DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
2531 JEFFERSON DAVIS HWY
ARLINGTON VA 22242-5160

IN REPLY REFER TO

NAVSEAINST 8020.7C
1 July 1999

NAVSEA INSTRUCTION 8020.7C

From: Commander, Naval Sea Systems Command

Subj: HAZARDS OF ELECTROMAGNETIC RADIATION TO ORDNANCE SAFETY PROGRAM

Ref: (a) OPNAVINST 8020.14
(b) NAVSEAINST 5450.72A
(c) MIL-STD-464
(d) NAVSEAINST 8020.6
(e) DOD 5000.2-R
(f) NAVSEA OP 3565/NAVAIR 16-1-529/ NAVELEX 9067-LP-624-6010
(g) NAVSEAINST 8020.17

Encl: (1) HERO Certification Process
(2) HERO Certification Template

1. Purpose. To issue the procedures for implementation of the U.S. Department of the Navy's (DON) Hazards of Electromagnetic Radiation to Ordnance (HERO) Program supporting references (a) and (b). The program objectives are to develop, coordinate, and direct HERO efforts to ensure that the conflict between ordnance safety and use of the electromagnetic spectrum can be effectively managed in the conduct of DON and joint-service operations.

2. Cancellation. This instruction cancels and supersedes NAVSEAINST 8020.7B of 25 August 1987. This revision has corrected or changed the content to the extent that the instruction is totally rewritten. Change notations are therefore omitted.

3. Definitions

a. Materiel. All equipment, apparatus, and supplies used by the DON.

b. Ordnance. Military materiel such as combat weapons of all kinds with ammunition and equipment required for their use. Ordnance includes all the things that make up a ship's or aircraft's armament--guns, ammunition, and all equipment needed to control, operate, and support the weapons.

c. Electromagnetic Radiation (EMR) Hazard. An EMR hazard, as used herein, refers to a situation in which transmitting equipment [e.g., radios, radar, electronic countermeasures (ECM), electronic counter-countermeasures (ECCM), ground penetrating

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radars, or other electromagnetic (EM) emitting devices] can generate EMR of sufficient magnitude to:

(1) Induce or otherwise couple electromagnetic energy in the form of currents or voltages of magnitudes large enough to exceed reference (c) criteria in electrically initiated devices (EIDs) contained in ordnance or materiel.

(2) Cause radiation-induced damage or degradation of performance in ordnance or materiel with EIDs as defined in reference (c).

d. EID. The acronym EID stands for Electrically Initiated Device. Any component activated through electrical means and having an explosive, pyrotechnic, or mechanical output resulting from an explosive or pyrotechnic action, and electrothermal devices having a dynamic mechanical, thermal, or electromagnetic output. Examples include bridgewire electroexplosive devices (EEDs), conductive composition electric primers, semiconductor bridge EEDs, laser initiators, exploding foil initiators, slapper detonators, burn wires and fusible links.

e. Hardware. Ancillary items associated with ordnance and materiel that are necessary to function, maintenance, and test.

f. HERO. The acronym HERO stands for Hazards of Electromagnetic Radiation to Ordnance.

g. HERO EMISSION CONTROL (EMCON). The emissions control of transmitting equipment (communication, radar, and others) to eliminate or reduce the electromagnetic environment to safe levels in those areas where susceptible ordnance may be exposed or present.

h. HERO EMCON BILL. A set of directions which provides procedures to manage the conflict between ordnance operations and the existing electromagnetic environment through frequency and/or power management and operational recommendations while ensuring operational flexibility.

4. Scope

a. The HERO program encompasses the establishment and implementation of explosives safety standards, criteria, instructions, regulations, and electromagnetic EMCON procedures for EMR emitters throughout DON in accordance with the organization and general responsibilities assigned by reference (a).

b. The HERO program includes conventional ordnance with EIDs such as gun systems and their munitions, missile systems, bombs,

flares, powered targets, depth charges, mines, torpedoes, and other materiel embodying EIDs (e.g., cable cutters, chaff and munitions dispensers, self destruct devices, aircraft engine fire extinguishing systems, life jacket inflators, etc.). This program also includes Department of Energy (DOE) ordnance and material with EIDs when integrated into Navy platforms. In application, this instruction applies to operations and equipment utilized from assembly/stockpile to safe separation sequence (e.g., processing, transporting, storing, testing, handling, loading/downloading, and the disposal of ordnance and materiel with EIDs).

c. This instruction applies to all programs:

(1) Involving ordnance and materiel with EIDs for surface ships, boats, crafts, submarines, aircraft, and shore installations;

(2) Involving EMR emitters developed or being modified for shipboard/aircraft use or shore installation; and

(3) Involving Department of Defense (DoD) or foreign ordnance and materiel with EIDs obtained for evaluation and use by DON or as a part of a DON joint development effort and/or usage.

d. This instruction implements the HERO requirements of the Weapon System Safety and Explosives Safety Programs of references (a) and (b).

5. Policy. Resolution of EMR hazard problems pertaining to ordnance and materiel with EIDs is required as stated in references (a) and (d). To this end, the following apply:

a. Ordnance and materiel with EIDs shall be designed to preclude the inadvertent functioning or degradation of EIDs by the EMR environment described in reference (c).

b. Prior to Approval for Low Rate Initial Production (LRIP) or Production Approval (PA) for service use, all ordnance and materiel shall be evaluated by the Naval Ordnance Center (COMNAVORDCEN) Weapons and Explosives Safety Office (N71) and certified for HERO. The HERO Certification Process is described in enclosure (1). HERO Certification shall be requested using the HERO Certification Template provided in enclosure (2). If ordnance must be released prior to HERO certification, or for designs that do not pass certification, based on an overriding fleet requirement, the following applies:

(1) Release of ordnance or materiel classified as HERO UNSAFE ORDNANCE constitutes high risk. In accordance with

reference (e), acceptance of this risk and signature of the request for release shall be by the Component Acquisition Executive (CAE). The Weapon System Explosives Safety Review Board (WSESRB) must be advised of and concur with such a request before deployment, including deployment considered limited or provisional in nature. Every 12 months the Program Manager shall reevaluate the operational requirement and resubmit the request to the CAE for re-approval until the item is modified, tested, and certified HERO SAFE. Components of ordnance or materiel may be individually classified as HERO UNSAFE as long as the deployed system, i.e., all up round, is not classified HERO UNSAFE ORDNANCE.

(2) Release of ordnance or materiel classified as HERO SUSCEPTIBLE ORDNANCE constitutes serious risk. In accordance with reference (e), acceptance of this risk and signature of the request for release shall be by the Program Executive Officer (PEO). The WSESRB must be advised of and concur with such a request before deployment, including deployment considered limited or provisional in nature. The overriding fleet requirement supporting such request shall be reviewed by the granting PEO every 12 months and the request either canceled and the ordnance or materiel withdrawn from deployment, or reissued until the item is modified, tested, and certified HERO SAFE.

c. Ordnance or materiel with EIDs previously certified for HERO which has been modified shall be recertified by analysis or test to the requirements of reference (c). In addition, any modification to the ordnance or materiel's stockpile-to-safe separation sequence (e.g., transportation/storage, assembly/disassembly, loading/unloading, staged, platform-loaded, immediate post launch) shall also be evaluated for its impact on the ordnance or materiel's susceptibility to EMR energy.

d. Support effort for obtaining HERO Certification shall be planned, budgeted, and funded as an integral part of the overall planning for all DON ordnance and materiel under consideration or development for procurement.

e. First-of-class (from both the lead yard and the follow yard) surface ships, boats, craft, and submarines employing, handling, or storing ordnance and materiel with EIDs shall be surveyed for HERO. The results of the survey shall be used to prepare a class HERO EMCON Bill. A HERO assessment and/or survey shall also be conducted when loadouts of ordnance and materiel with EIDs, or EMR emitters on ships, boats, crafts, submarines and aircraft are altered, changed, or relocated or when SHIPALTs, Alteration Installation Team (AIT) installations, ORDALTs, or aircraft alterations have significant HERO implications. Support effort for HERO assessments and surveys shall be planned, budgeted, and funded as an integral part of the procurement,

modification, and overhaul planning for ships, boats, crafts, submarines, and aircraft.

f. Shore installations employing, handling, storing or transporting ordnance and materiel with EIDs shall be surveyed for HERO as noted below. During the cycle, if the survey list of ordnance and materiel with EIDs or their location changes, and/or if EMR emitters are altered, changed, or relocated, a HERO assessment shall be conducted to determine the need for a resurvey. Support effort for HERO assessments and surveys shall be planned, budgeted, and funded as an integral part of the business plan for each shore activity. The list of facilities placed in the individual cycles will be maintained in reference (f).

(1) Five (5) Year Cycle - High transmitter density (population) with frequent upgrades and high-intensity ordnance operations. These facilities are constantly undergoing changes to the transmitter/antenna systems and ordnance facilities/operations which are tracked through Naval Facility (NAVFAC) site approval construction process. Some of these facilities are involved in the Base Realignment and Closure (BRAC) program.

(2) Seven (7) Year Cycle - Moderate transmitter density and a stable moderate intensity of ordnance operations. These facilities have some changes to the transmitter and antenna systems or ordnance operations that are submitted through the NAVFAC system.

(3) Ten (10) Year Cycle - Stable, low-density transmitter and ordnance population. These facilities maintain consistent operation with very few changes. Some are reserve units such as Air Force, Army, and Navy, which are very limited or restricted in the use of weapons.

6. <u>Responsibilities</u>

a. COMNAVORDCEN, consistent with the direction of references (a) and (b), shall administer the HERO program within the DON and shall provide the financial support to ensure that engineering and test facilities are available to verify ordnance and materiel containing EIDs are in compliance with reference (c).

(1) COMNAVORDCEN is responsible for implementation of the NAVSEA HERO program and for program administrative duties as follow:

(a) Develops and establishes criteria and guidance for the improvement of ordnance and materiel with EIDs to ensure future designs are immune from EMR hazards;

(b) Provides HERO consultation services to the designers of ordnance and materiel with EIDs to preclude deterioration, damage, or malfunction resulting from exposure to the EMR environment specified in reference (c);

(c) Establishes and maintains procedures for DON HERO Certifications and promulgates these procedures to Systems Commanders, Program Executive Offices (PEOs) and Program Managers for ordnance and materiel with EIDs under their design cognizance;

(d) Reviews Requests for HERO Certification submitted in accordance with paragraphs 6.a.(2), 6.b and 6.c of this instruction, and certifies ordnance and materiel with EIDs that are HERO SAFE ORDNANCE;

(e) Returns HERO Certification Requests to the submitter, without granting HERO Certification for items that are HERO susceptible or HERO unsafe when exposed to the environments of reference (c), and recommends measures to achieve certification;

(f) Maintains a permanent file of the HERO Certification for all ordnance and materiel with EIDs authorized for use by the DON;

(g) Maintains a record of waivers granted and requests in writing that Systems Commanders and/or PEOs either cancel or reissue waivers on a 12-month interval;

(h) In coordination with other DON agencies, reviews all planned transmitting and antenna installations ashore, including mobile and portable (e.g. ground conductivity meters, ground penetrating radars, etc.), and installations involving ordnance and materiel with EIDs to ensure that potential HERO problem areas are identified and rectified prior to implementation;

(i) Prepares, publishes, and maintains a current Electromagnetic Radiation Hazards Manual, reference (f), suitable for use by operating forces and DON agencies. The manual shall provide, as a minimum, the following HERO information:

1. A list of ordnance and materiel with EIDs and their HERO classification;

2. A detailed description of the HERO susceptibility of ordnance and materiel that are not certified HERO SAFE ORDNANCE;

3. A tabulation of the restrictions either on ordnance and material with EIDs handling and loading procedures, or on control of EMR required to guarantee HERO safe operations;

4. A method for preparation of HERO EMCON Bills for both ships and shore stations where a variety of ordnance and materiel with EIDs must be handled, loaded, or otherwise employed. Ordnance and materiel with EIDs provided by the Army and Air Force, and used by U.S. Navy, Coast Guard, and Marine Corps Forces shall be considered in HERO EMCON Bills;

(j) Conducts HERO assessments and surveys of ship and shore installations in accordance with paragraph 4-1 of Volume II of reference (f);

(k) Maintains reference (c) criteria for HERO EMR environment and HERO test acceptance;

(l) Represents the DON in HERO matters on committees, boards, panels, and programs with other services and foreign nations;

(m) Reviews reports of accidents, incidents, and problems associated with ship and shore operations that relate to HERO, and approves the corrective action;

(n) Provides responses to ship and shore HERO safety inquiries;

(o) Coordinates with the Chief of Naval Education and Training to ensure the inclusion of an appropriate HERO curriculum in training courses for personnel assigned to handling ordnance and materiel, electronics technicians, and operators of EMR emitting equipment;

(p) Reviews and approves for HERO safety, all topside design changes for relocating or upgrading EMR emitting systems and/or ordnance installations or handling areas; and

(q) Shall designate a DON representative to support the Joint Ordnance Electromagnetic Environmental Effects (E3) program sponsored by the Joint Spectrum Center (J5).

(2) Acquisition Managers responsible for either the development and procurement (or the procurement alone) of ordnance and materiel with EIDs shall perform the following in accordance with the policies noted in paragraphs 5.a, 5.b, 5.c and 5.d:

(a) Ensure that the criteria for HERO safety are included in applicable Program documents (i.e., Operational Requirements Documents (ORD), etc.);

(b) Provide funding and hardware required to support an adequate HERO program for each system being acquired. This program shall include engineering support and tests or other valid means of evaluation needed to obtain HERO Certification such that all new ordnance and materiel may be handled safely and without degradation of EID reliability in the specified EMR environment prior to LRIP/PA;

(c) Submit copies of HERO Certification Requests to COMNAVORDCEN (N71);

(d) Modify ordnance and materiel with EIDs to reduce EMR hazards to the acceptance criteria of reference (c);

(e) Ensure that a HERO Evaluation and a HERO Certification are obtained before a new Navy Ammunition Logistics Code (NALC)/Navy Stock Number (NSN)/Navy Inventory Control Number (NICN)/Local Inventory Control Number (LICN) is assigned to ordnance or materiel with EIDs as required by reference (g), and that a HERO Evaluation is requested to determine the necessity for a new HERO Certification whenever mechanical or electrical changes not requiring a new NALC/NSN/NICN/LICN assignment are made to the ordnance or materiel; and

(f) Ensure that in the event of HERO Certification rejection the necessary action to achieve certification is taken or that a waiver is obtained per paragraph 5.b.

(3) Project and Acquisition Managers responsible for the development and/or installation of EMR emitting equipment shall ensure that the following applicable information, as a minimum, is provided to COMNAVORDCEN (N71) 90 days prior to the intent to install any EMR emitter:

(a) Equipment Electrical Parameters including frequency, peak and average transmitter power, antenna gain, antenna half-power beamwidths and sidelobe levels, modulation, antenna dimensions.

(b) Installation drawings (shore), aircraft installation diagrams, and/or ship topside drawing.

This information will be used to determine HERO relevance and to calculate HERO SUSCEPTIBLE and HERO UNSAFE/UNRELIABLE ORDNANCE safe separation distances, and to update the EMR environment of references (c) and (f).

(4) Ship Acquisition Project Managers and Ship Logistics Managers are responsible for:

(a) Funding a HERO Analysis before any ordnance and materiel with EIDs and/or EMR emitting systems are altered, changed, or relocated; and

(b) Funding of all HERO Surveys as noted in paragraph 5.e.

(5) The Director, Combat Systems Design and Engineering Group (SEA 05K) is responsible for ensuring that:

(a) Ordnance and antenna locations minimize potential shipboard EMR hazards and HERO restrictions;

(b) All topside design changes for ordnance and antenna repositioning are reviewed for HERO before implementation; and

(c) Funding is provided to implement the policies as noted in paragraph 5.e.

b. Systems Commanders and PEOs are responsible for implementing a HERO program within their cognizant materiel support areas in accordance with the requirements set forth in reference (a), and as noted in paragraphs 5.a, 5.b, 5.c and 5.d. They shall:

(1) Ensure that HERO protective features are incorporated in ordnance and materiel designs, facilities, and ship and aircraft installations;

(2) Ensure that requests for LRIP or PA of ordnance and materiel with EIDs under their design cognizance are not made until a HERO SAFE Certification has been granted (see paragraph 5.b.) by COMNAVORDCEN (N71), or that a request to release (based on an overriding fleet requirement) has been documented for the ordnance or materiel;

(3) Modify ordnance and materiel to reduce EMR hazards to the acceptance criteria of reference (c);

(4) Provide copies of all HERO Certification Requests with supporting analyses and test data to COMNAVORDCEN (N71);

(5) Ensure that a HERO Evaluation is requested whenever changes are proposed to ordnance and materiel in accordance with reference (g);

(6) Provide the parameters to calculate safe separation distances for ordnance and materiel with EIDs from EMR emitting equipment under their design cognizance [as set forth in paragraph 6.a.(3)] to COMNAVORDCEN (N71); and

(7) Request a HERO assessment and obtain a HERO Certification whenever changes are proposed to ordnance and materiel's stockpile to safe separation sequence (e.g., transportation, storage, assembly/disassembly, handling, and loading operations).

c. Program Managers not under the direction of a Systems Command or PEO are responsible for implementing a HERO program as delineated in paragraphs 6.a.(2), 6.a.(3), 6.a.(4), 6.b.(1) and 6.b.(3). HERO Certification as required by paragraph 5.b shall be requested from COMNAVORDCEN (N71). The Program Manager shall provide supporting test data or evaluation rationale with the HERO Certification Request.

d. The Commander, Dahlgren Division, Naval Surface Warfare Center, Electromagnetic Effects Branch is the technical agent for the DON HERO program, and is responsible for providing the following, consistent with NAVSEA funding:

(1) Engineering and technical support to evaluate all Navy, Marine Corps, and Joint ordnance and materiel with EIDs to determine their immunity to EMR hazards;

(2) Engineering and technical support to conduct all Navy, Marine Corps, and Joint ship and shore station HERO assessments and surveys;

(3) Test facilities and maintenance support for those facilities.

e. The Type Commanders are responsible for funding HERO assessments and/or surveys as a result of changes to a ship's loadout of ordnance and materiel with EIDs or when EMR emitters are altered, changed, or relocated.

f. Chief of Naval Education and Training shall ensure appropriate HERO topics are included in curricula of formal courses pertaining to the handling of ordnance and materiel or operations and maintenance of EMR emitting equipment.

7. Action

a. The Commander, Naval Ordnance Center shall carry out the HERO responsibilities of the Commander, Naval Sea Systems Command, as described in paragraph 6.a(1).

b. All other agencies shall establish organizations, procedures, and the coordination necessary to carry out their responsibilities as given in this instruction. They shall follow the technical guidance of the COMNAVORDCEN with respect to the preclusion of EMR hazards to ordnance and materiel.

c. Commanders and DON Program Managers not under the direction of a Systems Command shall inform the COMNAVORDCEN of their point(s) of contact for HERO matters, appropriate pertinent command directives, and/or instructions.

G. P. NANOS, JR.

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HERO CERTIFICATION PROCESS

1. Scope. This process provides guidance on the procedures to be employed in obtaining HERO Certification for ordnance and materiel with electrically initiated devices (EIDs). This process is for use by designated Program Managers, Program Coordinators, and Office and Division Directors responsible for the design, development, test, and evaluation of ordnance and materiel with EIDs (These offices will be referred to herein as "Program Managers").

2. Applicable Documents

a. The following documents or the latest issue in effect form a part of this document to the extent specified herein:

INSTRUCTIONS		
	OPNAVINST 8023.2	Navy Explosive Safety Program
STANDARDS		
	MIL-STD-464	Department of Defense Interface Standard, Electromagnetic Environmental Effects Requirements for Systems
OPs		
	NAVSEA OP 3565/ NAVAIR 16-1-529/ NAVELEX 0967-LP-624-6010 Vol II	Electromagnetic Radiation Hazards (Hazards to Ordnance)
ODs		
	NAVSEA OD 30393	Design Principles and Practices for Controlling Hazards of Electromagnetic Radiation to Ordnance (HERO Design Guide)
TEMPLATES		
		HERO Certification Template [enclosure (2) to NAVSEAINST 8020.7C]

b. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence. COMNAVORDCEN (N71) is to be contacted if conflict is considered to exist, or an exemption is requested. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. Definitions. The terms used herein are defined in MIL-STD-464 except as noted below.

a. Instrumented (Non-Explosive) Test. This test consists of exposing a complete ordnance system, item, or device containing one or more EIDs to the electromagnetic radiation (EMR) environment specified in MIL-STD-464 while accomplishing all authorized assembly, handling, loading, and checkout procedures. Explosive and propellant charges, if present, shall be removed and a suitable detector substituted in its place in each EID in the item.

b. GO/NO-GO (Explosive) Test. This test consists of exposing a complete ordnance system, item, or device to the EMR environment specified in MIL-STD-464 while accomplishing all authorized assembly, handling, loading, and checkout procedures. Primary and secondary explosives/propellant charges shall be removed from the item, but live loaded EIDs (or EIDs loaded with reduced explosive charges) are to be used. Sole reliance on these GO/NO-GO tests is to be avoided because it requires a large sample size to be tested to achieve the degree of statistical confidence required for certification.

c. HERO Analysis. HERO Analysis consists of comparing the EID sensitivity, firing circuit characteristics, connectors, and the assembly, handling, loading and checkout procedures of an ordnance system, item, or device with a similar item that has previously been evaluated by an Instrumented Test as defined above, and determining the probability of an EMR hazard (which includes either a safety or reliability degradation).

d. HERO Site Analysis. An analysis to determine whether operations involving ordnance and materiel with EIDs may safely be collocated on a site with EM emitters.

e. HERO Test Plan. A HERO test plan includes, but is not limited to the following:

(1) A complete itemization and identification of all components comprising the system, item, or device to be tested and all necessary support equipment/hardware;

(2) A description of all authorized assembly, handling, loading, and checkout procedures required to prepare an item for loading on/in its intended launcher/platform and to make all necessary electrical connections to effect normal firing of the item; and

(3) A description of the EMR environment to which the item will be exposed during the test.

f. HERO Test Report. A HERO test report contains, in addition to the items specified in paragraph 3.e. above, the results of the test which are given in terms of the percentage of the maximum no-fire stimuli induced in each EID, conclusions, recommendations, and descriptions of HERO design fixes, if necessary.

g. HERO Consultation Services. Services provided by HERO engineers to ordnance and materiel Integrated Product Teams and manufacturers to aid in designing systems to preclude HERO. Consulting services are required during the developmental cycle prior to fabrication of new or modified systems to ensure that the latest HERO design considerations are utilized. These services will include review of the following:

(1) Drawings of proposed hardware,

(2) Schematics of firing circuits,

(3) Design and sensitivity characteristics of EIDs,

(4) Routing of internal and external cabling,

(5) Interfaces of weapon/launcher, and

(6) Any other design feature which might affect the EMR susceptibility of new or modified systems.

4. Process. NAVSEAINST 8020.7 requires that all DON ordnance and materiel with EIDs be certified for authorized transportation, storage, handling, loading, and checkout in the maximum EMR environments cited in MIL-STD-464. To accomplish this, the following process shall be followed:

a. Program Managers of new or modified ordnance and materiel with EIDs shall provide information to the Naval Surface Warfare Center, Dahlgren Division (NSWCDD), EM Effects Branch concerning the design, development, and evaluation schedules for items under their cognizance. This information shall include the nomenclature of the item, the cognizant branch, field station, or contractor concerned with development or modification of the item and anticipated time frames for the various developmental phases (This information is essential for planning and scheduling consultations, analyses, and/or tests).

b. NSWCDD shall provide cost estimates to the Program Manager for the services to be performed.

c. The Program Manager shall provide adequate funding to NSWCDD to support the required services.

d. NSWCDD shall provide a plan of action and milestones for consultation services, analyses, and/or test to the Program Manager.

e. If a HERO test is required, NSWCDD shall prepare a HERO test plan for the ordnance or materiel to be HERO tested, and provide a copy of the test plan to the Program Manager.

f. The Program Manager shall review the test plan submitted by NSWCDD for accuracy of handling and loading procedures and hardware nomenclature, and provide comments prior to performance of HERO tests.

g. NSWCDD shall schedule the HERO test based on the availability of the facilities and assets. At the request of the Program Manager, preliminary tests may be conducted during the various developmental phases to obtain engineering data.

h. The Program Manager shall provide all test hardware to NSWCDD at least 90 days prior to the commencement of the test.

i. NSWCDD shall instrument the test article and conduct the test.

j. NSWCDD shall submit the HERO test report to COMNAVORDCEN (N71) and the Program Manager.

k. The Program Manager shall submit to COMNAVORDCEN (N71) the HERO Certification Request [see enclosure (2)] identifying the ordnance or materiel, and provide reference to the HERO test or analysis report used as a rationale for requesting HERO Certification.

l. COMNAVORDCEN (N71) will review the HERO Certification Request along with supporting data and either approve or reject the request as follows:

(1) If approved, the Certification will be included in the next Change/Revision to NAVSEA OP 3565/NAVAIR 16-1-529/NAVELEX 0967-LP-624-6010. The original HERO Certification Form will be retained in the COMNAVORDCEN (N71) HERO Certification File.

(2) If the HERO Certification Request is rejected, COMNAVORDCEN (N71) will provide justification for the rejection, recommend means for reducing demonstrated susceptibilities of the system, and/or provide recommendations for EMR emissions controls to permit safe utilization of the system until an appropriate HERO Fix can be developed.

m. In the event of rejection of a HERO Certification Request, the Program Manager may authorize design changes to rectify the hazards identified by HERO Test/Analyses. In the case of an overriding fleet requirement, the Program Manager shall process a request to release without a HERO Certification. This must be approved at the appropriate level as required by NAVSEAINST 8020.7.

n. When ordnance or materiel with EIDs is determined to be susceptible to EMR, COMNAVORDCEN (N71) shall inform the Program Manager and recommend possible HERO fixes or approaches for fixes. Funding for a suitable HERO fix is the responsibility of the Program Manager. If interim use of the system is required, due to operational necessity, prior to implementation of corrective action, EMR emission controls will be recommended to permit safe operation until suitable modifications can be fabricated, evaluated, and retrofitted.

HERO CERTIFICATION TEMPLATE

From: _____
(Project/Acquisition Manager)
To: Commander, Naval Ordnance Center (N71)

Subj: HERO CERTIFICATION REQUEST FOR _____
(Official Nomenclature/Designation of Item/System)

Encl: (1) _____
(Supporting Data/Rationale upon which Certification Request is based)

1. It is requested that HERO Certification be granted for the subject item/ system. This request is based on the information provided by enclosure (1).

_____
(Project/Acquisition Manager generating request)

FIRST ENDORSEMENT on _____ request of _____
(Originator) (Date)

From: Commander, Naval Ordnance Center
To: _____
(Originator)

Subj: HERO CERTIFICATION FOR _____

Ref: (a) NAVSEA OP 3565/NAVAIR 16-1-529/NAVELEX 0967-LP-624-6010

1. HERO Certification is ____ is not ____ granted for the subject item based on the following:

	YES	NO	REMARKS
a. HERO Test conducted?			
b. HERO Analysis performed?			
c. Are EIDs susceptible to RF radiation?			
d. Conditions or restrictions necessary other than General Precautions and Restrictions of reference (a)?			

e. Test data/analysis available in NSWCDD ltr _____, of _____.

2. Remarks:

By direction

HERO CERTIFICATION TEMPLATE (continued)

SECOND ENDORSEMENT on _____ request of _____
(Originator) (Date)

From: _____
(Originator)

To: _____
(Systems Commander Responsible for Acquisition of Subject Item)

Via: Commander, Naval Ordnance Center (N71)

Subj: REQUEST FOR RELEASE WITHOUT HERO CERTIFICATION OF _____

Ref: (b) MIL-STD-464

Encl: (2) _____
(Safe Handling Procedures for Subject Item in EMR Environment)

1. Subject item has failed to meet the HERO Requirements of reference (b). A request to release without the HERO Certification Requirement for this item is requested because _____
_____
_____
_____
_____

2. The following action is being taken to ensure that HERO Certification of this item can be accomplished by _____

a. _____
_____

b. _____
_____

3. Until modification can be made to subject item and HERO Certification achieved, the process of enclosure (2), if strictly adhered to by the operational forces, would minimize the risks involved in the deployment of this item.

_____
(Project/Acquisition Manager)

HERO CERTIFICATION TEMPLATE (continued)

THIRD ENDORSEMENT on _____ Request of _____
(Originator) (Date)

From: _____
(Systems Commander or Officer Responsible for Acquisition of Subject Item)

To: _____
(Originator)

Via: (1) Commander, Naval Ordnance Center (N71)
(2) Chairman, Weapon System Explosives Safety Review Board

Subj: REQUEST FOR RELEASE WITHOUT HERO CERTIFICATON OF _____

1. A request to release _____ without HERO Certification is due to an overriding fleet requirement. The special process of enclosure (2) is to be included in all appropriate Manuals, Handbooks, and Training Courses for personnel utilizing the Subject Item until this deficiency can be rectified. The date for completion of the item modification and HERO Certification is _____.

_____
(Commander of Systems Command or
Officer Responsible for Acquisition
of Subject Item)