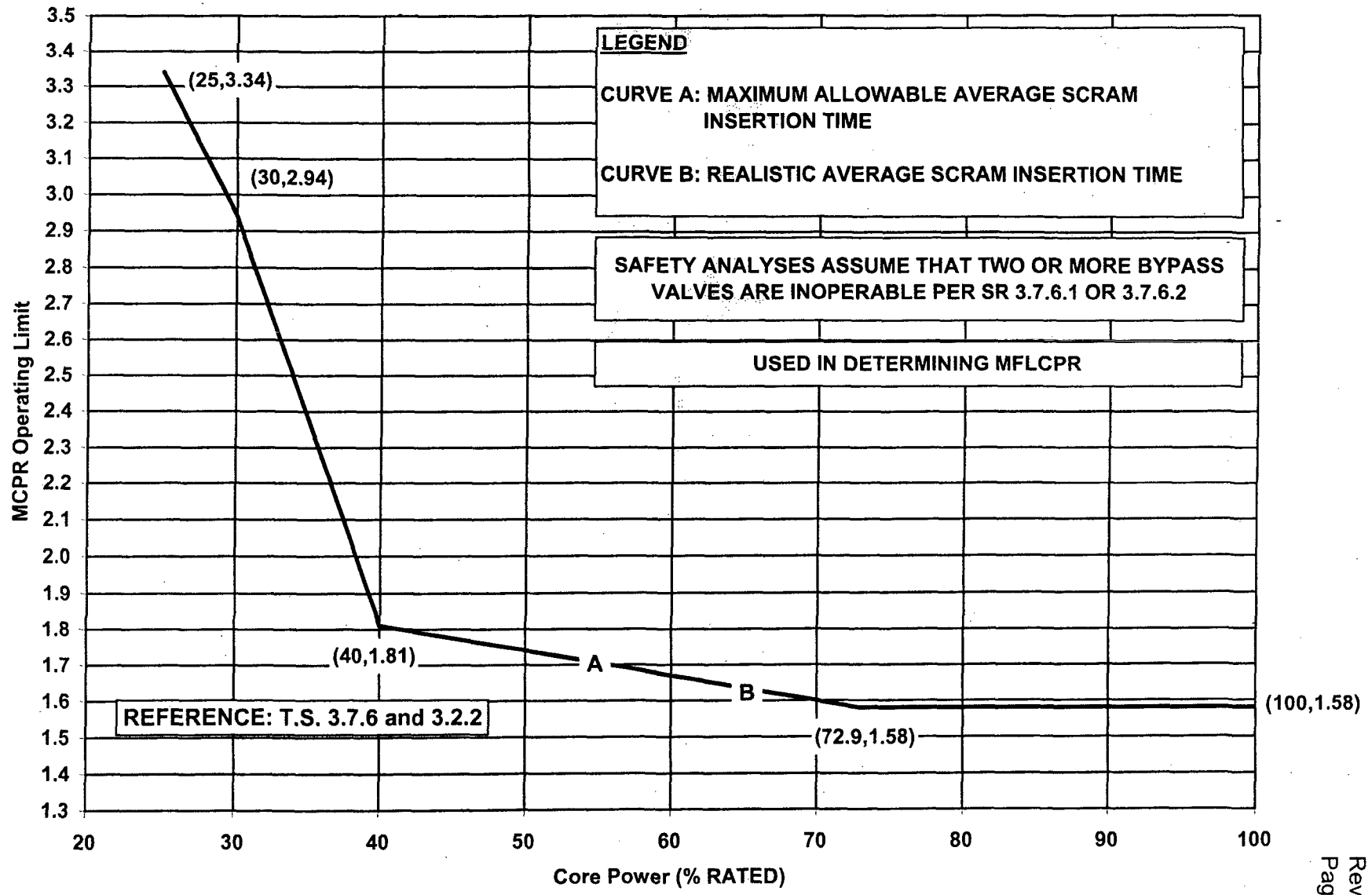
**Main Turbine Bypass
Inoperable / EOC-RPT
Operable**

SSSES UNIT 2 CYCLE 14



M CPR OPERATING LIMIT VERSUS TOTAL CORE FLOW
MAIN TURBINE BYPASS INOPERABLE / EOC-RPT OPERABLE
TWO LOOP OPERATION (BOC TO EOC)
FIGURE 5.2-3

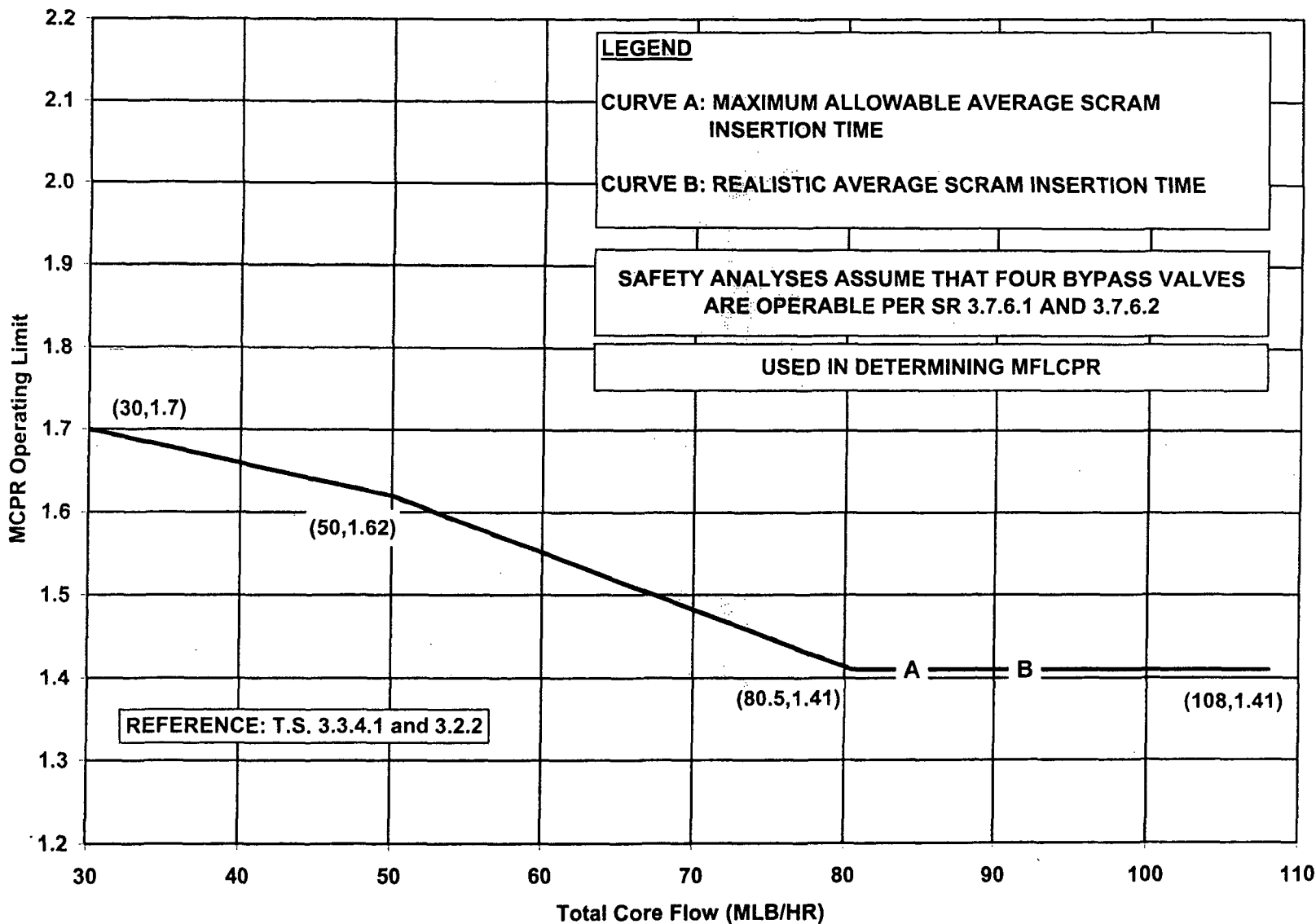
SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS CORE POWER
MAIN TURBINE BYPASS INOPERABLE / EOC-RPT OPERABLE
TWO LOOP OPERATION (BOC to EOC)
FIGURE 5.2-4

EOC-RPT Inoperable / Main Turbine Bypass Operable

SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS TOTAL CORE FLOW
EOC-RPT INOPERABLE / MAIN TURBINE BYPASS OPERABLE
TWO LOOP OPERATION (BOC TO EOC)
FIGURE 5.2-5

SUSQUEHANNA UNIT 2

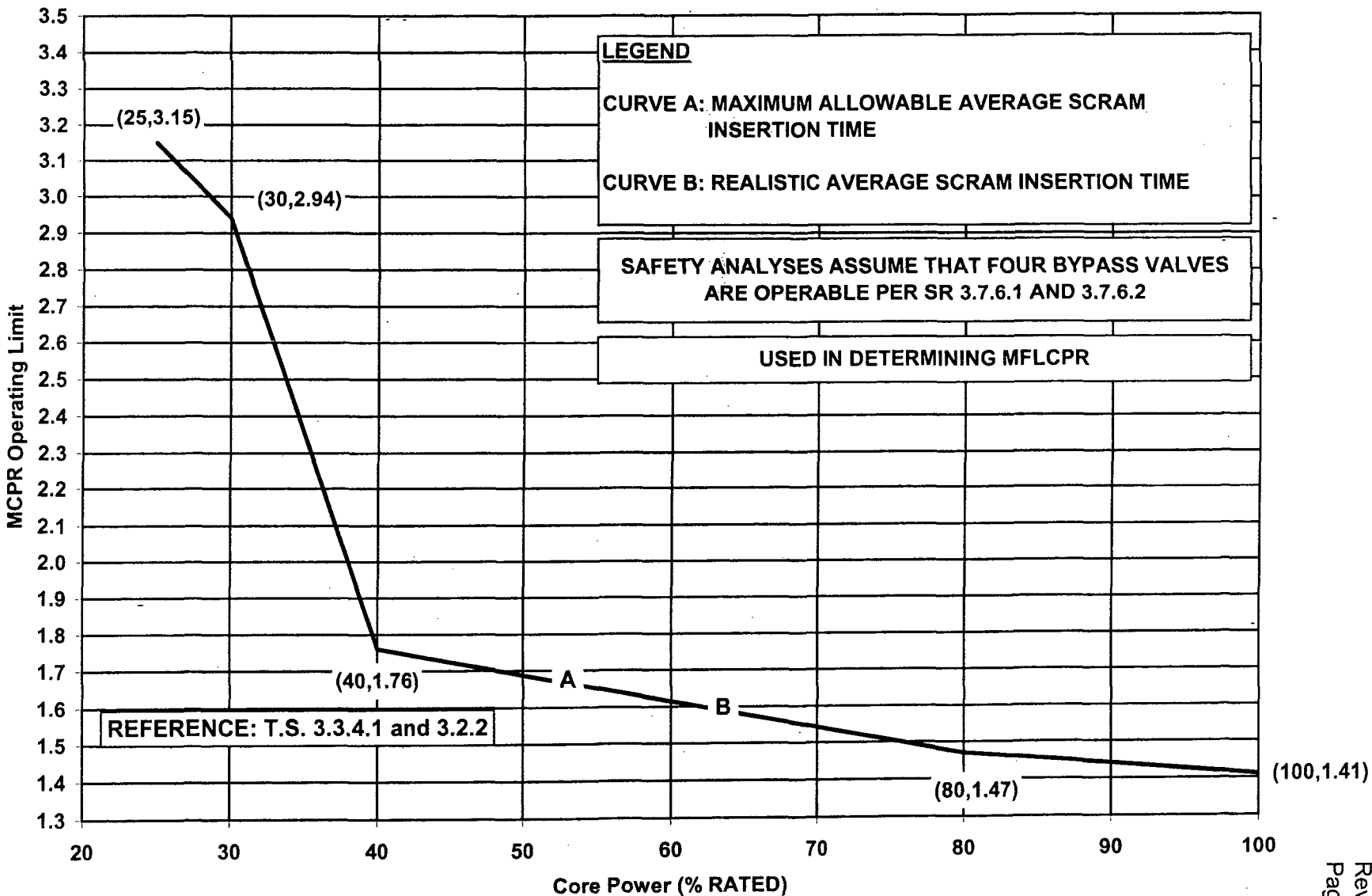
TRM/3.2-19

EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
 Rev. 0
 Page 18 of 47

SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS CORE POWER
 EOC-RPT INOPERABLE / MAIN TURBINE BYPASS OPERABLE
 TWO LOOP OPERATION (BOC to EOC)
 FIGURE 5.2-6

Table 5.3-1**Average Scram Time Fraction Table For Use With Scram Time Dependent
MCPR Operating Limits**

Control Rod Position	Average Scram Time to Position (seconds)	
45	0.470	
39	0.630	
25	1.500	
5	2.700	
Average Scram Insertion Time	Realistic	
		0.520 0.860 1.910 3.440 Maximum Allowable

6.0 LINEAR HEAT GENERATION RATE (LHGR)

6.1 Technical Specification Reference

Technical Specification 3.2.3 and 3.7.6

6.2 Description

The maximum LHGR for ATRIUM™-10 fuel shall not exceed the LHGR limit determined from Figure 6.2-1. The LHGR limit in Figure 6.2-1 is valid for Main Turbine Bypass Operable and Inoperable and EOC-RPT Operable and Inoperable.

In order to protect against both fuel centerline melting and cladding strain during anticipated system transients initiated from reduced power and flow conditions, power and flow dependent LHGR limit multipliers are provided:

a) Main Turbine Bypass Operable / EOC-RPT Operable and Inoperable

Figure 6.2-2: Flow-Dependent LHGR Limit Multiplier

Figure 6.2-3: Power-Dependent LHGR Limit Multiplier

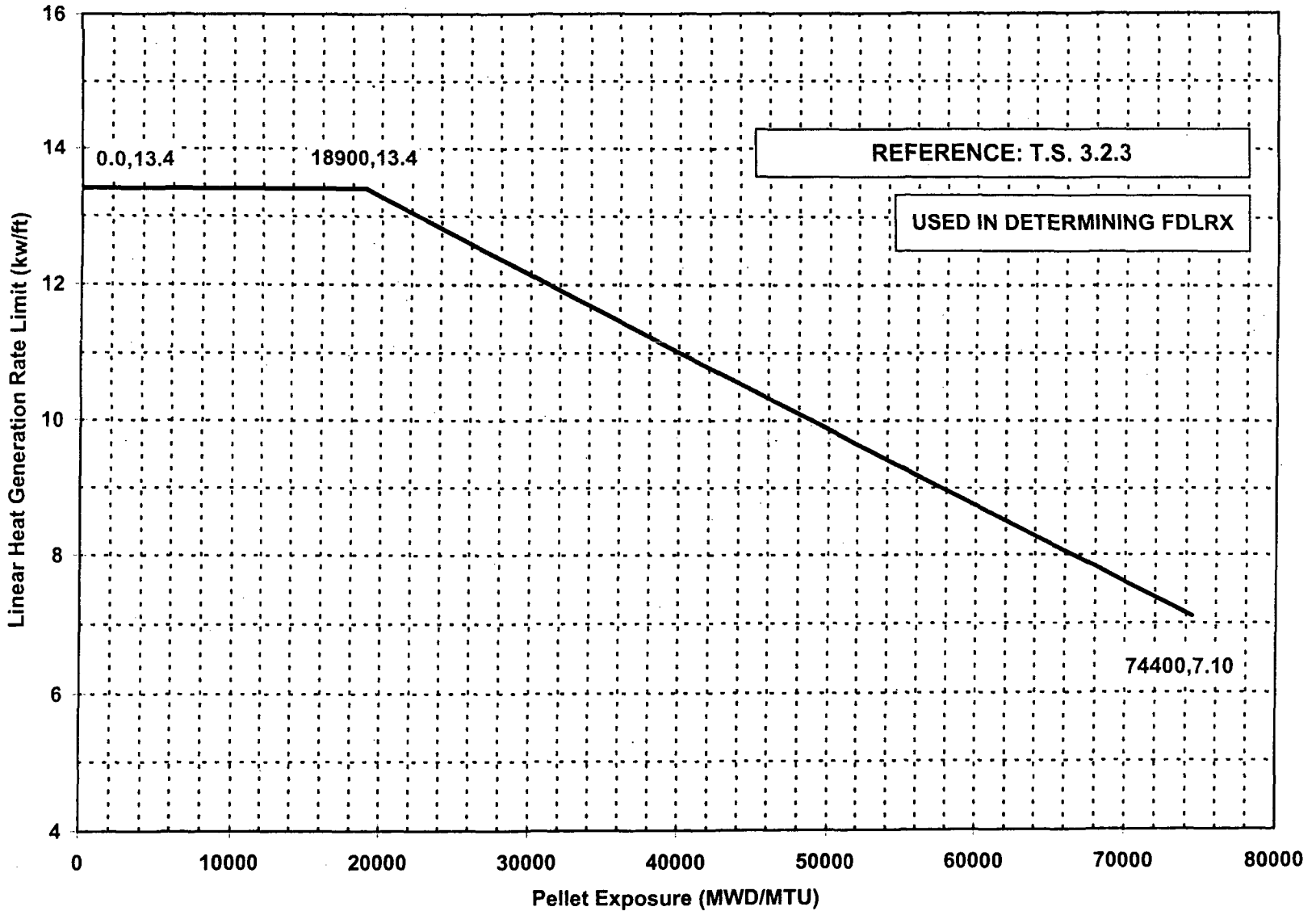
b) Main Turbine Bypass Inoperable / EOC-RPT Operable and Inoperable

Figure 6.2-4: Flow-Dependent LHGR Limit Multiplier

Figure 6.2-5: Power-Dependent LHGR Limit Multiplier

The LGHR limit and LHGR limit multipliers in Figures 6.2-1 through 6.2-5 are valid for both Two Loop and Single Loop operation.

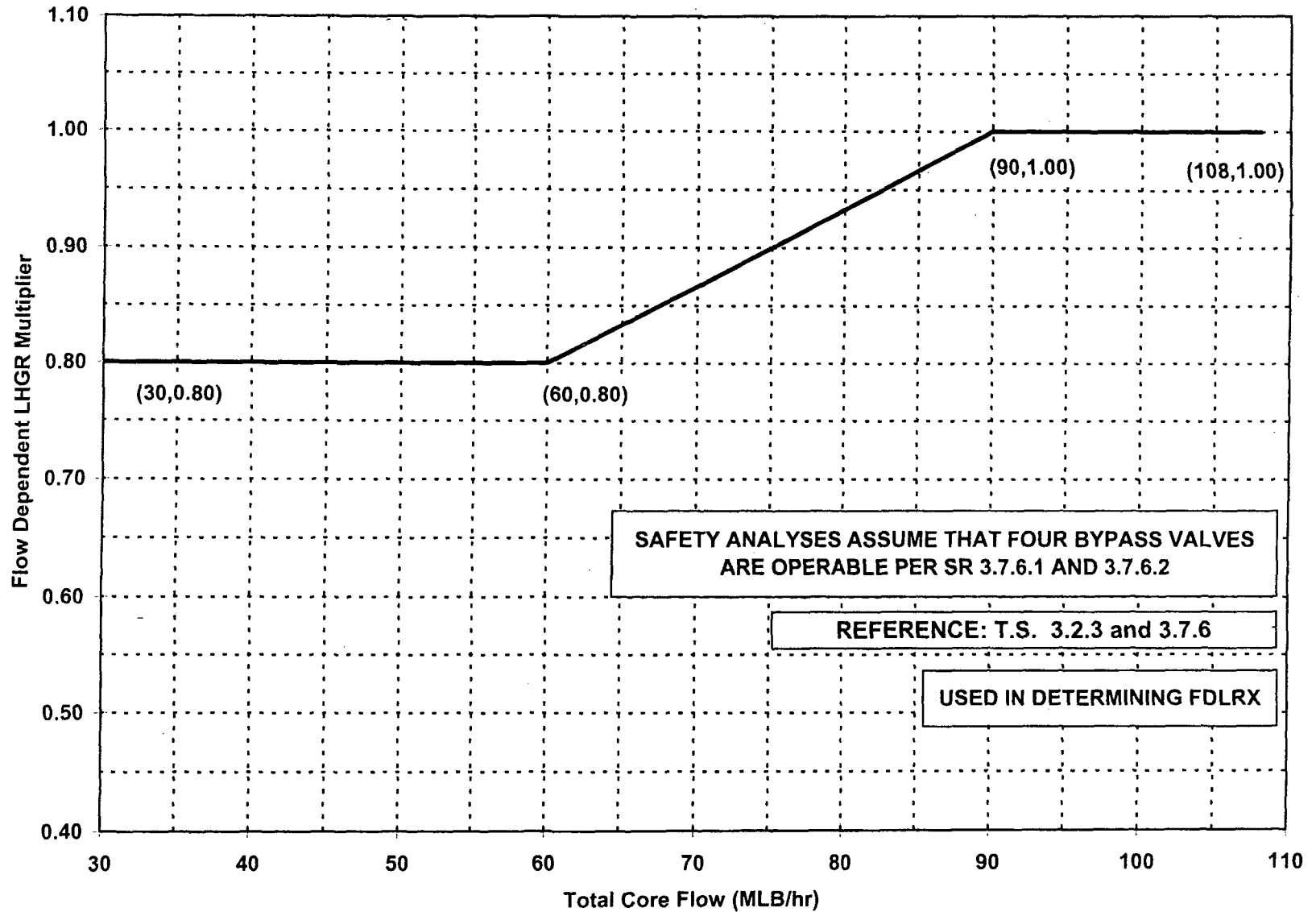
SSES UNIT 2 CYCLE 14



LINEAR HEAT GENERATION RATE LIMIT VERSUS PELLETS EXPOSURE
ATRIUM™-10 FUEL
FIGURE 6.2-1

Main Turbine Bypass Operable / EOC-RPT Operable and Inoperable

SSSES UNIT 2 CYCLE 14



SAFETY ANALYSES ASSUME THAT FOUR BYPASS VALVES ARE OPERABLE PER SR 3.7.6.1 AND 3.7.6.2

REFERENCE: T.S. 3.2.3 and 3.7.6

USED IN DETERMINING FDLRX

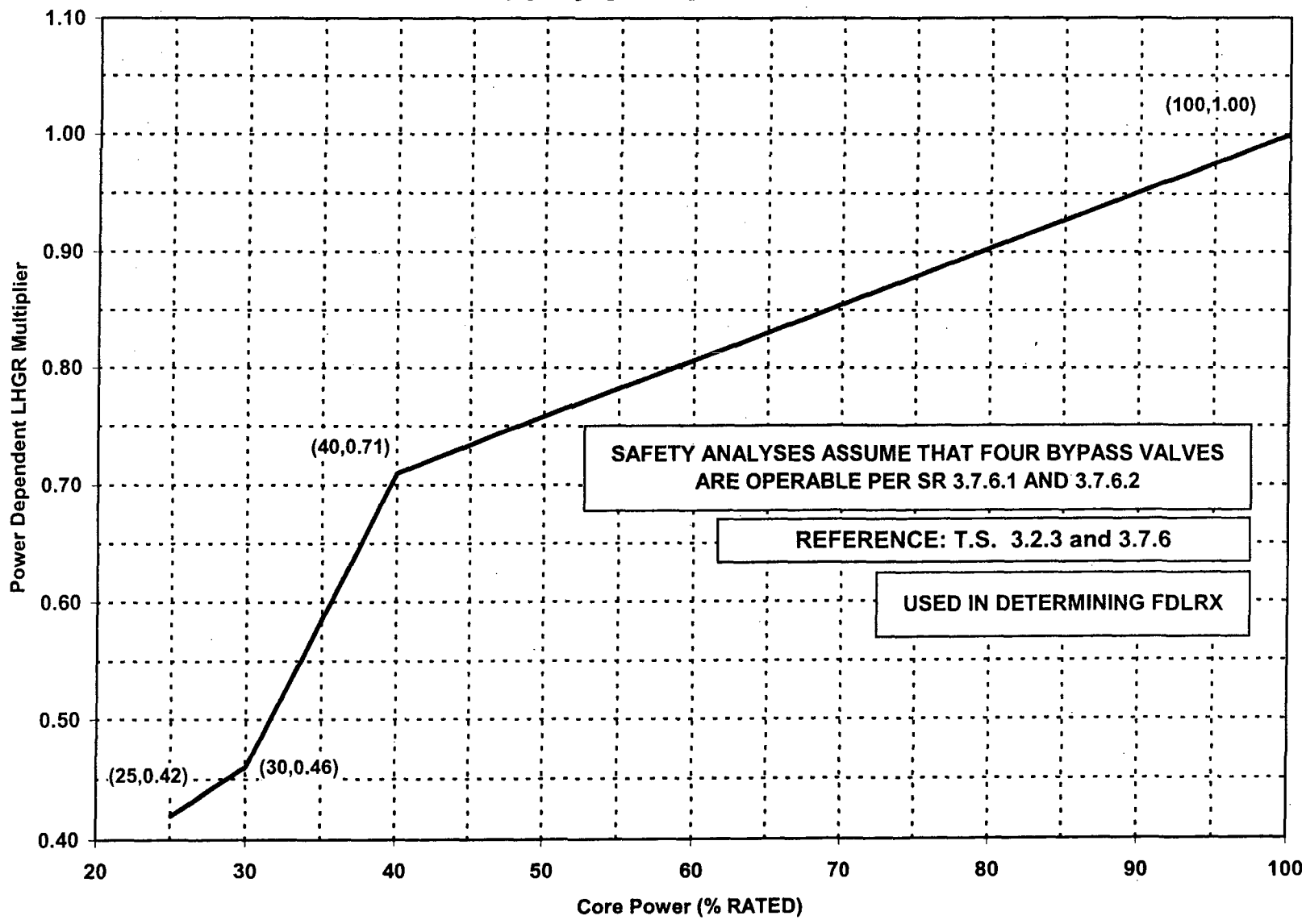
FLOW DEPENDENT LHGR LIMIT MULTIPLIER
MAIN TURBINE BYPASS OPERABLE
ATRIUM™-10 FUEL
FIGURE 6.2-2

SSES UNIT 2 CYCLE 14

SUSQUEHANNA UNIT 2

TRM/3.2-26

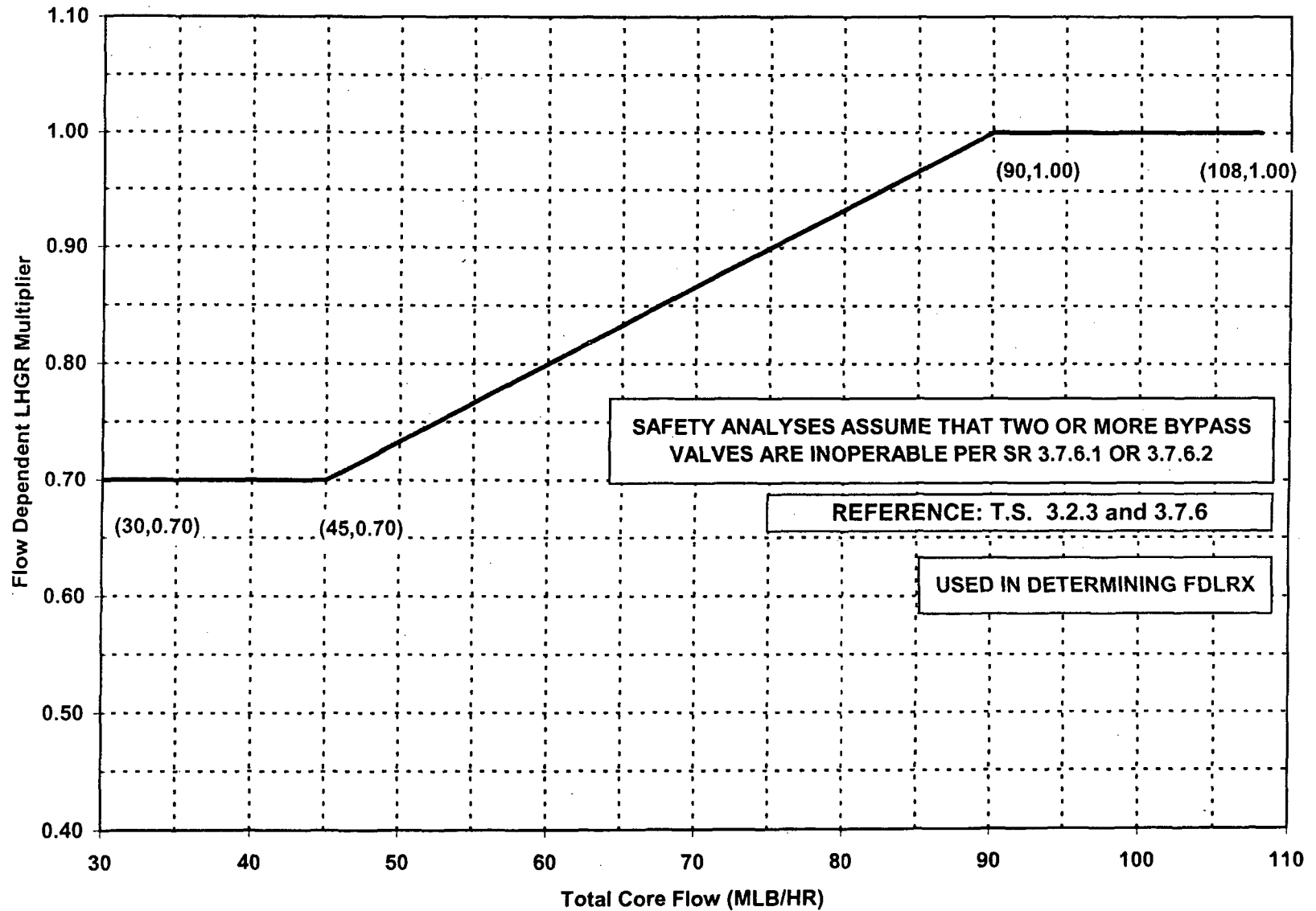
EFFECTIVE DATE 03/08/2007



POWER DEPENDENT LHGR LIMIT MULTIPLIER
MAIN TURBINE BYPASS OPERABLE
ATRIUM™-10 FUEL
FIGURE 6.2-3

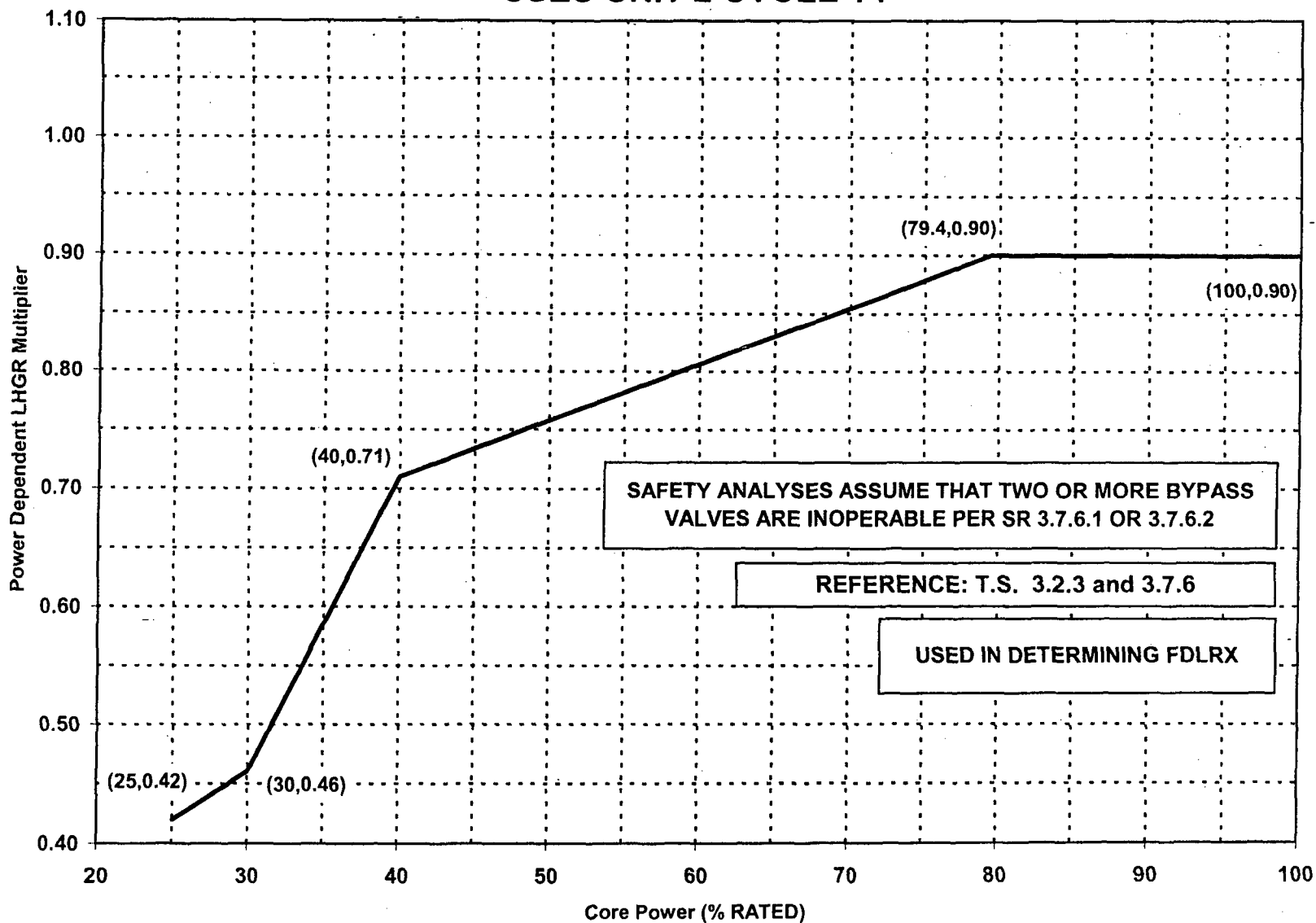
Main Turbine Bypass Inoperable / EOC-RPT Operable and Inoperable

SSES UNIT 2 CYCLE 14



FLOW DEPENDENT LHGR LIMIT MULTIPLIER
MAIN TURBINE BYPASS INOPERABLE
ATRIUM™-10 FUEL
FIGURE 6.2-4

SSES UNIT 2 CYCLE 14



POWER DEPENDENT LHGR LIMIT MULTIPLIER
MAIN TURBINE BYPASS INOPERABLE
ATRIUM™-10 FUEL
FIGURE 6.2-5

SUSQUEHANNA UNIT 2

TRM/3.2-29

EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
 Rev. 0
 Page 28 of 47

7.0 ROD BLOCK MONITOR (RBM) SETPOINTS AND OPERABILITY REQUIREMENTS

7.1 Technical Specification Reference

Technical Specification 3.3.2.1

7.2 Description

The RBM Allowable Value and Trip Setpoints for;

- a) Low Power Range Setpoint,
- b) Intermediate Power Range Setpoint,
- c) High Power Range Setpoint,
- e) Low Power Range - Upscale,
- f) Intermediate Power Range - Upscale, and
- g) High Power Range - Upscale

shall be established as specified in Table 7.2-1. The RBM setpoints are valid for Two Loop and Single Loop Operation, Main Turbine Bypass Operable and Inoperable, and EOC-RPT Operable and Inoperable.

The RBM system design objective is to block erroneous control rod withdrawal initiated by the operator before fuel design limits are violated. If the full withdrawal of any control rod would not violate a fuel design limit, then the RBM system is not required to be operable. Table 7.2-2 provides RBM system operability requirements to ensure that fuel design limits are not violated.

Table 7.2-1
RBM Setpoints

Function	Allowable Value ⁽¹⁾	Nominal Trip Setpoint
Low Power Range Setpoint	28.0	24.9
Intermediate Power Range Setpoint	63.0	61.0
High Power Range Setpoint	83.0	81.0
Low Power Range - Upscale	123.4	123.0
Intermediate Power Range - Upscale	113.6	113.2
High Power Range - Upscale	110.6	110.2

- (1) Power setpoint function (Low, Intermediate, and High Power Range Setpoints) determined in percent of rated thermal power. Upscale trip setpoint function (Low, Intermediate, and High Power Range - Upscale) determined in percent of reference level.

Table 7.2-2
RBM System Operability Requirements

Thermal Power (% of Rated)	MCPR ^(2,3)
≥ 28 and < 90	< 1.78
≥ 90	< 1.71

- (2) Applicable to Main Turbine Bypass Operable and Inoperable and EOC-RPT Operable and Inoperable.
- (3) Applicable to both Two Loop and Single Loop Operation.

8.0 RECIRCULATION LOOPS - SINGLE LOOP OPERATION

8.1 Technical Specification Reference

Technical Specification 3.2.1, 3.2.2, 3.2.3, 3.3.4.1, 3.4.1, and 3.7.6

8.2 Description

APLHGR

The APLHGR limit for ATRIUM™-10 fuel shall be equal to the APLHGR Limit from Figure 8.2-1.

The APLHGR limits in Figure 8.2-1 are valid for Main Turbine Bypass Operable and Inoperable and EOC-RPT Operable and Inoperable in Single Loop operation.

Minimum Critical Power Ratio Limit

The MCPR limit is specified as a function of core power, core flow, and plant equipment operability status. The MCPR limits for all fuel types (ATRIUM™-10) shall be the greater of the Flow-Dependent or the Power-Dependent MCPR, depending on the applicable equipment operability status.

a) EOC-RPT and Main Turbine Bypass Operable

Figure 8.2-2: Flow-Dependent MCPR value determined from BOC to EOC

Figure 8.2-3: Power-Dependent MCPR value determined from BOC to EOC

b) Main Turbine Bypass Inoperable / EOC-RPT Operable

Figure 8.2-4: Flow-Dependent MCPR value determined from BOC to EOC

Figure 8.2-5: Power-Dependent MCPR value determined from BOC to EOC

c) EOC-RPT Inoperable / Main Turbine Bypass Operable

Figure 8.2-6: Flow-Dependent MCPR value determined from BOC to EOC

Figure 8.2-7: Power-Dependent MCPR value determined from BOC to EOC

The MCPR limits in Figures 8.2-2 through 8.2-7 are valid only for Single Loop operation.

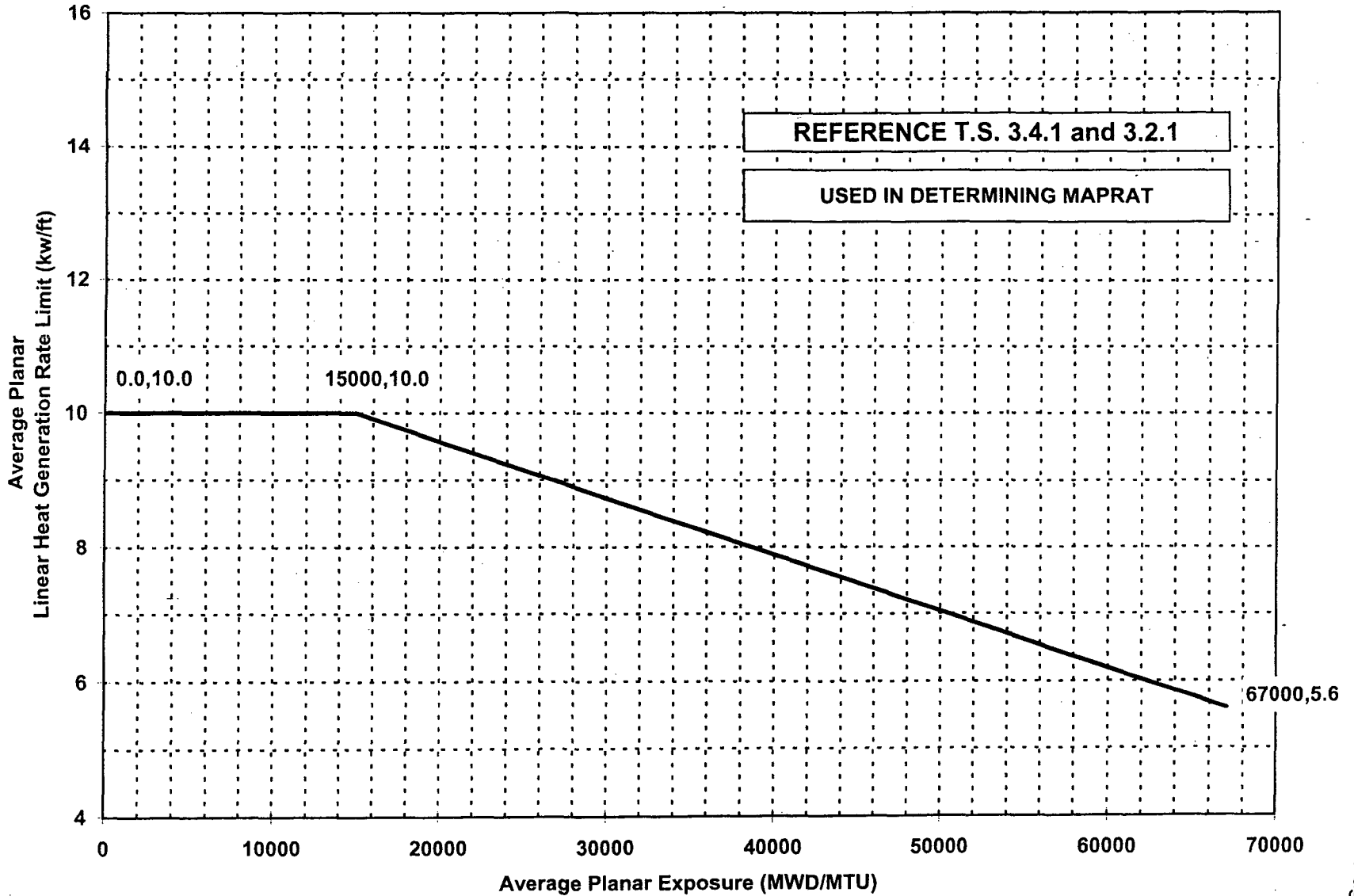
Linear Heat Generation Rate Limit

The LHGR limits for Single Loop Operation are defined in Section 6.0.

RBM Setpoints and Operability Requirements

The RBM setpoints and operability requirements for Single Loop Operation are defined in Section 7.0.

SSSES UNIT 2 CYCLE 14



AVERAGE PLANAR LINEAR HEAT GENERATION RATE LIMIT VERSUS AVERAGE PLANAR EXPOSURE
SINGLE LOOP OPERATION
ATRIUM™-10 FUEL
FIGURE 8.2-1

SUSQUEHANNA UNIT 2

TRM/3.2-34

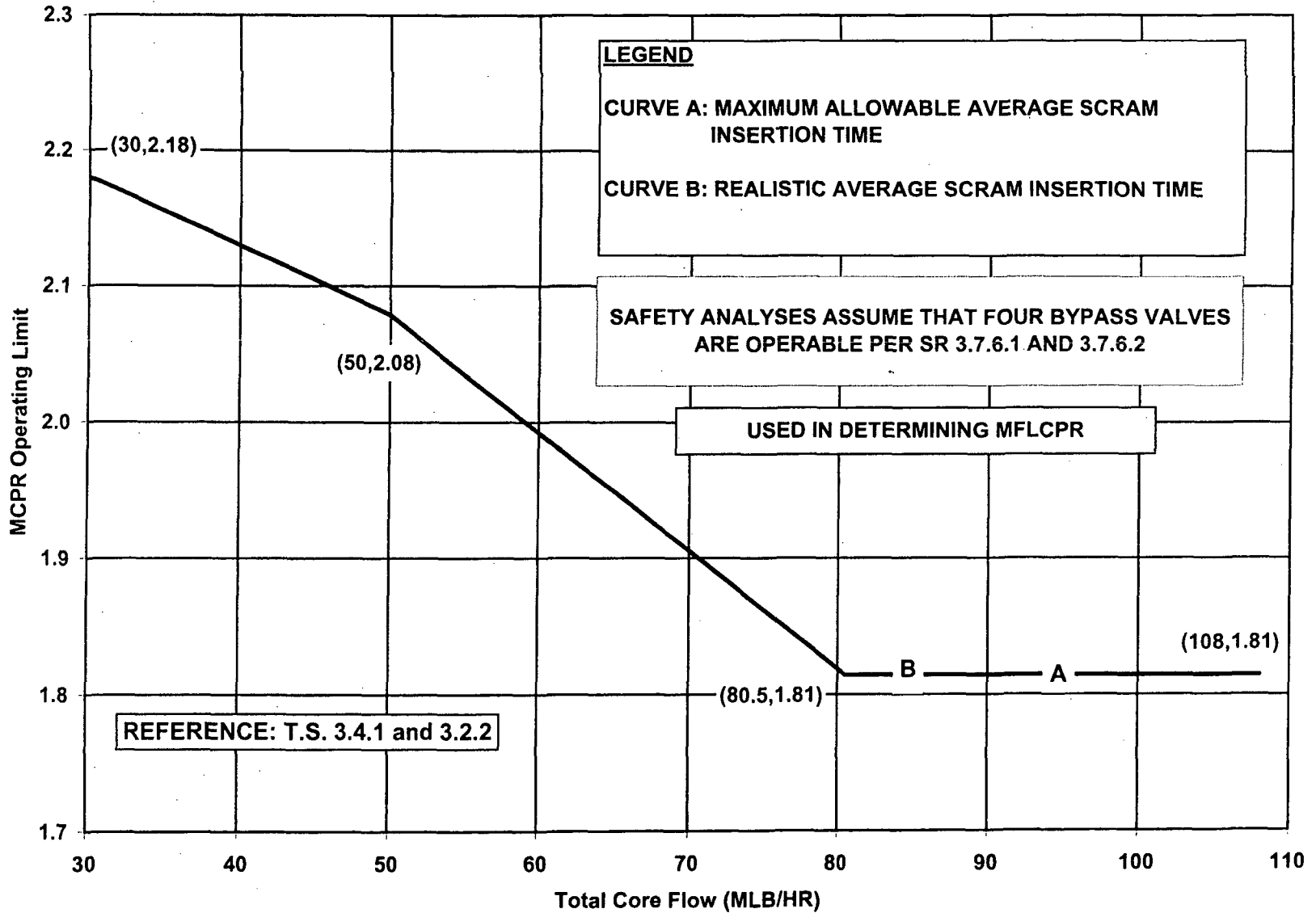
EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
Rev. 0
Page 33 of 47

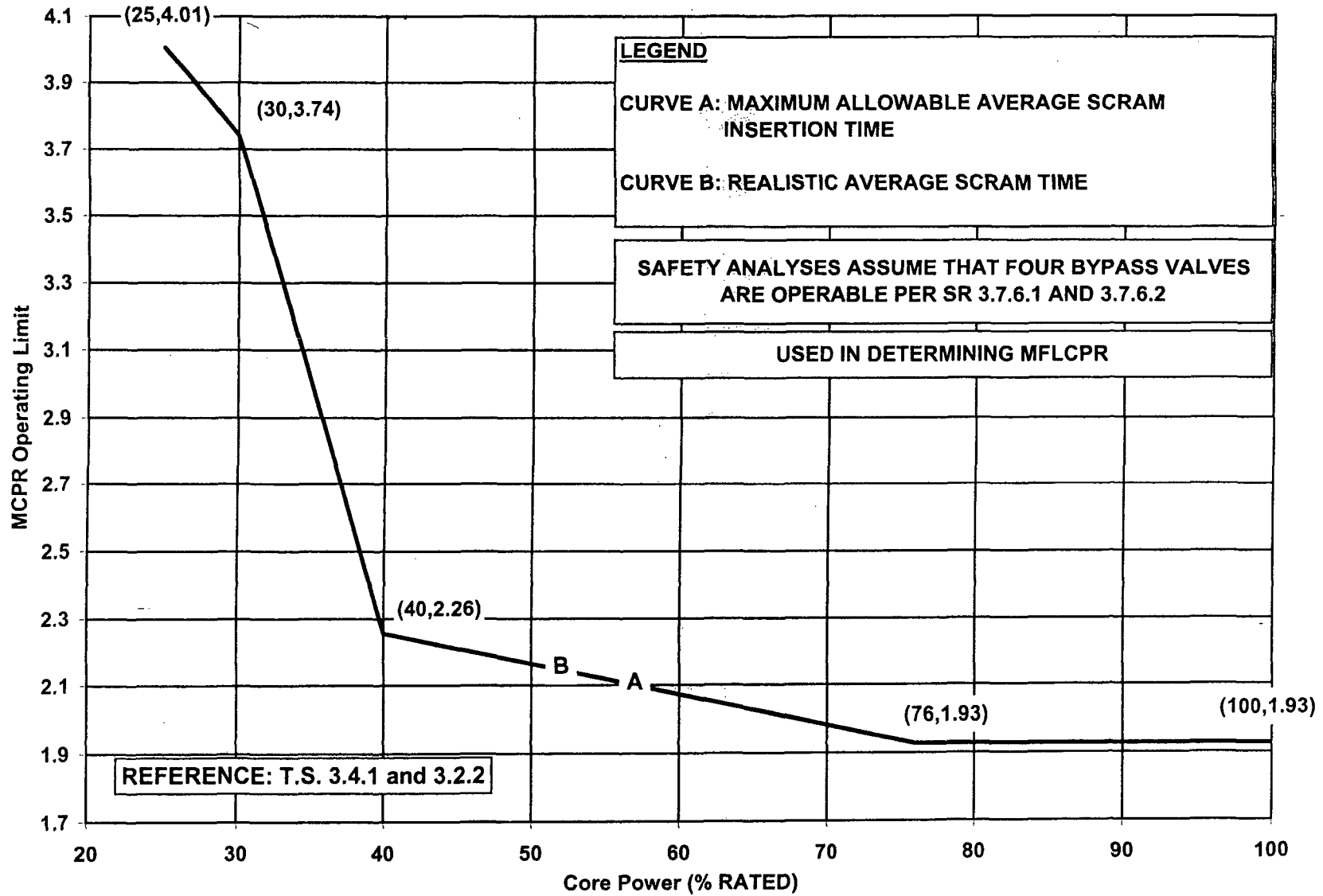
EOC-RPT and Main Turbine Bypass Operable

SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS TOTAL CORE FLOW
EOC-RPT AND MAIN TURBINE BYPASS OPERABLE
SINGLE LOOP OPERATION (BOC to EOC)
FIGURE 8.2-2

SSSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS CORE POWER
 EOC-RPT AND MAIN TURBINE BYPASS OPERABLE
 SINGLE LOOP OPERATION (BOC to EOC)
 FIGURE 8.2-3

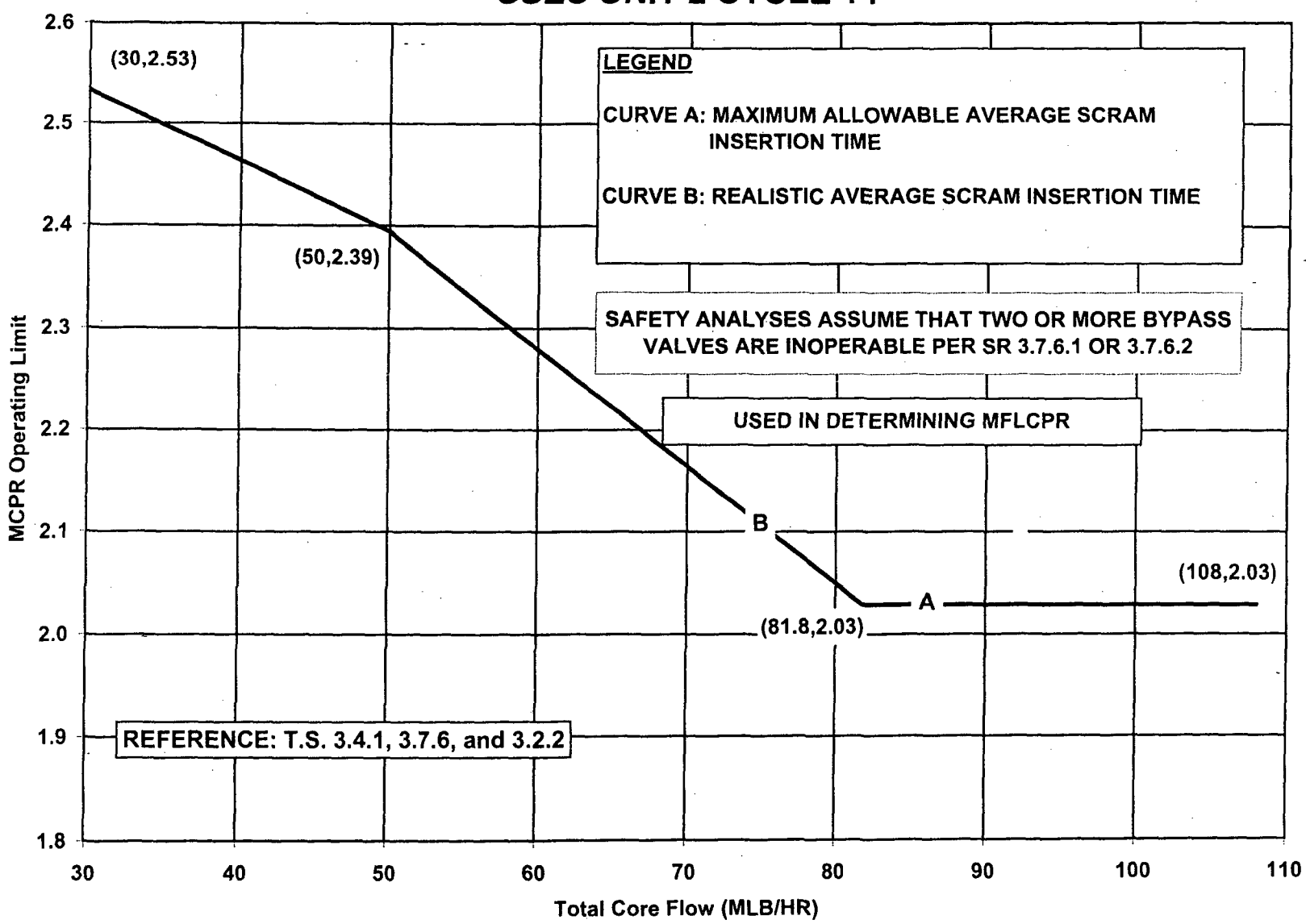
**Main Turbine Bypass
Inoperable / EOC-RPT
Operable**

SSES UNIT 2 CYCLE 14

SUSQUEHANNA UNIT 2

TRM/3.2-39

EFFECTIVE DATE 03/08/2007

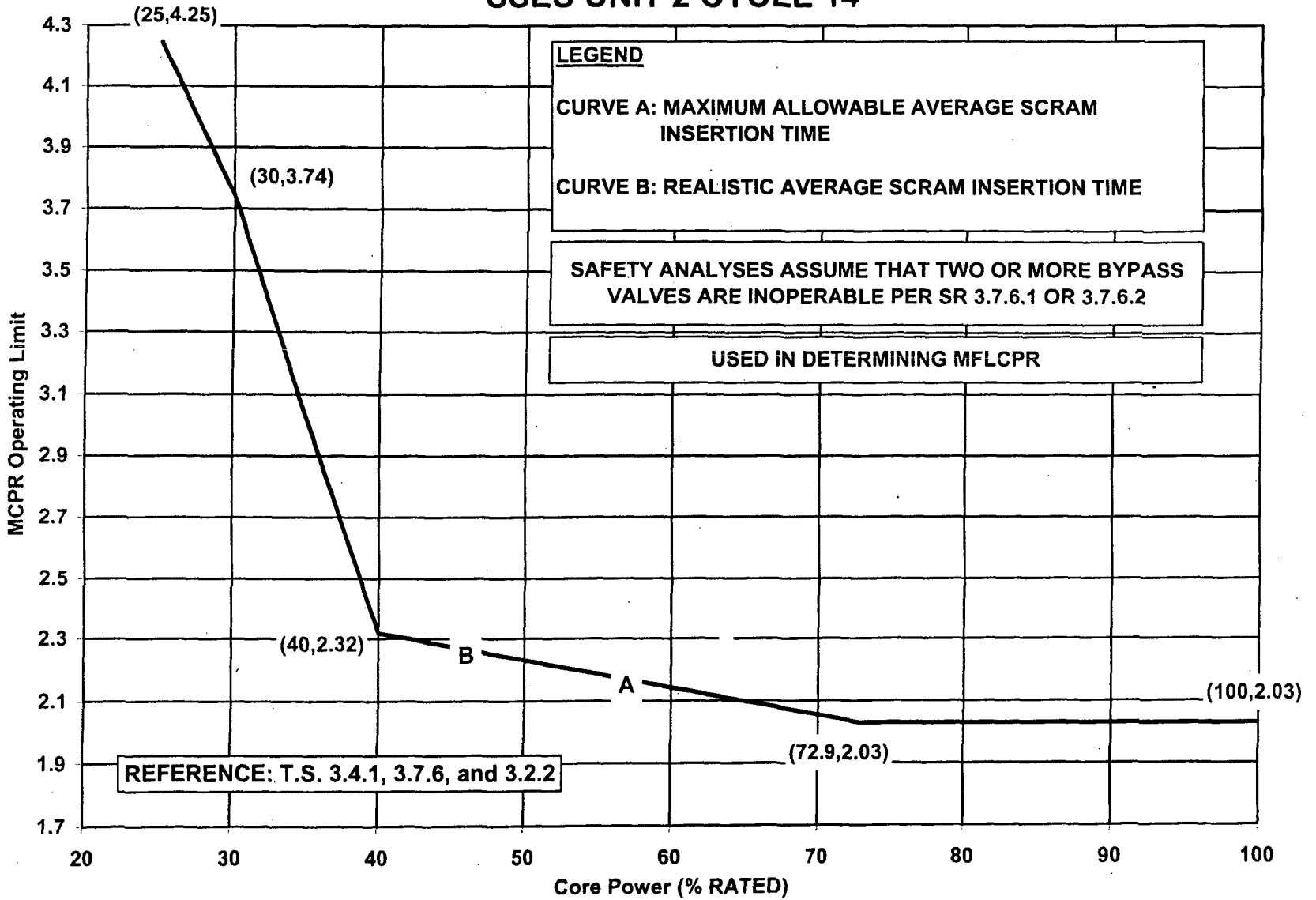


**MCPR OPERATING LIMIT VERSUS TOTAL CORE FLOW
MAIN TURBINE BYPASS INOPERABLE / EOC-RPT OPERABLE
SINGLE LOOP OPERATION (BOC to EOC)
FIGURE 8.2-4**

PPL Rev. 6

PL-NF-07-002
Rev. 0
Page 38 of 47

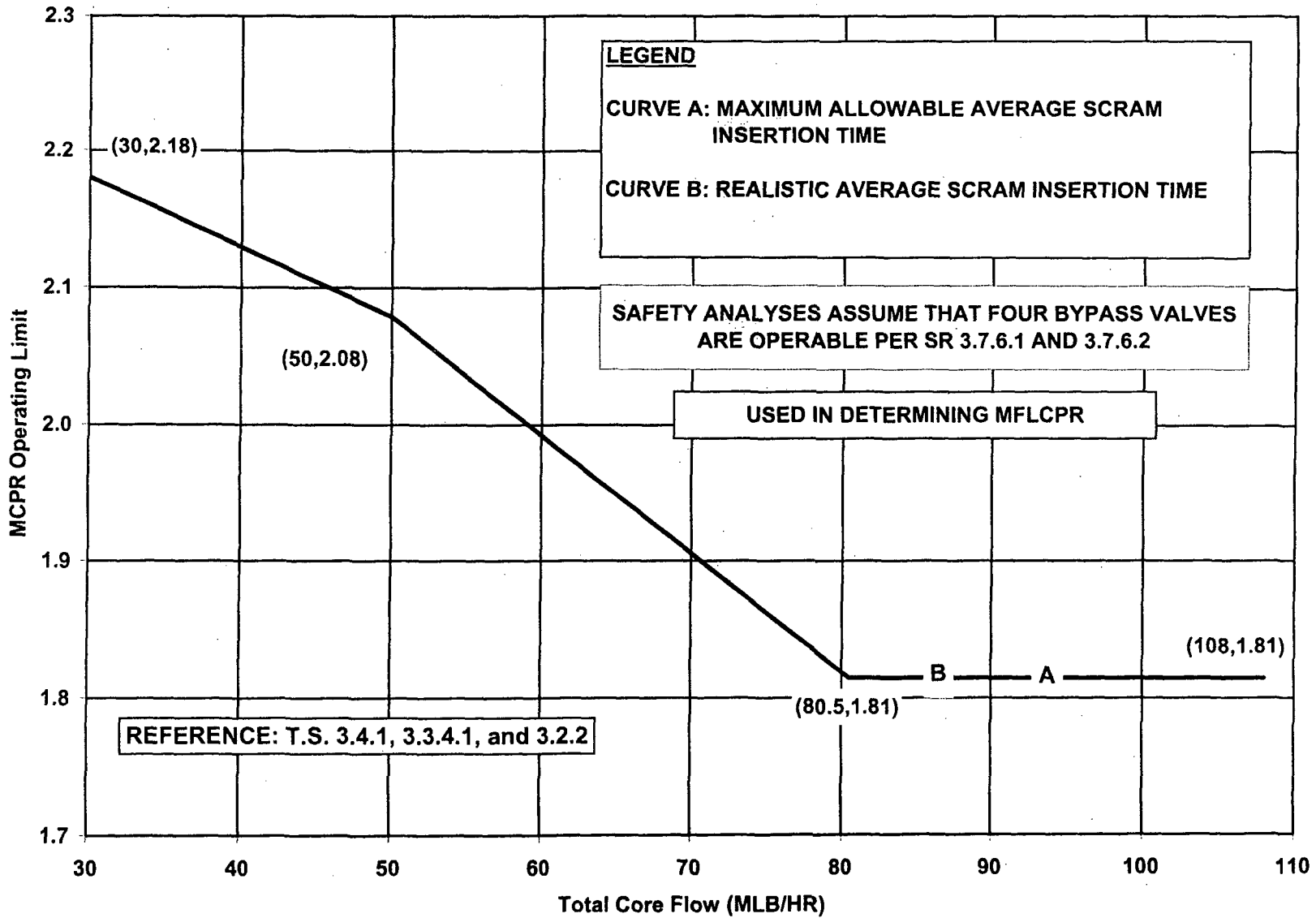
SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS CORE POWER
MAIN TURBINE BYPASS INOPERABLE / EOC-RPT OPERABLE
SINGLE LOOP OPERATION (BOC to EOC)
FIGURE 8.2-5

EOC-RPT Inoperable / Main Turbine Bypass Operable

SSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS TOTAL CORE FLOW
 EOC-RPT INOPERABLE / MAIN TURBINE BYPASS OPERABLE
 SINGLE LOOP OPERATION (BOC to EOC)
 FIGURE 8.2-6

SUSQUEHANNA UNIT 2

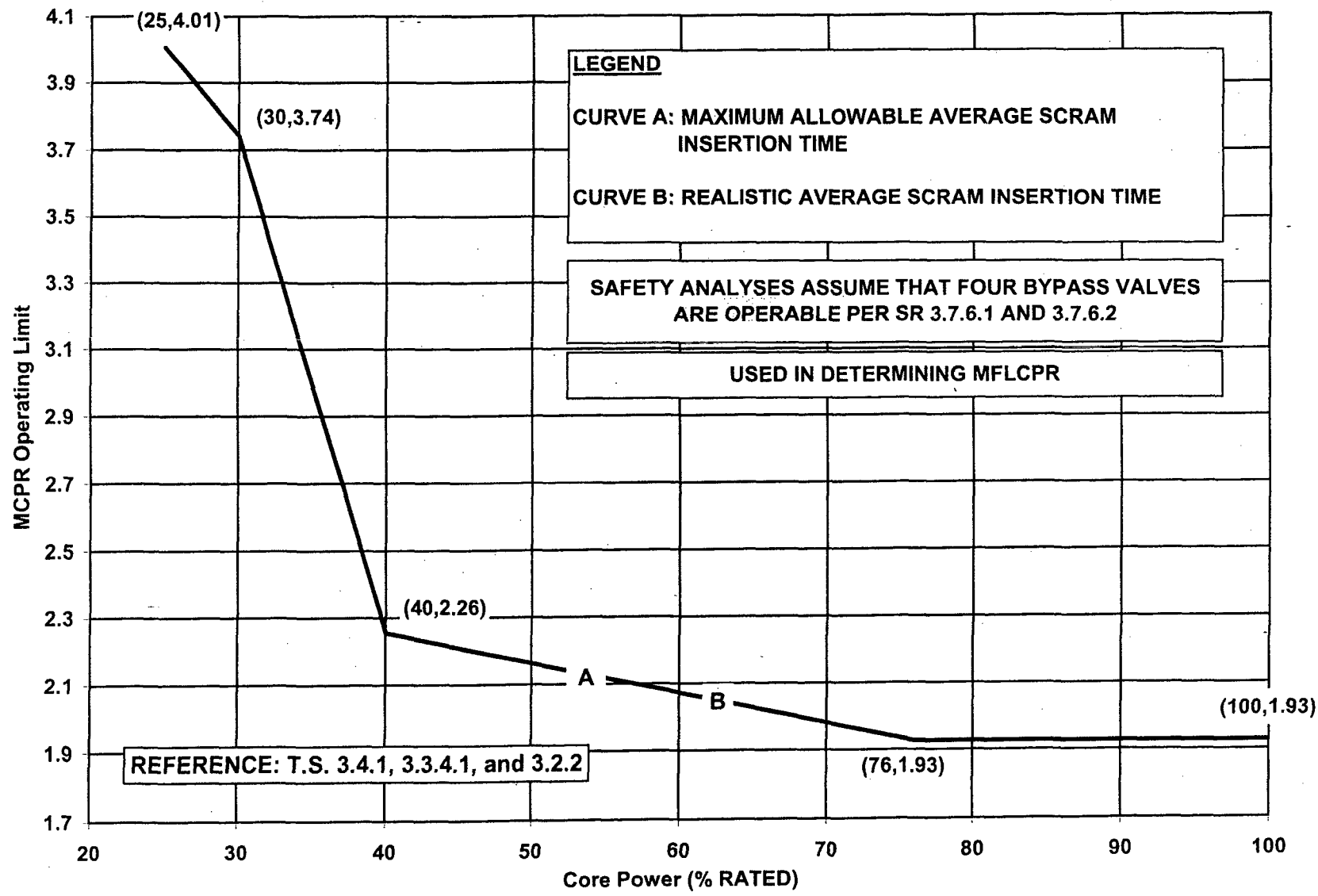
TRM/3.2-42

EFFECTIVE DATE 03/08/2007

PPL Rev. 6

PL-NF-07-002
 Rev. 0
 Page 41 of 47

SSSES UNIT 2 CYCLE 14



MCPR OPERATING LIMIT VERSUS CORE POWER
EOC-RPT INOPERABLE / MAIN TURBINE BYPASS OPERABLE
SINGLE LOOP OPERATION (BOC to EOC)
FIGURE 8.2-7

9.0 POWER / FLOW MAP

9.1 Technical Specification Reference

Technical Specification 3.3.1.1

9.2 Description

Monitor reactor conditions to maintain THERMAL POWER / core flow outside of Stability Regions I and II of the Power / Flow map, Figure 9.1.

If the OPRM Instrumentation is OPERABLE per TS 3.3.1.1, Region I of the Power / Flow map is considered an immediate exit region.

If the OPRM Instrumentation is inoperable per TS 3.3.1.1, Region I of the Power / Flow map is considered an immediate scram region.

Region II of the Power / Flow map is considered an immediate exit region regardless of the operability of the OPRM Instrumentation.

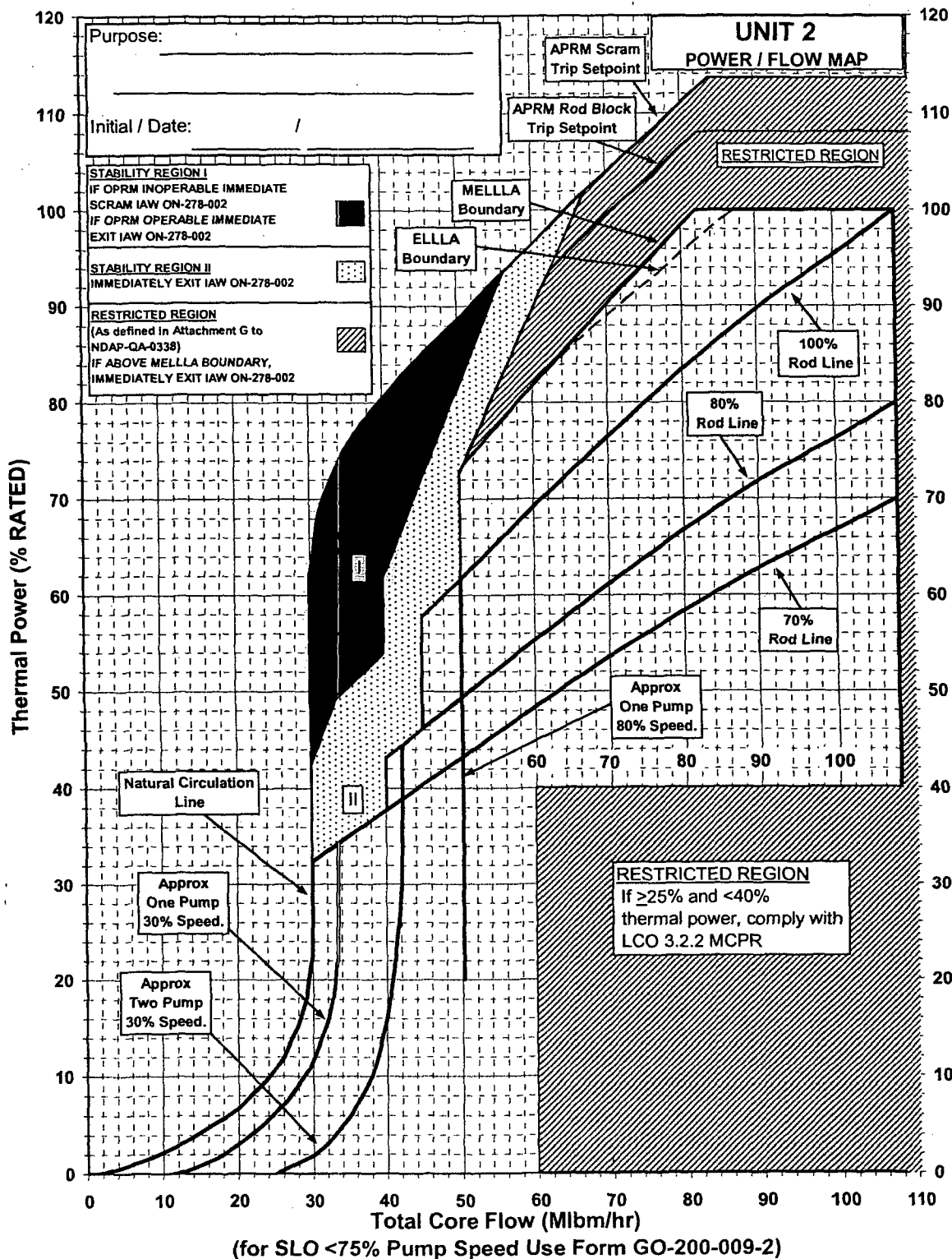


Figure 9.1
SSES Unit 2 Cycle 14 Power / Flow Map

10.0 OPRM SETPOINTS

10.1 Technical Specification Reference

Technical Specification 3.3.1.1

10.2 Description

Setpoints for the OPRM Instrumentation are established that will reliably detect and suppress anticipated stability related power oscillations while providing a high degree of confidence that the MCPR Safety limit is not violated. The setpoints are described in Section 2.0 and are listed below:

$$S_p = 1.12$$

$$N_p = 16$$

$$F_p = 60 \text{ Mlbm / hr}$$

11.0 REFERENCES

- 11.1 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
1. XN-NF-81-58(P)(A), Revision 2 and Supplements 1 and 2, "RODEX2 Fuel Rod Thermal-Mechanical Response Evaluation Model," Exxon Nuclear Company, March 1984.
 2. EMF-2361(P)(A), Revision 0, "EXEM BWR-2000 ECCS Evaluation Model," Framatome ANP, May 2001.
 3. EMF-2292(P)(A), Revision 0, "ATRIUM™-10: Appendix K Spray Heat Transfer Coefficients," Siemens Power Corporation, September 2000.
 4. XN-NF-84-105(P)(A), Volume 1 and Volume 1 Supplements 1 and 2, "XCOBRA-T: A Computer Code for BWR Transient Thermal-Hydraulic Core Analysis," Exxon Nuclear Company, February 1987.
 5. XN-NF-80-19(P)(A), Volume 1 and Supplements 1 and 2, "Exxon Nuclear Methodology for Boiling Water Reactors: Neutronic Methods for Design and Analysis," Exxon Nuclear Company, March 1983.
 6. XN-NF-80-19(P)(A), Volumes 2, 2A, 2B, and 2C "Exxon Nuclear Methodology for Boiling Water Reactors: EXEM BWR ECCS Evaluation Model," Exxon Nuclear Company, September 1982.
 7. XN-NF-80-19(P)(A), Volume 3 Revision 2 "Exxon Nuclear Methodology for Boiling Water Reactors Thermex: Thermal Limits Methodology Summary Description," Exxon Nuclear Company, January 1987.
 8. XN-NF-80-19(P)(A), Volume 4, Revision 1, "Exxon Nuclear Methodology for Boiling Water Reactors: Application of the ENC Methodology to BWR Reloads," Exxon Nuclear Company, June 1986.
 9. XN-NF-85-67(P)(A), Revision 1, "Generic Mechanical Design for Exxon Nuclear Jet Pump BWR Reload Fuel," Exxon Nuclear Company, Inc., September 1986.
 10. ANF-524(P)(A), Revision 2 and Supplements 1 and 2, "Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors," November 1990.
 11. NE-092-001A, Revision 1, "Licensing Topical Report for Power Uprate With Increased Core Flow," Pennsylvania Power & Light Company, December 1992 and NRC SER (November 30, 1993).

12. ANF-89-98(P)(A) Revision 1 and Supplement 1, "Generic Mechanical Design Criteria for BWR Fuel Designs," Advanced Nuclear Fuels Corporation, May 1995.
13. EMF-2209(P)(A), Revision 2, "SPCB Critical Power Correlation," Framatome ANP, September 2003.
14. Caldon, Inc., "TOPICAL REPORT: Improving Thermal Power Accuracy and Plant Safety While Increasing Operating Power Level Using the LEFM™ System," Engineering Report - 80P, March 1997.
15. Caldon, Inc., "Supplement to Topical Report ER-80P: Basis for a Power Uprate with the LEFM™ or LEFM CheckPlus™ System," Revision 0, Engineering Report ER-160P, May 2000.
16. EMF-85-74(P)(A), Revision 0, Supplement 1(P)(A) and Supplement 2(P)(A), "RODEX2A (BWR) Fuel Rod Thermal-Mechanical Evaluation Model," Siemens Power Corporation, February 1998.
17. EMF-2158(P)(A), Revision 0, "Siemens Power Corporation Methodology for Boiling Water Reactors: Evaluation and Validation of CASMO-4/Microburn-B2," Siemens Power Corporation, October 1999.
18. EMF-CC-074(P)(A), Volume 4, Revision 0, "BWR Stability Analysis - Assessment of STAIF with Input from MICROBURN-B2," Siemens Power Corporation, August 2000.
19. NEDO-32465-A, "BWROG Reactor Core Stability Detect and Suppress Solutions Licensing Basis Methodology for Reload Applications," August 1996.
20. ANF-913(P)(A), Volume 1 Revision1 and Volume 1 Supplements 2, 3, and 4, "COTRANSA2: A Computer Program for Boiling Water Reactor Transient Analyses," Advanced Nuclear Fuels Corporation, August 1990.
21. ANF-1358(P)(A), Revision 3, "The Loss of Feedwater Heating Transient in Boiling Water Reactors," Framatome ANP, September 2005.