

LOW IMPACT (LI) SHOCK QUALIFICATION VIA TEST, EXTENSION, OR ANALYSIS IN ACCORDANCE WITH PPD 802-8484311. IS REQUIRED FOR THIS ITEM, UNLESS THE ITEM HAS ALREADY BEEN QUALIFIED FOR OHIO REPLACEMENT CLASS SUBMARINES VIA STANDARD CLAUSE 09-L WITHIN THE PART DESCRIPTION FOR THIS ITEM.

IF SHOCK DESIGN GUIDANCE IS REQUIRED BY THE SUPPLIER, THE SUPPLIER SHALL SUBMIT A VENDOR INFORMATION REQUEST (VIR) TO REQUEST THIS INFORMATION, WHICH WILL BE PROVIDED STRICTLY FOR GUIDANCE ONLY. REGARDLESS OF SHOCK DESIGN VALUES USED, THE SUPPLIER IS RESPONSIBLE FOR PROVIDING ITEMS WHICH SATISFY ALL SHOCK QUALIFICATION REQUIREMENTS (FOR TESTING, EXTENSION, OR ANALYSIS, AS APPLICABLE).

ORDERING DATA FOR SHOCK QUALIFICATION IN ACCORDANCE WITH PARAGRAPH 6.2 OF PPD 802-8484311 HAS BEEN PROVIDED IN THE PART TEXT/DESCRIPTION AND/OR PROCUREMENT SPECIFICATION, IF APPLICABLE. IF SHOCK ORDERING DATA IS REQUIRED AND HAS NOT BEEN PROVIDED, THE SUPPLIER IS TO SUBMIT A VENDOR INFORMATION REQUEST TO REQUEST AN ORDERING DATA SUPPLEMENT TO THE PURCHASE ORDER.

#### SHOCK EXTENSIONS:

ITEMS IDENTICAL OR SIMILAR TO ITEMS WHICH HAVE BEEN PREVIOUSLY HIGH IMPACT SHOCK TESTED IN ACCORDANCE WITH THE HIGH IMPACT SHOCK REQUIREMENTS OF PPD 802-6337449, MIL-S-901C, MIL-S-901D (WITH OR WITHOUT INTERIM CHANGE 1), PPD 802-6335704, OR MIL-S-901D I.C. #2 REQUIRE ADDITIONAL LI SHOCK EVALUATION, ANALYSIS, OR ALTERNATE TESTING IF THEY ARE TO BE INSTALLED ON A SHOCK MITIGATED DECK OR SHOCK ISOLATED DECK AND HAVE AT LEAST ONE NATURAL FREQUENCY BELOW 10 HERTZ (WHEN INSTALLED ON A FOUNDATION) OR IF THEY WERE PREVIOUSLY HIGH IMPACT SHOCK TESTED ON SHOCK MITIGATION DEVICES (E.G., AEROFLEX ISOLATORS, BARRY CUP MOUNTS, ETC.), AND THE SHOCK RESPONSE FREQUENCY OF THE DEVICE IS LESS THAN 10 HERTZ.

CONSIDERATION OF IDENTICAL ITEMS SHALL ADDRESS SPECIFIC SYSTEM AND MOUNTING LOCATION INFORMATION (I.E., USAGE AND APPLICATION) IN ADDITION TO HARDWARE. PIECE-TO-PIECE COMPARISON WITH TECHNICAL RATIONALE FOR EXTENSION SHALL BE PROVIDED. ALL POTENTIAL SHOCK EXTENSION OR ANALYSIS OPTIONS SHOULD BE THOROUGHLY INVESTIGATED PRIOR TO DETERMINING THAT SHOCK TESTING IS REQUIRED. FOR SUCH ITEMS, DETAILED PROOF OF PREVIOUS SHOCK TESTING, INCLUDING A SHOCK TEST REPORT AND NAVY APPROVAL DOCUMENTATION, SHALL BE SUBMITTED TO THE BUYER WITHIN 30 DAYS OF RECEIPT OF THIS ORDER FOR EVALUATION FOR SHOCK TEST EXTENSION APPLICABILITY.

ALL EXTENSION REQUESTS (FOR IDENTICAL OR SIMILAR ITEMS) SHALL BE PREPARED IN ACCORDANCE WITH DATA ITEM DESCRIPTION DI-ENVR-80706 OF PPD 802-8484311 AND MUST BE REVIEWED BY THE BUYER TO DETERMINE IF THE ORIGINALLY TESTED ITEM, MOUNTING CONFIGURATION, ORIENTATION, FUNCTIONAL REQUIREMENTS, ETC., ARE ACCEPTABLE AS A BASIS FOR EXTENSION PRIOR TO OBTAINING SHOCK QUALIFICATION APPROVAL FROM THE DESIGNATED APPROVAL AUTHORITY.

SHOCK QUALIFICATION BY TEST:

IN THE EVENT THAT THE BUYER IS RESPONSIBLE FOR SHOCK TESTING AN ITEM, SUPPLIER INVOLVEMENT SHALL TYPICALLY BE LIMITED TO SHIPPING, POST-TEST INSPECTION AND FUNCTIONAL TESTING, AS APPLICABLE.

SHOCK TEST, POST-SHOCK TEST INSPECTION, AND FUNCTIONAL TEST PROCEDURES SHALL BE PREPARED IN ACCORDANCE WITH THE APPLICABLE ORDERING DATA AND DATA ITEM DESCRIPTION DI-ENVR-80709 OF PPD 802-8484311. THESE PROCEDURES, INCLUDING A COPY OF THE SUPPLIER'S ASSEMBLY DRAWING (IF NOT PREVIOUSLY SUBMITTED FOR THIS CONTRACT), A DETAILED SCHEMATIC OF THE TEST SETUP FOR CATEGORY 1 ITEMS (INCLUDING SIZES, DIMENSIONS, MATERIALS, DUMMY WEIGHTS, MEANS OF ATTACHMENT, ETC.) AND SAMPLES OF SHOCK TEST DATA SHEETS, AS APPLICABLE, SHALL BE SUBMITTED TO THE BUYER FOR APPROVAL AT LEAST THREE MONTHS PRIOR TO THE SCHEDULED TEST DATE.

SHOCK TESTING SHALL BE PERFORMED AT APPROVED SHOCK TEST FACILITIES. GOVERNMENT WITNESSING AND REPORT CERTIFICATION REQUIREMENTS ARE AS SPECIFIED IN PPD 802-8484311.

IN THE EVENT THAT THE SUPPLIER IS DIRECTED TO COORDINATE AND/OR PERFORM SHOCK TESTING, THE FOLLOWING ADDITIONAL INFORMATION IS PROVIDED:

UPON COMPLETION OF SHOCK TESTING, THE SUPPLIER SHALL PREPARE AND SUBMIT TO THE BUYER A SHOCK TEST REPORT IN ACCORDANCE WITH DATA ITEM DESCRIPTION DI-ENVR-80708 OF PPD 802-8484311, INCLUDING POST-SHOCK TEST INSPECTION.

ALL COSTS INCURRED DUE TO SHOCK QUALIFICATION REQUIREMENTS, SUCH AS TRANSPORTATION, TEST SETUP, SHOCK TESTING, REPAIR, REPLACEMENT, OR RECONDITIONING, RE-TESTING, POST-SHOCK TEST

INSPECTION, AND FUNCTIONAL TESTING SHALL BE BORNE BY THE SUPPLIER, UNLESS OTHERWISE AGREED TO BY THE BUYER. THIS SHALL INCLUDE COSTS FOR THOROUGH INSPECTION AND CORRECTION OF DAMAGE TO TEST ITEMS WHICH HAVE SUCCESSFULLY PASSED SHOCK QUALIFICATION TESTING AND WHICH ARE TO BE DELIVERED TO THE BUYER.

MANUFACTURING SCHEDULES SHALL ALLOW AMPLE TIME FOR SHOCK TESTING TO MEET THE BUYER'S REQUIREMENTS. TEST ITEMS THAT FAIL TO PASS SHOCK TESTS SHALL BE IDENTIFIED TO THE BUYER AND, AS DIRECTED BY THE BUYER, RE-TESTED AS THE TEST FACILITY SCHEDULE PERMITS. THE SUPPLIER SHALL ALSO ALLOW SUFFICIENT TIME FOLLOWING THE SHOCK TEST TO PERMIT SHIPMENT BACK TO THE PLACE OF MANUFACTURE FOR POST-SHOCK TEST INSPECTION, FUNCTIONAL TESTING AND CORRECTION OF ANY DAMAGE SUCH THAT THE TEST ITEM MAY BE DELIVERED TO THE BUYER ON SCHEDULE.

#### SHOCK QUALIFICATION BY ANALYSIS

SHOCK QUALIFICATION BY ANALYSIS (PRIMARILY FOR SHOCK GRADE B ITEMS AND SELECTIVE GRADE A ITEMS) REQUIRES ADVANCE AUTHORIZATION, UNLESS THE PROCUREMENT SPECIFICATION OR OTHER GOVERNING REQUIREMENT SPECIFICALLY ALLOWS QUALIFICATION BY ANALYSIS. FOR QUALIFICATION BY ANALYSIS, THE SUPPLIER SHALL PROVIDE A REPORT TO THE BUYER WHICH DOCUMENTS THE ANALYSIS, INCLUDING ALL ANALYSIS ASSUMPTIONS AND PROCEDURES. THE ANALYSIS SHALL BE APPROVED BY THE DESIGNATED APPROVAL AUTHORITY.