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[c=US;a=DMS;o=DC1;ou1=YLJF4;ou2=NAVSURFWARCEN
SHIPSYSENGSTA(n);dda.msxcx500=c:US,o:U.S.
Government,ou:DoD,ou:NAVY,ou:Organizations,l:Pennsylvania,l:PHILADELPHIA
,ou:NAVSURFWARCEN SHIPSYSENGSTA PHILADELPHIA;dda.msxcx500= PA(n)]
Sent: Thursday, November 21, 2002 6:21 PM
To: 'COMNAVAIRLANT NORFOLK VA'; 'COMNAVAIRPAC SAN DIEGO CA';
'COMNAVSURFLANT NORFOLK VA'; 'COMNAVSURFPAC SAN DIEGO CA'; 'COMSUBPAC
PEARL HARBOR HI'; 'COMSUBLANT NORFOLK VA'; 'COMNAVSEASYSKOM WASHINGTON
DC(n)'; 'PEO SUB WASHINGTON DC(n)'; 'PEO THEATER SURFACE COMBATANTS
WASHINGTON DC(n)'; 'PEO CARRIERS WASHINGTON DC(n)'; 'PEO MUW WASHINGTON
DC(n)'; 'PEO EXW WASHINGTON DC(n)'; 'NAVSHIPYD AND IMF PEARL HARBOR HI';
'NAVSHIPYD NORFOLK VA(n)'; 'NAVSHIPYD PORTSMOUTH NH'; 'NAVSHIPYD PUGET
SOUND WA(n)'; 'SUPSHIP JACKSONVILLE FL(n)'; 'SUPSHIP NEW ORLEANS LA';
SUPSHIP NEWPORT NEWS VA (E-mail); 'SUPSHIP PASCAGOULA MS(n)'; 'SUPSHIP
PORTSMOUTH DET COLTS NECK NJ(n)'; 'SUPSHIP SAN DIEGO CA(n)'; 'SUPSHIP
NEW LONDON CT(n)'; 'SUPSHIP GROTON CT(n)'; 'SUPSHIP BATH ME(n)'
Cc: 'COMNAVSEASYSKOM WASHINGTON DC(n)'; 'CHET NORFOLK VA(n)'; 'CHET
MAYPORT FL(n)'; 'CHET PASCAGOULA MS(n)'; 'CHET SAN DIEGO CA'; 'CHET
EVERETT WA(n)'; 'CHET PEARL HARBOR HI'; 'CHET YOKOSUKA JA(n)';
'INSURVPAC SAN DIEGO CA(n)'; 'FTSCLANT DET MAYPORT FL'; 'FTSCLANT
NORFOLK VA'; 'FTSCLANT DET NAPLES IT(n)'; 'FTSCLANT DET INGLESIDE
TX(n)'; 'FTSCPAC SAN DIEGO CA'; 'FTSCPAC DET PEARL HARBOR HI'; 'FTSCPAC
DET EVERETT WA'; 'FTSCPAC DET SASEBO JA(n)'; 'FTSCPAC DET SINGAPORE SN';
'COMNAVSAFECEN NORFOLK VA(n)'; 'NAVSURFWARCEN SHIPSYSENGSTA
PHILADELPHIA
PA(n)'
Subject: FUSE COVERS 211800Z NOV 02

Importance: Low

UNCLAS/NO5521//
MSGID/GENADMIN/NSWCCD-SSES 9345//
SUBJ/FUSE COVERS TO ELIMINATE POTENTIAL SHOCK HAZARD ON 100 AMPERE
/CIRCUIT BREAKER (CKT BKR) FUSE UNITS//
REF/A/MSG/NAVSEA/071220Z/DEC 00//
REF/B/DOC/NAVSEA/01SEP2000//
REF/C/DOC/NAVSHIPS/-//
NARR/REF A PROVIDES BACKGROUND INFORMATION ON 100 AMP CKT BKR
FUSE UNIT SHOCK HAZARD, REF B IS TAG-OUT USERS MANUAL
S0400-AD-URM-010/TUM, AND REF C IS NAVSHIPS TECHNICAL MANUAL
0962-042-1010 FOR AQB-A101 CKT BKR//
POC/P. TAHOPOULOS/ELEC ENGR/NSWCCD 9345/LOC:PHILADELPHIA
/TEL:215 897-1186//
RMKS/1. REF A DISCUSSED A POTENTIAL FUSE UNIT SHOCK HAZARD ON 100
AMP CKT BKRS AND PROVIDED PROCEDURES FOR PERIODICALLY CHECKING
VOLTAGES ON THE FUSE UNITS. THE FUSE UNITS ARE MANUFACTURED BY
BUSSMANN AND ARE AVAILABLE IN TWO DESIGNS, NSN 5920-00-215-4727 (FOR
CKT BKR TRIP ELEMENTS OF 15-25 AMPS) AND NSN 5920-01-281-4158 (FOR
CKT BKR TRIP ELEMENTS OF 50-100 AMPS). THESE FUSE UNITS ARE
INSTALLED ON 100 AMP AQB CKT BKR TYPES AQB-A101, AQB-A102, AND
AQB-A103. THE FUSE UNIT MOUNTING SCREWS AND THE THREE BLOWN FUSE
INDICATORS ON THE FACE OF THE FUSE UNIT WERE/ARE THE SOURCE OF THE
POTENTIAL SHOCK HAZARD. REF A RECOMMENDED THAT SURFACE SHIPS
CONTINUE TO PERFORM VOLTAGE CHECKS OF THE MOUNTING SCREWS AND BLOWN
FUSE INDICATORS ON A QUARTERLY BASIS UNTIL A PERMANENT SOLUTION

COULD BE IMPLEMENTED. SUBMARINES WERE REQUESTED TO CHECK THE VOLTAGE ONCE MORE BUT NOT REQUIRED TO REPORT THE RESULTS. REF A ALSO STATED THAT NSWCCD-SSES WAS WORKING WITH BUSSMANN TO DEVELOP A CLEAR COVER THAT WOULD BE INSTALLED ON THE FACE OF THE FUSE UNIT TO PREVENT CONTACT WITH THE MOUNTING SCREWS AND BLOWN FUSE INDICATORS.

2. THIS CORRESPONDENCE SERVES TO INFORM TYCOMS, PROGRAM OFFICES, AND THE SHIPBUILDING COMMUNITY THAT A FUSE COVER TO ELIMINATE THE SHOCK HAZARD IS NOW AVAILABLE THROUGH THE STOCK SYSTEM. FUSE COVER INSTALLATION INSTRUCTIONS CAN BE FOUND IN PARA 4 BELOW (NO INSTRUCTIONS ARE INCLUDED WITH THE COVER). THE FUSE COVER NSN IS 5920-01-467-5188, THE BUSSMANN PART NO. IS LAC-FC, AND THE COST FOR EACH COVER IS \$4.34. ORDERS FOR NSN 5920-01-467-5188 SHOULD BE PLACED IN MULTIPLES OF 10 SINCE THE MINIMUM ORDER QUANTITY IS 10. EACH SHIPPING CONTAINER WILL INCLUDE 10 COVERS, 20 NYLON MOUNTING SCREWS, AND 10 WARNING LABELS. THE FUSE COVER IS TRANSPARENT SO THE FUSE UNIT LABEL, WARNING LABEL, AND BLOWN FUSE INDICATORS WILL STILL BE VISIBLE AFTER INSTALLATION. DEFENSE SUPPLY CENTER COLUMBUS (DSCC) HAS 5000 COVERS READY-FOR-ISSUE TO SATISFY INITIAL DEMAND. AS DEMAND INCREASES, DSCC WILL ORDER MORE COVERS ACCORDINGLY. SHIPS 89000 SERIES APLS WILL BE UPDATED TO ADD NSN 5920-01-467-5188 BY NSWCCD-SSES, ECD IS 15 FEB 03. NSWCCD-SSES IS DISCUSSING WITH BUSSMANN A NEW DESIGN OF THE FUSE UNIT THAT WOULD ELIMINATE THE NEED FOR COVERS ON FUTURE ORDERS. WHEN SUCH A FUSE UNIT IS AVAILABLE, NSWCCD-SSES WILL PROVIDE NOTIFICATION VIA NAVAL MESSAGE.

3. NSWCCD-SSES STRONGLY RECOMMENDS THE FOLLOWING:

A. A FUSE COVER SHOULD BE BACKFIT ON ALL INSTALLED 100 AMP BREAKER FUSE UNITS DESCRIBED IN PARA 1 ABOVE INCLUDING THOSE FOR NEW CONSTRUCTION PROGRAMS.

B. PROGRAM OFFICES, SUPSHIPS, AND SHIPYARDS SHOULD DEVELOP A VEHICLE (SHIPALT, AER, A&I, ECP, ETC.) TO BACKFIT THESE FUSE COVERS.

C. UPON ISSUANCE, TYCOMS SHOULD DIRECT FLEET UNITS ACCOMPLISH THE APPLICABLE SHIPALT, AER, A&I, ECP, ETC.

4. TO INSTALL A FUSE COVER, SHIPS FORCE SHOULD PERFORM THE FOLLOWING STEPS:

A. TAG-OUT CKT BKR AND FOLLOW SAFETY PRECAUTIONS IAW REF B AND NSTM CHAPTER 300.

B. INSPECT THE FOUR FUSE UNIT SCREW HOLES ON THE FACE OF THE FUSE UNIT FOR RTV. IF RTV HAS BEEN USED TO FILL-IN THE UPPER LEFT OR BOTTOM RIGHT SCREW HOLES, IT WILL HAVE TO BE REMOVED FROM THESE HOLES BEFORE INSTALLING THE FUSE COVER. REMOVE ANY EXCESS RTV ON THE UPPER RIGHT AND LOWER LEFT SCREW HOLES THAT WOULD PREVENT THE FUSE COVER FROM SITTING FLUSH AGAINST THE FUSE UNIT.

C. APPLY THE WARNING LABEL DIRECTLY ON THE FRONT OF THE FUSE UNIT BELOW THE BUSSMANN ADDRESS. THE WARNING LABEL STATES "DANGER! SHOCK HAZARD! DO NOT REMOVE FUSE UNIT COVER WITHOUT FIRST TAGGING OUT ASSOCIATED BREAKER."

D. PLACE THE FUSE COVER OVER THE FRONT OF THE FUSE UNIT. THE FUSE COVER INCLUDES A THIN GASKET MATERIAL THAT IS ATTACHED TO THE OUTER EDGE OF THE COVER. THIS GASKET MATERIAL SHOULD BE FLUSH AGAINST THE FUSE UNIT. ENSURE THAT SCREW HOLES IN THE UPPER LEFT AND BOTTOM RIGHT ARE ALIGNED AND INSERT NYLON SCREWS. RECOMMENDED TORQUE ON NYLON SCREWS IS 2 IN-LBS.

E. INSPECT THE AREA ON ALL FOUR SIDES OF THE FUSE UNIT WHERE THE GASKET CONTACTS THE FUSE UNIT. ENSURE THAT THE GASKET PRODUCES A SEAL AND ELIMINATES ANY AIR GAPS BETWEEN THE FUSE COVER AND THE FUSE UNIT.

5. AFTER A FUSE COVER IS INSTALLED, NO FURTHER VOLTAGE CHECKS ARE REQUIRED ON THAT PARTICULAR FUSE UNIT. NSWCCD-SSES RECOMMENDS SURFACE SHIPS CONTINUE TO CHECK UNCOVERED FUSE UNITS ON A QUARTERLY BASIS IAW PARA 6 BELOW UNTIL A FUSE COVER IS INSTALLED.

6. THIS PARAGRAPH PROVIDES INSTRUCTIONS FOR VOLTAGE CHECKS ON UNCOVERED FUSE UNITS. FIGURES 4 AND 7 OF REF C CAN BE REFERRED TO WHEN PERFORMING THE ACTIONS DESCRIBED BELOW. SHIPS FORCE SHOULD FOLLOW REF B AND NSTM CHAPTER 300 SAFETY PRECAUTIONS FOR WORKING ON ELECTRICAL EQUIPMENT AND TAKE ACTION AS FOLLOWS:

A. USE AN ANALOG OR DIGITAL METER TO MEASURE BETWEEN THE AREA ON AND AROUND THE TIP OF EACH OF THE THREE BLOWN FUSE INDICATORS AND GROUND (THE FRONT OF THE SWITCHBOARD). IF ALL VOLTAGES ARE LESS THAN 10 VOLTS, PROCEED TO PART B. IF ANY VOLTAGE MEASURED IS GREATER THAN 10 VOLTS, TAG OUT THE ASSOCIATED 100 AMP CKT BKR AND REPLACE THE FUSE UNIT. ENERGIZE THE CIRCUIT AND PROCEED TO PART B.

B. MEASURE THE VOLTAGE BETWEEN THE UPPER RIGHT FUSE UNIT MOUNTING SCREW AND GROUND AND THEN MEASURE THE VOLTAGE BETWEEN THE LOWER LEFT MOUNTING SCREW AND GROUND. IF BOTH VOLTAGE READINGS ARE LESS THAN 10 VOLTS, THE FUSE UNIT IS ACCEPTABLE. IF ANY VOLTAGE MEASURED IS GREATER THAN 10 VOLTS, TAG OUT THE ASSOCIATED 100 AMP CKT BKR, REMOVE THE FUSE UNIT, AND THOROUGHLY CLEAN THE REAR SURFACE OF THE FUSE UNIT AROUND THE MALE CONNECTIONS AND MOUNTING SCREW HOLES. VERIFY THAT THE FUSE UNIT MOUNTING BASE CONNECTIONS ARE DE-ENERGIZED IN ACCORDANCE WITH REF B AND NSTM CHAPTER 300. THOROUGHLY CLEAN THE SURFACES AROUND THE FEMALE CONNECTIONS AND MOUNTING SCREW HOLES ON THE FUSE UNIT MOUNTING BASE. REINSTALL THE FUSE UNIT AND ENERGIZE THE CIRCUIT. PROCEED TO THE BEGINNING OF PART B ABOVE. IF REPEATED CLEANING DOES NOT ELIMINATE THE HIGH VOLTAGE, APPLY RTV TO BOTH MOUNTING SCREW HOLES.

7. NSWCCD-SSES TPOC FOR THIS ISSUE IS GEORGE RASICH, 215-897-1666, DSN 443-1666, EMAIL RASICHG@NSWCCD.NAVY.MIL.//