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**MASTER**

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		NUMBER	DESCRIPTION	ACTION
<p>Attached is the January 1981 Master Index of NE(RDT) Standards. This issue covers October through December 1980. It provides a complete list of all assigned numbers, including those listed in the Index and those that are inactive or have been deferred and are not listed elsewhere.</p> <p>The next issue of the Master Index will be available in April 1981. If you have any questions concerning the information contained in this report please contact the undersigned at 615/574-7889 (FTS 624-7889).</p>				
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**MASTER**

SIGNATURE  
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# nuclear STANDARDS

## MASTER INDEX

JANUARY 1981

*U.S. DEPARTMENT OF ENERGY  
NUCLEAR ENERGY PROGRAMS*

**Send copy and distribution inquiries to:**

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## NE(RDT) STANDARDS CATEGORIES

A	<u>OPERATION</u>	F	<u>PROGRAMS, PROCEDURES, METHODS</u>
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	2 Radiation Control, Safety		2 Quality Assurance
			3 Testing
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	12 Shielded Casks, Carriers		5 Motors, Drives
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	14 Seals, Static and Dynamic		
	15 Systems, Multiple Components		
	16 Irradiation, Experiment and Test Components		
	17 Process Equipment		

## ABBREVIATIONS AND ACRONYMS

PROJECTS

BRP Breeder Reactor Program  
 FBR Fast Breeder Reactor  
 FFTF Fast Flux Test Facility  
 HTGR High-Temperature Gas-Cooled Reactor  
 LMFBR Liquid-Metal Fast Breeder Reactor  
 LWR Light Water Reactor

CONTRACTOR ORGANIZATIONS

ANL Argonne National Laboratory  
 ARD Westinghouse, Advanced Reactor Division  
 ARSD Advanced Reactor Systems Department  
 ETEC Energy Technology Engineering Center  
 GA General Atomic Company  
 GE General Electric  
 HEDL Hanford Engineering Development Laboratory  
 LASL Los Alamos Scientific Laboratory  
 ORNL Oak Ridge National Laboratory

DOE OFFICES AND DIVISIONS

CRBRPO-OR Clinch River Breeder Reactor Plant  
 Project Office  
 FFTFPO-RL Fast Flux Test Facility Project Office  
 NEP Nuclear Energy Programs  
 OLWR Office of Light Water Reactors  
 OLWR-NFC Nuclear Fuel Cycle Division  
 OLWR-MS Materials and Structures Division  
 OLWR-SSE Systems and Safety Evaluation Division  
 RRT Office of Reactor Research and Technology  
 RRT-EC Engineered Components Division  
 RRT-FD Fuels Division  
 RRT-FM Facilities Management Division  
 SRO Savannah River Operations Office  
 OSQ Office of Safety, Quality Assurance, and  
 Safeguards  
 OSQ-QAS Quality Assurance and Standards Division  
 OSQ-OS Operational Safety Division  
 OWT Office of Waste Operations and Technology  
 OWT-TD Technology Division  
 ANSP Office of Advanced Nuclear Systems and Projects  
 ANSP-GCR Gas Cooled Reactor Division

## LEGEND FOR REMARKS

Discontinued.	Previously published as tentative standard. Listed in Index of NE(RDT) standards for information only.	Published.	Tentative standard. Listed in Index of NE(RDT) Standards. Available for distribution.
Draft in Work.	Work is in progress.	Withdrawn.	Standard was shown in previous issue of Master Index and has since been withdrawn.
Not in Work.	Work has not begun or has been deferred.	Inactive.	Previously published standard that may no longer be appropriate for application because its currency is not maintained.
Development Withheld.	Work has been deferred pending identification of need.		

## A - OPERATION

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
A 1-1T	Coolant Composition in Pressurized Water Reactors (10-71)	ORNL/ C. A. Burchsted	NEP/ OSQ-OS/ N. P. Klug	Published.
A 1-2	Recommended Practices for Control of Coolant Composition in Boiling Water Reactors ( )	ORNL/	/ /	Development withheld.
A 1-3	Recommended Practices for Control of Coolant Composition in Light-Water Cooled Test, Research and Experimental Reactors ( )	ORNL/	/ /	Development withheld.
A 1-5T	Purity Requirements for Operating Sodium Reactor Systems ( 4-80)	HEDL/ J. J. McCown	NEP/ PFTFPO-RL/ A. R. DeGrazia	Published.



## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 1-1T	Instrumentation and Control Equipment Grounding and Shielding Practices ( 1-73)	HEDL/ R. L. Ramp	NEP/ CRBRPO-OR/ D. R. Hicks	Published.
C 2-1T	Determination of Insulation Compaction in Ceramic Insulated Conductors ( 8-70)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 2-3T	Time Response Test for Sheathed, Mineral Insulated Thermocouple Assembly ( 6-72)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 4-1T	Orifice Plate for Orifice Flange Union ( 1-71)	/	/ /	Discontinued.
C 4-4T	Venturi Flow Tube for Liquid Sodium ( 8-74)	ETEC/ DeVita	NEP/ OLWR-MS/ J. R. Hunter	Published.
C 4-5T	Permanent Magnet Flowmeter for Liquid-Metal Piping Systems ( 4-74)	ETEC/ V. DeVita	NEP/ RRT-EC/ F. A. Ross	Published.
C 4-6T	In-Core Permanent-Magnet Flow-Through-Type Flowmeter for Liquid Metal Service ( 4-73)	ANL/ W. C. Kaiser	NEP/ RRT-EC/ F. A. Ross	Published.
C 4-7T	Eddy-Current Probe Type Flow Sensor for Liquid Metal Service ( 6-73)	HEDL/ L. E. Fort	NEP/ FFTFPO-RL/ J. R. Patterson	Published.
C 4-8T	Orifice Assemblies for Nuclear Systems ( 8-73)	HEDL/ T. J. Conrads	NEP/ OLWR-MS/ J. R. Hunter	Published.
C 5-1T	Inductive Level Measurement Sensor for Use in Liquid Metal ( 3-75)	ETEC/ Klea	NEP/ RRT-EC/ F. A. Ross	Published.
C 5-2T	Resistive Level Measurement Sensor for Use in Liquid Metal ( 4-70)	ETEC/ J. A. Klea	NEP/ OLWR-MS/ J. R. Hunter	Published.
C 5-3	Displacer Float (Buoyancy) Level Sensor ( )	ETEC/	/ /	Development withheld.
C 6-1T	NaK-Transmission High-Temperature Pressure Transmitter for Liquid Metal Service ( 3-71)	ETEC/ G. J. Twa	NEP/ RRT-EC/ F. A. Ross	Published.

## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 6-2T	Differential Pressure Transmitter, Pneumatic or Electric Output Signal ( 4-74)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 6-3T	Liquid Metal Pressure Measurement System, Flush-Mounted, Eddy Current Type, Inductive, Absolute or Gage (10-70)	ETEC/ G. J. Twa	NEP/ CRBRPO-OR/ W. L. Kelly	Published.
C 6-4	Null Balance Pressure Transducer System ( )	ANL/ G. A. Forster	NEP/ RRT-EC/ F. A. Ross	
C 6-5	High Temperature, Nickel-Molybdenum-Chromium Alloy Pressure Transmitter ( )	ORNL/	/ /	To be incorporated in C 6-1.
C 6-6	Fuel Pin Plenum Pressure Measurement System for Liquid Metal Service ( )	ANL/ J. J. English	NEP/ RRT-EC/ F. A. Ross	Not in work.
C 6-7	Strain Gage Pressure Transducer for Liquid Metal Service ( )	ANL/ J. J. English	NEP/ RRT-EC/ F. A. Ross	Not in work.
C 7-1T	Thermocouple Material, Iron and Constantan, Solid Conductor (Bare, Fiberglass Insulated, and Sheathed Over Fiberglass Insulation) (11-76)	ORNL/ J. H. Holladay	/ /	Discontinued. Equivalent ASTM standard is available.
C 7-2T	Thermocouple Material, Iron-Constantan, Mineral-Oxide Insulated, Sheathed ( 4-70)	ORNL/ J. H. Holladay	/ /	Discontinued. Equivalent ASTM standard is available.
C 7-3T	Thermocouple Material, Copper and Constantan, Solid Conductor (Bare, Fiberglass Insulated, and Sheathed Over Fiberglass Insulation) ( 9-76)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 7-4T	Thermocouple Material, Copper-Constantan, Mineral-Oxide Insulated, Sheathed ( 4-70)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published. Supersedes NE (RDT) C 7-14T, 3-70, in part.
C 7-5T	Thermocouple Material, Chromel-P and Alumel, Solid Conductor (Bare, Fiberglass Insulated, and Sheathed Over Fiberglass Insulation) ( 1-73)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 7-6T	Thermocouple Material and Thermocouple Assembly, Chromel-P versus Alumel, Stainless Steel Sheathed, Magnesium Oxide Insulated ( 2-75)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.

## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 7-7T	Thermocouple Materials, Platinum and Platinum 10 Percent Rhodium Wires, Noninsulated, Standard Grade ( 8-72)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 7-14T	Metal Sheath, Ceramic-Insulated, Thermocouple, Cable and Heater Bulk Material ( 3-70)	ORNL/	/ /	Superseded by C 7-2T, 4/70; C 7-4T, 4/70; C 7-6T, 4/72; C 17-5T, 2/73; and P 4-3T, 4/72.
C 7-15T	Thermocouple Connectors and Thermocouple Connector Panels ( 1-72)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 7-16T	Thermocouple Assemblies, Magnesium Oxide Insulated, Stainless Steel Sheathed (11-76)	ORNL/ J. H. Holladay	NEP/ RRT-EC/ F. A. Ross	Published.
C 7-17T	Platinum Resistance Thermometer ( 4-75)	HEDL/ L. E. Fort	NEP/ PFTFPO-RL/ J. R. Patterson	Published.
C 7-18T	Thermowell Systems for Liquid Metal Service ( 8-72)	ARD/ R. G. Newton	NEP/ CRBRPO-OR/ W. L. Kelly	Published.
C 8-2T	Liquid Sodium Bearing Film Thickness, Variable Reluctance Transducer, Proximity Measurement System ( 1-76)	ETEC/ DeVita	NEP/ RRT-EC/ F. A. Ross	Published.
C 8-4T	Electrical Continuity-Type Liquid Metal Leak Detector (10-72)	ETEC/ K. A. Davis	NEP/ RRT-EC/ F. A. Ross	Published.
C 8-5T	Electrochemical Oxygen Meter for Service in Liquid Sodium ( 1-72)	HEDL/ J. J. McCown	NEP/ PFTFPO-RL/ A. R. DeGrazia	Published.
C 8-6T	Hydrogen Meter for Service in Liquid Sodium ( 5-77)	HEDL/ J. J. McCown	NEP/ CRBRPO-OR/ W. L. Kelly	Published.
C 8-7T	Diffusion Carbon Meter for Service in Liquid Sodium ( 1-72)	HEDL/	/ /	Discontinued.

## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 8-8T	Specimen Equilibration Device (or Multipurpose Sampler) for the Analysis of Nonmetals in Liquid Sodium ( 7-77)	HEDL/ J. J. McCown	NEP/ FFTFPO-RL/ A. R. DeGrazia	Published.
C 8-10	Chemical Analyzer Type Sodium Leak Detector ( )	ETEC/ K. A. Davis	NEP/ CRBRPO-OR/ W. L. Kelly	Not in work.
C 8-11	Ultrasonic System for Under-Sodium Viewing ( )	HEDL/ E. M. Sheen	NEP/ RRT-EC/ F. A. Ross	Not in work.
C 9-1T	Single-Point Strip-Chart Recording Potentiometer ( 8-70)	/	/ /	Discontinued.
C 9-2T	Multipoint Strip-Chart Recording Potentiometer ( 9-70)	/	/ /	Discontinued.
C 10-1T	Thermocouple Signal Transmitter ( 1-79)	ORNL/ J. H. Holladay, W. L. Zabriskie	NEP/ RRT-EC/ F. A. Ross	Published.
C 10-2T	Permanent Magnet Flowmeter Signal Transmitter (11-71)	ARD/	/ /	Discontinued.
C 10-3T	Multiple Input Pre-amplifier/Discriminator for Use with Neutron Counters (12-75)	HEDL/ J. L. Stringer	NEP/ FFTFPO-RL/ J. R. Patterson	Published
C 10-4T	Signal Summer (10-71)	ARD/	/ /	Discontinued.
C 10-5T	Eddy-Current Flowmeter Power Supply and Signal Conditioning Electronics ( 2-73)	HEDL/	/ /	Discontinued.
C 11-2T	Pyrometer, High Sensitivity, Indicating and Controlling ( 1-72)	/	/ /	Discontinued.
C 12-1T	Gas Chromatograph System for Sodium Cover Gas Service (11-73)	HEDL/	/ /	Discontinued.
C 13-1	Digital Data Acquisition and Control Computer System ( )	ORNL/ To be determined	NEP/ CRBRPO-OR/ R. J. Rosecky	Not in work.

## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 14-1T	Ventilation Exhaust Radiation Monitoring System ( 4-74)	HEDL/	/ /	Discontinued.
C 14-2T	Area Radiation Monitoring System ( 4-74)	HEDL/	/ /	Discontinued.
C 14-3T	Gamma-Ray Spectrometer-Computer System ( 7-72)	ANL/	/ /	Discontinued.
C 15-2T	Wide-Range (10 Decade) Neutron Flux Monitoring Channel ( 2-71)	ANL/ G. E. Yingling	NEP/ CRBRPO-OR/ W. L. Kelly	Published.
C 15-3T	Current Pulse Preamplifiers for Use with Fission Counters ( 8-71)	ORNL/ J. H. Holladay, J. T. DeLorenzo	NEP/ CRBRPO-OR/ W. L. Kelly	Published.
C 15-4T	Self-Powered Cobalt-Emitter Neutron Detector ( 2-72)	ORNL/	/ /	Discontinued.
C 15-5T	Fission Type Neutron Detector Assembly (12-71)	ARD/ To be determined	NEP/ FFTFPO-RL/ J. R. Patterson	Published.
C 15-6T	Logarithmic Mean Square Voltage (MSV) Intermediate Range Neutron Flux Monitoring System (7-71)	ANL/ G. E. Yingling	NEP/ RRT-EC/ F. A. Ross	Published.
C 15-7T	Gamma Compensated Ionization Chamber Assembly (Fixed Electrical Compensation) ( 7-71)	ANL/ G. E. Yingling	NEP/ RRT-EC/ F. A. Ross	Published.
C 15-8T	Direct Current Power Range Neutron Flux Monitoring System ( 7-71)	ANL/ G. E. Yingling	NEP/ RRT-EC/ F. A. Ross	Published.
C 15-9T	Mean Square Voltage (MSV) Power Range Neutron Flux Monitoring System ( 7-71)	ANL/	/ /	Discontinued.
C 15-10T	Logarithmic Count Rate Source Range Neutron Flux Monitoring System ( 7-71)	ANL/ G. E. Yingling	NEP/ RRT-EC/ F. A. Ross	Published.
C 15-11T	BF3 Gamma Tolerant Neutron Detector Tubes (12-75)	HEDL/ B. J. Kaiser	NEP/ FFTFPO-RL/ J. R. Patterson	Published.

## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 15-12	Self-Powered Flux Detectors for Fast Reactors ( )	ANL/ R. J. Forrester	NEP/ RRT-EC/ F. A. Ross	Not in work.
C 16-1T	Supplementary Criteria and Requirements for RDT Reactor Plant Protection Systems (12-69)	ORNL/ J. H. Holladay, L. C. Oakes	NEP/ CRBRPO-OR/ R. J. Rosecky	Published.
C 16-2T	Protection System Logic ( 4-72)	ARD/ To be determined	NEP/ CRBRPO-OR/ R. J. Rosecky	Published.
C 16-3T	PPS Buffers (10-71)	ARD/ To be determined	NEP/ CRBRPO-OR/ R. J. Rosecky	Published.
C 16-4T	Protection System Comparator ( 4-72)	ARD/ To be determined	NEP/ CRBRPO-OR/ R. J. Rosecky	Published.
C 17-1T	High-Temperature Electrical Connectors and Hermetic Seals ( 3-70)	HEDL/ C. P. Cannon	NEP/ RRT-EC/ F. A. Ross	Published.
C 17-4T	General Instrumentation ( 2-72)	ARD/ To be determined	NEP/ CRBRPO-OR/ W. L. Kelly	Published.
C 17-5T	Metal-Sheathed, Mineral-Insulated Cable Bulk Material ( 2-73)	ETEC/ W. E. Burns	NEP/ RRT-EC/ F. A. Ross	Published. Supersedes NE(RDT) C 7-14T, 3-70, in part.
C 17-6	Cable, Metal Sheath, Mineral-Insulated, for Pulse Type Fission Neutron Detectors ( )	HEDL/ C. P. Cannon	NEP/ RRT-EC/ F. A. Ross	Not in work.
C 17-8T	Annunciators for Control Systems (10-72)	ANL/ W. S. Barak	NEP/ RRT-EC/ F. A. Ross	Published.
C 17-9T	Foil-Shielded Instrumentation Cable ( 6-74)	ANL/ S. L. Halverson	NEP/ RRT-EC/ F. A. Ross	Published.

## C - INSTRUMENTATION AND CONTROLS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
C 17-11	Coaxial, Dual Coaxial, and Triaxial Cables ( )	ANL/ G. E. Yingling	NEP/ RRT-EC/ F. A. ROSS	Not in work.
C 17-12	End Seals and Attachment Methods for High-Temperature Nuclear Instrumentation Cable ( )	HEDL/ C. P. Cannon	NEP/ RRT-EC/ F. A. ROSS	Not in work.
C 18-1T	Ceramic Electrical Insulators ( 8-74)	ETEC/ W. E. Burns	NEP/ RRT-EC/ F. A. ROSS	Published.
C 19-1T	Cardiac Pacemaker Electronic Circuits, for Use with Radio-Isotope Power Supply (10-71)	/	/ /	Discontinued.

## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 1-6T	Automatic Spring-Loaded Safety Valves ( 3-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-9T	Stainless Steel Gate Valves, Manual and Power Operated ( 3-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-11T	Rupture Disk Devices for Liquid Metal Systems ( 7-73)	HEDL/	/ /	Discontinued.
E 1-12T	Stainless Steel Check Valves ( 3-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-13T	Valve, Isolation, Butterfly Type ( 8-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-18T	Class 1 Valves for Liquid Metal Service ( 5-75)	HEDL/ G. D. Bazinet	NEP/ CRBRPO-OR/ M. Sherman	Published.
E 1-19T	Class 2 Valves for Liquid Metal Service ( 6-74)	ETEC/ W. G. DeWart	NEP/ CRBRPO-OR/ M. Sherman	Published.
E 1-21T	Stainless Steel Globe and Angle Valves, Manual and Power Operated ( 3-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-23	Stainless Steel Throttling Valves, Manual and Power Operated ( )	/	/ /	Development withheld.
E 1-25T	Instrument Valves ( 4-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-31T	Carbon Steel Isolation Valves ( 4-73)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 1-35T	Inert Gas Valves ( 5-72)	HEDL/ C. G. McCargar	NEP/ CRBRPO-OR/ Hornstra	Discontinued. No longer in use; little or no potential for future use.
E 1-36T	Floor Valve, Reactor Refueling and Maintenance for LMFBR ( 6-72)	HEDL/	/ /	Discontinued.
E 1-37T	Balanced Safety Relief Valves for Liquid Metal Facility Gas Systems ( 2-73)	/	/ /	Discontinued.
E 1-38	Automatic Spring-Loaded Water Relief Valves ( )	/	/ /	Development withheld.



## E - EQUIPMENT—MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 2-1	( )	/	/ /	Not available for reassignment.
E 2-3T	Reactor Vessel for Liquid Metal Service (12-73)	ARD/	/ /	Discontinued. Single application standard.
E 2-4T	Shield Plug and Closure Cap for Penetrations - LMFBR Reactor Vessel Head ( 4-73)	ARD/	/ /	Discontinued. Single application standard.
E 3-1T	Vertical, Canned or Wet Motor-Driven Single-Stage Centrifugal Pump ( 6-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 3-2T	Centrifugal, Free-Surface, Sodium Pump with Electrical Drive ( 5-71)	GE-ARSD/ L. E. Manners	NEP/ CRBRPO-OR/ Christainson	Published.
E 3-3T	Vertical, Shaft-Sealed, Motor-Driven, Single-Stage Centrifugal Pump ( 7-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 3-6T	Horizontal, Electric Motor-Driven, Single-Stage Centrifugal Pump ( 2-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 3-7T	Reciprocating Positive Displacement Pump ( 3-72)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 3-8	Horizontal, Electric Motor-Driven Multi-Stage Centrifugal Pump ( )	/	/ /	Development withheld.
E 3-9T	Electromagnetic Pump for Liquid Metal Service ( 3-71)	HEDL/ G. A. Jacobson	NEP/ RRT-EC/ J. W. Newton	Published.
E 3-12T	Radioactive Gas Compressors ( 8-73)	HEDL/	/ /	Discontinued.
E 4-1T	Steam Generator for Pressurized Water Reactors (12-71)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 4-2T	Heat Exchanger, Class 1, Water-to-Water, Straight or U-Tube ( 6-73)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 4-3	( )	/	/ /	Not available for reassignment.
E 4-5T	Forced-Circulation Cold Trap Assembly for Removal of Sodium Impurities ( 1-76)	ETEC/ R. L. Eichelberger	NEP/ FFTFPO-RL/ O. L. Olson	Published.

## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 4-6T	Intermediate Heat Exchanger for Liquid Metal Systems ( 5-74)	HEDL/ C. E. Grenard	NEP/ CRBRPO-OR/ E. A. Wright	Published.
E 4-7T	Sodium to Air Heat Exchanger ( 6-71)	HEDL/ N. R. McFadden	NEP/ FFTFPO-RL/ O. L. Olson	Published.
E 4-8	( )	/	/ /	Not available for reassignment. (Being held for cooling tower standard.)
E 4-13T	Freeze Vent for Sodium Service ( 2-71)	HEDL/ T. J. Conrads	NEP/ FFTFPO-RL/ O. L. Olson	Published.
E 4-14T	Vapor Trap Assemblies for Sodium Service ( 4-72)	HEDL/ T. J. Conrads	NEP/ FFTFPO-RL/ O. L. Olson	Published.
E 4-16T	Sodium-Heated Steam Generator ( 2-74)	GE-ARSD/ W. H. Ellis	NEP/ CRBRPO-OR/ E. A. Wright	Published.
E 4-17T	Heat Exchanger, Class 2, Water-to-Water, Straight or U-Tube ( 7-71)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 4-18T	Air-Cooled Heat Exchanger for Nuclear Steam-Supplied Systems ( 3-71)	ORNL/ W. A. Bush	NEP/ OSQ-OS/ N. P. Klug	Published.
E 4-19T	Plugging Temperature Indicator Assembly for Sodium Service ( 4-75)	ETEC/ Goodman	NEP/ FFTFPO-RL/ A. R. DeGrazia	Published.
E 4-20T	Heat Exchanger for Gas Cooler ( 5-72)	HEDL/	/ /	Discontinued.
E 4-21	Heat Exchanger, Cryogenic Service ( )	HEDL/	/ /	Development withheld.
E 5-1T	Pressurizer for Pressurized Water Reactors ( 6-72)	ORNL/	NEP/ OSQ-OS/ N. P. Klug	Discontinued; requirements covered in ASME Code (ET-765, 9-7-79).
E 5-2T	Electric Heater and Connector Assembly for Pressurizer for Pressurized Water Reactors ( 5-72)	ORNL/ T. L. Hudson	NEP/ OSQ-OS/ N. P. Klug	Published.

## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 6-1T	Near-Isotropic Petroleum-Coke Based Graphites for High Temperature Gas-Cooled Reactor Core Components (10-77)	GA/ G. B. Engle	NEP/ ANSP-GCR/ J. Fox	Published.
E 6-5T	Collapsible-Rotor, Roller-Nut Control Rod Drive Mechanism for Sodium Service ( 3-71)	ARD/ To be determined	NEP/ CBRPO-OR/ P. Gross	Published.
E 6-9T	Core Support Structure for Pressurized Water Reactors (Fabrication Only) ( 4-72)	/	/ /	Discontinued.
E 6-10T	Temperature and Liquid Level Control Monitor, Port Plug (Fabrication Only) (10-73)	ARD/	/ /	Discontinued.
E 6-11T	Simulated Core Assemblies for Nuclear Reactors ( 3-73)	ARD/	/ /	Discontinued.
E 6-13T	Core Support Structure for Sodium Cooled Reactors (Fabrication Only) ( 1-72)	ARD/	/ /	Discontinued.
E 6-17T	Core Restraint Mechanism for Sodium Cooled Reactors (Fabrication Only) (10-72)	ARD/	/ /	Discontinued.
E 6-18T	Instrument Tree for Sodium Cooled Reactors (Fabrication Only) ( 2-73)	ARD/	/ /	Discontinued.
E 6-19T	Radial Reflector Assembly for Liquid Metal Fast Breeder Reactors ( 3-78)	HEDL/ D. L. Armstrong	NEP/ FFTFPO-RL/ D. P. Simonson	Published.
E 6-20T	Austenitic Stainless Steel Hexagonal Duct Tubes for Core Components and Assemblies ( 5-76)	HEDL/ E. M. Epperson	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 6-23T	Core Radial Shield for Sodium Cooled Reactors (12-71)	ARD/	/ /	Discontinued.
E 6-24T	Interim Decay Storage for Sodium-Cooled Reactors ( 4-73)	HEDL/	/ /	Discontinued.
E 6-25T	Control Rod Absorber Pin for Liquid Metal Fast Reactors ( 9-76)	HEDL/ D. L. Armstrong	NEP/ RRT-FD/ A. Van Echo	Published.
E 6-26T	Fabrication of Control Rod Driveline for Sodium Cooled Reactors ( 4-73)	ARD/	NEP/ FFTFPO-RL/ V. C. Wahler	Discontinued.

## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 6-30T	Absorber Pin Boron Carbide Pellet ( 9-76)	HEDL/ D. L. Armstrong	NEP/ RRT-PD/ A. Van Echo	Published.
E 6-33T	Control Rod Assembly for Liquid Metal Fast Breeder Reactors ( 3-77)	HEDL/ D. L. Armstrong	NEP/ RRT-PD/ A. Van Echo	Published.
E 6-34T	Fabrication of Core Component Pot for Liquid Metal Service ( 3-72)	ARD/	/ /	Discontinued.
E 6-36T	Low Level Flux Monitor Mechanical System for Liquid Metal Service (Fabrication Only) ( 7-72)	ARD/	/ /	Discontinued.
E 6-38T	Low Friction Hard Surfaces for Core Components ( 5-73)	HEDL/ R. C. Aungst	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 6-40T	Piston Rings of High Strength Alloys for Core Components for Liquid Metal Service ( 5-74)	HEDL/ R. C. Aungst	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 6-41	End Components for Breeder Reactor Core Assemblies ( )	HEDL/ D. R. Precechtel	NEP/ FFTFPO-RL/ V. C. Wahler	Draft in work.
E 7-4T	Mixing Component for Liquid Metal Piping Systems (11-71)	HEDL/ A. A. Borro	NEP/ FFTFPO-RL/ O. L. Olson	Published.
E 7-6T	Pipe Hangers, Supports and Snubbers for Liquid Metal Service ( 5-72)	ORNL/ S. I. Anderson	/ /	Discontinued. (See NE(RDT) E 7-9.)
E 7-8T	Penetrations for Piping ( 4-72)	HEDL/	/ /	Discontinued.
E 7-9	Snubbers for Nuclear Applications ( )	RSO/ ORNL/ J. A. Flaherty, Teledyne Engineering	/ /	New entry. Effort is being initiated to develop new standard.
E 8-5T	Ex-Vessel Handling Machine for Sodium Cooled Reactors (12-71)	HEDL/	/ /	Discontinued.
E 8-6T	Transporter, Fuel Handling ( 3-72)	HEDL/	/ /	Discontinued.

## E - EQUIPMENT—MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 8-11T	FFTF Closed Loop In-Reactor Assembly Fabrication (12-71)	HEDL/	/ /	Discontinued.
E 8-12T	Visual In-Service Inspection System and Associated Equipment for the Reactor Enclosure System ( 7-73)	ARD/	/ /	Discontinued.
E 8-13T	Oxygen-Hydrogen Meter Module for Service in Liquid Sodium ( 1-72)	HEDL/ J. J. McCown	NEP/ FFTFPO-RL/ A. R. DeGrazia	Published.
E 8-14T	Carbon Meter-Equilibration Module for Service in Liquid Sodium ( 1-72)	HEDL/	/ /	Discontinued.
E 8-15T	Fabrication of Plug Handling Fixture for Sodium Cooled Reactors ( 2-74)	HEDL/	/ /	Discontinued.
E 8-18T	Threaded Fasteners for Nuclear Components ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-NS/ J. R. Hunter	Published.
E 8-19T	Open Test Assembly Fabrication (10-73)	HEDL/ A. J. Milewski	/ /	Discontinued. No longer in use; little or no potential for future use.
E 9-1T	HEPA Filters (AACC CS-1 with Additional Requirements) ( 8-74)	ORNL/ C. A. Burchsted	NEP/ RRT-EC/ J. W. Newton	Published.
E 9-3T	High-Efficiency Pleated-Bed Gas-Phase Adsorber Cells ( 6-72)	ORNL/	/ /	Discontinued.
E 9-4	Single-Filter Housing for HEPA Filter ( )	ORNL/	/ /	Development withheld.
E 9-5	Adsorption Bed, Inert Gas Processing ( )	HEDL/	/ /	Development withheld.
E 9-7T	Fans, Blowers, and Compressors for Dry Gas Circulation ( 4-73)	HEDL/	/ /	Discontinued.
E 10-2T	Guard Vessel for Primary Sodium Containing Components (11-70)	ARD/	/ /	Discontinued. Single application standard.
E 10-3T	Tank - Liquid Metal Service ( 9-71)	HEDL/ A. A. Borro	NEP/ CRBRPO-OR/ M. Sherman	Published.

## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 10-4T	Accumulators, Pressure Vessel, Class 2 ( 3-73)	ORNL/ To be determined	NEP/ OSQ-OS/ N. P. Klug	Published.
E 10-5T	Expansion Joint - Containment Vessel Airlock ( 3-72)	HEDL/ W. A. Reed	NEP/ CRBRPO-OR/ P. R. Washer	Discontinued. No longer in use; little or no potential for future use.
E 10-6T	Tank for Gas Service (11-72)	HEDL/ T. J. Conrads	NEP/ CRBRPO-OR/ Hornstra	Discontinued. No longer in use; little or no potential for future use.
E 10-7T	Blowdown Suppression Tank ( 5-72)	ORNL/ To be determined	NEP/ OSQ-OS/ N. P. Klug	Published.
E 10-8T	Steel Containment Vessel (12-73)	ORNL/	/ /	Discontinued.
E 11-1T	Ion Exchanger, Non-Regenerative Type ( 5-72)	ORNL/ To be determined	NEP/ OSQ-OS/ N. P. Klug	Published.
E 11-2T	Filter for Sodium Service ( 1-73)	HEDL/	/ /	Discontinued.
E 12-1	F-144-1 Container for Transport of Unirradiated Fuel Pins and Assemblies ( )	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Development withheld.
E 12-4T	Shielded Shipping Cask for Spent Reactor Fuel Elements ( 8-73)	ORNL/ R. C. Hudson	NEP/ OSQ-QAS/ B. C. Wei	Published.
E 12-5T	Operating Manuals for Fuel Shipping Containers ( 1-75)	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Published.
E 12-6T	Ancillary Features of Irradiated Fuel Shipping Casks ( 1-79)	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Published.
E 12-7T	Inspection and Preventive Maintenance of Fuel Shipping Containers ( 1-75)	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Published.
E 13-1T	Fast Flux Test Facility Ceramic Grade Plutonium Dioxide ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.

## E - EQUIPMENT—MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 13-2T	Ceramic Grade Uranium Dioxide ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-3T	Fast Flux Test Facility Uranyl Nitrate Solution ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-4T	Fast Flux Test Facility Plutonium Nitrate Solution ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-5T	Fast Flux Test Facility Driver Fuel Pin ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-6T	Fast Flux Test Facility Driver Fuel Pin Mixed Oxide Fuel Pellet ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-7T	Fast Flux Test Facility Driver Fuel Pin Insulator Pellet ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-8T	Fast Flux Test Facility Driver Fuel Pin Seamless Cladding Tube ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-9T	Fast Flux Test Facility Driver Fuel Pin End Caps ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-10T	Fast Flux Test Facility Driver Fuel Pin Reflectors ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-11T	Fast Flux Test Facility Driver Fuel Pin Plenum Spacer ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-12T	Fast Flux Test Facility Driver Fuel Pin Plenum Spring ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-13T	Fast Flux Test Facility Driver Fuel Pin Wrap Wire ( 6-71)	HEDL/ C. A. Strand	NEP/ FFTFPO-RL/ V. C. Wahler	Published.

## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 13-15T	Fuel Assemblies for Pressurized Water Reactors ( 7-71)	ORNL/ To be determined	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
E 13-16T	Driver Fuel Assembly ( 9-77)	HEDL/ C. A. Strand	NEP/ RRT-FD/ D. E. Bailey	Published.
E 14-1	Static Seals ( )	ORNL/	NEP/ OSQ-OS/ N. P. Klug	Development withheld.
E 14-5T	Inflatable Seal - Containment Vessel Airlock ( 6-72)	HEDL/ W. A. Reed	NEP/ CRBRPO-OR/ P. R. Washer	Discontinued. Little or no potential for future use.
E 14-6T	Gaskets - Containment Vessel Airlock ( 6-72)	HEDL/ W. A. Reed	NEP/ CRBRPO-OR/ P. R. Washer	Discontinued. Little or no potential for future use.
E 14-7	Elastomer Seals for Pressure-Retaining Boundaries of LMFBR Containment Systems ( )	HEDL/	/ /	Development withheld.
E 15-1	Containment Spray System ( )	ORNL/	/ /	Development withheld.
E 15-2T	Requirements for Nuclear Components (Supplement to ASME Boiler and Pressure Vessel Code, Section III) ( 5-74)	ORNL/	/ /	(Superseded by E 15-2NB-T, 11-74; E 15-2NC-T, 12-74; E 15-2ND-T, 3-75; and E 15-2NE-T, 8-75.)
E 15-3T	Insulation/Heater Module-Piping ( 4-72)	HEDL/	/ /	Discontinued.
E 15-2NB-T	Class 1 Nuclear Components (Supplement to ASME Boiler and Pressure Vessel Code, Section III, Subsections NCA and NB) ( 3-78)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
E 15-2NC-T	Class 2 Nuclear Components (Supplement to ASME Boiler and Pressure Vessel Code, Section III, Subsections NCA and NC) ( 6-78)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
E 15-2ND-T	Class 3 Nuclear Components (Supplement to ASME Boiler and Pressure Vessel Code, Section III, Subsections NCA and ND) ( 6-78)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
E 15-2NE-T	Class NC Nuclear Components (Supplement to ASME Boiler and Pressure Vessel Code, Section III, Subsections NA and NE) ( 8-75)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published. Supersedes E 15-2T, 5-74, Subsections NA and NE.



## E - EQUIPMENT--MECHANICAL, FLUID

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
E 15-2NF	Nuclear Component Supports (Supplement to ASME Boiler and Pressure Vessel Code, Section III, Subsections NA and NF) ( )	ORNL/	/ /	Development withheld.
E 15-2NG	Nuclear Core Support Structures (Supplement to ASME Boiler and Pressure Vessel Code, Section III, Subsections NA and NG) ( )	ORNL/	/ /	Development withheld.
E 16-1T	Test Vehicles for Transient Reactor Test Facility (TREAT) Experiments Containing Sodium ( 8-74)	ANL/ H. U. Ahmed	NEP/ RRT/ J. L. Tew	Published.
E 17-1	Primary Fluidized Bed Burner for HTGR Fuel Reprocessing ( )	GA/ R. D. Zimmerman	NEP/ OLWR-NFC/ H. E. Stelling	Withdrawn 3-79.
E 17-2	Secondary Fluidized Bed Burner for HTGR Fuel Reprocessing ( )	GA/ Zimmerman	NEP/ OLWR-NFC/ H. E. Stelling	Withdrawn 3-79.

## F - PROGRAMS, PROCEDURES, METHODS

NE(RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
F 1-1	Preparation and Application of RDT Standards (12-76)	ORNL/ S. I. Anderson, D. H. Morris	NEP/ OSQ-QAS/ M. E. Langston	Published.
F 1-2T	Preparation of System Design Descriptions (12-75)	RRT/ F. A. Ross	NEP/ RRT-EC/ F. A. Ross	Published
F 1-3T	Preparation of Unusual Occurrence Reports ( 9-77)	ORNL/ C. A. Burchsted	NEP/ OSQ-QAS/ R. H. Kuhnappel	Published.
F 1-4T	Preparation and Maintenance of Limited Consensus Standards ( )	ORNL/ S. I. Anderson, D. H. Morris	NEP/ OSQ-QAS/ M. E. Langston	Draft in work.
F 2-1	Quality Assurance Program Management ( )	ORNL/	/ /	Development withheld.
F 2-2	Quality Assurance Program Requirements ( 8-73)	HEDL/ T. E. Dunn	NEP/ OSQ-QAS/ E. E. Langston	Published.
F 2-3	Testing Program Requirements ( )	ORNL/	/ /	Development withheld.
F 2-4T	Quality Verification Program Requirements (12-74)	HEDL/ T. E. Dunn	NEP/ OSQ-QAS/ M. E. Langston	Published.
F 2-5	( )	/	/ /	Not available for reassignment.
F 2-6T	Qualification and Control of Analytical Chemistry Laboratories for Mixed Oxide Fuel Analysis ( 3-79)	HEDL/ W. E. McClung	NEP/ FFTPPO-RL/ V. C. Wahler	Published.
F 2-7T	Acceptance Sampling Plans (11-73)	HEDL/ W. E. McClung	NEP/ FFTPPO-RL/ V. C. Wahler	Published.
F 2-8T	Qualification and Control of Analytical Chemistry Laboratories for Control Rod Absorber Material Analysis (12-78)	HEDL/ W. E. McClung	NEP/ FFTPPO-RL/ V. C. Wahler	Published.

## F - PROGRAMS, PROCEDURES, METHODS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
F 2-9T	Reliability Assurance ( 6-74)	ARD/ P. A. Lijewski	NEP/ OSQ-QAS/ R. H. Kuhnappel	Published.
F 2-10	Quality Assurance Program Requirements (Supplement to ANSI/ASME NQA-1) ( )	HEDL/ T. E. Dunn	NEP/ OSQ-QAS/ M. E. Langston	Title was corrected 1-80.
F 3-1T	Inspection System Requirements ( 2-69)	HEDL/	/ /	Superseded by F 2-4T, 8/69.
F 3-2T	Calibration Program Requirements ( 2-73)	HEDL/ T. E. Dunn	NEP/ OSQ-QAS/ R. H. Kuhnappel	Published.
F 3-3T	Ultrasonic Examination of Heavy Steel Forgings (Modified ASTM A 388) ( 2-69)	ORNL/	/ /	Superseded by F 3-6T, 7/71.
F 3-4T	Ultrasonic Shear-Wave Examination of Plates (Modified ASTM A 577) ( 2-69)	ORNL/	/ /	Superseded by F 3-6T, 7/71.
F 3-5T	Longitudinal-Wave Ultrasonic Examination of Plain and Clad Steel Plates (Modified ASTM A 578) ( 2-69)	ORNL/	/ /	Superseded by F 3-6T, 7/71.
F 3-6T	Nondestructive Examination (Supplement to ASME Boiler and Pressure Vessel Code, Section V) ( 3-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 3-7T	Inspection Requirements for Materials Used in Reactor Coolant System Wear Applications (10-67)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 3-8T	Ultrasonic Examination of Metal Pipe and Tubing for Longitudinal Discontinuities (Modified ASTM E 213) ( 2-69)	ORNL/	/ /	Superseded by F 3-6T, 7/71.
F 3-10T	Nondestructive Examination of Reactor Core Components ( 8-77)	HEDL/ J. C. Spanner	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
F 3-11T	Mass Spectrometer Helium Leak Detection for Instruments and Small Components ( 2-72)	ORNL/ J. H. Holladay	NEP/ OLWR-MS/ J. R. Hunter	Published.

## F - PROGRAMS, PROCEDURES, METHODS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
F 3-13	Evaluation, Control, and Use of Measurement Error ( )	HEDL/ W. E. McClung	NEP/ PFTFPO-RL/ V. C. Wahler	Draft in work.
F 3-14	Acceptance Testing of Liquid Metal Systems ( )	ARD/	NEP/ OLWR-MS/ J. R. Hunter	Work on RDT standard cancelled; changes to ASME Code, Section XI, that are in progress preclude need for RDT standard.
F 3-15T	Requirements for Inspection of Dimensional Characteristics ( 8-73)	HEDL/ T. E. Dunn	NEP/ OSQ-QAS/ M. E. Langston	Published.
F 3-37T	Special Requirements for Metal Products ( 5-74)	ORNL/	/ /	Discontinued.
F 3-39T	Testing of High Temperature Cable for Nuclear Detectors ( 8-71)	ANL/ G. E. Yingling	NEP/ RRT-EC/ P. A. Ross	Published.
F 3-40T	Methods for the Analysis of Sodium and Cover Gas ( 1-76)	HEDL/ J. J. McCown, W. L. Delvin	NEP/ PFTFPO-RL/ A. R. DeGrazia	Published.
F 3-41	In-Place Testing of HEPA Filter Systems by the Single-Particle, Particle-Size Spectrometer Method ( )	RSO/ LASL/ PM/C. A. Burchsted, ORNL WGC/J. C. Elder, LASL RCC/ B. D. Reinert, HEHF	TPS/ OWT-TD/ J. C. Dempsey	The limited consensus draft is in work.
F 4-1	Maintenance Program Requirements ( )	/	/ /	Development withheld.
F 4-2	Liquid Metal Fast Breeder Reactor Facility Maintenance Program Requirements ( )	ORNL/	/ /	Development withheld.
F 4-20T	Operation and Maintenance Manuals (10-71)	ORNL/ C. A. Burchsted	NEP/ OSQ-QAS/ R. H. Kuhnappel	Published.

## F - PROGRAMS, PROCEDURES, METHODS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOF BRANCH/ ENGINEER	REMARKS
F 5-1T	Cleaning and Cleanliness Requirements for Nuclear Components ( 1-78)	HEDL/ M. J. Graber	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 5-2	Cleaning and Cleanliness Control Requirements for Fabrication of Components ( )	ORNL/	/ /	Development withheld.
F 5-6	Cleaning and Cleanliness Control Requirements for Construction ( )	ORNL/	/ /	Development withheld.
F 5-9T	Sodium Removal Processes ( 4-77)	HEDL/ C. W. Funk	NEP/ FFTFPO-RL/ A. R. DeGrazia	Published.
F 6-1T	Welding ( 2-69)	ORNL/	/ /	Superseded by E 15-2T, 7/71 and F 6-5T, 7/71.
F 6-2T	Welding of Reactor Core Components and Test Assemblies ( 7-73)	HEDL/ W. F. Brown	NEP/ FFTFPO-RL/ Graham	Published.
F 6-5T	Welding and Brazing Qualifications (Supplement to ASME Boiler and Pressure Vessel Code, Section IX) ( 1-80)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 6-6T	Welding of Structural Components (AWS D1.1 with Additional Requirements) ( 6-73)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Inactive.
F 6-7T	Weldability Tests for Materials ( 7-71)	ORNL/	/ /	Discontinued.
F 6-8	Welding of Pressure Boundary Components (Supplement to ASME Boiler and Pressure Vessel Code, Section VIII) ( )	ORNL/	/ /	Development withheld.
F 6-10T	Repair of Materials by Welding ( 7-71)	ORNL/	/ /	Discontinued.
F 6-11T	Fabrication and Installation of Piping Subassemblies for Liquid Metal Service ( 8-71)	ETEC/ D. A. Larson	NEP/ CRRPO-OR/ J. W. Cooke	Published.
F 6-14T	Brazing Fabrication Requirements ( 7-71)	ORNL/	/ /	Discontinued.
F 7-1T	Continuous Identification Marking of Wrought Metal Products ( 9-67)	ORNL/	/ /	Discontinued.

## F - PROGRAMS, PROCEDURES, METHODS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
F 7-2T	Packaging, Packing, and Marking of Components for Shipment and Storage ( 9-75)	HEDL/ J. A. Trzeczieski	NEP/ OSQ-QAS/ R. H. Kuhnappel	Published.
F 7-3T	Marking of Components and Parts ( 6-75)	HEDL/ J. N. Nansen	NEP/ OSQ-QAS/ R. H. Kuhnappel	Published.
F 8-1T	Preloaded Threaded Fasteners and Closures (11-76)	ORNL/ C. A. Burchsted	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 8-6T	Hoisting and Rigging of Critical Components and Related Equipment ( 1-80)	RSO/ ORNL/ PM/ C. A. Burchsted, ORNL WGC/ C. A. Munro, HEDL RCC/ T. H. Stickley, EG&G	NEP/ RRT-PM/ G. A. Hanlon	LCS initiated.
F 8-6T	Hoisting and Rigging of Critical Components and Related Equipment ( 1-80)	ORNL/ C. A. Burchsted	NEP/ RRT-PM/ G. A. Hanlon	Published.
F 8-7T	Transportation of Critical Components and Equipment ( 1-76)	ORNL/ C. A. Burchsted	NEP/ OSQ-QAS/ M. E. Langston	Published.
F 8-9T	Design Basis for Fuel and Irradiations Experiment Resistance to Shock and Vibration in Truck Transport ( 2-75)	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Published.
F 8-10	Transportation Management of Radioactive Materials ( )	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Not in work.
F 8-11T	Fuel Shipping Container Tiedown for Truck Transport ( 1-75)	SRO/ C. G. Halsted	NEP/ OSQ-QAS/ B. C. Wei	Published.
F 8-12	Fuel Shipping Container Tiedown for Rail Transport ( )	SRO/ G. W. May	NEP/ OSQ-QAS/ B. C. Wei	Not in work.

## F - PROGRAMS, PROCEDURES, METHODS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
F 9-1T	Requirements for Nuclear Components at Elevated Temperatures (Supplement to ASME Elevated Temperature Code Case 1331) ( 4-73)	/	/ /	Discontinued.
F 9-2T	Seismic Requirements for Design of Nuclear Power Plants and Nuclear Test Facilities ( 1-79)	ORNL/ T. W. Pickel	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 9-4T	Requirements for Construction of Class 1 Elevated Temperature Nuclear System Components (Supplement to ASME Code Cases 1592, 1593, 1594, 1595, and 1596) ( 4-77)	ARD/ A. L. Snow	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 9-5T	Guidelines and Procedures for Design of Nuclear System Components at Elevated Temperature ( 9-74)	ARD/ A. L. Snow	NEP/ OLWR-MS/ J. R. Hunter	Published.
F 9-7	Structural Design Guideline for FBR Core Components -- Structural Design Criteria ( )	GE-ARSD/ J. D. Stephen	NEP/ RRT-FD/ R. Neuhold	
F 9-8	Structural Design Guideline for FBR Core Components -- Guidelines for Analysis ( )	GE-ARSD/ J. D. Stephen	NEP/ RRT-FD/ R. Neuhold	
F 9-9	Structural Design Guideline for FBR Core Components -- Rationale ( )	GE-ARSD/ J. D. Stephen	NEP/ RRT-FD/ R. Neuhold	
F 10-1	Liquid Metal Fire Protection ( )	HEDL/ W. E. Taylor	/ NEP assignment not to be made/	Work on NE standard cancelled; being developed as a national standard by ANS 54.8.
F 11-1T	Analytical Chemistry Methods for Mixed Oxide Fuel ( 5-77)	HEDL/ W. L. Delvin	NEP/ PFTFPO-RL/ V. C. Wahler	Published.
F 11-2T	Analytical Chemistry Methods for Boron Carbide Absorber Material ( 7-77)	HEDL/ W. L. Delvin	NEP/ RRT-FD/ Kerze	Published.
F 11-3T	Analytical Chemistry Methods for Metallic Core Components ( 9-75)	HEDL/ W. L. Delvin	NEP/ PFTFPO-RL/ V. C. Wahler	Published.

## F - PROGRAMS, PROCEDURES, METHODS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
F 11-4T	Determination of a Figure of Merit for PuO <sub>2</sub> -UO <sub>2</sub> Fuel Pellet Homogeneity by Use of an Electron Microprobe ( 9-72)	HEDL/ W. E. McClung	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
F 11-5T	Determination of Fuel Pellet Homogeneity by Alpha-Autoradiography ( 5-75)	HEDL/ W. E. McClung	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
F 11-6T	Ceramographic Preparation of Mixed Oxide Fuel Pellets ( 1-73)	HEDL/ D. E. Rasmussen	NEP/ FFTFPO-RL/ V. C. Wahler	Published.



## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 1-1T	Stainless Steel Covered Welding Electrodes (ASME SFA-5.4 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-2T	Stainless Steel Welding Rods and Bare Electrodes (ASME SFA-5.9 with Additional Requirements) (10-78)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-3T	Mild Steel Covered Welding Electrodes (ASME SFA-5.1 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-4T	Low Alloy Steel Covered Welding Electrodes (ASME SFA-5.5 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-5T	Welding Rods and Electrodes, Surfacing (AWS A5.13 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-6T	Mild Steel Electrodes for Gas Metal-Arc Welding (ASME SFA-5.18 with Additional Requirements) ( 3-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-7T	Copper and Copper Alloy Welding Electrodes (ASME SFA-5.6 with Additional Requirements) ( 7-71)	ORNL/	/ /	Discontinued.
M 1-8T	Copper and Copper Alloy Welding Rods (ASME SFA-5.7 with Additional Requirements) ( 7-71)	ORNL/	/ /	Discontinued.
M 1-9T	Brazing Filler Metal (ASME SFA-5.8 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-10T	Nickel and Nickel Alloy Covered Welding Electrodes (ASME SFA-5.11 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-11T	Nickel and Nickel-Alloy Bare Welding Rods and Electrodes (ASME SFA-5.14 with Additional Requirements) ( 5-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-15T	Nickel-Molybdenum-Chromium Alloy Bare Welding Rods and Electrodes ( 4-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOF BRANCH/ ENGINEER	REMARKS
M 1-16T	Zirconium and Zirconium Alloy Bare Welding Rods (ASTM B 351 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 1-17T	Bare Carbon Steel Electrodes and Fluxes for Submerged Arc Welding (ASME SFA-5.17 with Additional Requirements) ( 3-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-18T	Fluxes for Submerged Arc Welding of Mild Steel (ASME SFA-5.17 with Additional Requirements) ( 7-71)	ORNL/	/ /	Superseded by M 1-17T, 3/75.
M 1-19T	Nickel-Chromium-Molybdenum-Columbium Bare Welding Rods and Electrodes ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-20T	Mild Steel Electrodes for Flux-Cored Arc Welding (ASME SFA-5.20 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Inactive.
M 1-21T	Consumable Welding Inserts ( 4-80)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-22T	Bare Low-Alloy Steel Electrodes and Fluxes for Submerged Arc Welding (ASME SFA-5.23 with Additional Requirements) (11-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 1-23T	2-1/4%-Chromium, 1%-Molybdenum Alloy Bare Welding Rods and Electrodes ( 3-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-1T	Carbon Steel Forgings for Piping Components (ASME SA-105 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE(RDT) M 2-21T, 12-77.
M 2-2T	Stainless and Low Alloy Steel Forgings (ASME SA-182 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE(RDT) M 2-21T, 12-77.
M 2-3T	Carbon and Alloy Steel Welding Fittings (ASME SA-234 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-4T	Alloy Steel Forgings (ASME SA-336 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE(RDT) M 2-21T, 12-77.
M 2-5T	Austenitic Stainless Steel Welding Fittings (ASME SA-403 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 2-6T	Martensitic Stainless Steel (Type 403) Forgings (ASME SA-182 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-7T	Carbon and Alloy Steel Forgings, Vacuum Treated (ASME SA-508 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE(RDT) M 2-21T, 12-77.
M 2-8T	Carbon and Alloy Steel Forgings (ASME SA-541 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE(RDT) M 2-21T, 12-77.
M 2-9T	Zirconium and Zirconium Alloy Forgings and Extrusions (ASTM B 356 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 2-11T	Nickel-Molybdenum-Chromium Alloy Forgings (ASME SA-182 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-12T	Nickel-Molybdenum-Chromium Alloy Welding Fittings (ASME SA-403 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-15T	Nickel-Chromium Alloy Bars, Forgings, and Forging Stock (ASME SA-637 with Additional Requirements) ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-16T	Tungsten Forgings (AMS 7897 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 2-17T	Precipitation Hardening Alloy Bars, Forgings, and Forging Stock (ASTM A 461 with Additional Requirements) ( 9-72)	ORNL/	/ /	Discontinued.
M 2-18T	Precipitation Hardening Nickel Alloy Bars, Forgings, and Forging Stock for High-Temperature Service (ASTM A 637 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-19T	2-1/4%-Chromium, 1%-Molybdenum Alloy Steel Tubesheet Forgings (ASME SA-336 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ CRBRPO-OR/ E. A. Wright	Published.
M 2-20T	Nickel Alloy Forgings (ASME SB-564 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 2-21T	Forgings and Bars for Nuclear and Other Special Applications (ASME SA-654 with Additional Requirements) (12-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 3-1T	Carbon Steel Seamless Pipe (ASME SA-106 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-2T	Stainless and Alloy Steel Seamless Tubes (ASME SA-213 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-3T	Austenitic Stainless Steel Seamless Pipe (ASME SA-376 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-4T	Nickel Alloy Seamless Tubes (ASME SB-163 with Additional Requirements) ( 4-80)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-5T	Austenitic Stainless Steel Welded Tubing (ASME SA-249 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-6T	Austenitic Stainless Steel Pipe (ASME SA-312 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-7T	Austenitic Stainless Steel Welded Pipe, Large Diameter (ASME SA-358 with Additional Requirements) ( 4-75)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-8T	Zirconium and Zirconium Alloy Tubes (ASTM B 353 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 3-9T	Nickel-Iron-Chromium Alloy Seamless Pipe and Tubing (ASME SB-407 with Additional Requirements) ( 5-80)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-10T	Nickel-Molybdenum-Chromium Alloy Seamless Pipe and Tubes (ASME SB-167 with Additional Requirements) ( 4-76)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-11T	Carbon and Low Alloy Steel Welded Pipe (ASME SA-155 with Additional Requirements) ( 5-75)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-12T	Seamless Ferritic Alloy Steel Pipe (ASME SA-335 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-16T	Carbon and Alloy Steel Pipe (ASME SA-333 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-17T	Nickel-Molybdenum-Chromium Alloy Welded Pipe (ASME SA-358 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 3-18T	Nickel-Molybdenum-Chromium Alloy Seamless Tubes (ASME SB-163 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-20T	Polyethylene Instrument Tubing ( 1-72)	/	/ /	Discontinued.
M 3-26T	Seamless Austenitic Stainless Steel Tubes with Integral Fins (ASTM A 498 with Additional Requirements) ( 2-72)	HEDL/	/ /	Discontinued.
M 3-27T	Seamless and Welded Small Diameter Austenitic Stainless Steel Tubing (ASTM A 632 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-28T	Austenitic Stainless Steel and Superalloy Tubing for BRP Core Components (11-77)	HEDL/	/ /	Discontinued
M 3-29T	Nickel-Chromium-Molybdenum-Columbium Alloy Seamless Tubes (AMS 5589 with Additional Requirements) ( 4-76)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-30T	Nickel-Chromium-Molybdenum- Columbium Alloy Seamless Tubes (AMS 5590 with Additional Requirements) ( 4-76)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-31T	Stainless Steel Centrifugally Cast Pipe (ASME SA-451 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 4-6T, 12-77.
M 3-32T	Seamless Medium Carbon Steel Boiler and Superheater Tubes (ASME SA-210 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 3-34T, 12-77.
M 3-33T	2-1/4%-Chromium, 1%-Molybdenum Alloy Steel Seamless Tubes (ASME SA-213 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ CRBRPO-OR/ E. A. Wright	Published.
M 3-34T	Pipe and Tubing for Nuclear and Other Special Applications (ASME SA-655 with Additional Requirements) ( 4-80)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 3-35	Austenitic Stainless Steel and Superalloy Duct Tubes for BPR Core Components and Assemblies ( )	HEDL/ R. C. Aungst	NEP/ PPTPPO-RL/ J. Krupar	Draft in work.
M 4-1T	Carbon Steel Castings (ASME SA-216 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (PDT) M 4-6T, 12-77.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 4-2T	Austenitic Stainless Steel Castings (ASME SA-351 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 4-6T, 12-77.
M 4-3T	Cobalt-Chromium Alloy Castings ( 7-75)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 4-4T	Alloy Steel Castings (ASME SA-217 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 4-6T, 12-77.
M 4-5T	Nickel-Molybdenum-Chromium Alloy Castings (ASTM A 494 with Additional Requirements) ( 4-76)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 4-6T	Steel Castings for Nuclear and Other Special Applications (ASME SA-613 with Additional Requirements) (12-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 5-1T	Stainless Steel Plate, Sheet, and Strip (ASME SA-240 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 5-23T, 9-77.
M 5-2T	Carbon Steel Plates (ASME SA-516 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 5-23T, 9-77.
M 5-3T	Low Alloy Steel Plates (ASME SA-533 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 5-23T, 9-77.
M 5-4T	Nickel-Chromium-Iron Alloy Plate, Sheet, and Strip (ASME SB-168 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 5-5T	Low Alloy Steel Plates (ASME SA-387 with Additional Requirements) ( 4-76)	ORNL/	/ /	Superseded by NE (RDT) M 5-23T, 9-77.
M 5-6T	Zirconium and Zirconium Alloy Plate, Sheet, and Strip (ASTM B 352 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 5-7T	Nickel-Iron-Chromium Alloy Plate, Sheet, and Strip (ASME SB-409 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 5-8T	Nickel-Molybdenum-Chromium Alloy Sheet and Plate (ASME SB-434 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 5-19T	Austenitic Stainless Steel Plate, Sheet, and Strip for Core Components ( 3-73)	HEDL/ R. D. Borisch	NEP/ FFTFPO-RI/ V. C. Wahler	Published.
M 5-20T	Nickel-Chromium-Molybdenum-Columbium Alloy Plate, Sheet, and Strip (AMS 5597 with Additional Requirements) ( 8-75)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 5-21T	Nickel-Chromium-Molybdenum-Columbium Alloy Plate, Sheet, and Strip (AMS 5596 with Additional Requirements) ( 4-75)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 5-22T	2-1/4-Percent-Chromium, 1-Percent-Molybdenum Alloy Steel Plates (ASME SA-387 with Additional Requirements) ( 4-76)	ORNL/	NEP/ CRBRPO-OR/ E. A. Wright	Superseded by NE (RDT) M 5-23T, 9-77.
M 5-23T	Steel Plates for Nuclear and Other Special Applications (ASME SA-647 with Additional Requirements) ( 9-77)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 6-1T	Alloy Steel Bolting Material for Low-Temperature Service (ASME SA-320 with Additional Requirements) ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 6-2T	Mechanical Locking Devices ( 3-69)	ORNL/ C. A. Burchsted	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 6-3T	Alloy Steel Bolting Material for High-Temperature Service (ASME SA-193 with Additional Requirements) ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 6-4T	Alloy Steel Nuts for Bolting for High-Pressure and High-Temperature Service (ASME SA-194 with Additional Requirements) ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 6-5T	Alloy Steel Bolting Material for Special Applications (ASME SA-540 with Additional Requirements) ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 6-6T	High-Strength, High-Temperature Bolting Materials (ASME SA-453 with Additional Requirements) ( 7-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 7-1T	Martensitic Stainless Steel (Type 403) Bars (ASTM A 276 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.

## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 7-2T	Nickel-Chromium-Iron Age-Hardenable Alloy Bar-Rod- and Forgings (Modified ASTM A 461) ( 1-68)	ORNL/	/ /	Superseded by M 2-15T, 10/71, and M 2-17T, 9/72.
M 7-3T	Alloy Steel Bars and Shapes (ASME SA-479 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 7-4T	Nickel-Chromium-Iron Alloy Rod and Bar (ASME SB-166 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 7-5T	Cobalt-Chromium-Tungsten- Nickel Alloy Rounds ( 6-71)	ORNL/	/ /	Discontinued.
M 7-6T	Precipitation-Hardening Stainless Steel Bars, Shapes, and Forgings (ASME SA-564 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 7-7T	Cobalt-Chromium Alloy Bars and Shapes ( 4-75)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 7-8T	Nickel-Chromium-Iron Alloy Wire (AMS 5687 with Additional Requirements) ( 7-71)	ORNL/	/ /	Discontinued.
M 7-9T	Zirconium and Zirconium Alloy Bars, Rod and Wire (ASTM B 351 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 7-10T	Nickel-Iron-Chromium Alloy Rod and Bar (ASME SB-408 with Additional Requirements) ( 8-79)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 7-11T	Nickel-Molybdenum-Chromium Alloy Rod and Bar (ASME SB-336 with Additional Requirements) ( 4-76)	ORNL/	/ /	Discontinued.
M 7-12T	Nickel Wire ( 3-70)	ETEC/	/ /	Discontinued. No longer in use; little or no potential for future use.
M 7-13T	Ceramic-Insulated Magnet Wire ( 7-70)	ETEC/	/ /	Discontinued. No longer in use; little or no potential for future use.
M 7-14T	Nickel-Molybdenum-Chromium Alloy Rod (ASME SB-336 with Additional Requirements) ( 1-74)	ORNL/	/ /	Discontinued.
M 7-22T	Tantalum-Tungsten Alloy Bars and Rods (AMS 7848 with Additional Requirements) ( 9-72)	ORNL/	/ /	Discontinued.



## M - MATERIALS

NE (RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 7-23T	Austenitic Stainless Steel Bar for Core Components ( 3-73)	HEDL/ R. D. Borisch	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
M 7-24T	Austenitic Stainless Steel Wire for Core Components ( 3-73)	HEDL/ R. D. Borisch	NEP/ FFTFPO-RL/ V. C. Wahler	Published.
M 8-1T	Helical Age-Hardenable Nickel-Chromium-Iron Alloy Springs ( 5-75)	ORNL/ R. C. Hudson	NEP/ OLWR-MS/ J. R. Hunter	Published.
M 9-1T	Nickel-Chromium-Iron and Austenitic Chromium-Nickel Alloy Seals (10-73)	ORNL/	/ /	Discontinued.
M 9-2T	Examination Requirements and Acceptance Standards for Seal Membranes ( 2-69)	ORNL/	/ /	Superseded by M 9-1T, 10/73.
M 10-1T	Zirconium and Zirconium Alloy Ingots (ASTM B 350 with Additional Requirements) ( 1-72)	ORNL/	/ /	Discontinued.
M 11-1T	Non-Metallic Seal Materials ( 2-69)	ORNL/	/ /	Discontinued.
M 11-2T	Impregnated Asbestos Packing Material ( 2-69)	ORNL/	/ /	Discontinued.
M 12-1T	Test Requirements for Thermal Insulating Materials for Use on Austenitic Stainless Steel (10-72)	ORNL/	/ /	Discontinued.
M 12-2T	Calcium Silicate Block and Pipe Thermal Insulation (ASTM C 533 with Additional Requirements) ( 6-71)	ORNL/	/ /	Discontinued.
M 12-3T	Mineral Fiber Hydraulic-Setting Thermal Insulating and Finishing Cement (ASTM C 449 with Additional Requirements) (10-71)	ORNL/	/ /	Discontinued.
M 12-4T	Reflective Insulation ( 1-72)	ORNL/ O. A. Kelly	NEP/ CRBRPO-OR/ J. W. Cooke	Published.
M 12-5T	Thermal Insulation, Flexible or Molded, High Temperature, Low Conductivity ( 5-72)	HEDL/ H. L. Pringle	NEP/ CRBRPO-OR/ J. W. Cooke	Published.
M 12-6T	Mineral Fiber Thermal Insulation, High-Temperature, Rigid, Flexible, and Loose Fill (ASTM C 612 with Additional Requirements) ( 3-73)	HEDL/	/ /	Discontinued.

## M - MATERIALS

NE(RDT) STANDARD NUMBER	TITLE	SW/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
M 13-1T	Sodium Purchase Specifications ( 9-73)	HEDL/ J. J. McCown	NEP/ FFTFPO-RL/ A. R. DeGrazia	Published.
M 14-1T	Sodium Cover Gas - Purchase Specifications ( 7-72)	HEDL/ J. J. McCown	NEP/ FFTFPO-RL/ A. R. DeGrazia	Published.
M 14-2T	Fuel and Control Assembly Tag Gas (10-72)	HEDL/ C. A. Strand	NEP/ RRT-FD/ Kerze	Published.
M 15-2	Materials for Marking Metal Products ( )	ORNL/	/ /	To be incorporated in NE(RDT) F 7-3T.
M 16-1T	Gas-Phase Adsorbents for Trapping Radioactive Iodine and Iodine Compounds (12-77)	ORNL/ C. A. Burchsted	NEP/ RRT-E/	Published.
M 16-3T	HEPA Filter Medium, Glass Fiber (MIL-F-51079 with Modifications and Additional Requirements) ( 3-74)	ORNL/ C. A. Burchsted	NEP/ RRT-EC/ J. W. Newton	Published.
M 17-1T	Sodium Carbonate, Low-Chloride Fire Extinguishing Agent (12-73)	ETEC/ R. L. Eichelberger	NEP/ RRT-FM/ G. A. Hanlon	Published.

## P - ELECTRICAL

NE (RDT) STANDARD NUMBER	TITLE	SN/ COGNIZANT ENGINEER	DOE BRANCH/ ENGINEER	REMARKS
P 2-3	Criteria and Requirements for Class IE Electrical Systems ( )	ORNL/	/ /	Development withheld.
P 2-5T	Medium Voltage Switchgear (10-75)	/	/ /	Discontinued. Little or no potential for future use.
P 2-6T	Undervoltage Relay for Plant Protection System Use (12-72)	/	/ /	Discontinued.
P 3-1T	Electric Penetration Assemblies in Containment Structures (IEEE 317 with Additional Requirements) ( 1-79)	ORNL/ C. A. Burchsted	NEP/ CRBRPO-OR/ D. R. Hicks	Published.
P 4-1T	Electric Heaters - Simulated LMFBR Fuel Pins ( 3-72)	ORNL/ R. McCulloch	NEP/ OLWR-SSE/ A. C. Millunzi	Published.
P 4-3T	Metal-Sheathed, Mineral-Insulated Electrical Resistance Heater ( 3-75)	ETEC/ Klea	NEP/ CRBRPO-OR/ Reese	Published.
P 4-4T	Electric Heaters - Simulated Pressurized Water Reactor Fuel Pins ( 2-73)	ORNL/	/ /	Discontinued.