



Afloat Electrical Checklist

UPDATED April 2025

SAFETY REVIEW ITEMS - Electrical

Electrical Safety Admin

DOES THE COMMANDING OFFICER AUTHORIZE ENERGIZED WORK WHEN REQUIRED?

REF:

NSTM 300-2.4

IS SHIP COMPLYING WITH ALL SAFETY PROCEDURES REQUIRED FOR WORKING ON ENERGIZED EQUIPMENT?

REF:

NSTM 300-2.3 & 300-2.4

DOES THE ELECTRICAL SAFETY OFFICER CONDUCT ELECTRICAL/ELECTRONIC TRAINING FOR ALL NEWLY REPORTING PERSONNEL DURING INDOCTRINATION AND ANNUALLY THEREAFTER?

REF:

NSTM 300-2.9

OPNAVINST 5100.19 B-7

HAVE TOOL ISSUE PERSONNEL COMPLETED PQS ELECTRICAL TOOL ISSUE ROOM WATCHSTATION 313 IN THE ENGINEERING COLLATERALS AND QUALIFICATIONS PQS NAVEDTRA 43704? (PREVIOUSLY WATCHSTATION 302 IN SAFETY PROGRAMS AFLOAT)

REF:

OPNAVINST 5100.19 B-7

NAVEDTRA 43704

DOES THE SHIP HAVE A CERTIFIED AMERICAN RED CROSS/AMERICAN HEART ASSOCIATION CPR INSTRUCTOR ONBOARD? ISSUE WITH CERTIFICATION ENTITY AND FUNDING

REF:

NSTM 300-2.9

OPNAVINST 5100.19 B-7

ARE AT LEAST 50 PERCENT OF ALL ELECTRICAL/ELECTRONICS ASSOCIATED RATINGS CERTIFIED IN CPR **AT A MINIMUM OF EVERY TWO YEARS** AND HAVE COMPLETED NECESSARY ANNUAL REFRESHER TRAINING?

REF

NSTM 300-2.9

OPNAVINST 5100.19 B-7

HAS THE ELECTRICAL SAFETY OFFICER COMPLETED WATCHSTATION 304 OF THE SAFETY PROGRAMS AFLOAT PQS (NAVEDTRA 43460)?

REF:

OPNAVINST 5100.19 B-7

DOES THE SHIP HAVE A CENTRALIZED PORTABLE TOOL ISSUE ROOM? ARE UNSAFE ELECTRIC TOOLS MARKED OOC AND KEPT IN LOCKED STORAGE SEPARATE FROM OTHER TOOLS?

REF:

OPNAVINST 5100.19 B-7

ARE EQUIPMENT OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS POSTED FOR EQUIPMENT IN ELECTRICAL SPACES?

REF:

NSTM 300-2.3, 2.4, 2.5

OPNAVINST 5100.19 Series C-13

Tag-out Program

DOES SHIP HAVE THE MOST CURRENT REVISION OF THE TAG-OUT USER'S MANUAL? (REVISION 8)

REF:

S0400-AD-URM-010/TUM Rev level: 08

DO ALL NEWLY REPORTED PERSONNEL RECEIVE TRAINING ON THE TAG-OUT PROGRAM? ARE TAG-OUT USER MANUAL TRAINING TOPICS INCLUDED IN THE COMMANDS CONTINUED TRAINING PROGRAM?

REF:

S0400-AD-URM-010/TUM Rev level: 08

ARE SECTIONS OF THE TAG-OUT LOG IN ORDER AND ARE TUM PROCEDURES CORRECTLY FOLLOWED?

REF:

S0400-AD-URM-010/TUM Rev level: 08

Cables and Cableways

ARE DEAD-END CABLES PROPERLY IDENTIFIED AND ISOLATED?

REF:

NSTM 300-4.6.9

ARE CABLES PROPERLY SUPPORTED WITH CABLE HANGERS/BANDING STRAP? ARE STUFFING TUBES USED ON CABLE PENETRATIONS?

REF:

DOD-STD-2003

NSTM 300-4.2 & 4.6

DO SHOCK-MOUNTED MOTORS AND OTHER PIECES OF SHOCK-MOUNTED ELECTRICAL EQUIPMENT HAVE REQUIRED GROUNDING STRAPS?

REF:

NSTM 300-4.3

PMS MIP 3000/001 Series

Test Equipment

ARE SHORTING PROBES MODIFIED AND MAINTAINED IAW PMS MIP 3000?

REF: PMS MIP 3000/001 Series

Heaters

ARE APPROVED QUARTERDECK PORTABLE ELECTRICAL HEATERS BEING USED?

REF:

NAVSURWARCEN LETTER 9213/176 11 SEP 03.

Switchboard Safety

ARE OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS POSTED IN THE VICINITY OF THE SWITCHBOARD?

REF:

NSTM 300

HAVE REQUIRED 100 AMP CIRCUIT BREAKER FUSE UNITS BEEN MODIFIED WITH REQUIRED PLASTIC COVERS?

REF:

NAVSURFWARCEN SHIPSYSENGSTA, PHILADELPHIA, PA MESSAGE 211800ZNOV02.

ARE SWITCHBOARD, CONTROLLER, ABT/ MBT, BREAKER/ FUSE PANEL ENCLOSURES IN GOOD MATERIAL CONDITION INCLUDING ALL NECESSARY HARDWARE?

REF:

NSTM 300-4.8

PMS MIP 3301/002 Series

ARE INSTALLED METERS OPERATIVE AND CALIBRATED?

REF:

NSTM 300-4.8

NSTM 491

ARE CIRCUITS FREE OF GROUNDS? REF: PMS MIP 3301/002 Series

REF:

NSTM 300-3.2

NSTM 320-1.2

ARE WOODEN GRAB RAILS PROPERLY INSTALLED?

REF:

NSTM 320-2.2

GSO 622 E

IS THE SWITCHGEAR FREE OF ANY OPENINGS WHERE BREAKERS OR OTHER DEVICES HAVE BEEN REMOVED?

REF:

NSTM 300-2.5

GSO 324 C

ARE LIGHTING, EMERGENCY LIGHTING AND HAND LANTERNS IN THE VICINITY OF THE SWITCHGEAR ADEQUATE?

REF:

GSO 332 E & G

NSTM 330-1

ARE VENTILATION DUCTS DIRECTED AWAY FROM THE SWITCHGEAR?

REF:

NSTM 320-2.2

NSTM 300-4.4 & 4.8

IS RUBBER MATTING OF THE PROPER MATERIAL, STENCILED, FREE OF MOISTURE UNDERNEATH AND CORRECTLY INSTALLED AROUND SWITCHBOARDS IAW REFERENCES?

REF:

NSTM 634-3.8

NSTM 320-2

NSTM 300-4.8

Shore Power

DO SHORE POWER CABLES APPEAR TO BE SAFE AND WELL PROTECTED? ARE PIGTAIL CONNECTIONS RAISED AND INSULATED FROM THE DECK?

REF:

NSTM 320-2.2

PMS MIP 3211/001 Series

EOSS SPRU

ARE THE SHORE POWER RECEPTACLES PROVIDED WITH A RECEPTACLE CONTROL SWITCH TO OPEN ASSOCIATED BREAKER WHENEVER THE RECEPTACLE COVER IS OPENED OR THE PLUG REMOVED AND IS EACH RECEPTACLE PROVIDED WITH A FUNCTIONING PILOT LIGHT?

REF:

NSTM 320-2.2

PMS MIP 3211/001 Series

GSO 320 D

IS SHORE POWER BEING RIGGED AND UNRIGGED CORRECTLY INCLUDING CORRECT TAG-OUTS?

REF:

EOSS SPRU

NSTM 320-2.2

TAG-OUT USER'S MANUAL (TUM)

Casualty Power

ARE CASUALTY POWER CABLES AND TERMINALS IN SATISFACTORY CONDITION?

REF:

NSTM 320-1.2 & 3.4

NSTM 079 (V3) -47.4.2

PMS MIP 3201/002 Series

ARE CASUALTY POWER TERMINALS PROPERLY LABELED WITH WARNING SIGNS POSTED ON NORMALLY HOT TERMINALS?

REF:

NSTM 320-1.2

NSTM 079 (V3) -47.4

PMS MIP 3201/002 Series

ARE RISER AND BULKHEAD TERMINALS COVERED WHEN NOT IN USE?

REF:

NSTM 079 (V3) 47.4

PMS MIP 3201/002 Series

Controllers, ABTS, Fuse and Power Panels

ARE MEGGER TEST HOLES PLUGGED ON POWER PANELS, SWITCHBOARDS AND THE POWER SUPPLY CIRCUIT BREAKERS OF MANUAL BUS TRANSFERS?

REF:

GENADMIN NAVSEA 230319ZNOV98 / 150124Z DEC 98

NSN 5340-01-081-1718

CONTROLLERS WITH ELECTRICAL COMPONENTS RATED AT 30 VOLTS AC/DC OR GREATER MOUNTED ON THE CONTROLLER DOOR HAVE GROUNDING STRAP CONNECTED BETWEEN THE DOOR AND THE MAIN BODY OF THE CONTROLLER?

REF:

NSTM 300-2.2

PMS MIP 3001/002 Series

IS ELECTRICAL EQUIPMENT MOUNTED ON NON-STRUCTURAL BULKHEADS PROPERLY GROUNDED TO SHIP'S HULL?

REF:

PMS MIP 3000/001 Series

ARE FUSE PANELS CLEAN, DRY, FREE OF DEBRIS AND FREE OF EXCESSIVE CORROSION?

REF:

NSTM 300-2.6

PMS MIP 3202/009 Series

ARE POWER PANELS CLEAN, DRY, FREE OF DEBRIS AND FREE OF EXCESSIVE CORROSION?

REF:

NSTM 300-2.6, 4.4 & 4.8

PMS MIP 3202/008 Series

ARE ABTs AND MBTs CLEAN, DRY, FREE OF DEBRIS AND FREE OF EXCESSIVE CORROSION?

REF:

NSTM 300-2.6, 4.4 & 4.8

PMS MIP 3202/047 Series

ARE CONTROLLERS CLEAN, DRY, FREE OF DEBRIS AND FREE OF EXCESSIVE CORROSION?

REF:

NSTM 300-2.6, 4.4 & 4.8

PMS MIP 3001/002 Series

ARE INDICATOR LIGHTS OPERATIVE AND OF CORRECT COLOR?

REF:

NSTM 320-2.2

ARE FUSE BOXES PROPERLY LABELED? (INCLUDING THE CIRCUIT CONTROLLED, THE PHASES OR POLARITIES AND THE FUSE AMPERE RATINGS)

REF:

PMS MIP 3301/002 Series

IS THERE EVIDENCE OF IMPROPERLY RIGGED, NICKEL-PLATED FUSES, UNDERFUSING, COTS FUSES OR OVERFUSED ELECTRICAL CIRCUITS?

REF:

NSTM 300-2.5

PMS MIP 3301/002 Series

DO DISTRIBUTION PANELS HAVE CIRCUIT INFORMATION PLATES ADJACENT TO THE HANDLE OF EACH CIRCUIT BREAKER WITH INFORMATION IN THE FOLLOWING ORDER: CIRCUIT NUMBER, NAME AND LOCATION OF EQUIPMENT?

REF:

GSO 305 E

PMS MIP 3301/002 Series

ARE ELECTRICAL PANEL, CONTROLLER AND JUNCTION BOX COVERS CLOSED?

REF:

NSTM 300-2.3

ARE CLEARANCES PROVIDED IN THE IMMEDIATE VICINITY OF ELECTRICAL EQUIPMENT AND MACHINERY TO PERMIT COMPLETE ACCESSIBILITY FOR OPERATION, MAINTENANCE, REPAIRS, RENEWAL OF FUSES AND TESTING?

REF:

GSO 300 D

GSO 070 H

ARE SHIELDS INSTALLED AS NECESSARY TO PROTECT ELECTRIC EQUIPMENT AND MACHINERY FROM JETS OR SPRAY RESULTING FROM THE NORMAL OPERATION OF, OR DAMAGE TO, PUMPS, PIPES, TUBES, COUPLINGS, VALVES OR FITTINGS IN WATER, STEAM OR OIL PIPING SYSTEMS?

REF:

NSTM 300-4.4 & 4.8

GSO 300 D

Batteries

ARE BATTERIES PROPERLY SECURED IN THEIR RACKS?

REF:

DOD-STD-2003-2 4.3.1

GSO 313 F

ARE AUTHORIZED EYE WASH STATIONS AVAILABLE IN AN UNOBSTRUCTED LOCATION ON THE SAME LEVEL WITHIN 10-SECOND TRAVEL OF THE IDENTIFIED HAZARD (BATTERY LOCKER)?

REF:

OPNAVINST 5100.19 Series B-5

GSO 644 D

NSTM 313-2.5

ARE OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS POSTED? (SAFETY PRECAUTIONS ELECTRICAL- 0118-LF-019-6100, SAFETY PRECAUTIONS STORAGE BATTERIES- 0118-LF-114-3900 AND NO SMOKING BATTERY ON CHARGE- 0118-LF-113-3600)

REF:

GSO 602H NSTM 313-2.10

OPNAVINST 5100.19 Series C-9

IS THE BATTERY SHOP EXHAUST VENTILATION INTERLOCKED WITH THE POWER SUPPLY TO BATTERY CHARGER?

REF:

GSO 313 F

PMS MIP 3131/005 Series

NSTM 510-6.1

OPNAVINST 5100.19 Series C-9

ARE DELUGE SHOWER, EYE-FACE BATH AND DRAIN INSTALLED IN BATTERY LOCKER AND BATTERY SHOP?

REF:

GSO 644 D

NSTM 313-2.5

NSTM 670-1.6

OPNAVINST 5100.19 Series B-5

ARE THERE TWO BATTERY WATER CONTAINERS AND ONE SODA WATER CONTAINER PROVIDED IN BATTERY ROOM AND CHARGING SHOP? (CONTAINERS SHALL BE 5-GAL POLYETHYLENE BOTTLES NSN 8125-00- 888-7069)

REF:

GSO 313 F

NSTM 313-2.5

ARE RUBBER APRON, RUBBER BOOTS, CHEMICAL RUBBER GLOVES AND FULL FACE SHIELD PRESENT?

REF:

OPNAVINST 5100.19 Series C-9

NSTM 313-2.5

IS THERE A 15-LB CO2 FIRE EXTINGUISHER LOCATED WITHIN 30 FT OF THE CHARGING STATION?

REF:

NSTM 555-4.2

GSO 555 B

ARE ACID STOWAGE LOCKERS LARGE ENOUGH TO STORE THE TOTAL QUANTITY OF ACIDS WITH TIGHT FITTING LIDS OR DOORS AND LINED WITH LEAD OR ACID RESISTANT SYNTHETIC RUBBER, TYPE II, WITH ADEQUATE SIZE SPILL TRAY?

REF:

NSTM 220

NSTM 670-13.3

PMS MIP 6600/002 Series

GSO 671 C

Lighting

DO WEATHERDECK LIGHTING FIXTURES APPEAR TO BE WATERTIGHT AND FREE FROM WATER INTRUSION?

REF:

NSTM 300-4.4

IS CORRECT LIGHTING BEING USED FOR BROW ILLUMINATION?

REF:

NSTM 330-1.9

GSO 332 G

ARE DRESS SHIP LIGHTS OF THE PROPER TYPE?

REF:

DOD-HDBK-289 (SH) APPENDIX B SECTION I SHEET 1

NSTM 330-1.9

ARE FLOURESCENT AND INCANDESCENT LIGHT FIXTURES PROPERLY SHIELDED?

REF:

DOD-HDBK-289 6.6

NSTM 330-2.2 & 3.5

GSO 332 B

ARE RELAY OPERATED HAND LANTERNS PROPERLY INSTALLED WHERE REQUIRED? (I.E., ESCAPE ROUTES, VITAL EQUIPMENT, FLUSH DECK SCUTTLES, BRIDGE AREA, LAUNDRY, PANTRY, GALLEY, INSIDE AND OVER DOOR OF WALK-IN REEFER, WORKSHOPS AND OVER SAFES CONTAINING CLASSIFIED MATERIAL)

REF:

NSTM 330-1.6

GSO 332 G

HAVE PLASTIC STARTERS BEEN REPLACED WITH METAL STARTERS IN ALL FLUORESCENT LIGHT FIXTURES?

REF:

NAVSURFWARCEN SHIPSYSENGSTA PHIL PA MSG 161433Z AUG07

NAVSURFWARCEN SHIPSYSENGSTA PHIL PA MSG 161734Z SEP10

ARE WEATHER DECK RECEPTACLES MAINTAINED IAW PMS?

REF:

PMS MIP 3000/001 Series

Workbenches

ARE ALL ELECTRICAL WORKBENCHES INSULATED AND GROUNDED?

REF:

NSTM 300 APPENDIX H.1.2 & APPENDIX H.1.3

PMS MIP 6652/006 Series

MIL-STD-1310 GSO 665 F

GSO 400 C

GSO 070 H

IF WORKBENCH HAS BEEN DOWGRADED, HAS IT BEEN DONE PROPERLY WITH APPLICABLE SIGN POSTED?

REF:

NSTM 300 APPENDIX H.5.B & H.6

IS THE TOP WORKING SURFACE OF THE BENCH INSULATED WITH 3/8" ARBORON OR BENELEX 401? (NSN 5970-01-030-2607)

REF:

PMS MIP 6652/006 Series

NSTM 300 APPENDIX H.1.3.1 & H-2

GSO 665 F

ARE WORKBENCH VERTICAL SURFACES COVERED WITH 1/8" PLASTIC LAMINATE? NSN 5970-00-912-1908

REF:

PMS MIP 6652/006 Series

NSTM 300 APPENDIX H.1.3.2, FIG 300-H-3

GSO 665 F

ARE ALL ATTACHED HARDWARE INSULATED?

REF:

PMS MIP 6652/006 Series

NSTM 300 APPENDIX H.1.3.5 GSO 665 F

IS THERE A DISCONNECT SWITCH MOUNTED 48 TO 54 INCHES ABOVE THE DECK AND WITHIN A RED-PAINTED TARGET OFFSET FROM THE ELECTRICAL WORKBENCH (NOT OVER THE BENCH) TO SECURE THE POWER TO THE 115 VOLT RECEPTACLES LOCATED ON, OVER OR NEAR THE BENCH INCLUDING THE TEST PANEL?

REF:

PMS MIP 6652/006 Series

NSTM 300 APPENDIX H.4 GSO 320 C

IS THERE A PLACARD POSTED ABOVE THE ELECTRICAL WORKBENCH: "THIS IS AN ELECTRICALLY SAFE WORKBENCH?" IS A PLACARD POSTED NEAR THE EMERGENCY DISCONNECT SWITCH "FOR EMERGENCY USE ONLY?"

REF:

NSTM 300 APPENDIX H.5.A,E

GSO 665 F

ARE ALL SAFETY PRECAUTION SIGNS INCLUDING: ARTIFICIAL RESPIRATION INSTRUCTIONS AND INSTRUCTIONS WHICH GIVE AN APPROVED METHOD OF RESCUING PERSONNEL IN CONTACT WITH ENERGIZED CIRCUITS POSTED IN THE VICINITY OF THE BENCH?

REF:

NSTM 300 APPENDIX H.5.C

GSO 665 F

Electrical Tools

IS THERE A ONE-TIME/INITIAL INSPECTION BEING CONDUCTED AND EQUIPMENT TAGGED ON ALL PERSONAL ELECTRICAL EQUIPMENT PRIOR TO INTRODUCTION ONBOARD?

REF:

NSTM 300-2.7

ARE EXPLOSIVE-PROOF TYPE PORTABLE EXTENSION LIGHTS BEING USED VICE OPEN TYPE?

REF:

NSTM 330-1.9

IS PORTABLE AND MOBILE ELECTRIC EQUIPMENT BEING SAFETY CHECKED IAW CURRENT DIRECTIVES?

REF:

NSTM 300-2.7

WET/DRY VAC RED WARNING LABEL ON UNIT

PMS MIP 3000/001 Series

ARE NOISE HAZARD AREAS AND EQUIPMENT PROPERLY LABELED OR POSTED?

REF:

OPNAVINST 5100.19 Series B-4

IS HEARING PROTECTION AVAILABLE, USED AND ISSUED AS NECESSARY WITH ELECTRICAL PORTABLE TOOLS?

REF:

OPNAVINST 5100.19 Series B-7 & C9

NSTM 300-2.7

OPNAVINST 5100.19 Series B-7

ARE ALL SURGE PROTECTORS AUTHORIZED FOR USE ONBOARD SHIP AND CHECKED IAW PMS?

REF:

OPNAVINST 5100.19 Series C-9

NSTM 300-2.7

PMS MIP 3000/001 Series

ARE ALL PERSONAL PROTECTIVE EQUIPMENT IN THE TOOL ISSUE PROPERLY MAINTAINED INCLUDING: RUBBER GLOVES PROPERLY PMS'ED AND PLACED IN ORIGINAL BOX/PROTECTED FROM DAMAGE DURING STORAGE? ARE LEATHER OVER-GLOVES AVAILABLE TO PROTECT RUBBER GLOVES FROM DAMAGE DURING USE.

REF:

NSTM 300 I.1.5.E

PMS MIP 3000/001 Series

OPNAVINST 5100.19 Series B-12 & C-9

IS THE ELECTRICAL REPAIR KIT IN THE REPAIR LOCKER (S) OR DAMAGE CONTROL UNIT (DCU), DAMAGE CONTROL UNIT PATROL STATION (DCUPS) AND RESCUE AND ASSISTANCE RE-ENTRY LOCKER (REL) BEING MAINTAINED?

REF:

AEL 2-880044243

AEL 2-880044244

ARE REPAIR LOCKER RUBBER GLOVES BEING PROPERLY MAINTAINED?

REF:

PMS MIP 6641/006 Series

IS EYE PROTECTION PROVIDED WITH PORTABLE TOOLS WHERE PARTICLES MAY STRIKE THE EYES?

REF:

OPNAVINST 5100.19 Series B-7 & C-9

NSTM 300-2.7

Galley

IS "DANGER SHOCK HAZARD" SIGN POSTED ON ALL GALLEY ELECTRICAL EQUIPMENT? (WHERE VOLTAGES ARE BETWEEN 30 VOLTS AND 500 VOLTS)?

REF:

GSO 070 H

ARE GALLEY ELECTRICAL EQUIPMENT OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS PROPERLY POSTED AND ARE PERSONNEL FAMILIAR WITH THEIR CONTENTS?

REF:

GSO 602 H

OPNAVINST 5100.19 Series C-19

IS GALLEY GARBAGE GRINDER IN SAFE OPERATING CONDITION WITH SAFETY CLEANOUT INTERLOCK AND INDICATING LIGHTS FUNCTIONING PROPERLY?

REF:

UL 430

SAFETY ADVISORY Waste Disposal- ADVISORY 02-18

PMS MIP 6517/004 Series

OPNAVINST 5100.19 Series C-19

ARE THE GREASE INTERCEPTOR HOOD EXHAUST DAMPER THERMOSTATIC SWITCHES TESTED IAW PMS?

REF:

PMS MIP 9802/002 Series

PMS MIP 5121/004 Series