



DEPARTMENT OF THE NAVY

CHIEF OF NAVAL EDUCATION AND TRAINING  
250 DALLAS ST  
PENSACOLA FLORIDA 32508-5220

CNETINST 8020.1C  
Code 00X13

NOV 27 1998

CNET INSTRUCTION 8020.1C

Subj: EXPLOSIVES SAFETY POLICIES, PROCEDURES, AND REQUIREMENTS

Ref: (a) OPNAVINST 8023.2C  
(b) OPNAVINST 5100.8G  
(c) OPNAVINST 5102.1C  
(d) NAVSEA OP 5 VOL I  
(e) NAVSEAINST 8023.11  
(f) CNETINST 1500.20C  
(g) OPNAVINST 8023.20E  
(h) OPNAVINST 5100.23D  
(i) NAVSEA OP 3565  
(j) SECNAVINST 8020.3C  
(k) OPNAVINST 8020.8J  
(l) NAVSEAINST 8020.14A

Encl: (1) Standard Operating Procedure (SOP) Format  
(2) Inert Ordnance Certification Program  
(3) Non-Nuclear Explosive Qualification/Certification Program  
(4) Recommended Publications and Instructions List  
(5) Explosives Safety Self-Audit (ESSA) Program  
(6) Job Hazard Analysis (JHA) Guidelines  
(7) NAVORDCEN Explosives Safety Inspection Program

1. Purpose. To establish the Chief of Naval Education and Training (CNET) Explosives Safety Program; to define its objectives, policies, and procedural guidance; and to define responsibilities for the elements of the program per reference (a). Since this is a major revision, marginal notations are not annotated.

2. Cancellation. CNETINST 8020.1B, CNTECHTRAINST 8020.1B, CNTECHTRAINST 8020.3. NAVEDTRACOM ACTIVITIES SHALL RETAIN ENCLOSURE (3) OF CNETINST 8020.1B for the purposes identified in enclosure (3) of this instruction.

3. Discussion

a. Established explosives safety policies are applicable to all activities where training or operations require the use of explosive materials. In all cases, adherence to safe operating practices and procedures can best be obtained when a clear and practical understanding of mishap prevention is maintained in the minds of all personnel involved. This goal can only be achieved through an effective explosives safety training program at each echelon of command.

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b. References (a) and (b) provide the policy and guidance for the Navy Explosives Safety Program, which shall be implemented within all activities where explosives or explosive devices are used. Reference (c) provides the guidelines and procedures for the submission of mishap reports pertaining to accidents, incidents, near-mishaps, or malfunctions involving the use of explosive materials. Reference (d) requires that all naval activities develop written procedures prior to starting any operation involving ammunition or explosives. Reference (e) and enclosure (1) to this instruction provide guidelines and procedures for the development of Standard Operating Procedures (SOPs). Enclosure (2) to this instruction prescribes methods for positive identification of inert-loaded or empty ammunition. Reference (f) promulgates policy and establishes procedures to eliminate or minimize the probability of a mishap to either students or instructors while involved in high risk training. Reference (g) defines policies and procedures for filing requests for explosive safety waivers or exemptions from established safety standards. Reference (h) is the Navy's Occupational Safety and Health Manual. Reference (i) identifies the Hazards of Electro-magnetic Radiation to Ordnance (HERO). Reference (j) identifies responsibilities for issuance and administration of waivers and exemptions from Department of Defense (DOD) explosives safety standards. Reference (k) provides the responsibilities of Department of Navy commands with respect to the DOD Explosive Safety Board. Reference (l) provides guidance on the conduct of Shore Station Explosives Safety Inspections by the Naval Ordnance Center (NAVORDCEN).

4. Scope. This instruction has been significantly revised, and must be reviewed in its entirety. This instruction is applicable to all military and civilian personnel of CNET activities, and contractors, whose duties include evolutions or tasks involving explosive materials or explosive devices. All explosives, ammunition, weapons, and devices using conventional explosives, pyrotechnics, or incendiary material for their operation are included in the general term "explosive devices."

5. Action

a. CNET (Code 00X) shall:

(1) Provide policy and guidance for the conduct of the Explosives Safety Program throughout CNET claimancy.

(2) Through periodic inspections of all activities, ensure an effective and aggressive Explosives Safety Program is implemented by all CNET activities.

(3) Ensure qualified inspectors augment Echelon 3 command inspection teams for review of subordinate activities' explosives safety programs.

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b. CNET (N414) shall:

(1) Provide disposition instructions for inert ordnance items not reportable under Conventional Ammunition Integrated Management System (CAIMS).

(2) Ensure that subordinate activities have sufficient quantities of inert ordnance with which to safely and effectively conduct training.

c. Chief of Naval Air Training; Commander, Training Command, U.S. Pacific Fleet; Commander, Training Command, U.S. Atlantic Fleet; and other echelon 3 activities with subordinate commands shall:

(1) Through periodic inspections (every 3 years minimum), monitor subordinate activities' Explosives Safety Programs. Utilize enclosure (5) of reference (1) for conducting explosives safety inspections. Personnel inspecting the explosives safety programs must have attended the below listed formal courses of instruction (see appendix D of reference (d)) or request CNET (Code 00X) arrange for an augmentee to the inspection team.

(a) Basics of Naval Explosives Hazards Control or Explosives Safety For Managers and Supervisors (Course Identification Number (CIN): AMMO-C-21 or AMMO-C-25).

(b) Electrical Explosives Safety (CIN: AMMO-C-27).

(c) Explosives Safety for Naval Facilities Planning (CIN: AMMO-C-15).

(2) Conduct more frequent inspections when deemed necessary.

(3) Immediately notify CNET (Code 00X) of any activity's explosives safety program that is evaluated as UNSATISFACTORY during command inspections.

(4) Ensure subordinate activities are conducting their Explosives Safety Self-Audits (ESSA).

(5) Ensure subordinate activities submit a Corrective Action Plan to NAVORDCEN, via chain of command, within 30 days of receipt of the formal results of the NAVORDCEN conducted Explosives Safety Inspection, and submit semi-annual updates to CNET (Code 00X), via the chain of command.

(6) Provide implementing instructions, where necessary, to provide for an effective Explosives Safety Program.

d. All commanders, commanding officers, and officers in charge of CNET activities shall:

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(1) Establish an aggressive Explosives Safety Program that includes the following specific elements:

(a) Appointing an Explosive Safety Officer in writing per reference (d). The Explosive Safety Officer shall not be assigned to the Weapons/Ordnance Department or any other department responsible for ordnance operations.

(b) Establishing procedures for the certification and identification of inert ordnance per reference (d). Refer to enclosure (2) for amplifying information.

(c) Establishing the standard Chief of Naval Operations (CNO) Explosive Qualification/Certification Program per reference (a). Refer to enclosure (3) for amplifying information.

(d) Establishing an explosives safety reference library comprised of the publications identified in appendix B of reference (d) and amplified in enclosure (4), as applicable.

(e) Implementing an ESSA Program per reference (1). Refer to enclosure (5) for amplifying information.

(f) Developing explosives mishap investigating and reporting procedures per references (c) and (h).

(2) Ensure SOPs are developed, per reference (e), for all evolutions involving the handling of explosive materials or explosive devices. Enclosure (1) provides a format for the preparation of SOPs. All SOPs shall be reviewed and compared with course curricula materials (if associated with a course of instruction) to ensure that policy, procedures, and regulations are in compliance with existing directives.

(3) Ensure emergency response, evacuation, and pre-mishap plans associated with explosive operations or training are developed, implemented, and rehearsed. (References (d) and (f) refer.)

(4) Ensure that waivers and exemptions, when absolutely required, are requested through the chain of command in accordance with reference (g).

(5) Ensure that CNET (Code 00X) is notified, by telephone, of the results of DOD Explosive Safety Board Surveys and Explosive Safety Inspections conducted by NAVORDCEN inspectors.

(6) Ensure Corrective Action Plans are submitted, via chain of command, within 30 days of receipt of formal results of the NAVORDCEN-conducted explosives safety inspection.

(7) Submit semi-annual update to CNET (Code 00X), via chain of command, for all discrepancies that remain open.

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e. In addition to the responsibilities identified in paragraph 1-4.3.1 of reference (d), the Explosive Safety Officer shall:

(1) Inspect all explosives operating buildings, training sites, workplaces, storage areas, and magazines at least semi-annually to ensure they comply with explosives safety requirements. These inspections shall be accomplished in conjunction with the workplace inspections conducted by the activity Occupational Safety and Health Office and Fire Inspectors where feasible. More frequent inspections are encouraged. Ensure identified deficiencies are entered into the activity's hazard abatement program (i.e., transcribed onto OPNAV 5100/12 and entered into the activity's hazard abatement log). Refer to chapter 9 of reference (h) for further guidance.

(2) Perform a job hazard analysis of all new operations (or those operations with significant changes) involving explosive materials or explosive devices to ascertain measures required to protect personnel and equipment using guidance provided in enclosure (6). For those operations that allow, reduce personnel exposure to eliminate or reduce the hazard. For those operations where reducing exposure is not practical, use of personal protective equipment is required (i.e., the use of American Standards National Institute (ANSI) approved safety glasses).

(3) Monitor the Inert Ordnance Certification and Non-Nuclear Qualification and Certification Programs.

(4) Assist the command's Occupational Safety and Health Manager in conducting mishap investigations in accordance with references (c) and (h), and ensure reports are submitted to higher authority as required. Maintain a record of all explosive mishaps/conventional ordnance discrepancy reports for the previous 3 years.

Note: Every accident, incident, near-mishap, or malfunction (explosive mishap) that involves explosive materials, devices, and ammunition shall be investigated and reported in accordance with reference (c). An investigation shall be conducted to determine cause and resulting losses, and to formulate corrective measures to prevent recurrences. Personnel conducting mishap investigations shall be qualified in accordance with reference (h).

f. The Occupational Safety and Health Manager shall:

(1) Coordinate workplace inspections so they are conducted in conjunction with the Explosive Safety Officer's semi-annual inspections where feasible.

(2) Enter explosives safety inspection deficiencies into the activity hazard abatement program.

g. The Chief Fire Inspector shall:

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(1) Coordinate workplace fire safety inspections so they are conducted in conjunction with the Explosive Safety Officer's semi-annual inspections where feasible.

(2) Provide fire inspection discrepancies of ordnance/ammunition facilities to the Navy Occupational Safety and Health (NAVOSH) Manager for inclusion into the activity hazard abatement program.



J. S. COLEMAN  
Vice CNET

Distribution (CNETINST 5218.2A):

Lists I, II (1-3, 7, 8, 11-17, 19-25, 28, 29, 31, 33, 34, 37, 38, 41), III, IV, V, VI, VII

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**STANDARD OPERATING PROCEDURE (SOP) FORMAT**

**Subj:** STANDARD OPERATING PROCEDURES FOR [LIST SPECIFIC OPERATION]

**Ref:** (a)  
(b)  
(c)

1. **Purpose.** To establish Standard Operating Procedures (SOPs) for [list specific operation] occurring in/on [list location].
2. **Explosive Limits.** [State the approved on-site explosives limits, and any restrictions in force, limits for explosive holding areas, and any other quantitative requirements concerning high explosives used at the site.]
3. **Personnel**
  - a. [Provide a statement concerning the levels of Qualification and Certification for personnel to conduct the operation per OPNAVINST 8023.2C and enclosure (5).]
  - b. [State the minimum and maximum amount of personnel allowed in the operation. (Ensure that personnel are maintained to a minimum number required to safely conduct operations as required by NAVSEA OP 5, para. 13-2.2.3a.)]
  - c. [State the Instructor/Student ratio for adequate instruction and safety if involved in the conduct of formalized training. (These figures can be found in the Master Course Schedule.)]
  - d. [State any personnel requirements to comply with OPNAVINST 5530.13A (armed guards, etc.).]
  - e. [Identify any support personnel requirements for operations (fire, medical, and safety, etc.).]
4. **Responsibilities.** [List the responsibilities of all personnel involved in the operation. Use references where appropriate.]
5. **Communications.** [List communications available at the Work/ Training Site. (If radios are used, include appropriate safe distances listed in NAVSEA OP 3565.)]
6. **Equipment.** [List any auxiliary equipment required for operations at the Explosive Operations Site (warning sirens, bravo flags, whistles, lights, bullhorns, first aid kits (fire blankets), fire fighting equipment, seals, etc.).]

Enclosure (1)

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7. Safety Summary and Hazard Control Briefing

a. [List the general as well as specific safety precautions and requirements that must be observed for each different evolution conducted at the Explosives Work/Training Site.]

b. [Develop a briefing on all known hazards that personnel will or may come in contact with during the evolution. Personal protective equipment requirements shall also be included in this section.]

8. Sequence of Operations

a. [Provide a complete detailed chronological sequence of events that identifies the preparation for, execution of, and post completion steps necessary to satisfy the evolution. Include notifications to be made before and after the operation. If, in the case of a specific training evolution, it is adequately covered in the form of a proctor guide or job sheet, reference that specific document. (This curricula shall be maintained with the SOP at the training site.) Any additional steps, however, must be delineated. (This detailed sequence should be written so that a new employee without prior knowledge of the operation could perform the evolution by simply reading the SOP.)]

b. [The SOP shall be kept in the work area with the procedures readily available for the use of the worker/instructor performing the task.]

9. Emergency Procedures. [Identify specific actions (by sequence) to be taken in the event of any accident/incident. If these procedures are adequately covered by a separate instruction covering pre-mishap plans required by CNETINST 1500.20C, identify that instruction in the SOP. (The Pre-Mishap Plan must be on scene during conduct of operations/training.) Specifically, there should be listed a single point of contact that an individual should notify in case of an accident, as well as initial and follow-up actions that should be taken. The telephone numbers listed in this section should be verified periodically.]

10. Supervisor/Worker Statement. [Every procedure covered by an SOP must include a worker's and supervisor's statement similar to the following:]

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Worker's Statement

I have read (or had read to me) and understand this SOP and I have received the hazard control briefing. I understand them. I will follow this SOP unless I identify a hazard not addressed in it or encounter an operation I do not understand. If that occurs, I will stop this procedure and notify my immediate supervisor of the problem.

Worker's Name	Worker's Signature	Date

Supervisor's Statement

I have read the SOP. I understand it. To the best of my knowledge the procedure described within this SOP can be done in a safe, healthful, and environmentally sound manner. I have made sure all personnel assigned to this procedure are qualified and have read and understand the requirements of the SOP and have signed the worker's statement for this process. I will conduct an annual review of this SOP. If deviations from this SOP are necessary, I will ensure the procedure is stopped until the SOP is revised and approved. If unexpected safety, health or environmental hazards are found, I will make sure this procedure is stopped until the hazards have been eliminated.

Supervisor's Name	Supervisor's Signature	Date

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11. Record of Approval. [This record contains spaces for signature and dating by personnel internal to the activity who developed and/or reviewed the SOP and provides a space for the commanding officer's approval. The following is an example record of approval section.]

Procedure Title: \_\_\_\_\_

Prepared By

Name	Signature	Date

Reviewed By

Dept	Name	Signature	Date

Approved By

Code	Name/Grade	Signature	Date

INERT ORDNANCE CERTIFICATION PROGRAM

Ref: (a) NAVSEA OP 5

1. Purpose. To amplify the requirements for positive identification of inert-loaded or empty ammunition and their components within the CNET claimancy.

2. Background

a. A number of incidents have occurred at naval activities involving ordnance items in displays that were thought to be inert or non-explosive. These items were, in fact, "live" items that did cause injuries that could have been serious.

b. Change number one to reference (a) has incorporated changes to the Inert Certification Program.

3. Scope. All CNET activities that require the use of inert or empty ordnance items shall adhere to the inspection and certification requirements of reference (a).

4. Action. All commanders, commanding officers, and officers in charge of CNET activities are responsible for establishing an Inert Ordnance Certification Program within their command. Specifically, they shall:

a. Ensure strict compliance with reference (a).

b. Ensure that the quantity of inert ordnance at the activity is maintained to the absolute minimum to effectively carry out his/her mission.

c. Designate a responsible individual to oversee the command's Inert Ordnance Certification Program. That individual shall ensure compliance with paragraphs 2-1.4 through 2-1.4.10 of reference (a) and shall:

(1) Ensure that inert certification documentation is maintained from "cradle to grave." Any item that does not have an audit trail will be considered "suspect" and be placed in an authorized explosives storage facility.

(2) Ensure that only Explosive Ordnance Disposal (EOD) personnel inspect and certify any ordnance item that cannot be positively proven to be loaded with inert material. Ordnance items stamped with "drill," "empty," or "inert loaded," unless accompanied by supporting paperwork, shall be handled as "explosives loaded" ordnance.

(3) Provide CNET (Code 00X and N414) a copy of all requests for EOD personnel to inspect and certify ordnance items.

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(4) Ensure that CNET (N414) is informed of all inert ordnance items entering the command. The process of obtaining inert ordnance will require the activity to obtain a copy of the Record of Certification and Identification in advance of receiving the item. These items shall be channeled through one central point, handled and stored as "explosives loaded" ordnance until verified inert through a review of accompanying paperwork.

(5) Ensure that disposition instructions are obtained from CNET (N414) prior to disposing of any inert ordnance items.

NON-NUCLEAR EXPLOSIVE QUALIFICATION  
AND CERTIFICATION PROGRAM

Ref: (a) OPNAVINST 8023.2C  
(b) CNATRAININST 8023.1E  
(c) COMNAVSURFLANTINST 8023.4G/COMNAVSURFPACINST 8023.5C  
(d) CNETINST 8020.1C

1. Purpose. To establish guidance concerning the Non-Nuclear Explosive Qualification and Certification Program within the CNET claimancy for personnel who are required to handle explosives or explosive-actuated devices.

2. Background. Improper handling of explosive devices has caused mishaps which resulted in injury, loss of life, or damage to property, as well as reduction of operational effectiveness. A major source of mishaps has been shown to be personnel error. The following reasons are most commonly encountered:

a. Lack of a designated person responsible for managing the explosive safety program.

b. Non-compliance with explosive safety precautions and standard operating procedures (SOPs).

c. Non-qualified and non-certified personnel.

d. Non-certified equipment.

e. Complacency due to monotonous and repetitive work.

3. Scope. This enclosure is applicable to all civilian, military, and contractor personnel attached to CNET activities whose duties include evolutions or tasks involving explosive materials or devices.

4. Action. All commanders, commanding officers, and officers in charge of CNET activities that are required to store, transport, detonate, burn, or otherwise handle explosive materials or devices shall:

a. Qualify and certify personnel to handle explosives or explosive devices in accordance with reference (a) and either reference (b) or (c) as appropriate [see notes].

b. Complete conversion of personnel to the Qualification/Certification Programs of reference (b) or (c) within 1 year of the effective date of this instruction. Enclosure (3) of reference (d) shall be retained and used until conversion to reference (b) or (c).

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Notes:

- (1) All CNATRA activities shall comply with reference (b).
- (2) Other CNET activities whose primary mission involves aviation training shall comply with reference (b).
- (3) Other activities whose primary mission is surface or subsurface shall adopt reference (c).

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## RECOMMENDED PUBLICATIONS AND INSTRUCTIONS LIST

Ref: (a) NAVSEA OP5, Vol I

Appendix A - List of Additional References and Address  
Indicator Groups (AIGs)

1. Purpose. To establish guidance for establishing and maintaining an explosives safety reference library.

2. Background. Appendix B of reference (a) provides a listing of documents applicable to explosives safety. This list provides a basis for the development of a thorough explosives safety reference library.

3. Action

a. All commanders, commanding officers, and officers in charge of CNET activities that are required to store, transport, detonate, burn, or otherwise handle explosive materials or devices shall ensure an explosives safety reference library is established and maintained.

b. The Explosive Safety Officer shall:

(1) Ensure the explosives safety reference library is comprised of:

(a) Documents identified in appendix B of reference (a) as applicable<sup>(1)</sup>.

(b) Documents identified in appendix A to this enclosure<sup>(2)</sup> as applicable.

(2) Ensure the activity is on distribution for the AIGs identified in appendix A to this enclosure as applicable<sup>(3)</sup>.

NOTES:

(1) The activity must be on distribution for applicable publications identified in reference (a) to ensure receipt of all changes/revisions.

a. NAVSEA Ordnance Publication distribution can be initiated/updated by submitting a letter request to:

Commanding Officer  
Attn: Technical Library  
Naval Surface Warfare Center Division  
201 Highway 34  
Colts Neck, NJ 07722

Enclosure (4)

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b. NAVFAC Handbook distribution can be initiated/updated by submitting a letter request to:

Commander, Naval Facilities Engineering Command  
Attn: Code 9512  
200 Stovall St.  
Room 12S07 Hoffman Bldg.  
Alexandria, VA 22322

(2) Activities can be placed on distribution for Ammunition and Explosives Safety Awareness Guide and Explosives Safety Bulletins by submitting a request to: Technical Center for Explosives Safety, Naval Surface Warfare Center Division, 101 Strauss Ave., Indian Head, MD 20640, Attn: Code 044.

(3) Activities can be placed on distribution for applicable AIGs by submitting a message request to the cognizant command.

ADDITIONAL REFERENCES

1. Instructions

CNETINST 5100.2F Occupational Safety and Health Program  
CNETINST 5530.2E Physical Security, Loss Prevention, Anti-  
terrorism, and Naval Security Forces  
Ashore Programs  
CNETINST 5585.1 Military Working Dog Program  
CNETINST 8020.1C Explosives Safety Policies, Procedures,  
and Requirements

2. Pamphlets

Explosives Safety Bulletin Published by Technical Center for  
Explosives Safety.  
Ammunition and Explosives Safety Awareness Guide Published by Technical Center for  
Explosives Safety

3. Address Indicator Groups (AIGs)

<u>AIG #</u>	<u>COGNIZANT COMMAND</u>	<u>SUBJECT</u>
AIG 168	NAVSURFWARCENDIV INDIAN HEAD MD	Addresses supply needed fleet return cartridge actuated devices for service evaluation testing as directed by NAVAIR
AIG 351	NAVORDCEN INDIAN HEAD MD	Promulgate advance change notices to NAVSEA OP5
AIG 352	NAVORDCEN INDIAN HEAD MD	Promulgate advance changes notices to NAVSEA OP4
AIG 360	NAVORDCEN INDIAN HEAD MD	Provide immediate message distribution concerning the safe transport of ammunition, explo- sives, and dangerous articles
AIG 402	COMNAVSAFECEN NORFOLK VA	Route explosive mishap and conventional ordnance discrep- ancy reports involving any Navy or Marine Corps activity
AIG 423	COMNAVAIRSYSCOM WASHINGTON DC	Safety/CAT I QDR/EI requests

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AIG 6942	COMNAVSAFECEN NORFOLK VA	Distribute hazard and safety information of an urgent and time sensitive nature to surface ships and related Atlantic Fleet staffs
AIG 6943	COMNAVSAFECEN NORFOLK VA	Distribute hazard and safety information of an urgent and time sensitive nature to surface ships and related Pacific Fleet staffs.
		Promulgate service life changes for CADS AEPS contained in NAVAIR TECHMANS 11-85, 11-100.1.1, and 11-10.1.3
AIG 6967	NAVSURFWARCEN INDIAN HEAD MD	Route explosives mishap and conventional ordnance discrepancy reports involving aircraft
AIG 7620	COMNAVSAFECEN NORFOLK VA	Disseminate notices of ammunition reclassification
AIG 11253	NAVORDCEN IMSD MECHANICSBURG PA	Disseminate notices of ammunition reclassification

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**EXPLOSIVES SAFETY SELF-AUDIT PROGRAM**

Ref: (a) NAVSEAINST 8020.14A  
(b) OPNAVINST 5100.23D

**Appendix A - Sample ESSA Memo/Report**

1. Purpose. To promulgate guidance for conducting Explosive Safety Self-Audits (ESSAs) required by reference (a). Compliance with this enclosure will meet the requirements of reference (a).

2. Background

a. Experience has demonstrated that the self-appraisal process is one of the most effective means for maintaining a valid and reliable Explosives Safety Program.

b. Reference (a) requires all activities establish a self-audit program. In an effort to standardize this audit program throughout the CNET claimancy, this enclosure will serve as the self-audit program for all CNET activities. Separate implementing instructions should be limited to identification of audit team membership.

3. Scope. All CNET activities that handle, store, transport, or otherwise use explosive ordnance items will adhere to the requirements of this enclosure.

4. Action

a. All commanders, commanding officers, and officers in charge shall:

- (1) Ensure an ESSA Program is adopted.
- (2) Appoint an ESSA Team in writing.

b. The Explosive Safety Officer Shall:

(1) Ensure ESSAs are conducted every 18 months minimum using enclosure (5) of reference (a) and that they include a review of the following functional areas as applicable:

- (a) Command Administration
- (b) Non-Nuclear Ordnance Qualification and Certification
- (c) Standard Operating Procedures
- (d) Ammunition Storage/Magazines
- (e) Explosives Operating Buildings

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- (f) Lightning Protection/Grounding/Bonding
- (g) Environmental Compliance
- (h) Explosive Ordnance Disposal
- (i) Ranges
- (j) Motor Vehicle Transportation
- (k) Air Field Operations
- (l) Ammunition/Explosives Associated Equipment

(2) Ensure the audit team is composed of personnel from departments or divisions having a direct impact on the conduct of explosives operations. At a minimum, the team shall consist of members from the following positions, departments, or divisions as applicable:

- (a) Explosives Safety Officer
- (b) Ordnance/Weapons Department Personnel
- (c) Public Works/Facilities Personnel (electrical grounding/bonding testing, site approvals, work requests, special projects, etc.)
- (d) Fire Inspector (compliance with applicable NFPA Codes)
- (e) Supply Department (receipt/shipment of explosives)
- (f) Security Personnel (Explosive Scent Kits for Military Working Dogs, storage of security ready service small arms ammunition, escort of explosive laden vehicles on base)

(3) Ensure workplace deficiencies identified during the ESSA are included in the activity's hazard abatement program (i.e., documented on OPNAV Form 5100/12, entered into the hazard abatement log as required by Chapter 9 of reference (b)).

(4) Ensure an ESSA report is submitted to the commanding officer using the guide provided in appendix A of this enclosure.

(5) Evaluate the deficiencies identified during the ESSA to determine underlying root causes.

c. The NAVOSH Manager shall assist the Explosive Safety Officer in identifying root causes of any deficiencies identified during the ESSA.

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Note: Results of a command inspection, NAVSEA explosives safety inspection, or computerized self-evaluation checklist (CSEC) can be used as a substitute for the ESSA as long as all appropriate functional elements have been reviewed.

SAMPLE ESSA MEMO/REPORT

8020  
[Serialization]  
[Date]

**MEMORANDUM**

From:

To: Commanding Officer

Via: [as required]

Subj: EXPLOSIVE SAFETY SELF AUDIT (ESSA) OF [ACTIVITY] CONDUCTED  
[DATES]

Ref: (a) CNETINST 8020.1C  
(b) NAVSEAINST 8020.14A

Encl: (1) Evaluation Report for ESSA Conducted [dates]

1. Per references (a) and (b), an ESSA was conducted on [dates] by [list names of personnel conducting audit].
2. The overall rating of [activity] Explosives Safety Program is [Satisfactory/Unsatisfactory].
3. Enclosure (1) lists current functional areas of [activity] Explosives Safety Program, provides comments regarding each program, and includes an evaluation of each functional area. Plan(s) of Action with milestones are provided in appendices A through [insert letter] of the report.

//S//

Copy to:

[as required]

CNETINST 8020.1C

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SELF EVALUATION  
OF  
EXPLOSIVES SAFETY PROGRAM  
FOR  
[ACTIVITY]

REPORT PREPARED BY  
[NAME]  
[TITLE]

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<i>[include the following functional areas as applicable]</i>	
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2. Non-Nuclear Ordnance Qualification and Certification.....	
3. Standard Operating Procedures.....	
4. Ammunition Storage/Magazines.....	
5. Operating Buildings.....	
6. Lightning Protection/Grounding/Bonding.....	
7. Environmental Compliance.....	
8. Explosive Ordnance Disposal.....	
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Mishap Analysis.....	
Appendix A, POA&M, [title of element].....	
[additional appendices as required].....	

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A. Background. NAVSEAINST 8020.14A requires that Navy activities conduct a self assessment of their Explosives Safety Program. A thorough review of [activity] Explosives Safety Program was conducted [dates]. [Provide additional information as desired.]

B. Findings. The overall rating of [activity] Explosives Safety Program is [Satisfactory/Unsatisfactory]. [Optional: ... "several functional areas require corrective action to ensure a continuous and effective Explosives Safety Program."] Specific functional areas and evaluations are as follows:

1. Command Administration.....[SAT/UNSAT]
2. Qualification and Certification.....[SAT/UNSAT]
3. Standard Operating Procedures.....[SAT/UNSAT]
4. Ammunition Storage/Magazines.....[SAT/UNSAT]
5. Operating Buildings.....[SAT/UNSAT]
6. Lightning Protection/Grounding/Bonding.....[SAT/UNSAT]
7. Environmental Compliance.....[SAT/UNSAT]
8. Explosive Ordnance Disposal.....[SAT/UNSAT]
9. Ranges.....[SAT/UNSAT]
10. Motor Vehicle Transportation.....[SAT/UNSAT]
11. Air Field Operations.....[SAT/UNSAT]
12. Ammunition/Explosives Associated Equipment..[SAT/UNSAT]

C. Functional Area Assessments

[Provide a brief description of each functional area.]

1. Command Administration
2. Qualification and Certification
3. Standard Operating Procedures
4. Ammunition Storage/Magazines
5. Operating Buildings
6. Lightning Protection/Grounding/Bonding
7. Environmental Compliance

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8. Explosive Ordnance Disposal
9. Ranges
10. Motor Vehicle Transportation
11. Air Field Operations
12. Ammunition/Explosives Associated Equipment

D. Mishap Analysis. [*Provide information concerning any mishaps or near mishaps.*]

Appendix A

Improve Qualification and Certification Program

1. Situation. OPNAVINST 8023.2C requires all personnel who handle, store, or transport explosives to be included into Non-Nuclear Ordnance Qualification and Certification (Qual/Cert) Program. [Activity] has not fully implemented the Qual/Cert Program. [Add additional information as appropriate.]

2. Objective. To eliminate the potential for explosives mishaps at [activity] by ensuring personnel are properly qualified and certified for handling explosives.

3. Execution

a. The Explosive Safety Officer will review applicable regulations and guidelines and will develop and implement action to correct all program deficiencies.

b. The following POA&M applies:

- |  |              |
|--|--------------|
| (1) Review applicable regulations, instructions, and guidelines. | [date]       |
| (2) Identify deficiencies in need of corrective action.          | [date]       |
| (3) Initiate action to correct deficiencies.                     | [date]       |
| (4) Monitor compliance with program.                             | [continuous] |
| (5) [additional steps as required]                               |              |

JOB HAZARD ANALYSIS (JHA) GUIDELINES

Ref: (a) OPNAVINST 5100.23D  
(b) NAVSEA OP5 Vol I

Appendix A - Steps in Performing JHA  
Appendix B - Blank JHA Form

1. Purpose. To promulgate the requirements for conducting a JHA of explosives related operations.

2. Background. References (a) and (b) require a JHA to be conducted prior to the start of new operations or after an operation has undergone significant changes.

3. Scope. All CNET activities shall conduct a JHA of all new operations involving explosives or those operations that have undergone significant change.

4. Action

a. All commanders, commanding officers, and officers in charge of CNET activities are responsible for ensuring a JHA is conducted for all operations involving explosives.

b. The OSH Manager and/or Explosive Safety Officer shall:

(1) Provide assistance in the development of JHA to workcenter supervisors who are responsible for conducting explosives operations.

(2) Ensure no new operations are commenced without conducting a JHA.

(3) Ensure JHA is documented using the form provided in appendix B of this enclosure and maintained on file for the duration of the operation.

c. Workcenter supervisors shall:

(1) Ensure no new operations are commenced without conducting a JHA.

(2) With the assistance of the OSH Manager/Explosive Safety Officer, conduct a JHA of all new explosives operations using the guidance provided in appendix A of this enclosure and documented in the format shown in appendix B.

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## STEPS IN PERFORMING JHA

1. Inventory operations.
2. Prioritize/select operations for JHA.
  - a. Evaluate mishap data for frequency and severity and operations with potential for severe injury/loss.
  - b. Rank operations in order of greatest mishap potential.
  - c. Select operations for analysis.
3. Break operations/tasks down into steps/activities.
  - a. Direct observation.
  - b. Individual and group discussion (stand up training).
  - c. Avoid too detailed/too general.
  - d. Record steps in proper order.
4. Identify hazards/loss exposure.
  - a. Identify energy sources.
  - b. Human error sources - incorrectly used equipment, short-cuts, equipment difficult to maintain, stress.
  - c. Identify other hazards.
    - (1) Is there danger of striking against, stuck by, contact with?
    - (2) Can the employee be caught in, on, or between objects?
    - (3) Can the employee slip or fall?
    - (4) Can the employee strain himself by pushing, pulling, or lifting?
    - (5) Is the environment hazardous?
5. Develop controls
  - a. Develop engineering controls to eliminate the hazard.
  - b. Adopt administrative controls (i.e., change exposure time).
  - c. Use personal protective equipment (PPE).

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- c. Use personal protective equipment (PPE).
6. Write procedures or practices  

Utilize equipment manuals, existing SOPs, avoid duplication effort, excessive paperwork.
7. Implement procedures or practices.
  - a. Provide training to all employees involved.
  - b. Observation by OSH professionals, management, others.
  - c. Review of accident records.
  - d. Employee feedback.
8. Monitor procedures for changes, update as necessary.

FORMAT

JOB HAZARD ANALYSIS

JOB LOCATION: \_\_\_\_\_

DATE OF ANALYSIS: \_\_\_\_\_ CONDUCTED BY: \_\_\_\_\_

Key Job Steps	Tools, Equipment, or Materials Used	Potential Injury, Health, or Damage	Engineering, Administrative, or PPE Controls

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## NAVORDCEN EXPLOSIVES SAFETY INSPECTION PROGRAM

Ref: (a) NAVSEAINST 8020.14A  
(b) NAVSEA OP 5 Vol I

## Appendix A - Sample Corrective Action Plan

1. Purpose. To promulgate amplifying guidance for preparing, responding to, and correcting deficiencies identified during Explosives Safety Inspections (ESIs) conducted by NAVORDCEN per reference (a).

2. Background. Reference (a) provides guidance on the conduct of ESIs conducted by NAVORDCEN.

3. Scope. All CNET activities that undergo NAVORDCEN ESIs (see enclosure (1) of reference (a)) shall adhere to the requirements of this enclosure.

4. Action

a. All activities receiving NAVORDCEN ESIs shall:

(1) Ensure an Explosives Operations Summary (enclosure (4) of reference (a)) is submitted to NAVORDCEN (N-71), with copies to appropriate Explosives Safety Support Offices Atlantic/Pacific (ESSOLANT/ESSOPAC), echelon 3 command (if applicable), and CNET (Code 00X) 30 days prior to scheduled ESI.

(2) Ensure a station development map is available for ESI inspectors to view during the inspection.

(3) Be prepared to demonstrate ordnance evolutions for ESI inspectors.

(4) Notify appropriate echelon 3 commander and CNET (Code 00X) when contacted by NAVORDCEN ESSOLANT/ESSOPAC inspectors concerning scheduling of the ESIs.

(5) Ensure that either the commanding officer or executive officer is present for the inspection in-brief and out-brief.

(6) Submit a Corrective Action Plan to NAVORDCEN within 30 days of receipt of inspection report using format provided in appendix A of this enclosure.

(7) Submit semi-annual updates for all deficiencies that have not been corrected to CNET (Code 00X) via the chain of command.

Enclosure (7)

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b. The Weapons/Ordnance Officer shall:

(1) Be present during all portions of the ESI.

(2) Ensure that all records supporting questions in the Shore Station Explosives Safety Program Inspection Guide (enclosure (5) of reference (a)) are laid out in an orderly fashion to facilitate easy review by the inspectors.

c. The Explosive Safety Officer shall be present during all portions of the ESI.

d. The Facilities/Maintenance Officer shall:

(1) Be prepared to have employees conduct a demonstration of the lightning protection and grounding and bonding test plan.

(2) Ensure the meters used to conduct electrical continuity checks are properly calibrated.

e. The NAVOSH Manager shall assist the Explosive Safety Officer in identifying root causes of any deficiencies (if appropriate) identified during the ESI.

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## SAMPLE CORRECTIVE ACTION PLAN

8020  
Ser  
[Date]

From: [Activity]  
To: Commander, Naval Ordnance Center (N-71)  
Via: (1) [Chain of Command]  
(2) Chief of Naval Education and Training (Code 00X1)  
Subj: CORRECTIVE ACTION PLAN FOR EXPLOSIVE SAFETY INSPECTION  
CONDUCTED AT [Activity: UIC: ] on [Dates]  
Ref: (a) NAVORDCEN ltr  
(b) [additional references as required]  
Encl: (1) Implementation Status Report(s) [identify quantity]  
1. Enclosure (1) provides actions taken to correct deficiencies  
identified in reference (a).  
2. [Activity] point of contact is [rate/rank/grade, name, code,  
phone no.].

//S//

Copy to:  
[As Required]

Appendix A  
Enclosure (7)

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(BLANK)

Appendix A  
Enclosure (7)

IMPLEMENTATION STATUS REPORT (ISR)

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Status as of Date

[Date] [Opened or Closed]

---

---

Action Officer

[Name]

Coordinating Action

[Other Dept assisting]

---

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Identification of Report (Date, Ser. No. of ESI ltr)

[NAVORDCEN ltr 8020 Ser N71/1234 of 1 Sep 96]

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Recommendation

\* Use a separate ISR for each recommendation provided in ESI Report letter

[Radio frequency hazard labels need to be affixed to portable radios that can be used in ordnance areas].

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Current Implementation Status (if action considered complete, so state)

[Local source has been identified. Weapons Department has submitted requisition for purchase.]

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Next Step In Implementing The Action (estimated completion date)

[Once labels are received, they will be placed on all radios. Estimated completion date: December 96]