APPENDIX B

PROCESSING NOTICES OF VIOLATION (NOVs) UNDER ENVIRONMENTAL LAWS AND REGULATIONS

1 BACKGROUND

Various environmental laws subject Federal facilities to Federal, State, local, and international substantive and procedural requirements. In general, Federal facilities must comply with substantive and procedural requirements imposed by Federal, State, interstate, local authorities, and overseas host-nation regulatory agencies. Where regulators detect violations of those requirements, regulators may issue a notice of violation (NOV), or other types of enforcement actions. Where applicable the Federal Facility Compliance Act authorizes the Environmental Protection Agency (EPA) to seek monetary penalties from Federal installations for certain environmental media violations.

This appendix applies to the investigation of violations of , or noncompliance with, environmental laws and regulations by Navy installations, tenant commands, construction contractors, maintenance contractors, operators and subsequent payment of fines or penalties, where warranted. While regulatory agencies may seek monetary penalties for various environmental media violations, responsible commands receiving such a request shall seek the advice of legal counsel, before honoring requests for payment of fines and penalties for violation of environmental laws and regulations. In addition, NOVs may trigger formal legal proceedings with specific deadlines, procedures and consequences. Accordingly, the responsible command shall seek early consultation with legal counsel in determining how to respond. Legal assistance is available from Budget Submitting Offices (BSOs), Regional Environmental Coordinators (RECs), and NAVFACENGCOM Facilities Engineering Commands (FECs).

2 DEFINITIONS

2.1 Inspection. Any inspection conducted by State, Federal, or local regulators. An inspection that addresses more than one environmental media shall be counted as more than one inspection; these inspections are referred as multi-media inspections. For example, an inspection that reviews an air permit and a wastewater permit shall be counted and reported as two inspections. Self-audits or inspections by Navy personnel do not count as an inspection.

2.2 Notice of Violation. For the purposes of this instruction, and aligned with the 1 October 2004 DoD Pollution Prevention and Compliance Metrics definition of Enforcement Action an NOV is:

a. **US and Territories.** A formal, written notification by the EPA or other Federal, State, inter-state, regional or local environmental regulatory agency of violation of any applicable statutory or regulatory requirement. It should cite the relevant standard or criteria to be met and request the installation take corrective action. An NOV does not include warning letters that do not cite a violation of specific environmental law or regulation, informal notices of deficiencies, or notices of deficiencies to permit applications. (Note: warning letters or similarly titled formal written notifications from authorized regulators that do cite violations with environmental laws and regulations, are considered NOVs.) One written notice, regardless of the number of individual violations, findings, or citations listedin it, counts as one NOV if all violations cited relate to a single statutory category. If the NOV cites violations of more than one statutory category (e.g. CWA, CAA, RCRA, SDWA, etc.), then count it as multiple NOVs, one

under each applicable statutory category. Items found to be out of compliance during any DoD internal review or audit, are not to be counted as (included in this definition of) an NOV. RCRA Corrective Action and CERCLA NOVs which will be corrected using Defense Environmental Restoration Account (DERA) funds are to be excluded.

b. **Overseas.** A formal, written notification by the appropriate Host Nation environmental regulatory authority of any applicable environmental standard as defined in the Final Governing Standards. It should cite the relevant standard or criteria to be met and request the installation take corrective action. An NOV does not include warning letters that do not cite a violation of specific environmental law or regulation, informal notices of deficiencies, or notices of deficiencies to permit applications. Note: warning letters or similarly titled formal written notifications from authorized regulators that do cite violations with environmental laws, standards, and regulations, are considered NOVs. One written notice, regardless of the number of individual violations, findings, or citations listed in it, counts as one NOV if all violations cited relate to a single environmental media. If the NOV cites violations in more than one environmental media area (e.g. air, water, hazardous waste, drinking water, etc.), then count it as multiple NOVs, one under each of the applicable media area. Items found to be out of compliance during an internal or other DoD Component review, compliance review or audit, are not to be counted as (included in this definition of) an NOV.

2.3 Significant Non-Compliance (SNC). An EPA term that describes facilities that have a violation of significant magnitude and/or duration warranting priority for review and/or response by an agency. Currently, EPA only tracks federal facilities that are identified as “major” under RCRA, CWA, and the CAA. The definition of “major” and “significant non-compliance” varies by media. The air program uses the term High Priority Violation (HPV) instead of SNC. For the purposes of this chapter, the definition of SNC includes HPV. Media specific definitions are developed by the EPA Program offices.

3 RESPONSIBILITIES

3.1 Commanding Officers of Installations and Tenant Commands shall:

a. Upon receipt of an NOV or SNC, the responsible Commanding Officer or his representative shall:

(1) Inform the Chief of Naval Operations (CNO), the chain of command, the Navy REC, the Naval Facilities Engineering Service Center (NFESC) in Port Hueneme, CA and the appropriate NAVFACENGCOM FECs by completing the following:

- Immediately send an initial message, conforming to the format described in paragraph 4.1 of this appendix and containing as much of the information requested as possible.

- Immediately enter all pertinent details into the U.S. Navy Environmental Portal, Notice of Violation (NOV) Module. To access the Portal and enter information into the NOV Module, please log on to https://eprportal.cnrnw.navy.mil. New users of the NOV Module may request a login and password by selecting the "new user" link which appears on the initial EPRWEB screen. New users must indicate by checking the appropriate box that access to the NOV Module is required.

- On a quarterly basis, send a follow-up status message, and update the NOV Module for all open NOVs/SNCs. This should contain a remedial action plan or the status of pending actions using the format described in paragraph 4.2 of this appendix. When the NOV/SNC is resolved and closed, update the NOV Module. (Note: A message indicating closure is not required and no further quarterly messages will be required for that NOV/SNC.)

(2) Conduct a preliminary inquiry into the facts and circumstances of the violation and obtain legal and technical support from the command environmental technical personnel and the assigned Staff Judge Advocate (SJA) or Office of General Counsel (OGC). If no attorney is assigned, the Commanding Officer shall seek advice from counsel advising the chain of command or the BSO and may request that attorneys with subject specific environmental law expertise provide support and representation to ensure the most favorable outcome where: (1) shutdown of operations is threatened; (2) a significant penalty is possible; or (3) the action involves a significant DON legal precedent.

(3) Upon request for payment of a fine or penalty, the Commanding Officer shall prepare a written investigative report per procedures established by the BSO or delegated representative. Commands should consult with counsel to ensure that the investigation is convened and structured in a manner which provides maximum benefit to the command's defense and is privileged from disclosure to regulators. The investigative report will include the facts and circumstances of the incident, such documents, statements, photographs, claims for damage, notice of fine or penalty, and further data as may be required in the particular case. Format the report as either a Judge Advocate General Manual investigation or letter report. Additional information on the elements of this analysis is provided in Section 6.0 of this appendix.

- After consultation with on-site or command counsel, if no factual or legal defense exists, prepare a penalty analysis, develop a negotiation strategy and negotiate the lowest achievable penalty. Prepare a penalty analysis and develop a strategy before negotiation. Suggested elements of the penalty analysis and negotiation strategy can be found in Section 6.0.

b. Upon completion of all corrective actions:

(1) Contact the regulatory agency to discuss the corrective action taken and request regulator concurrence that the NOV is closed. Follow up with a memorandum to the regulator confirming the communication.

(2) Address a letter to the regulatory agency detailing the corrective action taken and requesting regulator concurrence by return receipt mail. Include a statement such as, “We will consider this matter closed and remove it from the active database if we do not receive a reply from you within the next 60 days.” An installation may accept verbal confirmation from the regulatory agency that the action is closed. If the regulator responds by verbal communication, the installation representative must follow up with a memorandum to the regulator confirming the communication.

(3) In cases where the regulator acknowledges that no further action is required, report the NOV as closed. Additional coordination with the regulator is not necessary.

(4) If the regulator requires further action, negotiate and enter into a compliance agreement with the regulatory agency. A compliance agreement may be used as justification to close out associated NOVs or other notices, etc. Installations will follow the close-out procedures described in this section for this subsequent compliance agreement. A violation received later for similar circumstances is considered a separate instance of non-compliance.

c. Data Validation

(1) Review data in the NOV Module to ensure NOVs are properly documented and closed out. Review all open NOVs and follow-up on all corrective actions not yet complete.

(2) Monitor compliance data posted on regulatory agency websites, databases and tracking systems that contain Navy compliance data including SNC, such as EPA's Online Targeting Information System (OTIS) (Link: www.epa.gov/idea/otis/index.html) and Enforcement and Compliance History Online (ECHO) (Link: www.epa.gov/echo). At a minimum:

- Identify if the installation is listed as a "major" federal facility
- Verify installation address and permits associated with the installation
- Verify all reported data associated with the permits.
- Report any errors & follow up with EPA data stewards until errors are resolved

3.2 BSOs shall:

- Review NOV messages and identify trends across regions. Notify CNO (N45) if any areas of concern warrant guidance or specific attention..
- Review the NOV Module to ensure information is accurate and current. Ensure NOV messages are entered into the NOV Module.
- Provide CNO (N45) with a summary of new and open NOVs/SNCs within 30 days of the end of each quarter.

3.3 NFESC shall:

- Maintain the NOV Module. Assist users, as requested.
- Provide data reports to CNO (N45), as requested.

3.4 CNO (N45) shall:

- Formulate policy, allocate resources, and oversee compliance tracking and reporting requirements throughout the Navy.
- Analyze Navy compliance performance, identify trends, formulate guidance, and seek Navy-wide corrective solutions.

4 MESSAGE FORMATS

One written notice, regardless of the number of individual violations, findings or citations, counts as one NOV, unless more than one environmental media is cited. Do not include items found to be out of compliance by a regulator, but not set forth in writing.

If the NOV cites violations in more than one environmental media, it will be counted as multiple NOVs, one under each of the applicable media categories. Only one message is required; however, include specific information in the message separately for each environmental media. As outlined in paragraph 4.2, make lines 1 through 9 of this message the same for each different media violations that result from a multimedia inspection. Repeat lines 10 through 25 with detailed information for each different environmental media cited.

4.1 General guidelines for preparing the following messages

a. If the line item is a question, do not answer just "yes" or "no". Provide a response with the assumption that the reader does not have access to this document. Example: Item 14 of the close-out message asks "Was a fine assessed or requested?" In response, Line 14 of the message would then read: "No fine was assessed." instead of "No."

b. If the line item is a phrase, repeat or paraphrase the phrase followed by the response. Example: Item 12 of the initial information message reads "Date of inspection (mm/dd/yy)." In response, Line 12 of the message would then read: "Date of inspection: 03/05/00" instead of "03/05/00."

4.2 Required Initial Information on NOVs/SNCs

FM: NAVY INSTALLATION//CODE//

TO: CNO WASHINGTON DC//N45//
CHAIN OF COMMAND
NAVY REGIONAL ENVIRONMENTAL
COORDINATOR//JJJ//

INFO: NFESC PORT HUENEME CA//424//
NAVFACENGCOM//ENV//
NAVFACENGCOM FEC//JJJ//
//UNCLAS //N05090//

SUBJ: RECEIPT OF NOTICE OF ENVIRONMENTAL VIOLATION

MSGID/GENADMIN/ORIGINATOR//CODE//
REF/A/DOC/OPNAVINST 5090.1C//
RMKS/

1. Installation name in violation.

2. Navy Unit Identification Code (UIC) number.

3. State (use 2 letter State abbreviations).

4. Point of Contact for additional information.

5. Point of Contact telephone number.

6. Point of Contact email address.

7. BSO.

8. EPA Region.

9. Name of issuing agency and violation number(s).

10. Identify the environmental media cited in the violation notice. This refers to the law under which the violation was issued. If a State or local violation is received, report under the applicable Federal statutes from which the State law or local regulation was derived.

11. Date of notification (mm/dd/yy). The date the regulatory agency initiated the NOV (preferably the date on the letterhead).

12. Date of inspection (mm/dd/yy). The date of the inspection during which the violation was detected. If the inspection took place over several days use the date noted on the NOV, or the date the inspection started.

13. Was the NOV a result of a self-inspection or reporting? Y or N

14. Description of NOV.

15. Classify the violation cited into one of the following categories (Note: For multiple violations cited under an NOV, use the category that applies to the highest threat. Descriptions and examples are included in Section 5.1.):

Class A. Release to the environment
Class B. Potential to cause release or damage to the environment
Class C. Administrative

16. Root Cause. Chose one of the following: Infrastructure, Contract Management, Operator/personnel error, Training, Management Deficiencies, Resources, or External Factors. For this message, provide the direct cause when root cause is not immediately apparent. (Note: For multiple root causes, select the largest contributor, and cite the remainder under Comments. Descriptions and examples are included in Section 5.2.)

17. Was a fine assessed or requested? Y or N

18. Dollar amount of fines assessed. Total dollar amount of the fine assessed.

19. Dollar amount of fines paid to regulatory agency.

20. Nature of response required and date due (mm/dd/yy) to the regulatory authority (e.g., Regulator requests answer to complaint by 09/25/01).

22. Provide date Installation corrected all violations (mm/dd/yy).

22. Is the NOV resolved? Y or N

23. Date of NOV resolution (mm/dd/yy).

24. Has the issuing agency closed the NOV? Y or N

25. Date of concurrence by the regulator (mm/dd/yy).

26. Date of last annual installation inspection and BSO inspection. Was the discrepancy noted during these inspections?

27. Comments (i.e., additional information, unusual circumstances or events leading to NOV).

Note: If the NOV is closed within 3 months of the NOV issue date, then no quarterly status message is required.

4.3 Required Follow-Up Information on NOVs/SNCs

A follow-up message is required on a quarterly basis for each open NOV/SNC for which an initial message was sent under paragraph 4.2.

FM: NAVY INSTALLATION//CODE//

TO: CNO WASHINGTON DC//N45//
CHAIN OF COMMAND
NAVY REGIONAL ENVIRON MENTAL
COORDINATOR//JJJ//

INFO: NFESC PORT HUENEME CA//424//
NAVFACENGCOM//ENV//
NAVFACENGCOM FEC//JJJ//

//UNCLAS //N05090//

SUBJ: NOTICE OF ENVIRONMENTAL VIOLATION RESPONSE PLAN

MSGID/GENADMIN/ORIGINATOR//CODE//
REF/A/DOC/OPNAVINST 5090.1C//
RMKS/

1. Installation name in violation.

2. Navy Unit Identification Code (UIC) number.

3. State (use 2 letter State abbreviations).

4. Point of Contact for additional information.

5. Point of Contact telephone number.

6. Point of Contact email address.

7. BSO

8. EPA Region.

9. Name of issuing agency and violation number(s).

10. Identify the environmental media cited in the violation notice. This refers to the law under which the violation was issued. If a State or local violation is received, report under the applicable Federal statutes from which the State law or local regulation was derived.

11. Date of original notification (mm/dd/yy). The date the regulatory agency initiated the NOV preferably the date on the letterhead.

12. Root Cause. If additional analysis results in a different root cause, chose one of the following: Infrastructure, Contract Management, Operator/personnel error, Training, Management Deficiencies, Resources, or External Factors. (Note: For multiple root causes, select the largest contributor, and cite the remainder under Comments. Descriptions and examples are included in Section 5.2.)

13. Reason for Open NOV.

14. Was a fine assessed or requested?

15. Dollar amount of fines assessed. Total dollar amount of the fine assessed.

16. Dollar amount of fines paid to regulatory agency.

17. Provide date Installation corrected all violations (mm/dd/yy).

18. Is the NOV resolved? Y or N For final resolution, an NOV requires the satisfaction of the issuing agency. (Note: All individual findings, violations, or citations within the NOV must be resolved for the NOV to be considered resolved.)

19. Date of NOV resolution (mm/dd/yy).

20. Date of concurrence by the regulator (mm/dd/yy). The date on which the regulatory agency confirms that all findings are resolved. Notification may be in formal written form or a documented conversation.

21. Estimated completion date for issues not yet corrected (mm/dd/yy).

22. Summary of reasons for not resolving the identified issues.

23. Is a compliance project required to achieve compliance with NOV?

24. Has an EPR or MILCON project been submitted, and in what year?

25. Comments (i.e., additional information, unusual circumstances or events leading to NOV).

26. Original Naval Message Number (Date/Time Group – day, zulu time, month, and year)

5 NOV CLASS AND ROOT CAUSE CODE DESCRIPTIONS

5.1 Class Codes

a. **Class A - Release to the Environment.** The NOV resulted from spills, overflows, or other unauthorized discharges/releases. This category includes NOVs that resulted from wastewater or storm water discharges that exceeded effluent limits, air emissions that exceeded emission standards, or potable water samples that exceeded primary drinking water standards.

b. **Class B - Potential to Cause Release or Damage to the Environment**. This category includes NOVs resulting from inspections that note conditions with potential for release or damage to the environment such as improper storage/handling of waste or regulated substances (e.g., oil, hazardous materials).

c. **Class C - Administrative.** The NOV resulted from administrative errors such as failure to submit/update, complete in a timely manner, or properly prepare required permit applications, monitoring/compliance reports, and plans. This category also includes improper or incomplete documentation of waste storage and disposal and notifications required in advance of taking action.

5.2 Root Cause Codes

Infrastructure. Problems with facilities or equipment used for pollution control, conveyance, collection, or waste handling. Examples include: inadequate facilities and maintenance of facilities/equipment; or equipment failure.

Contract Management. Actions pertaining to contracts or contractor activities (to include sampling and analysis contracts). Examples include: contract documents inadequate; contract documents adequate but contractor does not fulfill requirements and requirements are not enforced; and poor or no oversight of contractor work by the appropriate Government representative.

Operator/personnel errors. Actions pertaining to operator or personnel activities. Examples include: procedures have been developed but are not effectively implemented; procedures have been developed but were not followed; personnel understood requirement, but simply forgot to act; known deficient item, facility, or equipment, not formally identified for funding (e.g., not acting on a known

deficiency); insufficient skills to execute program procedures properly (e.g., individual(s) have received proper training but are not proficient).

Training. Appropriate training not obtained.

Management deficiencies. Actions pertaining to management. Examples include: procedures have not been developed; procedures have been developed but are inadequate; higher priority mission requirement took precedence; time delay due to complex acquisition process; inadequate manpower; accountability not assigned; or training not properly documented.

Resources. Inadequate funding for equipment, materials/supplies, or manpower received. Examples include: deficient item, or equipment properly identified, but not funded; or deficient manpower properly identified, but not funded. Provide the EPR Project # where the funding was requested.

External Factors. Actions pertaining to external factors. Examples include: Acts of God, terrorism, unforeseen accident, weather related events, or acts of vandalism.

6 ANALYSIS OF VIOLATIONS

Report of violation (assertion by the regulatory agency)

BACKGROUND

1. Applicable regulations
2. Responsible agency
3. Direct supervisor (if known)
4. Specific circumstances
5. Date of corrective action
6. Description of corrective action

OPINIONS

1. Did the violation occur?
    a. Is this a repeat violation?
    b. Is Federal Facility Compliance Act applicable?
2. Liability of responsible agency or individual?

FINE OR PENALTY ANALYSIS

1. Class of Violation (as defined by regulatory agency)

FACTORS ASSOCIATED WITH THE VIOLATION

1. Determine the actual or potential harm associated with the violation (Note: Use classification such as Major, Moderate or Minor as defined by regulatory agency schedule of penalties.)

a. Characteristics of the substance involved:

(1) Hazardous Material (HM) or Hazardous Waste (HW)

(2) Characteristics (i.e., corrosive, toxic, ignitable, reactive, etc.) Listed or Characteristic waste? Extremely Hazardous? Carcinogen?

(3) Degree of hazard? (Note: Use classification such as Major, Moderate, or Minor as defined by regulatory agency schedule of penalties.)

b. Amount of material involved:

(1) Based on the characteristics, does the regulatory agency consider the amount large or small?

c. Specific situation information:

(1) Was human life or health threatened? Extent?

(2) Were natural resources threatened? Extent?

(3) Was the environment threatened? Extent?

(4) Were water supplies or resources threatened? Extent?

(5) Can potential damage be minimized or prevented?

2. Determine the extent of deviation from regulatory standards (Note: Use classification such as Major, Moderate, or Minor as defined by regulatory agency schedule of penalties).

3. Calculate initial penalty or fine from regulatory agency schedule of penalties.

4. Calculate multi-day penalties, if applicable.

5. Calculate base total penalty.

6. Adjust penalty for factors associated with the violator, for economic benefit of non-compliance, and all other adjustments allowed by regulatory agency schedule of penalties.

RECOMMENDATION

1. Recommended settlement amount.

2. Recommended corrective action.

3. Recommended disciplinary or personnel action. If there is a legal defense, forward the investigative report to the BSO via the chain of command with a copy to Navy OAGC (I&E) and recommend that the fine or penalty be contested.

APPENDIX C

U.S. NAVY ENVIRONMENTAL PORTAL DATA AND REPORTING REQUIREMENTS

1 U.S. Navy Environmental Portal

1.1 Overview

The U. S. Navy Environmental Portal (Portal) is a means to improve and standardize the data collection process. The Portal is a more efficient and effective way of managing environmental compliance data for the installations, Regions, Budget Submitting Offices (BSOs) and CNO (N45). It allows users to input data, view real-time data, and produce up-to-date reports without the need for data calls. In order for this web based data collection process to be effective quality assurance and quality control are required at every level in the chain of command.

The portal consists of data/metrics and financial modules. The data/metrics portion of the Portal is called Environmental Data and Metrics Web (EDMWeb) and currently consists of the Notice of Violation Module, Water Quality Module, and the Air Quality Module. The Solid Waste Module and Hazardous Waste Modules are expected to be online by the end of calendar year 2007. The financial modules are Environmental Program Requirements Web (EPRWeb) and the EPR Guidebook and are not addressed in this Appendix.

1.2 Accessing the Portal

Users can access the Portal to enter or obtain environmental data at the following address: https://eprportal.cnrnw.navy.mil/. The first screen displayed is the U.S. Navy Environmental Portal Website Logon, where users are prompted for a user name and password. In order to acquire an U.S. Navy Environmental Portal Website user name and password, use the Registration page. The request should include the requester's E-mail Address, First and Last Name, Type of Account (i.e. Installation, BSO, or Regional Command), Installation Name and the UIC(s) for the activities or installations for which they are responsible. Additionally, the request should indicate which module(s) the user needs to access.

2 Policy

Accurate and timely data is of the utmost importance because it is used to develop guidance and shape policy, determine upcoming regulatory impacts, and respond to DoD environmental management reviews and congressional inquiries

Installations are required to continually update the Portal data fields as changes occur. Examples include permit updates, and NOVs (new and closed.) BSOs are required to review the portal to ensure accuracy of their information for these routing events per the schedule below:

- Notices of Violation (NOV) Module - Consistently
- Water Quality Module – 31 January, 31 July
- Air Quality Module – 31 January
- Hazardous Waste Module – 1 November (once online)

– Solid Waste Module – 15 March (once online)

Additional NOV Module requirements are contained in Appendix B of this instruction.

APPENDIX D

ENVIRONMENTAL AWARDS PROGRAM

1 Chief of Naval Operations (CNO) Environmental Awards Program

The CNO Environmental and Natural Resources Awards program was created to reward outstanding performance in promoting environmental quality, natural resources conservation, and protection and enhancement of human health. Awards are presented for work in Natural Resources Conservation, Cultural Resources Management, Environmental Quality, Pollution Prevention, Environmental Excellence in Weapon System Acquisition, Environmental Cleanup, and Environmental Planning. Ships, installations, and individuals or teams may compete. By presenting awards, the Navy recognizes organizations and people who have made significant contributions in those areas.

The CNO Environmental Awards program is closely aligned with the Secretary of Defense (SECDEF) Environmental Awards program which runs on a two-year cycle and includes 17 award categories. Eight award categories are competed during the even fiscal year of the two-year cycle and nine award categories are competed during the odd fiscal year of the two-year cycle. Because of Navy's unique operating environment, the CNO program differs from the SECDEF program in two award categories:

– The Large and Small Ship Environmental Quality award categories recognize environmental programs on Naval vessels and are unique to CNO and SECNAV. Ship awards alternate annually between small ships (crew size of 400 or less) during even fiscal years and large ships (crew size greater than 400) during odd fiscal years.

– The CNO Environmental Planning Team award category recognizes excellence in Navy environmental planning in the context of the National Environmental Policy Act (NEPA) and Executive Order 12114 "Environmental Effects Abroad of Major Federal Actions." It is competed during even fiscal years and alternates with the Environmental Excellence in Weapon System Acquisition award category (also a SECNAV and SECDEF award category) which is competed during odd fiscal years.

Echelon 2 commands may submit up to five nominations per category. The achievement period for the awards competition is the previous two fiscal years, inclusive of the award year.

Up to three winners will be named for each of the 10 awards presented at the CNO level of competition. Except for winners in the Environmental Planning Team category, all CNO winners advance to the SECNAV level of competition. Winners at the SECNAV level of competition advance to the SECDEF competition.

Due to the alternating cycle of the SECDEF awards competition and updating of awards criteria, competition guidance will be issued on an annual basis. The format prescribed in the SECDEF guidance for the competition will be used to prepare nomination packages for all categories. Narrative for all award categories except the Environmental Quality-Small and Large Ship award categories and the Environmental Planning Team award category will be based on the judging criteria found in the SECDEF guidance. Narrative for the Environmental Quality-Small and Large Ship award categories shall be written based on the judging criteria found in "Criteria for Nomination for the Chief of Naval Operations Environmental

Quality-Small and Large Ship Awards" located on page D3. Narrative for the Environmental Planning Team award category shall be written based on the judging criteria found in "Criteria for Nomination for the CNO Environmental Planning Team Award" located on page D-5.

Navy activities should look for the call for nominations for the CNO Environmental Awards competition in the fall of each year and follow the directions contained therein. The call for nominations will be sent by letter to Echelon 2 commands and issued by Naval message from CNO (N45).

CRITERIA FOR NOMINATION FOR THE CHIEF OF NAVAL OPERATIONS ENVIRONMENTAL QUALITY—SMALL & LARGE SHIP AWARDS

1 Introduction. List the ship's mission (unless classified), approximate crew size, and homeport.

2 Background

2.1 Summarize the ship's environmental challenges in the past 2 fiscal years, inclusive of the award fiscal year.

2.2 Describe the ship's environmental management organization and staffing.

2.3 List all the ship's environmental guidance, directives, and plans (i.e., spill contingency plans) and dates of preparation or last review.

3 Program Summary

3.1 Describe the ships environmental program and degree of compliance with Chapter 22 and Appendix K of OPNAVINST 5090.1C, during the past 2 fiscal years.

3.2 Describe the most outstanding program features and accomplishments (3 or less) of the past 2 fiscal years.

4 Accomplishments. Describe activities and achievements during the past 2 fiscal years in the following areas, if applicable:

4.1 Air Pollution Control. Describe air pollution control practices and improvements. Include management efforts to control engine emissions, to reduce refrigerant use, and to minimize volatile organic compound releases.

4.2 Water Pollution Control

4.2.1 Delineate collection, holding, and transfer (CHT) system management practices.

4.2.2 Describe oil and hazardous substance spill prevention/response efforts.

4.2.3 Describe shipboard practices for waste oil/oily waste management. Include identification of bilgewater management practices. Identify the operating capabilities of the oil/water separator and oil content monitor during the past 2 fiscal years and efforts, if any, to improve these capabilities.

4.3 Solid Waste Management and Resource Recovery

4.3.1 Summarize solid waste management practices.

4.3.2 List source reduction techniques used by the command.

4.3.3 Enumerate resource recovery recycling techniques used by the command.

4.4 Hazardous Material (HM)/Hazardous Waste (HW) Management. Describe hazardous material control and management efforts. Describe the ship's efforts for reutilization and inventory management. Describe the ship's efforts to reduce the amount of used HM transferred ashore. Describe the ship's efforts to use material from shoreside Hazardous Waste Minimization Centers (HAZMINCEN).

4.5 Protective Measures Assessment Protocol (PMAP). Describe the ship's use and integration of the PMAP CD tool for routine training. Describe how PMAP supports/enhances the ship's planning for routine training.

4.6 SONAR Positional Report System (SPORTS). Describe the ship's implementation and execution of CNO and Fleet policy to report the use of active mid-frequency SONAR (1-10 KHZ) for training and maintenance, via SPORTS.

4.7 Environmental Awareness. List command- initiated programs to enhance environmental protection and awareness.

CRITERIA FOR NOMINATION FOR THE CNO ENVIRONMENTAL PLANNING TEAM AWARD

Purpose of this Award

The purpose of the CNO Environmental Planning Team Award is to recognize outstanding environmental planning for the Navy. Environmental planning benefits the Navy, the environment, and the public at large. This award is intended to raise awareness of those benefits at all levels within the Navy.

Scope

The CNO Environmental Planning Team Award applies to all environmental planning efforts including but not limited to actions performed under the National Environmental Policy Act (NEPA) and Executive Order 12114 (overseas actions). It is intended to highlight the benefits that the Navy can derive from a superior environmental planning process, rather than to merely reward large quantities of documentation. Also, because CNO recognizes that an interdisciplinary approach is essential to successful environmental planning, the award is to be a team award.

Timeframe

The award is limited to planning efforts completed within the timeframe 1 October 2004 – 30 September 2006.

Nominations

Nominations for the CNO Environmental Planning Team Award must be made by the action proponent and forwarded to CNO by the major claimants. The nomination should include all team members from the action proponent and the various supporting commands and activities and contractors who have direct involvement with this project. The following sections contain the anticipated judging criteria for the nomination.

1 Introduction

1.1 The introduction should contain a description of why and how the environmental planning team (henceforth, the "nominee") was established. What situation did the Navy confront that required action and what was the environmental planning goal as it related to the situation? How did team composition and organization contribute to meeting that goal?

2 Background

2.1 The background sections should contain details of the nominee team and provide a more detailed overview of the project that the team was assembled to address, and the issues affecting the nominee's performance.

2.2 Describe the organization and staffing of the nominee components (individual team players/hierarchy). List each team member's name, title or position, discipline, and employing organization. Include military, civilian, and contract personnel with direct involvement in the project. List

any management approach employed.

2.3 Describe any challenges, unusual circumstances, or other issues the team addressed in achieving the overall environmental planning objective discussed in the introduction. Include any key environmental, legal, political (internal/external), regulatory, and/or public relations/community outreach situations relevant to obtaining the stated objective.

3 Environmental Planning Summary

3.1 Specifically describe environmental plans and agreements, including the dates of preparation or latest revision. Keeping in mind that the CNO Environmental Planning Team Award is intended to recognize the successful application of environmental planning principles to resolution of project-related environmental issues, describe the specific objectives that were developed as part of these plans.

3.2 Describe the most outstanding features of the program during that period.

3.3 Describe any unique aspect of the environmental planning effort. Discuss the use or development of alternate management approaches techniques, staffing, and technical methodologies to enhance environmental planning that had a direct bearing on the outcome of the project.

4 Accomplishments

4.1 Describe the degree to which the nominee attained each objective (section 3.1) during the preceding two fiscal years (inclusive of the award fiscal year).

Discuss how the nominee's environmental planning effort supported the military readiness mission. Describe the nominee's management skill in achieving the objectives with respect to such fundamentals as personnel/time/cost savings (including overall team organization, integration of disciplines, and other innovative approaches to problem solving). If the environmental planning effort has exceeded statutory and regulatory requirements in some manner, describe this success. Describe the team's lessons learned, and how effectively these lessons learned were (if there is an example) or could be transferred from the nominee to others. Discuss the nominee’s success in involving the local community and in enhancing the Navy's public image with the community.

4.2 Describe the specific benefits of the successful environmental planning effort to the Navy, the public, and the environment. These benefits could include the enhanced ability of the nominee to carry out its military mission, also improvements in planning, programming, and budgeting to support continued attention to excellence in environmental planning and to improve quality of life for the community and the Navy. Also, outline any coordination of environmental planning management with mission operations, natural resource management operations, and facilities operations as appropriate.

4.3 Highlight the most outstanding accomplishments of the nominee over the course of the project.

APPENDIX F

CLEAN AIR ACT (CAA)
GENERAL CONFORMITY GUIDANCE

1 Purpose and Scope

This guidance establishes the procedures and responsibilities for conformity analyses and determinations. This guidance will assist the Navy in implementing the Clean Air Act (CAA) General Conformity Requirements for proposed actions.

This guidance is applicable to air emissions from stationary, mobile, and area sources associated with all shore facilities within the geographical borders of the United States, Commonwealth of Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and Commonwealth of the Northern Marianas Islands. Special limitations apply to actions involving aircraft and vessels.

2 Legislation

Clean Air Act, as Amended. In order to ensure that Federal activities do not hamper local efforts to control air pollution, Section 176(c) of the Clean Air Act (CAA), 42 U.S.C. 7506(c), prohibits Federal agencies, departments, or instrumentalities from engaging in, supporting, providing financial assistance for, licensing, permitting or approving any action which does not conform to an approved State or Federal implementation plan.

Conformity to an implementation plan means: Conformity to a plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards; and that such activities will not (1) cause or contribute to any new violation of the NAAQS; (2) increase the frequency or severity of an existing violation; or (3) delay the timely attainment of a standard, interim emission reduction, or milestone. Section 176(c) of the CAA was amended in 1995 to clarify that the conformity requirements apply only to designated nonattainment and maintenance areas.

The CAA established two types of conformity programs: "transportation conformity" and "general conformity." Conformity determinations for Federal actions related to transportation plans, programs and projects developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act, 49 U.S.C. 1601 et seq. are governed by the Transportation Conformity Rule found at 40 CFR Part 51, Subpart T rather than the General Conformity Rule. It is not expected that the Navy will propose actions subject to the Transportation Conformity Rule; therefore, this document provides guidance only on the General Conformity Rule.

3 Rule Requirements

The General Conformity Rule. The U.S. Environmental Protection Agency's (EPA) rule implementing the conformity requirements, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans," was published on 30 November 1993 at 58 FR 63214 and codified at 40 CFR Parts 51 and 93. Part 51, Subpart W, contains the General Conformity Rule provisions that must

be incorporated into State Implementation Plans (SIPs), including the requirement that States revise the SIPs to include the conformity requirements. While the State provisions must be at least as stringent as the Federal guidelines, the States are prohibited from imposing more stringent conformity requirements unless such requirements apply equally to non-Federal activities. Once a SIP has been revised and approved by EPA, the conformity requirements become Federally-enforceable and Federal agencies are subject to the conformity requirements as they appear in the SIP. In cases where a Federal Implementation Plan (FIP) is in effect, Federal actions must conform to the requirements of the FIP.

Subpart B of Part 93 is the General Conformity Rule that applies directly to Federal activities during the interim period before the State revises, and EPA approves, the SIP. The language of Parts 51 and 93 is essentially identical, the only difference being the references to SIP revisions. This guidance will refer to the regulations in Part 93.

3.1 Prohibition (40 CFR 93.150)

No department, agency or instrumentality of the Federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity, which does not conform to an applicable implementation plan.

A determination must be made that a Federal action conforms to an applicable implementation plan in accordance with the General Conformity Rule before the action is taken.

A determination of conformity does not exempt the action from any other requirements of the applicable implementation plan, the National Environmental Policy Act (NEPA) or the CAA.

A determination of conformity in accordance with the General Conformity Rule must be made for all actions except: (1) actions covered by the Transportation Conformity Rule; (2) actions where the total emissions are below specified de minimis levels; and (3) certain other actions which are exempt or presumed to conform.

3.2 Grandfathering (40 CFR 93.150(c))

Grandfathering provisions were incorporated into the final EPA conformity rule; however, the grandfathering deadlines have all passed. Regional Environmental Coordinators (RECs) need to review SIP conformity revisions for SIP grandfather provisions, and obtain reasonable transition procedures where appropriate.

The General Conformity Rule requirements do not apply to Federal actions where:

The NEPA documentation was completed prior to 31 January 1994. This includes a final Environmental Assessment (EA), Environmental Impact Statement (EIS), or Finding of No Significant Impact (FONSI); or where

a. Prior to 31 January 1994, an EA was started or a contract was awarded to develop the specific environmental analysis;

b. Sufficient environmental analysis was completed by 15 March 1994 so that the Federal agency determined that the action was in conformity with the applicable implementation plan; and

c. A written conformity determination was made prior to 15 March 1994.

3.3 State Implementation Plan (SIP) Revisions (40 CFR 93.151)

Each State must revise its SIP to incorporate the criteria and procedures contained in the General Conformity Rule. The CAA required these revisions by 30 November 1994, or within 12 months of an area's designation to nonattainment, whichever was later. However, to date many States have not obtained approval for their conformity SIP revisions. A summary of the status of conformity SIP revisions may be found on the World Wide Web at https://www.denix.osd.mil/denix/DOD/Working/CAASSC/Conform/confstat.html.

Until EPA approves the SIP revision, Federal agencies must comply with the Federal General Conformity Rule set out in 40 CFR Part 93, and any previously existing generally applicable State conformity requirements. When the SIP is approved, the new SIP conformity criteria and procedures will apply. If only a portion of the SIP revision is approved, Federal agencies must comply with the approved portion of the SIP conformity revision, as well as the Federal General Conformity Rule for any portions not approved.

The CAA requires EPA to compile the requirements of the Federally-enforceable SIP for each State every 3 years. In addition to containing the applicable conformity requirements, the SIP contains other information needed for the conformity analysis, such as emissions inventories. The SIP compilations are available for inspection at the appropriate EPA Regional Office. Contact information for the EPA Regions may be found in TAB B.

In addition, any previously applicable SIP requirements relating to conformity remain enforceable until the State revises its SIP to specifically remove the requirements and EPA approves the revision.

State Rules. State conformity rules cannot be less stringent than the General Conformity Rule. State rules also cannot be more stringent than the General Conformity Rule with one exception. If the State revises the SIP to apply the entire General Conformity Rule to non-governmental entities in the same manner as to governmental entities, then the State may impose more stringent conformity requirements on both groups. States may add to the General Conformity Rule in order to clarify the rule language or to develop new language for areas not addressed by the Federal rule. However, any such variations from the Federal rule should be carefully evaluated to assure that they do not result in the State rule imposing more stringent requirements on Federal actions. Navy Regional Environmental Coordinators (RECs) should monitor conformity SIP revisions to identify and raise issues of concern. Continuing problem areas should be referred up the chain of command.

Examples of areas States may address in their SIP revisions that are acceptable include: (1) details on how emissions budgets will be determined, what projects will be included in the emissions budget, how emissions will be tracked and how emissions will be allocated in the budgets; (2) establishing criteria for applying area-wide and localized modeling; (3) describing the process for implementing and enforcing mitigation measures; (4) providing an interagency consultation process where multiple Federal agencies

have jurisdiction; and (5) with respect to offsets, describing equally enforceable measures, other than SIP revisions, that satisfy the enforceability criteria.

Examples of areas States may address in their SIP revisions that are not acceptable (unless applied equally to non-Federal entities) include: (1) lower de minimis thresholds; (2) requiring conformity determinations based on State, as opposed to Federal, air quality standards; and (3) requiring conformity determinations for pollutants other than criteria pollutants and their precursors.

3.4 Responsibility for Conformity Analysis (40 CFR 93.154)

Each Federal agency taking an action subject to the General Conformity Rule must make its own conformity determination. In making its conformity determination, a Federal agency must consider comments from any interested parties. In cases where multiple Federal agencies have jurisdiction over the action or parts of the action, an agency may adopt the analysis of another Federal agency or develop its own analysis in making the conformity determination. Other Federal agencies may have jurisdiction over parts of a Navy action where the other agency is granting the Navy a permit, approval, or conducting a required consultation. Examples of such actions are Endangered Species Act consultations, Federal Aviation Administration actions, and Army Corps of Engineers Permits.

Adopting a Conformity Analysis. If the Navy chooses to adopt the conformity analysis of another Federal agency, the Navy must still prepare an independent, stand-alone, signed conformity determination describing any limitations, conditions or mitigation specific to the Navy portion of the action. The determination must state that the Navy adopts as its analysis the analysis contained in the conformity determination of the other agency, and the other agency's conformity determination must be attached as an appendix.

In those situations where the Navy adopts the conformity analysis of another Federal agency, the Navy continues to be responsible for assuring that the reporting and public participation requirements set out below are satisfied for the "adopted" conformity determination. The Navy may satisfy those requirements by participating in the reporting and public participation procedures of the originating agency. All such communication with regulatory agencies and the public, however, must clearly state that the determination is satisfying the conformity obligation of both the originating agency and Navy and offer the opportunity to submit comments to Navy on the conformity analysis and determination. In those cases where Navy does not participate in the originating agency's procedures, the Navy must separately satisfy the reporting and public participation requirements.

3.5 Reporting Requirements (40 CFR 93.155)

Draft Conformity Determination. A 30-day notice describing the proposed action and the Draft Conformity Determination must be provided to the following offices: the EPA Regional Office, State and local air quality agencies, the agency designated under Section 174 of the Act, the Metropolitan Planning Organization (MPO), and, if applicable, Federal Land Managers whose lands may be impacted by the action.

The Draft Conformity Determination must constitute a complete analysis, including satisfaction of all of the requirements necessary for a Final Conformity Determination.

Final Conformity Determination. Notice of the availability of the Final Conformity Determination must be provided to the same offices within 30 days of the determination.

3.6 Public Participation (40 CFR 93.156)

Draft Conformity Determination. The Navy must make the Draft Conformity Determination and its supporting materials (i.e., analytical methods and conclusions relied upon for the applicability analysis and Draft Conformity Determination) available for review upon request by any person.

A notice of the availability of the Draft Conformity Determination must be placed by prominent advertisement in a daily newspaper of general circulation in the area affected by the action. If an Environmental Impact Statement (EIS) is being prepared, the notice can be included as part of the notice of availability of the draft EIS. However, if only one notice is published announcing the availability of both documents, then the single notice must clearly state that the notice is for both NEPA and General Conformity purposes. Failure to clearly state that the Conformity Determination is available for public review may require that a second comment period be initiated in order to meet this CAA requirement, impacting project schedules and timelines. A 30-day period must be provided for written public comment before taking any action on the Draft Conformity Determination.

Response to Comments. All responses to the comments received must be documented, and the comments and responses made available upon request by any person within 30 days of the Final Conformity Determination.

Final Conformity Determination. Notice of the Final Conformity Determination must be provided by placing a prominent advertisement in a daily newspaper of general circulation in the area affected by the action within 30 days of the final determination. The Final Conformity Determination will be incorporated into the Navy's Record of Decision. A final unsigned version of the conformity determination should be included in the Final EIS.

If a conformity determination is being prepared for a project that requires an Environmental Assessment (EA) that would not otherwise be distributed in draft form for public review and comment, a draft final version of the EA, to be identified as a "review EA," shall be distributed with the Draft Conformity Determination for purposes of satisfying the public participation requirement. Concurrently, a public notice on the availability of a Draft Conformity Determination must be published in the local newspaper.

3.7 Frequency Requirements (40 CFR 93.157)

The conformity status of an action lapses 5 years from the date of the Final Conformity Determination, unless the action has been completed or a continuous program has been commenced to implement the action within a reasonable time.

Ongoing activities at a given site showing continuous progress are not new actions, and do not require re-determination so long as such activities are within the scope of the Final Conformity Determination.

If an action is changed after the Final Conformity Determination is made, and the change results in an increase in the total of direct and indirect emissions that equals or exceeds the de minimis levels, a new conformity determination is required.

3.8 Demonstrating Conformity (40 CFR 93.158)

An action shall be determined to conform if the total of direct and indirect emissions is in compliance or consistent with all relevant SIP requirements and milestones (i.e., reasonable further progress schedules, assumptions specified in the attainment/maintenance demonstration, prohibitions, numerical emission
limits or work practice requirements) and meets any one or a combination of the requirements listed in detail below:

a. Project emissions are identified in the SIP budget:

For any Criteria Pollutant. The total of direct and indirect emissions from the action is specifically identified and accounted for in the SIP attainment or maintenance demonstration.

b. Project emissions are fully offset:

For Ozone or Nitrogen Dioxide. The total of direct and indirect emissions from the action is fully offset within the same nonattainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant.

To be used in a conformity determination, offsets must be:

- Quantifiable;
- Consistent with applicable SIP attainment and reasonable further progress demonstrations;
- Surplus to reductions required by, and credited to, other applicable SIP provisions;
- Enforceable at both State and Federal levels; and
- Permanent within the timeframe specified by the program.

c. Modeling results demonstrate standards will not be exceeded:

(1) For any Criteria Pollutant Except Ozone and Nitrogen Dioxide. The total of direct and indirect emissions:

- Is shown to comply (i.e., to not cause or contribute to any new violation of any standard in any area and not to increase the frequency or severity of any existing violation of any standard in any area) based on areawide and local air quality modeling analysis; or

- Meets the requirements of paragraphs 2., 4. or 5. of this section and, for local air quality modeling analysis, the emissions are shown to comply.

(2) For Carbon Monoxide or Particulate Matter:

– Where the State determines that the areawide air quality modeling analysis is not needed, the total of direct and indirect emissions is shown to comply based on local air quality modeling analysis; or

– Where the State determines that an areawide air quality modeling analysis is appropriate and local modeling is not needed, the total direct and indirect emissions are shown to comply, based on the areawide modeling, or the emissions meet the requirements of paragraphs b., d. or e. of this section.

d. Project emissions are accommodated within SIP Budget:

For Ozone or Nitrogen Dioxide. The total of direct and indirect emissions from the action meets the following requirements:

Where EPA has approved a revision to an area's attainment/maintenance demonstration after 1990 and

(1) The State agency determines that emissions will not exceed the SIP emissions budgets; or

(2) The State agency makes a written commitment to EPA to revise the SIP within 18 months, to accommodate the increased emissions, and that such revisions occur prior to the time emissions from the Federal action occur.

e. Project emissions are already accounted for in Conforming Transportation Plan:

For Ozone or Nitrogen Dioxide. The total of direct and indirect emissions from the action meets the following requirement:

– The MPO determines that the action is part of a current transportation plan that has been found to conform under the Transportation Conformity Rule.

All required analyses must be completed and any necessary mitigation measures must be identified before a conformity determination is made. A chart summarizing the criteria for determining conformity is provided in TAB C.

Information on the SIP contents may be obtained by contacting the appropriate EPA Regional Offices, as identified in TAB B.

3.9 Requirements for Determining Emissions for Conformity Purposes (40 CFR 93.159)

a. **Planning Assumptions**

Conformity analyses must be based on the latest planning assumptions derived from population, employment, travel and congestion estimates approved by the MPO or other authorized agency. Any

revisions to these estimates that will be used in the conformity determination must be approved by the MPO or other authorized agency.

b. **Modeling**

Air quality modeling analyses must be based on the applicable air quality models, databases, and other requirements specified by EPA in the most recent version of Guideline on Air Quality Models (EPA publication number 450/2-78-027R). If the guideline's techniques are inappropriate, written approval for any modification or substitution must be obtained from the EPA Regional Administrator on a case-by-case or specific program basis. All techniques used must be explained and documented.

c. **Scenario Years**

Analyses must be based on the total of direct and indirect emissions and must reflect the scenarios that are expected to occur under each of the following circumstances:

- The mandated attainment year in the CAA, or the farthest year in which emissions are specified in the maintenance plan, if applicable;

- The year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis; and

- Any year for which the applicable SIP specifies an emissions budget.

3.10 Mitigation of Air Quality Impacts (40 CFR 93.160)

If conformity to the SIP cannot be satisfied in any other way, mitigation measures may be necessary.

a. **Mitigation Measures.** Any measures that are intended to mitigate air quality impacts must be identified and the process for implementation and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

b. **Mitigation Commitments.** Prior to making a conformity determination, Navy must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures that are identified as conditions for making the conformity determination. Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

c. **Permitting, Licensing, Approvals.** In instances where a Federal agency is licensing, permitting or otherwise approving the action of another governmental or private entity, approval by the Federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination.

d. **Changed Circumstances.** When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity determination. Any proposed change in the mitigation measures is subject to the reporting and public participation requirements discussed above.

e. **SIP Revisions.** SIP revisions incorporating the conformity rule shall provide that written commitments to mitigation measures must be obtained prior to a positive conformity determination and that such commitment must be fulfilled.

f. **Enforcement of Mitigation Measures.** After EPA approves a State SIP revision adopting the conformity rules, any mitigation measures identified in support of a conformity determination will be both State- and Federally-enforceable. Enforceability through the applicable SIP will apply to all persons who agree to mitigate direct and indirect emissions associated with a Federal action for a conformity determination.

4 Policy

4.1 Documentation

A Conformity Review must be completed for every Navy action that generates emissions. The action proponent is responsible for the documentation. The Conformity Review can be satisfied by (1) a determination that the action is not subject to the General Conformity Rule, (2) a Record of Non-Applicability, or (3) a Conformity Determination. All Records of Non-Applicability and Conformity Determinations and their supporting analytical materials must be separate, stand-alone documents signed by the appropriate delegated official. These documents, however, should be companion documents to any NEPA documentation being prepared (see discussion of NEPA integration below).

a. **Action Not Subject to the Rule.** The action proponent may make a determination that the proposed action is not subject to the General Conformity Rule. Actions not subject to the rule are actions that occur in attainment areas, and that do not generate emissions in nonattainment areas; or actions where the criteria pollutant (or its precursors) that is emitted is one for which the area is in attainment. See STEPS 2 and 3 in Section V, Procedures, under A. Determining Applicability. If NEPA documentation is prepared for the action, the determination shall be described in that documentation; otherwise, no documentation is required.

b. **Record of Non-Applicability.** A Record of Non-Applicability (RONA) must be prepared if the proposed action is subject to the Conformity Rule, but is exempt because it fits within one of the exemption categories. These are listed in TAB F. A RONA is a stand-alone document setting out the facts and circumstances establishing that the action is exempt. A sample format for the RONA is provided in TAB D. If the action is exempt because the calculated total emissions are below the de minimis levels, the assumptions and calculations used to determine the level of de minimis emissions must be explained in the RONA. The commanding officer, or designee, of the installation sponsoring the action shall sign the RONA. Consultation with the Chief of Naval Operations, (CNO (N45)) and command counsel is recommended. RONAs are not separately subject to the Reporting or Public Participation requirements of the General Conformity Rule; however, they should be incorporated into any NEPA documentation that is being prepared. (See Integration with NEPA Document Preparation Section). Because the General Conformity Rule requires the Federal agency to make the determination of conformity with the SIP, a RONA is required to document that a responsible Navy official has considered and complied with the rule. Since the conformity rule can act as a prohibition on moving forward with a Federal project, it presents a ripe area for challenge to controversial or unpopular actions. Complete and

readily accessible documentation of compliance with the General Conformity Rule is critical to successfully defending against legal challenges.

c. **Conformity Determination.** A Conformity Determination is required when the non-exempt emissions equal or exceed the de minimis levels or are regionally significant. A Conformity Determination is a stand-alone document containing the entire analysis and supporting materials necessary to demonstrate compliance with the conformity determination criteria and including any required mitigation measures.

If offsets (including emission reduction credits) are needed from another installation to make the conformity determination, the following procedures apply. Trading of offsets from one Navy installation to another must be approved at the Regional Environmental Coordinator level after coordination with all other Navy activities in the area. Trading of offsets from a Navy installation to or from a different Military Department installation must be approved at the ASN (I&E) level. Before the conformity determination can be made, the sponsoring activity shall have obtained written confirmation that offsets necessary to a finding of conformity are available.

Record Retention. All of the records identified above shall be maintained in the project file for at least two years after the action is completed.

Classified Actions. Actions considered classified for national security reasons are not exempt from the requirement for a Conformity Review. Conformity documentation, both draft and final, must be prepared, safeguarded, and disseminated per the requirements applicable to classified information. When feasible, the documents are to be organized in such a manner that classified portions are included as appendices so that the unclassified portions can be made available to the public. Review of classified documentation will be coordinated with personnel with appropriate security clearances at the U.S. EPA and the State to fulfill the reporting requirements of the General Conformity Rule.

Classified conformity documentation serves the same purpose as unclassified documentation, demonstrating that the statutory and regulatory requirements have been satisfied. Even though the classified documentation does not undergo public review and comment, it will still be part of the information package that is placed before the decision maker for the proposed action. The content of the classified conformity documentation will therefore meet the same content requirements applicable to publicly available documentation.

4.2 Coordination and Review

All Draft and Final Conformity Determinations shall be coordinated with and reviewed by CNO (N45), command counsel and OAGC (I&E). If a Conformity Determination is associated with an action for which a Finding of No Significant Impact (FONSI) is prepared, the entity delegated FONSI signature authority for the proposed action shall sign the determination. If the determination is associated with an action for which an EIS is prepared, the Deputy Assistant Secretary of the Navy delegated authority for signing the ROD, shall sign the Conformity Determination.

4.3 Integration with NEPA Document Preparation

Conformity requirements must be considered early in the planning process for all actions and projects. Because a negative conformity determination could prohibit a proposed action, air emissions need to be identified early, as they may require adjustments in the design, intensity, location or timing of an action.

Conformity review and documentation should be completed at the same time as the NEPA analysis and documentation and be fully integrated into the NEPA analysis and documentation. NEPA documentation should be structured to discuss compliance with the CAA, including the Conformity Review requirements, as well as State and local air quality requirements. The various levels of NEPA documentation (Categorical Exclusion, EA and EIS) should all contain the information necessary to satisfy General Conformity.

If a conformity determination is required, it should be contained in a "stand-alone" appendix to the NEPA document. If calculations are required to determine that emissions resulting from the action would be below de minimis levels, the Record of Non-Applicability should be presented in an appendix to the NEPA document. This appendix must stand-alone for all regulatory and public review, so it should contain a general description of the proposed action. NEPA Categorical Exclusions may not be used for a non-exempt action that exceeds the conformity de minimis thresholds.

All decisions made as part of the Conformity Review process shall be summarized in the text of the NEPA document, with reference to the detailed supporting information/data in the appendix, as appropriate. If a different approach is required by the special circumstances of a particular project, approval by CNO (N45) is required.

To address other non-conformity air quality impacts in the NEPA document, a subheading covering compliance with the NAAQS and other CAA requirements should be included. This section should include any additional analysis required by other portions of the CAA, or other analysis requested by the State to show that the action is in compliance with the SIP. For purposes of presenting the information, a separate appendix titled "Compliance with the NAAQS and other CAA requirements" should be used if the material is too bulky or technical for the text.

Calculating a project's air emissions in accordance with the General Conformity Rule differs from the traditional air quality analyses included in NEPA documents. The definition of "indirect emissions" under conformity is narrower than NEPA's definition of "indirect impacts." Also, the General Conformity Rule allows exemptions and presumptions not otherwise available under traditional NEPA analysis. Finally, conformity only requires compliance with the "applicable SIP," which means those portions of the SIP approved by EPA. A Federal action, however, is subject to all Federal, State and local air quality pollution and abatement requirements, regardless of whether they have been approved by EPA. The NEPA analysis must identify and evaluate any Federal, State or local requirements that apply to the project even if they are not included in the SIP. These differences could result in the presentation of differing sets of air quality data, causing confusion among the EA or EIS reviewers if the NEPA documentation does not clearly identify and distinguish the Conformity Review decisions.

4.4 Impacts of the New NAAQS

In July 1997, EPA finalized new NAAQS for ozone and fine particulate matter ($PM_{2.5}$). Those standards were challenged, however, and in May 1999, the D.C. Circuit Court of Appeals rejected the new CAA standards, finding them unconstitutional. The case was ultimately heard by the Supreme Court, which in February 2001 upheld EPA's authority to establish health-based standards.

In April 2004, EPA designated new 8-hour ozone nonattainment areas and issued Phase I of the 8-hour ozone implementation rule. As of June 2005, one year after the 8-hour ozone designations became effective, the conformity requirements apply to actions in 8-hour ozone nonattainment and maintenance areas. In November 2005, EPA issued Phase II of the 8-hour ozone implementation rule.

EPA issued final designations for $PM_{2.5}$ nonattainment areas in January 2005 and amended them based on new data in April 2005. As of April 2006, one year after the $PM_{2.5}$ designations became effective, the conformity requirements apply to actions in $PM_{2.5}$ nonattainment and maintenance areas. In July 2006, EPA established the de minimis thresholds for $PM_{2.5}$ and its precursors. EPA has not yet issued the $PM_{2.5}$ implementation rule.

In September 2006, EPA completed a review of the PM NAAQS and revised both the $PM_{2.5}$ standard and the coarse PM_{10} standard. As the revised standards are implemented, the PM_{10} and $PM_{2.5}$ nonattainment areas may change, but in the interim the designations previously established still apply.

EPA is revising the General Conformity Rule to address the new standards and incorporate measures to streamline compliance but at the time of this instruction the revisions have not yet been issued.

5 Procedures

5.1 Determining Applicability (40 CFR 93.153)

The following steps should be followed to determine the applicability of the General Conformity Rule to a Federal action. A chart summarizing the steps to determine applicability is provided in TAB E.

STEP 1: Define the Federal Action.

The first step in the process is to define the scope of the action. Federal action is defined in the conformity rule as "any activity engaged in by a department, agency or instrumentality of the Federal government or any activity that a department, agency or instrumentality of the Federal government supports in any way, provides financial assistance for, licenses, permits, or approves."

The discussion of the action should include any identified alternatives. To facilitate comparison and review of the alternatives, they should be summarized in a table that includes a brief description of the major elements, such as construction projects and changes in personnel loading, motor vehicle use and number of aircraft and ships operating at the installation. The discussion and summary of the alternatives should include the "No Action" alternative. Routine or nominal actions may not have any identified alternatives; therefore, no additional discussion would be necessary.

The Federal action for conformity purposes can be different from the Federal action for NEPA purposes. The conformity action is allowed to cover a shorter timeframe or have a more defined scope than the NEPA action may have. Conformity actions can also reach farther back in time than the NEPA action, when necessary to establish appropriate comparison years for netting emission increases and decreases. Consult with legal counsel and CNO (N45) if the proposed action may have these issues.

STEP 2: Is the Action Located in an Air Quality Nonattainment or Maintenance Area?

The General Conformity Rule applies only to actions that generate emissions in nonattainment or maintenance areas. In the preamble to the rule EPA stated its intent to propose a supplemental rule that would require conformity determinations in attainment areas that have exceeded 85 percent of the NAAQS. However, as a result of Pub. L. No. 104-59, the National Highway System Designation Act of 1995, Section 176(c) of the CAA was amended to limit applicability of the conformity requirement to nonattainment and maintenance areas. Specifically, adding a new subsection at the end of Section 176(c) amended the Act to read:

"(5) Applicability. This subsection shall apply only with respect to

(1) A nonattainment area and each pollutant for which the area is designated as a nonattainment area; and

(2) An area that was designated as a nonattainment area but that was later re-designated by the Administrator as an attainment area and that is required to develop a maintenance plan under the CAA with respect to the specific pollutant for which the area was designated nonattainment."

There are a few special circumstances, however, when conformity determinations may be required for actions that are located in attainment areas. If the action is located in an attainment area but emissions from mobile sources associated with the action are generated in a nearby nonattainment area, those emissions must be evaluated in accordance with the rule. Two examples of such a circumstance are installation employees who drive to work from or through a nonattainment area, and helicopters that fly low-level paths in a nonattainment area.

Areas designated as maintenance prior to January 1990 are not subject to the rule (see the preamble response to comments in the Federal Register at 58 FR 63238 (30 November 1993)).

If the action is located in an air quality nonattainment or maintenance area, or falls within the special circumstances described above, proceed to STEP 3. If the action is located in an attainment area and no special circumstances exist, stop here; the General Conformity Rule does not apply.

STEP 3: Does the Action Result in the Emission of Criteria Pollutants?

The General Conformity Rule requires analysis only of emissions of criteria pollutants and their precursors for which an area is designated nonattainment or that are covered by a maintenance plan. If the action results in the emission of criteria pollutants for which an area is designated nonattainment or maintenance, proceed to STEP 4.

If the action results in the emission of criteria pollutant(s) other than those for which the area is designated nonattainment or maintenance, stop here; the General Conformity Rule does not apply.

STEP 4: Is The Action (Or Portion Of The Action) Exempt From Conformity Requirements?

EPA has determined the following Federal actions (or portions thereof) to be exempt:

a. Actions as identified by EPA in 40 CFR 93.153 that would result in no emission increase or an increase that is clearly de minimis. A complete list of these actions, considered "exempt by definition," is provided in TAB F.

b. The following actions where the emissions are not reasonably foreseeable:

(1) Initial Outer Continental Shelf lease sales, which are made on a broad scale and are followed by exploration and development plans on a project scale;

(2) Electric power marketing activities that involve the acquisition, sale, and transmission of electric energy.

c. Actions implementing a decision to conduct or carry out a program for which a conformity determination has been made.

d. Actions that are determined exempt, regardless of the amount of emissions, because they are sufficiently covered by another program, positively contribute to air quality or fall within the emergency category:

(1) The portion of an action that includes major new or modified stationary sources that require a permit under the new source review (NSR) program (Section 173 of the Act) or the prevention of significant deterioration (PSD) program (Title I, Part C of the Act);

(2) Actions in response to emergencies or natural disasters such as hurricanes, earthquakes, etc., which are commenced on the order of hours or days after the emergency or disaster and, if applicable, which meet the requirements of paragraph (e) of this section;

(3) Research, investigations, studies, demonstrations, or training (other than those exempted under paragraph (a) of this section), where no environmental detriment is incurred, and/or the particular action furthers air quality research, as determined by the State agency primarily responsible for the applicable SIP;

(4) Alteration and additions of existing structures as specifically required by new or existing applicable environmental legislation or environmental regulations (e.g., hush houses for aircraft engines and scrubbers for air emissions);

(5) Direct emissions from remedial and removal actions carried out under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and associated regulations, to the extent such emissions either comply with the substantive requirements of the PSD/NSR

permitting program or are exempted from other environmental regulation under the provisions of CERCLA and applicable regulations issued under CERCLA.

e. Emergency actions that continue for more than six months continue to be exempt only if the Federal agency makes a written determination that for a specified period not to exceed an additional 6 months, it is impractical to prepare the conformity analyses and the action cannot be delayed due to overriding concerns for public health, welfare, national security interests or foreign policy commitments. New determinations must be made for each additional six-month period.

CAA Section 182(f) Exemptions for Nitrogen Oxides (NO_x). In addition to the exemptions noted above, an area may also receive an exemption from the conformity requirements for NO_x if EPA determines that additional NO_x reductions would not contribute to attainment of the ozone standard in the area. A number of areas had obtained NO_x exemptions under the 1-hour ozone standard but those exemptions no longer apply following the revocation of the 1-hour standard. Areas in nonattainment of the 8-hour ozone standard must submit a new petition for an exemption under that standard.

Procurement Actions. The General Conformity Rule does not apply to procurement actions; however, at one time EPA believed the General Conformity Rule should apply to some categories of procurement actions, as yet undefined, and has stated that it will address exemptions and the process for applying conformity to procurement activities in a future rulemaking. For purposes of interpreting the present rule, Navy considers procurement actions not covered by the rule to include such things as the acquisition of supplies or services produced or developed by non-Federal entities at a location other than the Federal installation. On the other hand, acquisition of supplies such as the construction of buildings, or the provision of services such as facility support contracts on a Federal installation, are covered by this rule.

All of the sources of emissions caused by an action should be separately evaluated to determine if any source is exempt. In some cases, the entire action will be exempt from the rule; in other cases, only portions of the action or individual sources will be exempt from the rule. Note, however, that some categories cannot be combined without violating the purpose of the rule. For example, routine maintenance operations could usually be exempted, but not if they are being relocated as part of a larger realignment into a new air district. Also, the routine movement of ships and aircraft to perform as operational groups and/or for repair or overhaul may be included in the exemption; however, a new homeport assignment of ships or aircraft that adds new facilities or personnel to an area cannot be included in the exemption.

If the source is determined not to be exempt, include it in the total emissions for the action and proceed to STEP 5. If the source is one that is exempt due to any of the above circumstances, the emissions associated with the source should not be included in the total emissions for the action. If the entire action is exempt, stop here. Prepare a Record of Non-Applicability (RONA) to document the basis for exempting the emissions from the action (or portion of the action). Refer to Section IV of this guidance for further discussion and see TAB D for an example.

STEP 5: Is the Action Presumed to Conform?

Under Section 93.153(f) of the rule, Navy may develop through rulemaking, categories of actions that are presumed to conform. No such rulemaking has been initiated at this time; therefore, there are no

Navy "presumed to conform" categories. CNO (N45) is responsible for identifying appropriate circumstances and developing the rulemaking. Proceed to STEP 6.

STEP 6: Identify all Direct Emissions Caused by the Federal Action.

Direct emissions are those emissions caused by the Federal action and that occur at the same time and place as the Federal action. Emissions are caused by the Federal action if they would not otherwise occur in the absence of the Federal action. Typically, direct emissions will include those emissions associated with sources that are owned or operated by a Federal installation. This includes emissions from all mobile, area and stationary sources, including emissions from the construction phase of a project. Emissions should be calculated in tons per year on an annual calendar basis.

Reasonably foreseeable is not an element of the definition of direct emissions; however, the concepts are incorporated into the definition itself, as the emissions must occur at the "same time and place" as the Federal action. Essentially, the emissions must flow directly from the Federally-owned or operated aspects of the Federal action.

Proceed to STEP 7 to determine if any indirect emissions are caused by the action.

STEP 7: Identify All Reasonably Foreseeable Indirect Emissions Caused By the Federal Action.

Indirect emissions are those emissions that are caused by the Federal action, but that may occur later in time and/or may be farther removed in distance from the action itself but that are still reasonably foreseeable. Emissions are caused by the Federal action if they would not otherwise occur in the absence of the Federal action. Typically, indirect emissions will include two types: (1) emissions from mobile sources that are associated with the Federal action but that are not owned or operated by the Federal agency (i.e., employee vehicles, delivery trucks); and (2) emissions from the actions of private entities under a Federal lease, permit, or approval.

Reasonably foreseeable emissions are those that can be identified at the time the conformity determination is made, their location is known, and the emissions are quantifiable, as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency. If reasonably foreseeable indirect emissions caused by the action are identified, proceed to STEP 8. If the indirect emissions caused by the action or any portion of the action are not reasonably foreseeable, those emissions are not included in the total emissions for the action; proceed to STEP 9.

STEP 8: Can the Indirect Emissions Caused By the Federal Action Be Practicably Controlled Due To Continuing Program Responsibility?

In calculating total emissions it is important to distinguish between direct emissions and indirect emissions. All direct emissions must be included in the calculation. Indirect emissions are included in the calculation, however, only if two criteria are met. First, the emissions must be reasonably foreseeable, and second, they must be caused by an emission source that is within the Federal agency's ability to practicably control and that will be controlled due to a continuing program responsibility.

Emissions that a Federal agency has a continuing program responsibility for means emissions that are specifically caused by an agency carrying out its authorities, and does not include emissions that occur due to subsequent activities, unless such activities are required by the Federal agency. Where an agency is performing its normal program responsibilities, takes actions itself, or imposes conditions that result in air pollutant emissions by a non-Federal entity taking subsequent actions, such emissions are considered within a continuing program responsibility. If the Federal action is a lease, the agency will often have sufficient control over the emissions to constitute a "continuing program responsibility."

For example, if an action will result in 200 new families living in off-base housing, only those motor vehicle emissions associated with base personnel commuting to and from work should be included in the emissions calculation. Motor vehicle use for shopping trips and other errands, and emissions from heating homes off-base, are not emissions the Federal agency can control. Commuting can be controlled, at least to the degree Navy can encourage carpooling and the use of public transit through various incentive programs. When calculating construction-phase emissions, construction employee vehicle emissions generated while driving on base would be indirect emissions potentially under Federal control. The construction employee vehicle emissions generated while commuting are not indirect because they are not caused by the Federal action, nor controlled by Navy, and presumably the construction workers would be driving to work regardless of our action.

If indirect emissions caused by the action that are both reasonably foreseeable and may be practicably controlled are identified, proceed to STEP 9 and include those emissions in the calculation of total emissions. If the indirect emissions associated with the action or any portion of the action may not be practicably controlled through a continuing agency program responsibility, those emissions should not be included in the total emissions for the action. Proceed to STEP 9.

STEP 9: Determination of Total Emissions.

Direct and indirect emissions from all non-exempt sources of criteria pollutants (or their precursors) caused by the Federal action must be included in the calculation of total emissions. The total direct and indirect emissions must be calculated for each nonattainment or maintenance pollutant (or precursor) in tons per year for each year of the project up to the attainment date for that pollutant. For the purposes of determining total emission levels for ozone, NO_x and volatile organic compounds (VOCs) are treated separately (not added together) to determine the total emissions. The rule makes it clear, however, that only the net emissions must be considered (i.e., the sum of direct and indirect emission increases and decreases caused by the Federal action).

The calculation of net emissions allows the subtracting out of emission sources associated with activities that are moving from the installation, as well as adding in emissions from the new activities. In order for the conformity analysis to net the decreases and increases, however, they must be characterized as one Federal action. Realignments, consolidations, and replacements of aircraft, vessels or equipment, are all good examples of situations where netting works well.

Procedures for calculating total emissions are provided in Section V(C) and TAB G. Once the total emissions have been determined, proceed to STEP 10.

STEP 10: Are the Total Emissions Resulting From the Action Below De Minimis Levels?

Each calendar year's total of direct and indirect emissions for each nonattainment or maintenance pollutant must be compared to the de minimis levels set out in the rule and in Figure F-1 and Figure F-2 below. Actions where the total of all reasonably foreseeable direct and indirect emissions do not equal or exceed the de minimis levels are exempt. If each year's total emissions are less than the de minimis levels for the pollutant, proceed to STEP 11. If the total emissions are equal to or greater than the de minimis levels for the pollutant in any year, a formal Conformity Determination is required for that pollutant.

Re-evaluate Project. Before proceeding with a conformity determination, it is recommended that the project be re-evaluated to determine if it can be redesigned to result in emissions that are below the de minimis thresholds. For example, has all the available pollution control equipment been included in the original design, or can additional control equipment be added? Can the actions be phased in on a different time schedule to result in lower annual emissions? Can the location, duration or intensity of any of the activities be altered to result in lower emissions? If any of the above or similar actions are available, the Federal action should be re-defined to include those revisions.

Figure F-1 DE MINIMIS THRESHOLD LEVELS FOR NONATTAINMENT AREAS

DE MINIMIS THRESHOLD LEVELS FOR NONATTAINMENT AREAS (Section 93.153(b)(1))	
POLLUTANT	TONS/YEAR
OZONE (VOCs OR NO_x)	
SERIOUS NAA's	50
SEVERE NAA's	25
EXTREME NAA's	10
OTHER OZONE NAA'S OUTSIDE AN OZONE TRANSPORT REGION	100
MARGINAL AND MODERATE NAA's INSIDE AN OZONE TRANSPORT REGION:	
VOC	50
NO_x	100
CARBON MONOXIDE: ALL NAA's	100
SULFUR DIOXIDE (SO_2) OR NITROGEN DIOXIDE (NO_2): ALL NAA'S	100
PM_{10}:	
MODERATE NAA'S	100
SERIOUS NAA'S	70
$PM_{2.5}$:	
DIRECT EMISSIONS	100
SO_2	100
NO_x (UNLESS DETERMINED NOT TO BE A SIGNIFICANT PRECURSOR)	100
VOC OR AMMONIA (IF DETERMINED TO BE SIGNIFICANT PRECURSORS)	100
LEAD (Pb): ALL NAA'S	25

Figure F-2 DE MINIMIS THRESHOLD LEVELS FOR MAINTENANCE AREAS

DE MINIMIS THRESHOLD LEVELS FOR MAINTENANCE AREAS (Section 93.153(b)(2))	
POLLUTANT	TONS/YEAR
OZONE (NO_x), SO_2 OR NO_2: ALL MAINTENANCE AREAS	100
OZONE (VOC's): MAINTENANCE AREAS INSIDE AN OZONE TRANSPORT REGION	50
MAINTENANCE AREAS OUTSIDE AN OZONE TRANSPORT REGION	100
CARBON MONOXIDE: ALL MAINTENANCE AREAS	100
PM_{10}: ALL MAINTENANCE AREAS	100
$PM_{2.5}$:	
DIRECT EMISSIONS	100
SO_2	100
NO_x (UNLESS DETERMINED NOT TO BE A SIGNIFICANT PRECURSOR)	100
VOC OR AMMONIA (IF DETERMINED TO BE SIGNIFICANT PRECURSORS)	100
Pb: ALL MAINTENANCE AREAS	25

STEP 11: Is The Action Regionally Significant?

Regionally significant actions are defined as actions where the emissions represent 10 percent or more of a nonattainment or maintenance area's total emission budget for that pollutant. If the emissions resulting from an action are below de minimis levels and do not account for more than 10 percent of an area's emission budget, stop here, and document the de minimis exemption as required by this guidance. If the emissions are determined to be regionally significant, the action is not exempt, even if the emissions are below the de minimis levels, and a formal Conformity Determination is required. However, before proceeding with a conformity determination, it is recommended that the project be re-evaluated to determine if it can be redesigned to result in emissions that are below the regional significance thresholds. Actions exempted by the conformity rule are presumed to not be regionally significant. See TAB F for the listing.

5.2 Typical Emissions Sources to be Included in the Total Emissions Calculation

All emissions caused by the project from the operation of stationary sources including emissions from:

- Aircraft Maintenance Facilities
- Ship Maintenance Facilities
- Fuel Storage and Handling Facilities
- Hazardous Waste Storage and Transfer Facilities
- Weapons Receiving/Assembly/Packing
- Airfield Facilities
- Port Facilities
- Hangars
- General Warehousing Facilities
- Personnel Housing (BOQ, BEQ, Family Housing)
- Support Service Facilities (Child Care, Family Services)
- Reserve Training Facilities
- Utility Upgrading
- New Power Plants/Expanded Use of Existing Plants
- Incinerators

All emissions caused by the project from the Construction phase including emissions from the following sources:

- Surface disturbance
- Construction equipment (bulldozers, backhoes, etc, at site)
- Construction of facilities (paints, coatings, solvents, adhesives)
- Delivery trucks (on-base emissions only)

All emissions caused by the project from the operation of mobile sources including emissions from the following sources:

- Aircraft (below 3,000 ft above ground level in air district)
- Ground support equipment
- Vessels (out to territorial sea within air district)
- Locomotives
- Government fleet vehicles
- Private motor vehicles (Federal worker commutes only)
- Lawn and garden equipment
- Non-road vehicles
- Non-road equipment (cranes)
- Tactical vehicles and equipment

5.3 Emission Estimation Procedures

Assumptions used in calculating emissions should be verified to the extent possible to reflect the most accurate information available; all assumptions must be thoroughly documented. To facilitate

comparison and review, the analysis must include a year-by-year summary chart listing the emissions from each source category and the annual total for the baseline year and each year of the project, out to the expected steady-state year. In accordance with the requirements of 40 CFR 93.159, analyses must be based on the latest and most accurate emission estimation techniques available. If such techniques are determined to be inappropriate, written approval must be obtained from the EPA Regional Administrator on a case-by-case basis for any modification or substitution. All techniques used must be documented and explained. EPA Regions have readily accepted Navy specialty office emission models for aircraft, vessels and ground support equipment.

For motor vehicle emissions, the most current version of the motor vehicle emissions model specified by EPA and available for preparing or revising the SIP must be used. EPA will publish a notice of availability of any new motor vehicle emissions model in the Federal Register and a grace period of three months is allowed during which the previous model may be used. Analyses started during this grace period or no more than three years before a Federal Register notice of a newer model appears can continue to use the previous version. Copies of the program output must be included in the analysis. In California, the approved model is the one utilized by the California Air Resources Board (CARB).

For non-motor vehicle emissions, including stationary and area sources, the rule specifies that the latest emission factors specified by EPA in Compilation of Air Pollutant Emission Factors (AP-42) must be used unless more accurate data are available, such as actual emission test data. Recognizing that more accurate factors may also be available, EPA has demonstrated a willingness to accept emission factors from other recognized sources, such as other EPA documents, references developed by the State or air district, or factors developed by recognized military department experts. However, the project manager must obtain written approval from EPA to use factors other than those found in AP-42 and the sources for all emission factors used in the analysis must be thoroughly documented. The results of the calculations must be included in the analysis and sample calculations must be provided.

Emissions from aircraft and vessels within certain boundaries must be included in the total emissions. Navy activities are directed to routinely request review by the lead Navy authority for various emission estimates. This includes the Aircraft Environmental Support Office (AESO) for aircraft; the Naval Sea Systems Command, Code 03 for ships; and the Ordnance Environmental Support Office (OESO) for ordnance. Detailed emission estimation procedures are provided in TAB G.

TAB A

DEFINITIONS (40 CFR 93.152)

1. Caused By, as used in the terms "direct emissions" and "indirect emissions," means emissions that would not otherwise occur in the absence of a Federal action.

2. Cause or Contribute to a New Violation means a Federal action that causes a new violation of a NAAQS at a location in a nonattainment or maintenance area which would otherwise not be in violation of the standard if the Federal action were not taken; or contributes, in conjunction with other reasonably foreseeable actions, to a new violation of a NAAQS at a location in a nonattainment or maintenance area in a manner that would increase the frequency or severity of the new violation.

3. Criteria Pollutant or Standard means any pollutant for which there is a NAAQS established at 40 CFR Part 50.

4. Direct Emissions means those emissions of a criteria pollutant or its precursors that are caused or initiated by a Federal action and that occur at the same time and place as the action.

5. Emergency means a situation where extremely quick action on the part of the Federal agencies involved is needed and where the timing of such Federal activities makes it impractical to meet the conformity requirements, such as natural disasters like hurricanes or earthquakes, civil disturbances such as terrorist acts, and military mobilizations.

6. Emissions that a Federal agency has a Continuing Program Responsibility for means emissions that are specifically caused by an agency carrying out its authorities, and does not include emissions that occur due to subsequent activities, unless such activities are required by the Federal agency. Where an agency, in performing its normal program responsibilities, takes actions itself or imposes conditions that result in air pollutant emissions by a non-Federal entity taking subsequent actions, such emissions are covered by the meaning of a continuing program responsibility.

7. Federal Action means any activity engaged in by a department, agency, or instrumentality of the Federal government, or any activity that a department, agency or instrumentality of the Federal government supports in any way, provides financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under Title 23 of the U.S. Code or the Federal Transit Act. Where the Federal action is a permit, license or other approval for some aspect of a non-Federal undertaking, the relevant activity is the part, portion or phase of the non-Federal undertaking that requires the Federal license, permit, or approval.

8. Indirect Emissions means those emissions of a criteria pollutant or its precursors that: 1) are caused by a Federal action but may occur later in time and/or may be farther removed in distance from the action itself but are still reasonably foreseeable; and 2) the Federal agency can practicably control and will maintain control over due to a continuing program responsibility of the Federal agency.

9. Maintenance Area means an area with a maintenance plan approved under Section 175A of the CAA.

10. Metropolitan Planning Organization (MPO) is the organization that is responsible, along with the State, for conducting the continuing, cooperative, and comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 1607.

11. Precursors for ozone are nitrogen oxides (NO_x), unless an area is exempted from NO_x requirements under Section 182(f) of the CAA, and volatile organic compounds (VOCs). For PM_{10}, precursors are those pollutants described in the PM_{10} nonattainment area applicable SIP as significant contributors to the PM_{10} levels. For $PM_{2.5}$, precursors are SO_2, NO_x (unless determined not to be a significant precursor), and VOCs and ammonia (if determined to be significant precursors).

12. Reasonably Foreseeable Emissions are projected future indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable, as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency.

13. Regionally Significant Action means a Federal action for which the direct and indirect emissions of any pollutant represent 10 percent or more of a nonattainment or maintenance area's emission inventory for that pollutant.

14. Total of Direct and Indirect Emissions means the sum of direct and indirect emissions increases and decreases caused by the Federal action; i.e., the net emissions considering all direct and indirect emissions. The portion of emissions which are exempt or presumed to conform under 40 CFR 93.153 (c), (d), (e) or (f) are not included in the “total of direct and indirect emissions.” The “total of direct and indirect emissions” includes emissions of criteria pollutants and emissions of precursors of criteria pollutants.

TAB B

EPA Regional Contact Information

Region	Affected States	Regional Office Contact Information	Online SIP Information
1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Customer Call Center New England States: 888-372-7341 Outside New England: 617-918-1111 EPA New England, Suite 1100, One Congress Street, Boston, MA 02114-2023	http://www.epa.gov/region1/topics/air/sips.html
2	New Jersey, New York, Puerto Rico, Virgin Islands	212-637-3000 US EPA Region 2, 290 Broadway, New York, NY 10007-1866	http://www.epa.gov/region02/air/sip/
3	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia	215-814-2100 US EPA Region 3, 1650 Arch Street, Philadelphia, PA 19103	http://www.epa.gov/reg3artd/airregulations/airreg.htm
4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	800-241-1754 USEPA Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, S.W., Atlanta, GA 30303	http://www.epa.gov/region4/air/sips
5	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	Within Region 5 States: 800-621-8431 Outside Region 5: 312-353-2000 US EPA Region 5, 77 West Jackson Boulevard, Chicago, IL 60604-3507	http://www.epa.gov/ARD-R5/sips/index.html
6	Arkansas, Louisiana, New Mexico, Oklahoma, Texas	214-665-6444 US EPA Region 6, 1445 Ross Avenue, Suite 1200, Dallas, TX 75202-2733	http://www.epa.gov/earth1r6/6pd/air/pd-l/sip.htm

Region	Affected States	Regional Office Contact Information	Online SIP Information
7	Iowa, Kansas, Missouri, Nebraska	913-551-7003 US EPA Region 7, 901 N. 5th Street, Kansas City, KS 66101	http://www.epa.gov/region7/programs/artd/air/rules/fedapprv.htm
8	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	Within Region 8 States: 800-227-8917 Outside Region 8: 303-312-6312 US EPA Region 8, 999 18th Street, Suite 300, Denver, CO 80202-2466	http://www.epa.gov/region08/air/sip.html
9	Arizona, California, Hawaii, Nevada, American Samoa, Guam	Region 9 Environmental Information Center: 866-EPA-WEST or 415-947-8000 US EPA Region 9, 75 Hawthorne Street, San Francisco, CA 94105	http://www.epa.gov/region9/air/sips
10	Alaska, Idaho, Oregon, Washington	Region 10 Public Environmental Resource Center: (800) 424-4EPA or (206) 553-1200 1200 6th Avenue, Seattle, WA 98101	http://www.epa.gov/r10earth/sips.htm

TAB C

SUMMARY OF CONFORMITY DETERMINATION CRITERIA

	Areawide Only		Local and/or Areawide		Local Only
Section 93.158(a)	O_3	NO_2	PM_{10}	CO	Pb/SO_2
(l)Specified in attainment or maintenance demonstration	X	X	X	X	X
(2)Offsets within same area	X	X			
(3)(i)Areawide and local modeling			X	X	X
(3)(ii)Local modeling and (5)			X	X	X
(4)(i)Local modeling only if local problem			X	X	
(4)(ii)Area-wide modeling only or (5)			X	X	
(5)(i)Emission budget or State commitment	X	X	*	*	
(5)(ii)Trans -portation plan	X	X	*	*	
(5)(iii) Offsets	X	X	*	*	
(5)(iv) Baseline	X	X	*	*	
(5)(v)Water Project	X	X	*	*	

"X" Means method is available for making a Conformity Determination for that pollutant
"*" Option if areawide problem only

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TAB D

SAMPLE RECORD OF NON-APPLICABILITY (RONA)

NAVY RECORD OF NON-APPLICABILITY FOR CLEAN AIR ACT CONFORMITY

The proposed action falls under the Record of Non-Applicability (RONA) category and is documented with this RONA.

Proposed Action.
Action Proponent
Location:
Proposed Action Name:
Proposed Action & Emissions Summary:

Affected Air Basin(s):
Date RONA prepared:
RONA prepared by:

Proposed Action Exemption(s).

Attainment Area Status and Emissions Evaluation Conclusion.

RONA Approval:
Signature: _____
Name/Rank: _____Date: _____
Position: ___Commanding Officer _____Activity: _____

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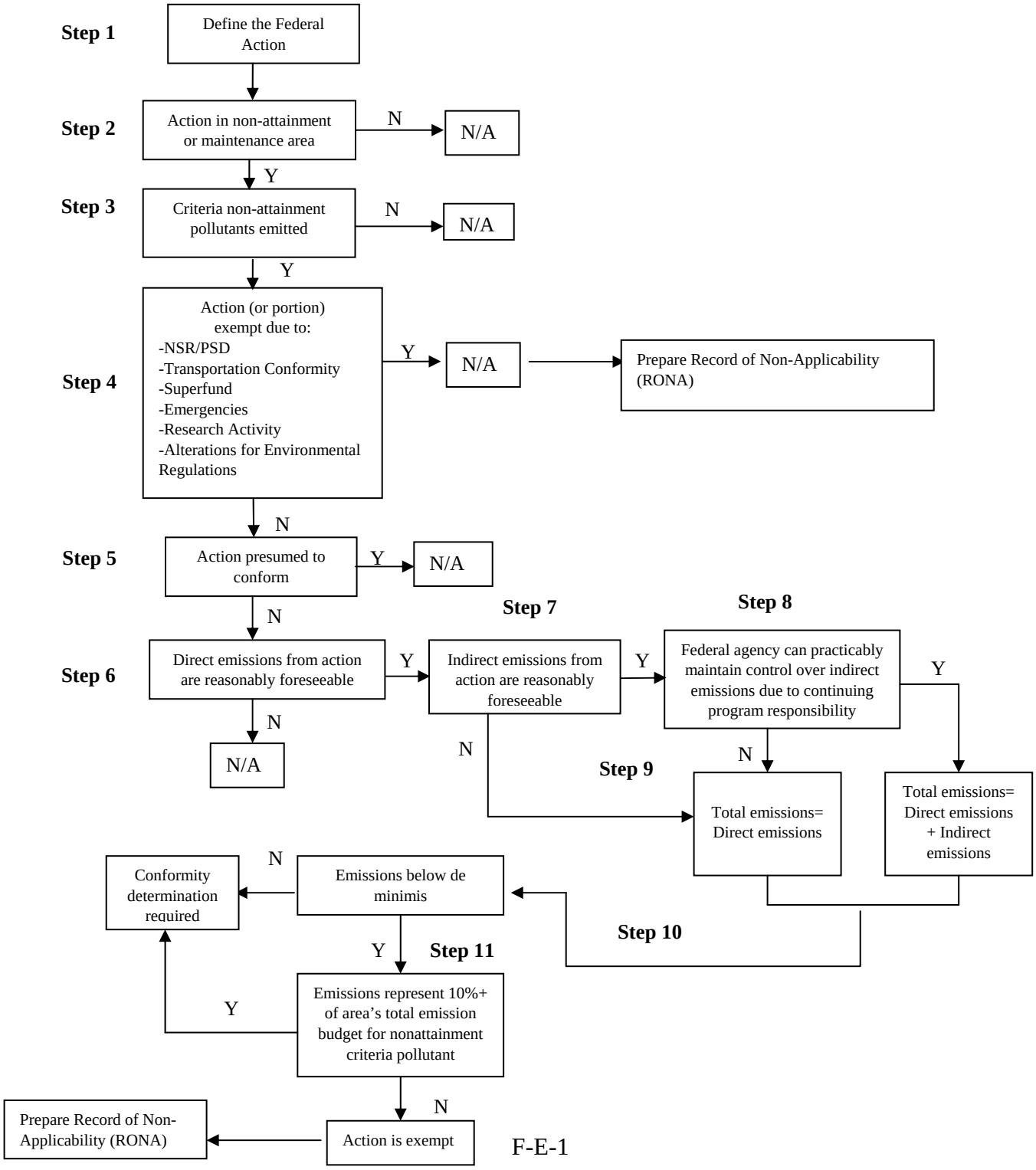
TAB E

FLOW CHART FOR DETERMINING APPLICABILITY



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TAB F

ACTIONS EXEMPT BY RULE (DEFINITION PER 40 CFR 93.153)

Per 40 CFR 93.153, the conformity requirements do not apply to the following actions, which would result in no emissions increase or an increase that is clearly de minimis:

(i) Judicial and legislative proceedings;

(ii) Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted;

(iii) Rulemaking and policy development and issuance;

(iv) Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails and facilities;

(v) Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions and the training of law enforcement personnel;

(vi) Administrative actions, such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties and fees;

(vii) The routine, recurring transportation of materiel and personnel;

(viii)Routine movement of mobile assets, such as ships and aircraft, in homeport reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul;

(ix) Maintenance dredging and debris disposal where no new depths are required, applicable permits are secured, and disposal will be at an approved disposal site;

(x) Actions, such as the following, with respect to existing structures, properties, facilities and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; for example, relocation of personnel, disposition of Federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency;

(xi) The granting of leases, licenses such as for exports and trade, permits, and easements where activities conducted will be similar in scope and operation to activities currently being conducted;

(xii) Planning, studies, and provision of technical assistance;

(xiii)Routine operation of facilities, mobile assets and equipment;

(xiv)Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of transfer;

(xv) The designation of empowerment zones, enterprise communities, or viticultural areas;

(xvi)Actions by any of the Federal banking agencies or the Federal Reserve Banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency, or instrumentality of the United States;

(xvii)Actions by the Board of Governors of the Federal Reserve System or any Federal Reserve Bank to effect monetary or exchange rate policy;

(xviii)Actions that implement a foreign affairs function of the United States;

(xix)Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties;

(xx) Transfers of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity and assignments of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity for subsequent deeding to eligible applicants;

(xxi)Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States.

Property disposal actions resulting from the Base Closure process will typically fall into exemption categories (xi) leases, (xiv) transfers of title, (xix) CERCLA transfer agreements or leases, and (xx) public benefit transfers to other Federal agencies.

TAB G

EMISSION ESTIMATION PROCEDURES

1 Aircraft

For aircraft, all emissions up to the mixing height, generally 3,000 ft above ground level (AGL), generated within the nonattainment area boundaries must be included in the emissions calculation. Mixing zones vary from region to region, and local meteorological data should be consulted. To calculate aircraft emissions, assistance is available from the Navy's Aircraft Environmental Support Office (AESO).

1.1 Operations

a. **Methodology.** Traditionally, the landing and takeoff (LTO) cycle begins when the aircraft approaches the installation on its descent from cruising altitude, lands, and taxis to the gate. The cycle continues as the aircraft taxis back out to the runway for subsequent takeoff and climb-out as it heads back up to cruising altitude. The five operating modes in a conventional LTO cycle as described by EPA are:

- Approach
- Taxi/idle-in
- Taxi/idle-out
- Takeoff
- Climb-out

As Navy has developed more conformity analyses involving aircraft, it has refined the classic LTO cycle to incorporate additional discrete operating modes that also contribute emissions. For Navy conformity analyses, emissions from the following operating modes (and any other modes applicable to a particular type of aircraft) must be included

- APU use (for certain aircraft)
- Pre-taxi system checks
- Taxi out
- Take-off
- Climb-out
- Level portion of flight below 3000 feet
- Approach
  - Straight in
  - Overhead break
- Landing
- Taxi-in
  - With hot refueling
  - Without hot refueling

Circular patterns (Touch-&-Go, Fleet Carrier Landing Practice and Ground Controlled Approach Box) include a momentary touchdown followed by an immediate takeoff. Therefore, these patterns will only include the climb-out, level portion of flight below 3,000 feet AGL and approach modes.
For each aircraft type involved in the action, the following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets as shown in the sample format provided in Table G-1. If an operational cycle includes additional steps, those steps should also be shown on the calculation sheets.

- Determine the number of aircraft and the number of engines per aircraft
- Determine the annual number of operations conducted per aircraft
- Determine the power settings for each operating mode in order to determine the fuel flow per engine and appropriate emission factors (usually given as pounds of pollutant per 1000 pounds of fuel used)
- Determine the time-in-mode for each operating mode
- Multiply the number of operations per aircraft for each operating mode by the number of aircraft, fuel flow rate per engine, number of engines, emission factor, time-in-mode and appropriate conversion factors to obtain the total emissions in tons per year (tpy) for each operating mode

Sum the emissions for all operating modes to obtain the total annual emissions for the aircraft type in tpy.

Items to check: How the action is quantified in total numbers of Aircraft and types of operations. Actions often change scope over the course of the development of the conformity analysis. The document should be reviewed carefully to ensure that the number of aircraft and their associated operations are consistent throughout the conformity analysis. The calculation sheets should include the number of aircraft to facilitate this review.

Consistency with the conformity documentation and other related documents present a real challenge. Since related documents such as noise studies were developed for other purposes, the conformity analysis may not necessarily be consistent with these documents, but the reasons for any differences should be explained in the analysis. For the same reason, numbers taken from other related documents should be carefully examined to ensure that the numbers used in the analysis are appropriate. Another possible cause of error/inconsistency is due to varying interpretations of the types of operations and what is involved. For example, control towers generally count each landing and takeoff separately, while other estimates of aircraft operations use landing/takeoff cycles. The analysis must clearly state how all data are to be interpreted.

Other items to check for include: (1) assuming that circular patterns start from a dead stop and (2) assuming that circular patterns require the use of an afterburner, (3) using a mixing height of 3,000 feet above sea level rather than AGL and (4) failing to include all of the emissions that occur below 3,000 feet AGL within the entire air basin.

b. **Data Sources.** The data needed to calculate aircraft emissions include the migration schedule, unit deployment schedule, number and type of operations, times-in-mode, fuel usage records and power settings. We also need to be specific in identification of what and how many aircraft are in a squadron and whether they are part of the Fleet or Fleet Replacement Squadron (sometimes referred to as the RAG). Also we need to know the timing of when aircraft squadrons will arrive or depart as part of the Federal action (i.e. when the F-14D squadron will retire or F/A-18E squadron will actually be physically located).

Of particular importance is the number of aircraft operations that occurred or will occur at the installation. Three sources of information are often utilized:

(1) Installation air traffic control tower information - often the air controllers for an air station will record the number of landings and number of takeoffs at the installation over the course of 1 year. This information usually only identifies the number of landings and takeoffs, and does not contain information on aircraft types or type of operation being conducted. Often, air traffic controllers will also count the number of aircraft entering the surrounding air space, and care must be taken to identify this separately from landings/takeoffs.

If control tower information is used, estimates must be used to determine the types of aircraft and the operations they are conducting.

(2) Aircraft squadron information - the aircraft squadron involved in the action can also provide information on current and historic operations.

(3) Aircraft squadrons train according to a training syllabus to ensure aviators are operational ready. The Naval Aviation Simulation Model (NASMOD) uses training syllabuses to estimate future training requirements and estimate the number of operations the squadron requires to be ready. In practice, the NASMOD estimates may be overestimates because funding for full training does not always occur.

If no other information is available, the major claimant should be requested to provide information on the number and mix of aircraft and operations. In all cases, the major claimant should be requested to validate the number and mix of aircraft and operations involved in a Federal action.

1.2 Aircraft Maintenance

a. **Methodology.** In-aircraft (or in-frame) engine testing, known as maintenance run-ups, is conducted to perform routine maintenance checks and to test engines prior to and following test cell procedures. During maintenance run-ups, each engine is tested under specific power settings that correspond to typical operating modes (i.e., idle, takeoff, climb out and approach). The two common types of engine run-ups are low power and high power. Low power run-ups are routinely done to check operation of replaced components that do not require a high power run-up to verify operation, or to operate another aircraft system that is powered or driven by the engine(s). High power run-ups are performed following maintenance that requires verification of the engine's ability to perform throughout its full range of operation.

Table G-1: SAMPLE FORMAT FOR AIRCRAFT EMISSION CALCULATIONS

Year: _____
Aircraft Type: _____ Engine Model: _____ No. Aircraft:_____

Flight Operation And Mode	Power Setting	No. Engines In Use	Annual Ops	Time in mode (min)	Fuel Flow Per Engine (lb/hr)	Emission Index (lbs/1000 lbs fuel)					Total Emissions (tpy)				
						CO	NOx	HC	SO2	PM10	CO	NOx	HC	SO2	PM10
Departure															
APU Use															
System Checks															
Taxi Out															
Takeoff															
Climb out															
Level Flight (<3000ft)															
Arrival															
Straight In															
Overhead Break															
Taxi In/shut down															
Hot Refuel															
Touch- and –Go															
Approach															
Climb out															
Level Flight (<3000ft)															
FCLP															
Approach															
Climb out															
Level Flight (<3000ft)															
GCA Box															
Approach															
Climb out															
Level Flight (<3000ft)															
Total Annual Emissions for Aircraft Type															

The emissions calculation procedure for maintenance run-ups is very similar to the procedures for calculating emissions from aircraft operations. For each aircraft type involved in the action, the following steps should be taken to calculate the maintenance emissions. All basic data and assumptions should be included on the calculation sheets:

(1) Determine the number of aircraft and the number of engines per aircraft
(2) Estimate the annual number of both low power and high power run-ups conducted per aircraft
(3) Determine the power settings for each operating mode in order to determine the fuel flow per engine and appropriate emission factors (usually given as pounds of pollutant per 1000 pounds of fuel used)
(4) Determine the time-in-mode for each operating mode
(5) Multiply the number of run-ups per aircraft at each operating mode by the number of aircraft, fuel flow rate per engine, number of engines, emission factor, times-in-mode and appropriate conversion factors to obtain the total emissions in tpy for each operating mode
(6) Sum the emissions for all operating modes to obtain the total annual emissions for the aircraft type in tpy.

Items to check: Make sure the analysis includes emissions from maintenance run-ups in any analysis involving aircrafts. These emissions are quantifiable, are directly attributable to aircraft operations, and must be included in the analysis.

b. **Data Sources.** The data needed to calculate emissions from aircraft maintenance run-ups include the migration schedule, unit deployment schedule, maintenance records to determine number and type of run-ups, times-in-mode, fuel usage records and power settings.

2 Vessels

For vessels, all emissions generated from the shoreline outward to the seaward boundary of the territorial sea (usually 3 miles) within the nonattainment area boundaries must be included in the calculation. To calculate emissions from vessels, assistance is available from the Naval Sea Systems Command (NAVSEASYSCOM).

a. **Methodology.** NAVSEASYSCOM is developing the Navy Engine Emissions Calculator (EEC) that will estimate vessel emissions for use in EISs and Conformity Determinations. The user will select the ship, boat or craft from a pull-down menu, inputs the operating data and the program will use this information to select the appropriate engines, determine the ship/engine operating profile and calculate the emissions. The program will generate a report showing the emissions of NO_x, SO_x, CO2, CO, HC and PM for each ship and the total for all of the ships considered in the analysis.

The program will be accessible via the Internet and should be used for estimating vessel emissions once it is available. Until the program is available, NAVSEASYSCOM should be contacted for assistance in calculating vessel emissions.

b. **Data Sources.** Data required for calculating vessel emissions are the vessel types and the operating data for the time each vessel operates within the boundary of concern.

3 Motor Vehicles

Motor vehicles generate two primary types of emissions, exhaust and evaporative. Exhaust emissions occur only when the vehicle is operating, during either the start or the stabilized running mode. Evaporative emissions consist of organic gases (a portion of which are VOCs) and occur when fuel evaporates from the storage and delivery system. Although the rate varies with the operating mode, this evaporation occurs whether or not the vehicle is in operation.

3.1 Privately Owned Vehicles (POVs)

a. **Methodology.** As discussed earlier, for POVs only those motor vehicle emissions associated with base personnel commuting to and from work should be included in the emissions calculations. Motor vehicle use for shopping trips and other errands are not emissions the Federal agency can control. The calculation should assume that each employee makes a total of two commute trips per day (one to and one from the base), with adjustments made to reflect actual average vehicle occupancy rates for that installation taking into account any locally required vehicle ridership requirements. Any adjustments should be based on the installation's employee trip reduction plan or other documentation on file with the regulating agency. The source for the adjustments should be referenced with the calculation. Worker trip estimates from other sources or installation trip counts conducted for other purposes should not be used to generate the number of employee trips. The calculation should assume that Federal employee work commutes occur 240 days per year, unless special circumstances dictate some other number (e.g., a compressed work schedule in effect at the installation).

The following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets or program printouts.

(1) Determine the change in personnel loading associated with the action

(2) Determine the number of workdays for the installation (usually 240 days per year)

(3) Calculate the number of commute trips per day (number of personnel times two divided by the average vehicle occupancy rate)

(4) Estimate the average vehicle trip length and speed

(5) Determine the average summer and wintertime temperatures for the area

(6) Estimate the vehicle population mix

(7) Determine whether vehicles commuting to the installation are subject to an inspection and maintenance (I/M) program

(8) Use the most current version of the motor vehicle emissions model specified by EPA and available for preparing or revising the SIP to calculate the total annual POV emissions in tpy

Check with the State or air district to determine whether these emissions must be included in the calculation of total emissions. The State or air district may have already accounted for changes in the installation's vehicle usage in the SIP.

Items to check: How the action is quantified in total numbers of personnel. Consistency with the conformity documentation and other related documents present a real challenge. Actions often change scope over the course of the development of the conformity analysis. Carefully review the calculations and documentation to ensure that the number of personnel used to calculate the POV emissions is consistent with the personnel migration schedule described in the action. Sources for other information such as the vehicle occupancy rate must be documented. Since related documents such as traffic studies were developed for other purposes, the procedures described above should be used to determine the number of commute trips. Ensure that the standard models and methodologies are used correctly for calculating vehicle emissions. Personnel should contact the State, air district or EPA Regional Office for detailed assistance with models and methodologies.

b. **Data Sources.** Data needed to calculate POV emissions include the change in personnel associated with the action, number of work days, average vehicle occupancy rate, average commute trip length, average speed, estimated vehicle population mix, I/M program requirements applicable to the area in which the installation is located and the average summer and wintertime temperatures. A checklist to be used in summarizing key data and assumptions is provided in Table G-2 and should be included with each analysis.

TABLE G-2 CHECKLIST FOR DATA REQUIRED FOR POV CALCULATIONS

1. Change in personnel loading associated with the action _____
Source: _____

2. Number of work days (usually 240 days per year – document if a different number is used)
_____

3. Average Vehicle Occupancy Rate _____
Source: _____

4. Number of commute trips per day (number of personnel times two divided by the average vehicle occupancy rate) _____

5. Average one-way vehicle trip length in miles (estimate based on primary housing locations and average number of personnel living on/off-base) _____

6. Estimated vehicle population mix (% of total for each vehicle type)
Light-duty autos _____
Light-duty trucks _____
Motorcycles _____

7. Average vehicle speed in mph (estimate based on average speed limits on roads between installation and primary housing locations) _____

8. Average temperatures
Summer: _____
Winter: _____

9. Are vehicles commuting to the installation subject to an inspection and maintenance (I/M) program? _____
If yes, what level? _____

10. Name and version number of model used to calculate POV emissions:
_____

11. Include both a sample input and an output file printout with your analysis.

3.2 Government-Owned Vehicles (GOVs)

a. **Methodology.** The procedures for calculating emissions from GOVs vary from the procedures for POVs because generally all of the miles driven by the GOVs are included in the calculation, unless the number of miles driven outside the air basin is known. Also, the vehicle mix does not have to be estimated because it can be determined from the fleet inventory.

The following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets or program printouts:

(1) Obtain the inventory of fleet vehicles associated with the action; the inventory should include the number, fuel type, model year and mileage for each vehicle

(2) Calculate the average annual mileage for each vehicle by dividing its total mileage by its age

(3) Determine the total annual vehicle miles traveled (VMT) for each vehicle type

(4) Determine the average vehicle speed (usually the installation speed limit)

(5) Determine the average summer and wintertime temperatures for the area

(6) Determine whether the fleet vehicles are subject to an inspection and maintenance (I/M) program

(7) Use the most current version of the motor vehicle emissions model specified by EPA and available for preparing or revising the SIP to calculate the total annual GOV emissions in tpy

Items to check: Check with the State or air district to determine whether these emissions must be included in the calculation of total emissions. The State or air district may have already accounted for changes in the installation's vehicle usage in the SIP. Carefully review the calculations and documentation to ensure that the number of GOV used to calculate the emissions is consistent with the migration schedule described in the action. Ensure that the standard models and methodologies are used correctly for calculating vehicle emissions. Personnel should contact the State, air district or EPA Regional Office for detailed assistance with models and methodologies.

b. **Data Sources.** The data needed to calculate GOV emissions include the fleet inventory and mileage, average speed and average summer and wintertime temperatures. A checklist to be used in summarizing key data and assumptions is provided in Table G-3 and should be included with each analysis.

TABLE G-3 CHECKLIST FOR DATA REQUIRED FOR GOV CALCULATIONS

1. Annual VMT for each vehicle type
   Heavy-duty trucks _____
   Medium-duty trucks _____
   Light-duty autos _____
   Light-duty trucks _____
   Motorcycles _____

2. Average vehicle speed in mph (usually the average installation speed limit; indicate if an alternative number is used such as a lower number for heavy-duty trucks due to their mode of operation) _____

3. Average temperatures
   Summer: _____
   Winter: _____

4. Are vehicles used at the installation subject to an inspection and maintenance (I/M) program? _____
   If yes, what level? _____

5. Name and version number of model used to calculate GOV emissions: _____

6. Include both a sample input and an output file printout with your analysis.

4 Non-road Engines and Vehicles

Non-road sources include motorized vehicles and equipment that are normally not operated on public roadways to provide transportation.

a. **Methodology.** The basic methodology for calculating emissions from non-road engines and vehicles is to take the product of the equipment population, the usage rate and an emission factor. Emission factors are defined as the average emissions of each pollutant per unit of use (hours of operation or quantity of fuel used) for each category of equipment and are dependent on the type of fuel used.

The emission factor used should be selected based on the best information available and should be consistent with the activity rate. For equipment for which an emission factor is not specifically defined, an emission factor for a similar category of equipment or for a miscellaneous category should be used. The reference for the emission factors and all assumptions must be documented.

The following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets. See the format provided in Table G-4.

(1) Obtain the inventory of non-road equipment associated with the action

(2) Determine the most appropriate emission factor from EPA's Compilation of Air Pollutant

(3) Emission Factors (AP-42) (Note: other emission factors from recognized sources may be used but EPA must approve them. Factors from EPA's Non-road Engine and Vehicle Emission Study Report are often used. Document the sources for all emission factors used in the analysis.)

(4) Calculate the total annual emissions in tons per year (tpy) for each type of equipment by taking the product of the population, usage and emission factor. If enough information is known, the best method for calculating emissions is on the basis of "brake specific" emission factors (g/kW-hr or g/hp-hr).

(5) Emissions are calculated by taking the product of the brake specific emission factor, the usage in hours, the power available (i.e., rated power) and the load factor (power actually used divided by the power available).

Items to check: Determine whether a particular item is considered a mobile source subject to the conformity requirements or a stationary source that is permitted and thus exempt from the conformity rule. Avoid incorrect categorization of vehicles and construction equipment as GSE, which can resulting the use of incorrect emission factors. Ensure that "pooled" equipment is not attributed to multiple squadrons to avoid double counting.

b. **Data Sources.** The data needed to calculate the emissions are the equipment inventory, which should include the equipment population, fuel type, power rating and annual usage. Check the Conformity website for the latest references and test reports:
https://www.denix.osd.mil/denix/DOD/Working/CAASSC/policy.html

Table G-4 SAMPLE FORMAT FOR NONROAD ENGINE EMISSION CALCULATIONS

Equipment Type	Emission Factor Source[1]	Fuel Type	No. Units	Hp	Op Hours per Unit	Load Factor	Emission Factor (g/hp-hr)					Total Emissions (tpy)				
							HC	NOx	CO	SO2	PM10	HC	NOx	CO	SO2	PM10
Total Annual Non-road Emissions																

Notes: 1) Include corresponding equipment type if the emission factor used is for a different item of equipment than the type specified.

5 Construction Phase Emissions

In calculating the construction phase emissions, the total net combined emissions must be established separately for (1) each year of construction; (2) for each year that construction and operations overlap; and (3) for the first full year the proposed action is operating at "full-build out." Typically it can be assumed that a "full-build out" operational level would be consistent throughout subsequent years. If it is expected that a year will be different, analyze any such years also. Emissions may change during various stages of a construction project; each stage should be separately analyzed including the quarter in which it occurs.

Emissions associated with construction operations result from two different types of sources: the actual operation of the equipment, which generates emissions of all criteria pollutants, and the fugitive dust emissions of particulate matter generated by the disturbance of the soil. Because the methodologies for calculating emissions for these two source types vary greatly, they will be addressed separately.

5.1 Construction Equipment

a. **Methodology.** The methodology for calculating construction equipment emissions is the same as for other non-road engines and vehicles as discussed earlier.

Items to check: The actual Military Construction (MILCON) schedule and the most appropriate emission factors given the equipment type and fuel type and operating rate should be used rather than estimates.

b. **Data Sources.** The MILCON schedule for the project should provide all of the data required to calculate the emissions from the construction equipment, including the quantity of each type of equipment, the projected usage of each item per month and the duration of each phase of the project.

5.2 Fugitive Dust

a. **Methodology.** The quantity of dust emissions from construction operations is proportional to the area of land being worked and to the level of construction activity. Section 13.2.3 (Heavy Construction Operations) of AP-42, Volume I (NOTAL), provides an emission factor of 1.2 tons per acre per month of activity based on the assumption that construction activity occurs 30 days per month. This factor is based on field measurements of total suspended particulate (TSP) concentrations surrounding apartment and shopping center construction projects and is most applicable to construction operations with medium activity level, moderate silt content and semiarid climate. The fugitive dust calculations may be further refined by adjusting for the actual percentage of TSP that is attributable to PM10, by taking credit for dust control measures or adjusting for variations in silt content of the soil. Any refinements, however, must be based on sound engineering judgment and must be thoroughly documented.

Items to check: Make sure that the analysis identifies the type of dust control measures and the effectiveness of the program when taking credit for a dust control program.

b. **Data Sources.** The MILCON schedule should provide all information necessary to determine the level and duration of construction activity.

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TAB H

REFERENCES

1. General Conformity Provision of the Clean Air Act, 42 U.S.C. 7601(C); Determining Conformity of General Federal Actions to State or Federal Implementation Plans, 40 CFR Parts 51 and 93.

2. National Environmental Policy Act, 42 U.S.C. 4321.

3. Compilation of Air Pollutant Emission Factors (AP-42), Volume II, Mobile Sources, U.S.EPA, 1985, as updated by Supplement A, 1991.

4. Non-road Engine and Vehicle Emission Study Report, EPA-21A-2001, U.S. EPA, Office of Mobile Sources and Office of Air & Radiation, November 1991.

5. Procedures for Emission Inventory Preparation, Volume IV, Mobile Sources, EPA-450/4-81-026d (Revised), U.S. EPA, Office of Mobile Sources and Office of Air Quality Planning and Standards, 1992.

6. Methodology For Estimating Emissions From On-Road Motor Vehicles, California Air Resources Board, Technical Support Division, Mobile Source Emission Inventory Branch, October 1996.

7. California Environmental Quality Act (CEQA) Air Quality Handbook, South Coast Air Quality Management District, April 1993.

8. Clean Air Act Services Steering Committee Website, https://www.denix.osd.mil/denix/DOD/Working/CAASSC/caassc.html

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APPENDIX G

GUIDANCE ON DEVELOPING FACILITY POLLUTION PREVENTION PROGRAMS AND IMPLEMENTING POLLUTION PREVENTION PROGRAM ELEMENTS

1 Introduction. This appendix is for guidance only. Its purpose is to provide assistance in the development of shore facility Pollution Prevention (P2) Programs in conjunction with Federal, State, and local laws and requirements, to outline the principal P2 Program elements, and to offer guidance on implementing those elements.

NOTE:

Applicable State and local codes, standards, and regulations may be and often are more stringent than Federal requirements, especially in regard to environmental programs and hazardous waste (HW) issues.

2 P2 Program Development. The P2 Program outlined herein is essentially a revision to, and expansion of, the Hazardous Material Control and Management (HMC&M) Program previously outlined in guidance enclosed with OPNAVINST 4110.2 (NOTAL). That guidance is herein revised to reflect additional and updated P2 requirements, planning, and nomenclature changes, as well as incorporation of Emergency Planning and Community Right-To-Know Act (EPCRA). All Navy shore facilities should already have well-established HMC&M Programs developed per OPNAVINST 4110.2 (NOTAL). Some shore facilities may also have EPCRA Programs or facility P2 Plans. A facility P2 Program which unifies HMC&M, EPCRA, and P2 planning requirements will provide a single vehicle through which all facility hazardous material acquisition, use, substitution, reduction, accounting, disposition, and emergency planning can be assessed and controlled.

3 P2 Program Elements. The guidance contained herein is based upon the policies and requirements of Chapter 3 and 4 and other Department of Defense (DoD) and Navy instructions that relate to P2, hazardous material (HM) and HW management. This appendix incorporates aspects of existing programs together into a complete P2 effort. Included with the development and implementation of the facility P2 Plan, the P2 Program should incorporate the following elements, which are individually discussed below:

- P2 Committee
- HM Inventory
- Material Safety Data Sheets (MSDSs)
- Labeled HM and HW Containers
- The Safe Use of HM
- HM Acquisition Controls and Authorized User List (AUL)
- Safe and Controlled Receiving, Distribution, Issuing, and Shipping of HM
- Storage of HM
- Management of HW
- Emergency Response Planning
- Shore Facility Oversight of P2 Activities
- Recordkeeping and Reporting.

a. **P2 Committee.** The P2 Committee should be established to advise the commander or commanding officer on the policies and procedures to implement a facility P2 Program and to assist in the implementation of that Program. The P2 Committee should be multi-disciplinary and bring together the various organizations and groups having functional responsibilities and authority over HM acquisition, use, etc. The chairperson of the committee should be the commander, or designee (e.g., command staff officer). Tab A of this appendix provides a typical committee charter, committee composition, and functions.

b. **HM Inventory.** A current inventory of HM, hazardous chemicals, or chemical substances known or suspected to contain HM should be developed and maintained to control and manage material, per this instruction and OPNAVINST 5100.23D (NOTAL), and should be maintained in a central reference location. Each HM on the inventory should be identified by storage and use location(s) and should be assigned a unique identifier that relates it to a specific MSDS. Also, a list of hazardous chemicals is a requirement of the Occupational Safety and Health Act (OSHA) Hazard Communication (HAZCOM) Standard (29 CFR 1910.1200) and including the identifier information on the inventory will also help fulfill that requirement. A HM inventory which provides a MSDS identifier and which identifies material storage and use locations will also be an aid in:

(1) MSDS filing and providing a ready means of MSDS access for use by non-technical or emergency response personnel.

(2) Assuring that proper controls are in place for HM storage and use, HAZCOM training, Spill Prevention, Control and Countermeasures (SPCC) Plans, and Spill Contingency Plans (SCPs).

(3) Facilitating emergency notification of a Local Emergency Planning Committee (LEPC) per EPCRA Section 304, in the event of a release of a reportable quantity of material.

(4) Determining EPCRA Sections 302 and 311 reporting thresholds and EPCRA Section 313 releases.

(5) Completing EPCRA Sections 311 and 312 reports, including Section 312 Tier II reports.

(6) Creating and maintaining an AUL to be used to control HM acquisition and use (see paragraph 3.g).

(7) Forming the basis for eliminating or disposing of unneeded materials safely and properly.

c. **MSDSs.** The HAZCOM Standard requires that each shore facility using HM in its work operations and processes possess a manufacturer's MSDS for each HM item on hand and that it be easily accessed by workers. For material not having a MSDS, a shore facility should take the necessary action to obtain one. MSDSs are a key to identifying HM at the shore facility and for supporting the facility's MSDS focal point in the following functions:

(1) Reviewing manufacturer-supplied MSDSs to ensure that required data elements are completed and to identify materials containing hazardous ingredient(s).

(2) Participating in the DoD Hazardous Material Information System (HMIS) for locally procured HM.

(3) Ensuring proper labeling and the using of safe working quantities of HM in the workplace.

(4) Informing employees and contractors of hazards (see paragraph 3f(4)) and safeguards for those HM to which they may be potentially or occupationally exposed.

d. **Labeled HM and HW Containers.** Each container of material possessing hazardous ingredients should be properly labeled by the manufacturer and/or shipper(s) to warn personnel of the potential dangers of the material. In the event warning labels are inadvertently removed or damaged in shipping prior to receipt by shore facilities, commercial suppliers should be required to provide HAZCOM-compliant replacement labels. Facilities are not required to put DoD or other HM warning labels on new stocks because the manufacturer is responsible for placing HAZCOM-compliant labeling on such stock. Shore facilities are not to re-label existing stocks that conform with the HAZCOM Standard. Requirements for labeling are described below:

(1) 29 CFR 1910.1200 provides labeling requirements for workplace use of HM. This OSHA standard requires that containers of HM be labeled, tagged, or marked with the identity of the hazardous chemical(s); appropriate hazard warnings; and the name and address of the chemical manufacturer, importer, or other responsible party. In addition to OSHA labeling requirements, Federal and military marking standards (Federal Standard No. 123 (NOTAL) and Military Standard 129 (NOTAL)) require precautionary labeling to guide those who use and handle HM.

(2) The Environmental Protection Agency (EPA), Consumer Product Safety Commission (CPSC), Food and Drug Administration (FDA), and Bureau of Alcohol, Tobacco, and Firearms (BATF) also require labeling of HM and HW under their jurisdiction. When labeling requirements are met under EPA, CPSC, FDA, or BATF, specific labeling requirements under the OSHA HAZCOM Standard are not required.

(3) DOT labeling and marking requirements apply to the transportation and shipping of HM. Facilities are to use 40 CFR 172.101 to determine labeling requirements.

(4) Bulk storage tanks, piping, vats, or similar vessels should be labeled using the DoD Hazardous Chemical Warning Label, DD 2521 and DD 2522, when other means, such as placards, are not available or adequate to meet HAZCOM requirements. Repackaged containers or breakdown quantities of hazardous chemicals and unlabeled or improperly labeled HM already in the Navy inventory should be labeled using the DoD Hazardous Chemical Warning Label.

(5) The DoD label can be applied with variations. Color DoD labels may be used. The size of the DoD label may be locally varied to fit the size and shape of the container being labeled. Local reproduction of the DoD label is authorized.

NOTE:

National Fire Protection Association (NFPA) Labels used alone or without a HAZCOM compliant label are not adequate to meet the HAZCOM standard.

e. **The Safe Use of HM.** HM should be handled and used only under the following minimum safety conditions:

(1) The HM appears on the HM AUL for the workplace/work center in which it is used. This implies that procedures for and conditions of HM use have been evaluated and approved.

(2) The HM is stored and used in only the minimum quantity required to accomplish the mission.

(3) Personal protective equipment and requisite safety, emergency, and spill cleanup and containment equipment are readily available.

(4) Employees are adequately informed and understand HM hazards and necessary protective measures via HAZCOM training (i.e., training on the safe use of the material, HM warning properties, needed safeguards and personal protective equipment, proper disposal techniques and procedures, and access to MSDSs). OPNAVINST 5100.23D (NOTAL) provides information concerning HM/HAZCOM training programs. In addition to training, the OSHA HAZCOM Standard requires that each facility prepare and keep current a HAZCOM Program Plan.

(5) Contractors are to be informed of HM that they may be exposed to and inform a designated facility person of HM to which Navy personnel may be exposed. Similarly, contractors must make MSDSs for their HM available to the supported facility. Pending a change to the Defense Federal Acquisition Regulations Supplement (DFARS), a locally developed clause to the effect that "Contractors shall inform the designated facility representative of all contractor used HM to which Navy personnel are exposed and shall provide MSDSs for those materials to the facility representative" should be developed.

(6) Local procedures are developed and implemented to ensure that employees performing non-routine tasks involving HM are trained, equipped, and kept under appropriate medical surveillance in advance of such work to the same extent as required for routine exposure situations.

f. **HM Acquisition Controls and AUL.** Local procurement controls and audits should be established that are sufficiently stringent to ensure that only HM on the facility AUL is procured and that manufacturers are complying with labeling and warning requirements and are supplying MSDSs with their material. The baseline facility AUL can be developed directly from the facility HM inventory. At a minimum, the AUL should denote a specific MSDS identifier, storage and usage location, and local work center or code authorized to request the purchase and use of a HM (for each HM listed in the inventory). Facility-specific acquisition and AUL policies and procedures should address the following:

(1) Requestors of HM be required to request only authorized HM in approved, minimum quantities, whenever possible. Likewise, work center-specific AULs should be made available to those responsible for requesting HM.

NOTE:

Obtaining and reviewing a MSDS should be a prerequisite for placement of HM on the AUL.

(2) Requisition review prior to the issuance of any purchase order for HM be instituted to ensure that only authorized HM is being purchased. Also, conditions and procedures for adding or deleting HM or authorized work centers from the AUL should be established.

(3) All purchase orders for HM should include appropriate clauses to ensure proper labeling of HM containers and delivery of an MSDS with the HM shipment.

(4) HM requisitions should clearly designate the user code, work center, or shop so that incoming MSDSs can be routed to the central MSDS reference files, HM user codes, and others having a need for current MSDS data.

g. **Safe and Controlled Receiving, Distribution, Issuing, and Shipping of HM.** Local policy should address specific functions as follows:

(1) Material inspection upon receipt to determine if it is HM and if it is on the AUL, if it is adequately labeled, and if a MSDS is supplied. If the material is HM and does not conform to established standards, specifications, and regulations, it should be placed in appropriate temporary hold until manufacturer-supplied labels, MSDSs, or acceptable substitutes are obtained.

(2) Prompt and safe storage for incoming HM deliveries.

(3) Obtaining and maintaining MSDSs and technical data for stocked HM.

h. **Storage of HM.** HM should be stored in minimum required quantities. MSDSs and HMIS provide useful information on warehouse storage and storage compatibility codes for HM. All locations for temporary and permanent storage for HM and HW, including bulk storage and tanks, must be approved by the commanding officer or designated representatives (the use of underground storage tanks is discouraged). Navy shore faculties shall not store or dispose of non-Navy-owned HM except in certain specific instances. Questions may be referred to the Engineering Field Divisions (EFDs) of the Naval Facilities Engineering Command (NAVFACENGCOM).

i. **Management of HW.** HW Management plans must be referenced in, or incorporated into P2 Plans. See Chapter 12 for HW management requirements.

j. **Emergency Response Planning.** Written emergency procedures or Spill Contingency Plans (SCPs) shall be referenced in, or incorporated into P2 Plans. See Chapter 10 for SCP requirements.

k. **Shore Facility Oversight of P2 Activities.** The commanding officer should designate a person(s) or organizational entity to develop a written annual review of the shore facility's P2 Program to assess its attainment of objectives, the effectiveness of its P2 Plan, and to recommend changes and improvements to the plan. The review should be provided to the P2 Committee for discussion and development of appropriate responses, including changes to the P2 Plan.

l. **Recordkeeping and Reporting.** Recordkeeping and reporting is essential to P2. The following summarizes recordkeeping and reporting requirements of OPNAVINST 5100.23D (NOTAL): (It should also be noted that EPA has authorized State environmental agencies to administer HW programs; consequently, many of the following reports will be submitted to States depending upon circumstances.)

(1) Inventory of HM. Data elements identified in paragraph 3b may be supplemented with additional ones to meet shore facility needs for inventory control, occupational health surveillance, hazard communication training requirements, and EPCRA planning requirements.

(2) Training Records. Records of individuals' HAZCOM training accomplishments should be maintained at the shore facility per OPNAVINST 5100.23D (NOTAL). See the basic instruction for the additional recordkeeping requirements needed to conform with Resource Conservation and Recovery Act (RCRA) training requirements.

(3) HW Generator Recordkeeping. See Chapter 12.

(4) Approaches to Implementing the Program Elements. Commanders and commanding officers have options for organizing and implementing the P2 Program. Principal among these are:

(a) Formally establish the P2 Committee as discussed in paragraph 3a. and staff and charter that committee as recommended in Tab A of this appendix.

(b) Use available command or shore facility staff to plan, direct, manage and administer the P2 Program. Utilize standard staff direction, coordination and interaction requirements. Refine the existing responsibilities and functions of Supply, Procurement, Occupational Safety and Health, Medical, Industrial Hygiene, Public Works (and Facilities Engineering), etc., to include specifics with regard to P2. Assign, as needed, P2 tasks and program responsibilities to other staff and organizational elements. These include production, maintenance, personnel, supervisors, and others. A formalized command and shore facility P2 instruction which establishes actions and responsibilities should be issued.

APPENDIX H

OIL SPILL REPORT (MESSAGE FORMAT)

1 Precedence (for messages only): Provided that prior voice reports have been made both to the U.S. Coast Guard National Response Center and the reporting command's Chain of Command, use "Routine" precedence for Oil Spill Report Messages. If either voice report has not been made, use "Priority" precedence.

2 Classification or Special Handling Marks: Oil Spill Report Messages are unclassified and do not warrant special handling marks unless classified or sensitive business information must be incorporated. Avoid inclusion of such information to the maximum extent possible to allow Oil Spill Report Messages to be handled on a solely unclassified basis.

3 Spill Volume Classification: To better advise the Navy On-Scene Coordinator and Navy leadership of the magnitude of each oil spill, the Subject line of an Oil Spill Report Message should bear a volume estimate of the spill, if known, in the following format:

- OIL SPILL REPORT, X GALLONS, [ACTIVITY NAME] (MINIMIZE CONSIDERED); or
- OIL SPILL REPORT, UNKNOWN VOLUME, [ACTIVITY NAME] (MINIMIZE CONSIDERED); or
- OIL SPILL REPORT, SHEEN SIGHTING (MINIMIZE CONSIDERED).

4 Updating Oil Spill Report Messages: Oil Spill Report Messages shall be updated with a follow-up message as soon as the reporting activity becomes aware of new information concerning the origin, quantity, type, operation under way, root cause, or lessons learned of the spill. Similarly, ***if the final estimate of the amount spilled differs substantially from the amount initially reported,*** the reporting activity must send an update message to all action and info addresses on the original spill message.

5 Action and Info Addressees:

FM: Navy Activity or Ship responsible for or discovering the spill
TO: Navy On-Scene Coordinator
Chain of Command
INFO: Area Environmental Coordinator
Host Activity
CNO WASHINGTON DC//N45//
CNIC WASHINGTON DC//N45//
CHINFO WASHINGTON DC//JJJ//
COMNAVSEASYSCOM WASHINGTON DC//00C//
NFESC PORT HUENEME CA//424//
NOLSC DC FT BELVOIR VA//JJJ//
NAVJAG WASHINGTON DC//11//
NAVSURFWARCENCARDIV PHILADELPHIA PA//923//
[Add NRC for spills into or upon the navigable waters of the United States, its contiguous zone (generally within 12 nautical miles of US shores) and adjacent shorelines.]COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//JJJ//

6 Body of Report: Use the following format for the body of all Oil Spill Report Messages:
[Note: It is important for data management purposes that this format be followed.]
UNCLAS//NO5090//
SUBJ: OIL SPILL REPORT, X GALLONS, [ACTIVITY NAME] (MINIMIZE CONSIDERED) or
OIL SPILL REPORT, UNKNOWN VOLUME, [ACTIVITY NAME] (MINIMIZE CONSIDERED) or
OIL SPILL SHEEN SIGHTING, (MINIMIZE CONSIDERED)

MSGID/GENADMIN/ORIGINATOR//
RMKS/
1. LOCAL TIME AND DATE SPILL [OCCURRED/DISCOVERED].

2. [FACILITY/VESSEL] ORIGINATING SPILL:
   - For Navy ships list ship name and hull number.
   - For Navy shore facilities list the facility name.
   - For non-Navy spills, list name of responsible party, if known.
   - For organizations under contract to Navy, list firm name and contracting Navy activity.
   - **If facility/vessel of spill UNKNOWN at time of this report, list only "Unknown" until such time as definitively established.**

3. SPILL LOCATION:
   - For spills at sea, list latitude, longitude and distance to nearest land.
   - For spills in port, list port name, host naval command (NAVSTA, Shipyard) and specific location (pier or mooring designation).
   - For spills ashore, list city, state, facility name and specific location (building designation).

4. VOLUME SPILLED IN GALLONS:
   - Estimates must be made by examining loss at source: i.e. sounding tank, calculating flow rate of spill.
   - If amount unknown at time of this report, list only "Unknown" until such time as definitively established.
   - Estimating volume by visual observation of oil on water can be very unreliable.
   - If volume estimate can only be made by visual observation of oil on water, do not report estimate here.
   - **If oil/water mixture, indicate percent oil.**

5. TYPE OF OIL SPILLED:
   - List whether Marine Gas Oil (MGO), naval distillate (F-76) jet fuel (JP-4 or 5); aviation/automotive gasoline; automotive diesel; heating fuels (grade 1 or 2, kerosene); residual burner fuel (grade 4, 5 or 6); lubricating oil; hydraulic oil; oil/oil mixture (including slops and waste oil); oil/water mixture (including bilge waste).
   - If type unknown at time of this report, list only "Unknown" until such time as definitively established.

6. OPERATION UNDER WAY WHEN SPILL [OCCURRED/DISCOVERED]:
   - If fueling/defueling, list whether underway or in port by pipeline, truck or barge.

- Whether conducting internal fuel oil transfer operations (including movement from one storage tank to another); pumping bilges; conducting salvage operations; aircraft operations; or "Other" (specify).
- Include any evolution or operation that had been conducted within 4 hours of spill discovery that may have resulted in oil discharge.
- If operation unknown or if no evolution can be attributable at time of this report, list only "Operation not known" or "To be Determined" until such time as definitively established.

7. SPILL CAUSE:
   - Classify the spill cause by citing one or more of the following categories and then provide a narrative description of the specific spill cause: Structural; electrical; hose; valve/fitting; tank level indicator; oil/water separator/oil content monitor; other equipment (specify component that failed); collision, grounding, or sinking; valve misalignment; monitoring error; procedural/communications error; chronic/recurring; or weather related. This information will be used by NAVSEA for causal analysis and spill prevention.
   - If the spill resulted from a mechanical or equipment failure, identify failed equipment or suspected failed equipment by system, nomenclature, APL, service, part number and / or location.
   - If cause unknown or undetermined at time of this report, list only "To Be Determined" or "Under Investigation" until such time as definitively established.

8. SLICK DESCRIPTION AND MOVEMENT:
   - Size: length and width (yards or nm) and percentage of that area covered.
   - Color: silver transparent, gray, rainbow, blue, dull brown, dark brown, black, brown-orange mousse.
   - Odor: noxious, light, undetectable.
   - Slick movement: set (degrees true toward) and drift (knots).

9. SPILL ENVIRONMENT:
   - Weather: clear, overcast, partly-cloudy, rain, snow, etc.
   - Prevailing wind at scene: direction (degrees true from), speed (knots), fetch (yards or nautical miles).
   - Air and water temperature: indicate ice cover.
   - Sea state: Beaufort Force number.
   - Tide: high, low, ebb, flood or slack / Current: set (degrees true toward) and drift (knots).

10. AREAS DAMAGED OR THREATENED:
    - Body of water, area or resources threatened or affected.
    - Nature and extent of damage to property, wildlife or other natural resources (if any).

11. TELEPHONIC REPORT TO NATIONAL RESPONSE CENTER [WAS/WAS NOT] MADE:
    - **If made, list:**
      - Time and Date of telephonic report.
      - NRC report/case number.
      - Name of NRC official taking report and quantity of oil reported.
    - If not made, provide reason why: beyond 12 nm from US shores, no threat to navigable water, etc.
    - Navy Command making telephonic report.

12. SAMPLES [WERE/WERE NOT] TAKEN:
    - If taken, identify location(s) from which taken: tanks, hoses, piping, slip, jetty, etc.
    - If taken, identify collecting officer by name, rank and agency.

13. CONTAINMENT METHOD [PLANNED/USED]:
    - If none, state reason.
    - Otherwise, indicate equipment utilized: boom; ship's hull; camel; water spray; chemical agent.

14. SPILL REMOVAL METHOD [PLANNED/USED]:
    - If none, state reason.
    - Equipment planned/used: used: Rapid Response Skimmer or Dip 3001 skimmer; portable skimmer, absorbent materials (oil absorbent pads, chips, etc.); dispersants; vacuum trucks/pumps; other (specify).

15. VOLUME OF OIL RECOVERED IN GALLONS: (Decanted pure product.)

16. PARTIES PERFORMING SPILL REMOVAL:
    - Identify lead organization in charge: Navy Command; USCG; EPA.
    - Identify all other parties involved: commercial firms; supporting Navy activities; State or local agencies.

17. FEDERAL, STATE OR LOCAL REGULATORY ACTIVITY DURING THIS INCIDENT:
    - Identify by name and agency any official attending on-scene or making telephonic inquiry.
    - Note whether officials boarded vessel and include date, time and spaces inspected.

18. ASSISTANCE REQUIRED/ADDITIONAL COMMENTS:

19. LESSONS LEARNED: How could this spill have been avoided?

20. COST OF RECOVERY: Probably not known for initial report. Include in follow up report to the extent known.

21. ACTIVITY CONTACT FOR ADDITIONAL INFORMATION: List name, rank/rate, command, code, email address, DSN and/or commercial telephone numbers. //

APPENDIX I

HAZARDOUS SUBSTANCE RELEASE REPORT (MESSAGE FORMAT)

1 Precedence (for messages only): Provided that prior voice reports have been made to the US Coast Guard National Response Center and the reporting command's Chain of Command, use "Routine Precedence" for Hazardous Substance (HS) Release Report Messages not classified as an "Extremely Hazardous Substance." If either voice report has not been made, use "Priority Precedence". If Extremely Hazardous Substance, always use "Priority Precedence."

2 Classification or Special Handling Marks: HS Release Report Messages are unclassified and do not warrant special handling marks unless classified or sensitive business information must be incorporated. Avoid inclusion of such information to the maximum extent possible to allow HS Release Report Messages to be handled on a solely unclassified basis.

3 Correcting HS Release Report Messages: HS Release Report Messages should be updated with a follow-up message as soon as the reporting activity becomes aware of new information concerning the origin, amount, nature of substance, type of operation at source or root cause, or lessons learned of release. Similarly, ***if the final estimate of the amount released differs substantially from the amount initially reported,*** the reporting activity must send a update message to all action and info addresses on the original message.

4 Action and Info Addressees:

FM: Navy Activity or Ship responsible for or discovering the spill
TO: Navy On-Scene Coordinator
Chain of Command
INFO: Area Environmental Coordinator
Host Activity
CNO WASHINGTON DC//N45//
CNIC WASHINGTON DC//N45//
CHINFO WASHINGTON DC//JJJ//
COMNAVSEASYSCOM WASHINGTON DC//00C//
NFESC PORT HUENEME CA//424//
NAVJAG WASHINGTON DC//11//
[Add NRC for releases into or upon the navigable waters of the United States, its contiguous zone (generally within 12 nautical miles of US shores) and adjacent shorelines.]
COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//JJJ//

5 Body of Report: Use the following format for the body of all HS Release Report Messages:
[Note: It is important for data management purposes that the format be followed.]
UNCLAS//N05090//
SUBJ: HAZARDOUS SUBSTANCE RELEASE REPORT (MIN: CONSIDERED)
MSGID/GENADMIN/ORIGINATOR//
RMKS/

1. LOCAL TIME AND DATE RELEASE [OCCURRED/DISCOVERED]:

2. [FACILITY/VESSEL] ORIGINATING RELEASE:
   - For Navy ships, list ship name and hull number.
   - For Navy shore facilities list the facility name.
   - For release occurring during transportation, list name of activity responsible for shipment.
   - For non-Navy spills, list name of responsible party, if known.
   - For organizations under contract to Navy, list firm name and contracting Navy activity.
   - **If source UNKNOWN at time of this report, list only "Unknown" until such time as definitively established.**

3. RELEASE LOCATION:
   - For release at sea, list latitude, longitude and distance to nearest land.
   - For release in port, list port name, host naval command (NAVSTA, Shipyard) and specific location.
   - For release ashore, list city, state, facility name and specific location (building designation).
   - For release during transportation, give exact location (highway mile marker or street number and city).

4. AMOUNT RELEASED:
   - Use convenient units of weight or volume (kg, lb., gallons, liters, etc.).
   - For continuous release, estimate rate of release and amount left in container.
   - Estimates should be made by examining loss at source: sounding tank, calculating flow rate of spill.
   - ***Unreliable estimates of volume using visual observation of HS on water may not be reported here.***
   - If amount unknown at time of this report, ***list only "Unknown"*** until such time as definitively established.

5. HAZARDOUS SUBSTANCE RELEASED:
   - If Extremely Hazardous Substance, headline this paragraph "EXTREMELY HAZARDOUS SUBSTANCE RELEASED:" See chapter 12, subsection 12-5.4 for additional notification requirements.
   - Consult container labels, user directions, reference books, expert advice.
   - Provide chemical/product names, formula, synonym, physical/chemical characteristics, and inherent hazards.
   - "Container label identifies substance as acrylonitrile. Synonyms: cyansethylene, vintleyanide. Characteristics/hazards: poisonous liquid and vapor, skin irritant, highly reactive/flammable."
   - Describe appearance, physical/chemical characteristics, actual/potential hazards observed. For example:
   - "Substance released is colorless to light yellow unidentified liquid; highly irritating to eyes and nose; smells like kernels of peach pits; vaporizing quickly, posing ignition problem."

6. TYPE OF OPERATION AT SOURCE: Plating shop, painting shop, hazardous waste (HW) facility, truck, ship, pipeline, ship rebuilding, entomology shop, etc.

7. CAUSE OF RELEASE:
   - Provide narrative description of specific cause of release.

- Account for personnel error, equipment failure, etc. directly contributing to release.
- For example: "Railing supporting 55-gal drums on a flatbed truck gave way because it was not securely fastened, causing seven drums to fall and rupture."
- If cause unknown at time of this report, ***list only "Unknown"*** until such time as definitively established.

8. TYPE OF CONTAINER FROM WHICH SUBSTANCE ESCAPED:
   - 55-gal drums, 5-lb. bags, tank truck, storage tank, can, etc.
   - Estimate number of containers damaged or dangerously exposed.

9. RELEASE ENVIRONMENT:
   - Describe scene of release.
   - Include information on physical characteristics, size and complexity of release and weather conditions.
   - For Example: "Solvent released formed shallow pool covering area about 30 ft by 45 ft of bare concrete. Solvent slowly running into storm drain. Pool emitting highly toxic, flammable vapors. Dark clouds threatening rain. Light wind drifting vapors northbound to residential area about 30 ft above ground."

10. AREAS DAMAGED OR THREATENED:
    - Describe actual and potential danger or damage to surrounding environment,
    - Identify body of water, area or resources threatened or affected.
    - Nature and extent of damage to property, wildlife or other natural resources (if any).

11. NOTIFICATIONS MADE AND ASSISTANCE REQUESTED:
    - List all organizations informed of release within and beyond Navy jurisdiction.
    - Include Navy, federal, state, and local authorities, response teams, fire departments, hospitals, etc.
    - Specify type of assistance requested from these organizations.
    - If telephonic report to National Response Center made, list: DTG of telephonic report; NRC report/case number; name of NRC official taking report; quantity of hazardous substance released; and Navy Command making telephonic report.

12. FIELD TESTING:
    - Indicate findings and conclusions as to concentration, pH, etc.

13. CONTROL AND CONTAINMENT ACTIONS [PLANNED /TAKEN]:
    - If none, explain why.
    - Specify method used to control and contain release.
    - For example: "Gas barriers used to control and contain vapor emissions. Runoff contained by excavating ditch circumscribing affected area."

14. CLEAN-UP ACTIONS [PLANNED /TAKEN]:
    - If none, explain why.
    - Identify on-site or off-site treatment, method used, parties involved in clean-up/removal and disposal area.

- For example: “No clean-up action taken. Toxic vapors present, potential danger to clean-up crew. Contaminated soil will be excavated and shipped by NAS personnel to Class I HW disposal site in Portstown, CA when conditions allow."

15. AMOUNT OF SUBSTANCE RECOVERED [VOLUME/WEIGHT] (Pure product):

16. PARTIES PERFORMING [CONTAINMENT/CLEAN-UP] ACTIVITIES:
    - Identify lead organization in charge: Navy Command; USCG; EPA.
    - Identify all other parties involved: commercial firms; supporting Navy activities; State or local agencies.

17. FEDERAL, STATE OR LOCAL REGULATORY ACTIVITY DURING THIS INCIDENT:
    - Identify by name and agency any regulatory official attending on-scene or making telephonic inquiry.
    - Note whether officials boarded vessel and include date, time and spaces inspected.

18. ASSISTANCE REQUIRED/ADDITIONAL COMMENTS.

19. LESSONS LEARNED: How could this release have been avoided?

20. ACTIVITY CONTACT FOR ADDITIONAL INFORMATION: List name, rank/rate, command, code, DSN, email address, and/or commercial telephone numbers.//

APPENDIX K

AFLOAT ENVIRONMENTAL CHECKLIST

The following checklist is to guide afloat commands in the event they might want to evaluate command environmental compliance procedures, practices, and training. The President of the Board of Inspection and Survey shall use this checklist in conducting environmental compliance oversight inspections as part of regular INSURV inspections.

Indicate the answer to each of the questions below by an X. If a question is not applicable to the command, put NA in the YES block. Explain or describe the conditions warranting any NO answer in the space at the end of the checklist or on additional sheets, if necessary. An underlined question does not apply to all ships, but only to the category indicated.

The chapter 22 reference is in parenthesis at the end of the question.

	YES	NO
TRAINING		
1. Is there a designated Afloat Environmental Protection Coordinator who is trained and knowledgeable? (22-2.2.11)		
2. Are all hands trained in environmental protection in I Division or School of the Boat as required by paragraph 22-2.2.7? (22-2.2.7)		
3. Are ship watch officers responsible for authorizing overboard disposal of shipboard wastes trained on prohibited zones for discharge as part of their watch qualification? (22-2.2.7.2)		
4. Are personnel who operate or maintain sewage and graywater disposal or transfer equipment trained on the proper procedures for sewage or graywater disposal, including hookup and transfer of sewage or graywater to shore facilities and at sea discharge restrictions? (22-3.4)		
5. Have personnel assigned to supervise sewage or graywater disposal operations completed the Shipboard Sewage Collection, Holding, and Transfer (CHT) course (K-652-2141) and PQS? (22-3.4)		
6. Have all personnel who operate or maintain sewage or graywater disposal equipment completed the Shipboard Sewage Collection, Holding, Transfer (CHT), and Treatment PQS, NAVEDTRA 43199-C, prior to assignment to those duties? (22-3.4)		
7. Are personnel whose watch duties may result in air pollution (for example, diesel engine operators, boilermen, or gas turbine operators) trained on minimizing air pollution as a part of their watch qualification? (22-4.3.3)		
8. Are personnel whose task assignments may result in air pollution (for example, topside painters or users of volatile solvents) trained on the proper use of the material to minimize the release of pollutants? (22-4.3.3)		
9. Have the AC&R technicians who perform maintenance on air conditioning and refrigeration equipment received EPA certification on handling, recovery and recycling ozone depleting substances (ODSs) and training on ODS regulations and spent/recyclable ODS labeling? (22-4.3.3)		

	YES	NO
10. Are personnel who work with other ODSs (e.g., halons and solvents) or perform maintenance on equipment containing such substances trained on methods to prevent release? (22-4.3.3)		
11. Have personnel assigned to operate the incinerator completed the Incinerator Operator PQS, NAVEDTRA 43558? (22-4.3.3)		
12. Are personnel who operate or maintain waste oil and oily waste holding, processing, disposal, or transfer equipment trained on the proper procedures for oily waste disposal, including hookup and transfer of waste oil and oily waste to shore facilities and at sea discharge restrictions? a. Have personnel assigned to **supervise** oily waste processing and disposal operations completed the Oil Pollution Abatement (OPA) Equipment Operation and Maintenance course, K-652-2196? b. Have all personnel who **operate or maintain** oil processing, transfer or disposal equipment completed the Oil Spill Control and Removal Equipment PQS, NAVEDTRA 43195-B, before assignment to those duties? (22-5.5)		
13. Are personnel who handle, store and dispose of HM trained per OPNAVINST 5100.19D, chapter B3? (22-6.5)		
14. Are personnel responsible for handling ship's garbage trained on the discharge restrictions applicable to the waste? (22-7.4)		
15. Are personnel responsible for the supervision and approval of overboard disposal of solid waste trained on the requirements for this waste category? (22-7.4)		
16. Have personnel assigned to operate and maintain solid waste processing equipment (plastics waste processors, shredders, and pulpers), completed the Computer-Based Training (CBT), interactive courseware, as applicable? (22-7.4)		
17. Are personnel responsible for processing and disposing of shipboard medical waste trained to ensure such actions comply with the requirements governing this waste? (22-8.4)		
18. Has at least one OHS spill response drill for each duty section been held annually? (22-9.3)		
19. Has the ship trained in-port watchstanders and command duty officers on in port OHS spill response procedures, the ship's SPC, and local notification requirements prior to assignment? (22-9.3)		
20. Is at least one petty officer in each inport fireparty and each repair party qualified on Watchstation 304, Oil/Hazardous Material (Substance) Spill Response Scene Leader, in the Hazardous Material/Environmental Protection Programs Afloat PQS, NAVEDTRA 43528-A? (22-9.3)		
21. <u>For submarines only</u> Are type commander requirements for Watchstation 304 of the PQS followed so that appropriately qualified individuals are present at the scene of HM or oil spill? (22-9.3)		

	YES	NO
EQUIPMENT OPERATION 22. Does the ship have a Marine Sanitation Device (MSD) of the type appropriate to its status and year of construction? Is the MSD certified per NAVSEAINST 9593.1, and is it operable? (22-3.3.1)		
23. Does the ship observe the following procedures: a. Does the ship operate and maintain the installed MSD to prevent the overboard discharge of untreated or inadequately treated sewage, or any waste derived from sewage (e.g., sludge), within 0-3 nm of the U.S. shore? b. Does the ship operate the MSD to collect only sewage while operating or transiting within 3 nm of shore? c. In port, does the ship collect graywater in the installed MSDs or graywater collection systems (if so fitted), and pump the waste ashore? d. If the ship operates in fresh water other than the Great Lakes, does it refrain from discharging treated or untreated sewage into freshwater lakes, freshwater reservoirs or other freshwater impoundment, or into rivers not capable of interstate navigation? e. With reference to d. above, is the ship modified to preclude *accidental* discharge? f. Are used solvents or other industrial wastes prohibited from being discharged to MSDs or graywater collection systems or dumped down sinks or deck drains? (22-3.3.2)		
24. While visiting non-Navy ports, does the ship request sewage reception facilities (barge or installed sewage hookups) in LOGREQs or other pertinent documentation? When in port, does the ship divert food service garbage grinders to the MSD system for discharge ashore? (22-3.3.3)		
25. Is installed Oil/Water Separator (OWS) and Oil Content Monitor (OCM) fully operable and routinely used? Is oil pollution abatement equipment certified by COMNAVSEASYSCOM? (22-5.4.4)		
26. <u>For a ship equipped with OWS and OCM</u> Are bilgewater discharges limited to 15 ppm oil worldwide? (22-5.4.2.1)		
27. <u>For a ship equipped with Oil/Water Separator or Bilge Water Processing Tanks (BWPT) but without OCM,</u> is all machinery space bilge water processed through an OWS or BWPT before discharge? (22-5.4.2.2)		
28. <u>For a ship without an operating OWS but with an Oily Waste Holding Tank (OWHT)</u>: a. To the maximum extent possible, without endangering the ship or impairing its operations or operational effectiveness, is all oily bilge water directed to the OWHT for shore disposal? b. Is only the bottom, water phase pumped overboard, ensuring that the upper, oily phase is not pumped, except to a shore collection facility? c. Are such discharges of oily bilge water made only while the ship is underway? (22-5.4.2.3)		

	YES	NO
29. For a ship equipped with neither an operating OWS nor OWHT:) Is oily bilge water retained for shore disposal to the maximum extent possible, without endangering the ship or impairing its operations or operational effectiveness? (22-5.4.2.4)		
30. For submarines without BWPTs: Is bilge water discharged, after allowing for adequate separation time? Is only the bottom, non-oily water phase of bilge water pumped overboard? (22-5.4.2.5)		
31. Is oil contamination of bilge water minimized? (22-5.4.5.1)		
32. Does the ship refrain from use of emulsifying bilge cleaners? (22-5.4.5.1)		
33. While in port, does the ship dispose of bilge water only by pumping to a permanent shore reception facility, using its installed OWS, or pumping to a ship waste offload barge (SWOB), and use eductors only in an emergency? (22-5.4.5.1)		
34. Is waste/used oil disposed of in port and not at sea; collecting and storing it separately for eventual shore reclamation, keeping hydraulic and synthetic oils separate from other lubricants? (22-5.4.5.2)		
35. Does the ship conduct fuel operations in port or restricted waters during daylight hours only, with trained personnel, using topside watches in communication with pumping stations, using check-off lists, continuously monitoring each tank level while filling it, and conduct fueling operations only after informing either the commanding officer, command duty officer or officer of the deck? (22-5.4.5.3)		
36. Does the ship refrain from use of eductors to strip fuel or cargo tanks? Does the ship avoid stripping tanks overboard, but instead strip to contaminated fuel settling tanks? (22-45.4.5.4)		
37. Does the ship properly dispose of oil-contaminated solid waste? (22-5.4.5.6)		
38. For ships equipped with incinerators and or rag washers a. Are rags burned only if lightly petroleum-soiled and when beyond 12 nm from shore? b. When using the rag washer, is the effluent directed to the waste oil tank or to pierside retention facilities for processing? c. When at sea beyond 12 nm from land, is rag washer effluent directed to the rag washer mixing tank prior to educting overboard? (22-5.4.5.6)		
39. Unless allowed by appendix L, does the ship refrain from discharging HM overboard within 200 nm of land? (2-6.4.1.4)		
40. Is chapter 22, part 22-6.4. pertaining to ship-to-shore transfers and ship to ship transfers of excess HM or used HM followed? (22-6.4.2 and 22-6.4.3)		
41. Are the ships plastics processor, pulper and metal/glass shredder properly maintained and functioning as designed?		
42. Are the plastics processor, pulper and metal/glass shredder operated and is processed material handled per chapter 22, part 22-7.3? (22-7.3)		
43. If any solid waste equipment is inoperable, has a CASREP been submitted?		
44. For submarines: Is the compactor properly maintained and functioning as designed? If it does not, is there a CASREP?		

	YES	NO
45. Are responsible personnel aware of requirement to report discharges of solid waste into "in effect" special areas? (22-7.3.3)		
46. Is the autoclave functional so that medical personnel may sterilize medical waste? (22-8.3)		
47. Does the medical department representative understand medical waste management requirements? (22-8.3)		
48. Does the ship possess Mk II Oil Spill Containment and Cleanup Kits, AEL 2-550024006 for overboard oil and hazardous substance spill response? (22-9.2.4.1)		
49. Does the ship possess Hazardous Material Spill Response Kits, AEL 2-550024007 for spills that occur on board the ship? (22-9.2.4.1)		
50. Are the commanding officer and command duty officers familiar with oil and hazardous spill cleanup and reporting requirements? (22-9.2)		
51. Do command duty officers know how to contact the NOSC? (22-9.2.10)		
52. Does the ship have pre-formatted, correctly addressed messages, modeled on Appendices H and I, prepared and available for OHS spills? (22-9.2.5)		
53. Are solvents, paints, fuels, lubricants and chemicals prohibited in OPNAVINST 5100.19D not ordered or used? (22-4.3.2.3)		
54. Are only properly trained personnel equipped with appropriate personal protective equipment permitted to perform shipboard emergency or operational readiness repairs on thermal insulation containing asbestos? (22-4.3.2.4)		
55. Is asbestos material removed during shipboard repair actions performed by ship's force properly containerized and disposed of without release of asbestos fibers into the environment? (22-4.3.2.4)		
56. <u>For Navy and COMSC ships with AC&R systems with an installed refrigerant charge of more than 50 pounds that contain ODSs such as CFC-11, CFC-12, or CFC-114 or ODS substitute material such as HFC-134a or HFC-236fa</u> : Does the ship meet the following annual performance goals: (1) Maintain a maximum annual leakage rate of not more than 15 percent of total installed refrigerant charge of air conditioning equipment? (2) Maintain a maximum annual leakage rate of not more than 35 percent of total installed refrigerant charge of ship stores and cargo refrigeration? (22-4.3.2.5)		
57. Are ODSs recovered prior to maintenance on air conditioning and refrigeration systems and fire protection systems? (22-4.3.2.6)		
58. Do personnel who perform maintenance on AC&R systems keep records of maintenance actions, names of technicians performing work, pounds of refrigerant removed and pounds of refrigerant added and retain them for 3 years? (22-4.3.2.7)		
59. When replacing inoperable galley refrigeration equipment, is new equipment EPA-approved (complying with their significant new alternatives policy (SNAP) program), using refrigerant with an ozone depletion potential (ODP) of 0.05 or less? (22-4.3.2.10)		

	YES	NO
60. If the ship has had an overhaul availability at Navy NESHAP-affected source sites, were records of ships' force marine coating use maintained *for coatings distributed from ships' stores*? (Hazardous Material Inventory Control System (HICS) may be used to keep these records.) (22-4.3.2.11)		
61. If the ship has had an overhaul availability at a commercial NESHAP-affected source site, was the use of paint recorded and reported regardless of availability type or operational status? (22-4.3.2.11)		
62. Are paint lockers labeled with placards stating, "Thinning of marine coatings/paints is prohibited." (22-4.3.2.11)		
63. Are the following paint work practices observed: (a) paint spills are minimized, (b) only intact and leak free paint containers are stored, and (c) paint containers are stored when not in use? (22-4.3.2.11)		
64. Is a monthly report of daily coating use delivered by the seventh day of the month following use or before departure, if departing before the end of the month or after a short visit (i.e. several days) to the affected source site (Navy shore activity) or, when located at a commercial affected source site, to the appropriate SUPSHIP office? (22-4.3.2.11)		
PROGRAM COMPLIANCE AND EFFECTIVENESS		
65. Is the ship operated and maintained to conform with applicable State and local air pollution emission regulations and HM regulations? (2-4.3.2)		
66. Are the Commanding Officer, Executive Officer, and Department Heads aware of the requirements of NWP 4-11 Environmental Protection? (22-11.1)		
67. Are periodic inspections (at least quarterly) by senior medical department personnel conducted to maintain sanitary and hygienic conditions of MSD systems and operational practices? Are periodic sanitation and hygiene inspections of solid waste processing equipment conducted? (22-15.11.6)		
68. Are appropriate health and sanitation precautions posted as required by OPNAVINST 5100.19D ; General Specifications for Ships of the United States Navy (GENSPECS); Naval Ships Technical Manual, chapter 593; and NAVMED P-5010-7? (22-15.11.7)		
69. Are sewage discharges within 0-3 nm from U.S. shores reported? (22-15.11.8)		
70. If there are any conditions or system/equipment malfunctions that could result in unlawful air pollutant emissions, are they reported to the fleet commander? (22-15.11.9)		
71. If there are any conditions or system/equipment malfunctions that could necessitate oily waste, HM or solid waste discharge into waters in which discharge is restricted, are they reported to the fleet commander? (22-15.11.10)		
72. Are the date, time of occurrence, ship location at the beginning and end of the incident, substance discharged, quantity discharged and the cause of the discharge for any oily waste discharge that causes a sheen recorded in the engineering log or equivalent oil record book? (22-15.11.11)		

	YES	NO
73. Do personnel comply with OPNAVINST 5100.19D requirements for HM handling, packaging, storing, labeling, treating and disposal? Is an HM coordinator appointed by the commanding officer? (22-15.11.12)		
74. Is one or more shipboard action officers designated to be responsible for shipboard spill/ release contingencies planning and response? (22-15.11.13)		
75. Does the ship have an OHS Spill Contingency Plans (SCPs), that is coordinated with the cognizant NOSC plan? (22-15.11.14)		
76. Are personnel aware of and do they understand the OHS SCPs? (22-15.11.15)		
77. Are OHS spills reported as prescribed in paragraph 22-9.2.5 through 22-9.2.8? (22-15.11.16)		
78. Is immediate action taken to contain, control and mitigate any spills caused by the ship? (22-15.11.17)		
79. Is an officer or petty officer appointed to oversee dry-dock operations to ensure that industrial waste and sewage collection and treatment systems are properly operated and maintained and that ship-to-shore transfers of the waste are handled in a safe and effective manner. (22-15.11.18)		
80 Is used and excess HM offloaded, to the maximum extent feasible, to a Navy or other public facility prior to entering a private shipyard for an availability?. Does the ship also offload HM not anticipated for use by ship's force during the availability before entering the private shipyard? (22-15.11.19)		
81 Does the ship collect the debris, dust and residual materials from the paint removal, to the maximum extent feasible, and properly dispose of these materials ashore? (22-15.11.23)		
82. Is the ship aware of the requirement to report to the chain of command, cognizant REC, area environmental coordinator and CNO (N45) any regulatory request that the Navy apply for permits involving ship discharges or implement measures regarding ship discharges? Do responsible officers understand they should not make agreements with environmental agencies regarding ship discharges without CNO (N45) approval? (22-15.11.24)		
83. Is the loading of ballast water in potentially polluted areas or within 3 nm from shore and the flushing of ballast tanks to rid them of possible pollutants or unwanted species recorded in the engineering log? (22-15.11.25)		
84. If plastic discharges have occurred, are they properly recorded in the log? Are plastic discharges personally approved by the commanding officer? (22-15.11.26)		
85. Does the ship avoid deliberately harassing marine mammals and consider marine mammal protection during ship operations and planning? (22-15.11.27)		
86. Are the requirements of OPNAVINST 5100.19D and NAVSEA PCB advisories followed for all activities associated with PCBs, PCB-containing materials or systems potentially contaminated with PCBs (e.g., ventilation systems that employ PCB-containing felt gaskets)? (22-15.11.28)		

	YES	NO
87. Are only marine paints that meet VOC content standards of NSTM, chapter 631, Table 3-7 used? (22-15.11.31)		
88. Are non-compliant paints removed from shipboard stores and returned to the supply system as excess HM as soon as possible? (22-15.11.31)		
89. Does the ship use PMAP in planning for all routine training and exercises for the 17 listed events? (22-15.11.27)		
90. If so equipped, does the ship report the use of mid-frequency active sonar for training exercises, and/or maintenance via the SONAR Positional Reporting System (SPORTS)? (22-15.11.35)		

APPENDIX L

DISPOSAL OF SHIPBOARD HAZARDOUS MATERIAL

The HM listed in appendix L are representative of materials used during conduct of normal shipboard operations and in performance of planned maintenance and general housekeeping procedures. If disposal guidance is sought for a material not listed in this appendix, contact your ship's HM coordinator.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Acid, spent	Cleaning.	Acetic, citric, hydrochloric, sulfuric, and sulfamic acids.	Carefully neutralize with a weak base, dilute and flush overboard beyond 12 nm of shore using large amounts of water; within 12 nm containerize for shore disposal. See NSTM chapter 593, Pollution Control for spent acid disposal procedures.
Aerosol cans	Empty paint, lubricant deodorant, and shaving cream cans.	Flammable products, flammable propellants (propane, butane), oxidizer (nitrous oxide).	If the ship is equipped with a NAVSEASYSCOM-approved aerosol puncturing/draining device, puncture and drain the exhausted aerosol container. The container shall be marked "empty" and treated as an empty HM container. If the ship is <u>not</u> equipped with a NAVSEASYSCOM-approved aerosol puncturing/draining device, containerize for shore disposal. Aerosol cans, whether punctured, drained and/or crushed or not, shall be containerized for shore disposal. Aerosol cans contain plastic, which is prohibited for overboard discharge.
Alkali, spent	Cleaning, deoxidizing.	Sodium hydroxide, potassium hydroxide.	Carefully neutralize with a weak acid, dilute and flush overboard beyond 12 nm of shore using large amounts of water; within 12 nm containerize for shore disposal. See NSTM chapter 593, Pollution Control for spent alkali disposal procedures.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Asbestos containing materials *(to be removed by properly trained personnel equipped with appropriate personal protective equipment only.)*	Thermal insulation, pipe lagging, flooring tile, safety curtains, gasket and packing materials.	Asbestos.	Dispose in accordance with requirements set forth in OPNAVINST 5100.19C, chapter B1.
Batteries **Lead-acid batteries**	Propulsion systems auxiliary lighting, communication and power systems.	Lead, lead sulfate, lead dioxide, antimony, sulfuric aid electrolyte.	Containerize for shore disposal. Do not empty electrolyte from battery.
Alkaline batteries: Nickel-cadmium Silver-zinc Nickel-iron Silver-cadmium Nickel-zinc	Auxiliary power systems, power supply for portable equipment.	Nickel, silver, zinc, cadmium, potassium hydroxide electrolyte.	Containerize for shore disposal. Do not empty electrolyte from battery.
Dry cell batteries: Lelanche cells Mercury cells Low-temperature cells	Power supply for portable equipment.	Manganese dioxide, mercuric oxide, zinc.	Containerize for shore disposal.
Lithium batteries	Power supply for portable equipment.	Lithium, acetonitrile.	Containerize for shore disposal.
Biocide, VANTOCIL IB©	Water from MK41 vertical launch deluge system.	Polyhexamethalene biguanide hydrochloride, sodium hypochlorite.	Overboard discharge permitted beyond 25 nm of shore. In port, containerize for shore disposal.
Boiler wastewater	Boiler blowdown, boiler water, continuous boiler water treatment tank.	Trisodium and disodium phosphate, hydrazine, ethylenediamine-tetraacetic acid (EDTA).	Overboard discharge of blowdown effluents and boiler water permitted** inside 12 nm. Continuous boiler feedwater treatment tank contents or diluted 7 percent hydrazine solution may be discharged outside 50 nm of shore. 7 percent hydrazine stock solution must be disposed of ashore.
	Boiler treatment chemicals	Anhydrous disodium phosphate, trisodium phosphate dodecahydrate, trisodium EDTA, 7 percent hydrazine, caustic soda	Containerize excess boiler water treatment chemicals for shore disposal. 7 percent hydrazine stock solution must be disposed of ashore.

* Contact local public works center/public works department for authorized procedures.

** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Boiler wastewater (continued)	Boiler water/feedwater test chemicals.	Nitric acid, ethylenediamine-tetraacetic acid (EDTA), mercuric nitrate, potassium chloride, phenolphthalein, methyl purple, chloride indicator, hydrazine ampoules, caustic soda, oxygen ampoules, molybdate reagents, hardness indicator, hardness buffer, dimethylglyoxime.	Containerize excess reagents (including oxygen and hydrazine ampoules) and samples containing mercuric contaminated wastewater for shore disposal. If available, process mercuric samples through ion exchange cartridge. Overboard discharge of cartridge effluent permitted. Containerized exhausted cartridges for shore disposal. Boiler water/feedwater samples, except samples containing mercuric compounds, discharge overboard permitted outside 12 nm of shore
	Boiler waterside cleaning solutions.	Ethylenediaminetetraacetic acid (EDTA), citric acid and sulfamic acid.	Overboard discharge permitted beyond 50 nm of shore. In port, offload to tank, barge, or truck.* Offloading to bilge and shore bilgewater collection system is not permitted.
	Boiler layup solutions	Hydrazine/morpholine, sodium nitrate	Overboard discharge permitted beyond 50 nm of shore. In port, offload to tank, barge, or truck. Offloading to bilge and shore bilgewater collection system is not permitted.* For hydrazine/morpholine layup, boiler light-off with subsequent steaming direct from layup permitted. Refer to NSTM chapter 220, Volume2, Boiler Water/ Feedwater Test and Treatment for details.
	Acid cleaning solutions.	Hydrochloric, sulfamic, and citric acids.	Overboard discharge not permitted. In port, offload to tank, barge, or truck. Offloading to bilge and shore bilgewater collection system is not permitted. *

* Contact local public works center/public works department for authorized procedures.

** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Boiler wastewater (continued)	Passivator solutions.	Sodium nitrate.	Overboard discharge not permitted. In port, offload to tank, barge or truck. Offloading to bilge and shore bilgewater collection system is not permitted.*
	Boilout and degreasing solutions.	Trisodium phosphate, sodium metasilicate, nonionic wetting agent, degreaser.	In port, offload to tank, barge, or truck. Offloading to bilge and shore bilgewater collection system is not permitted.*
	Waterjet wastewater	Sodium nitrate	Overboard discharge permitted outside 50 nm of shore. In port, offload to tank, barge or truck. Offloading to bilge and shore bilgewater collection system is not permitted.*
	Feedwater and mercuric sample demineralizer resins	Ion exchange resin with absorbed metal ions (including mercury).	Containerize for shore disposal as used hazardous material.
Canisters			
Battery water purification Canister	Cation exchanger, mixed bed exchanger.	Ion exchange resin with adsorbed metal ions.	Containerize for shore disposal.
Used/expired OBA canisters	Damage control operations .	Potassium superoxide, sodium chlorate.	Label and containerize for shore disposal. **Contact with oil, grease, or water during storage is prohibited.** Follow guidelines within NSTM chapter 077, Personal Protective Equipment.
Chemical Light Sticks	Underway replenishment operations	Tert-Butyl Alcohol, Dimethylphtalate, Dibutyl Phthalate, Hydrogen Peroxide	Containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Distilling plant cleaning wastes	Off-line distilling plant chemical cleaning.	Citric acid, sulfamic acid, disodium EDTA, tetrasodium EDTA, trisodium phosphate.	In port, offload to tank, truck, or barge. Offloading to bilge and shore bilgewater collection system is not permitted.*
	On-line distilling plant chemical cleaning.	Citric acid, sulfamic acid, disodium EDTA, tetrasodium EDTA, trisodium phosphate.	Overboard discharge permitted beyond 50 nm of shore. In port, offload to tank, truck, or barge. Offloading to bilge and shore bilgewater collection system is not permitted.*
Film processing wastes			
Color film	Continuous processor effluent, small quantities of processing liquids.	Hydroquinone, sodium thiosulfate	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. **Do not discharge to CHT tank.**
	Excess film, batch quantities of developer, fixer and intensifier solutions.	Hydroquinone, sodium thiosulfate, cellulose acetate.	Containerize for shore disposal
Black & white film	Continuous processor effluent, stop bath, photo-flo, detergents and hardener solutions.	Acetic and sulfuric acids, potassium chrome alum.	Overboard discharge permitted beyond 12 nm of shore. Within 12 nm and in port, containerize for shore disposal if facilities are available. **Do not discharge to CHT tank.**
	Excess film, batch quantities of developer and intensifier solution.	Hydroquinone, ethanolamine, diethylene glycol, cellulose acetate.	Containerize for shore disposal

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** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
	Fixer solutions	Sodium thiosulfate, silver, halides	Containerize for shore disposal. If available process fixer through silver recovery unit. Overboard discharge of unit effluent permitted beyond 12 nm of shore. In port, containerize effluent for shore disposal.
Film processing wastes (continued) **Black & white film (continued)**	Fixer solutions (continued)	Sodium thiosulfate, silver, halides	**For submarines:** Containerize fixer solutions for shore disposal at all times.
Emerency Escape Breathing Devices (EEBDs)	Emergency Escape Operations	Sodium Chlorate, barium peroxide, iron, lithium hydroxide, potassium perchlorate	Label and containerize for shore disposal. Contact with oil, grease, or water during storage is prohibited. Follow guidelines within NSTM, chapter 077, Personal Protective Equipment.
Firefighting materials	Firefighting, testing of fire-fighting equipment.	AFFF (perfluorocarbon compounds mixed with polyoxyethylene compound).	Overboard discharge permitted beyond 12 nm of shore, preferably while ship is underway. In port and within 3 nm of shore, discharge to tank, barge or truck.* Between 3 to 12 nm overboard discharge permitted with minimum 12-knot speed.
Fluorescent light bulbs, other light bulbs containing mercury	Normal shipboard operation.	Mercury.	Retain for shore disposal.
Greases	Machine maintenance, motors, roller bearings.	Greases and antisieze compounds such as: MIL-G-18458; MIL-G-21164; MIL-G-24139; MIL-L-15719; DOD-G-24508	Containerize for shore disposal.
Hazardous material contaminated items			

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Contaminated sorbents, rags, unrecoverable personal protective clothing	Normal ship maintenance operations, spill response operations.	Items contaminated with hazardous materials that must be containerized for shore disposal (find specific contaminants in this appendix to learn if containerization is required)	Containerize for shore disposal.
Hazardous material contaminated items (continued)			
Contaminated sorbents, rags, personal protective clothing (continued)	Normal ship maintenance operations, spill response operations.	Items contaminated with hazardous materials that may be discharged overboard (find specific contaminants in this appendix to learn if overboard discharge is permitted).	Jettison beyond 25 nm or specified disposal distance in this table, whichever is greater. Discharged material must be negatively buoyant. Containerize for shore disposal if within 25 nm or disposal restriction distance of land.
Empty hazardous material containers	Cleaning operations.	Containers with residual hazardous material.	Empty hazardous material containers that are metal or glass may be disposed of as solid waste in accordance with Section 19.7. Empty hazardous material containers that are plastic or contain plastic shall be handled as plastic solid waste.

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** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Hydraulic fluids			
Petroleum-based hydraulic Fluids	Machinery, heavy lift elevators, trucks.	Fluids in accordance with MIL-H-17672, MIL-L-17331, MIL-F-17111, MIL-H-5606	Hold for shore disposal. Keep separate from synthetic hydraulic fluids.
Synthetic hydraulic fluids	Aircraft elevators, weapons handling systems, some ballast valve operating systems and replenishment-at-sea systems.	Fluids in accordance with MIL-H-19457 contain tertiary butylated triphenyl phosphate.	Hold for shore disposal. Keep separate from petroleum hydraulic fluids.
	Catapult retracting engines, jet blast deflectors, weapons elevators.	Fluids in accordance with MIL-H-22072 contain 30-60 percent ethylene glycol, 10-30 percent polyoxypropylene glycol, and 30-60 percent water	Hold for shore disposal. Keep separate from petroleum hydraulic fluids.
	Weapon and combat systems.	Synthetic fluids such as MIL-S-81087 and MIL-H-83282	Hold for shore disposal. Keep separate from petroleum hydraulic fluids.
Insecticides, pesticides	Pest control operations.	Diazinon, Baygon, Dyrethrin, Resmethrin, Dursban, Malathion.	Containerize for shore disposal.
Lubricants, dry-film	Machine maintenance, motors, roller bearings	Dry lube, molybdenum disulfide, graphite, talc	Containerize for shore disposal.
Medical/dental lab chemicals and materials	Dental amalgam used as filling material, thermometers, mercury from broken thermometers	Silver, silver nitrate, mercuric nitrate, mercury	Containerize for shore disposal.
	Antiseptics, disinfectants	Isopropyl alcohol	Overboard discharge permitted beyond 12 nm of shore. In port, containerize for shore disposal.
X-Ray film processing wastes	X-Ray film processing	X-ray film processing chemicals	Containerize for shore disposal.

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** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Oils			
Waste oils	Non-PBC containing capacitors, coils	Mineral, silicone, paraffin-based oils	Containerize for shore disposal
	Cutting fluids	Chlorinated and sulferized minerals oils, MIL-C-47220	Containerize for shore disposal
	Damping fluids	Silicone-based oils, dimethylpoly-siloxane	Containerize for shore disposal
	Lubricating oils from machinery, turbines, engines, and motors	Lubricating oils such as MIL-L-9000, MIL-L-15019, MIL-L-17331, and MIL-L-23699	Containerize for shore disposal
Oily sludge	Residue from oil/water separators, fuel tanks, degreasing operations	Oil mixed with lead, zinc, chromium, copper, tin residues	Containerize for shore disposal
Oily solid waste	Contaminated sorbents/rags, oil and fuel filters.	Items contaminated with residual oil	Containerize for shore disposal.
Paint wastes from painting, resurfacing operations	Paints, enamels, varnishes, lacquers, paint chips and debris.	Unusable paint. Paint contaminated solvents, strippers, application and clean-up materials.	Containerize for shore disposal.
Personal Items			
Disposable butane lighter	Lighters no longer usable.	Butane, plastics	Containerize for shore disposal.
Polychlorinated biphenyl (PCB) contaminated components	Capacitors, coils (usually with radar systems) (a listing of components containing PCBs has been provided to each ship), electrical cables, felt gaskets.	PCBs	Containerize for shore disposal.
Propellants	Torpedo overhaul.	OTTO Fuel II, substituted hydrazine.	Containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Solvents			
Chlorinated solvents	Cleaning operations.	Perchloroethylene, trichloroethylene, trichloromethane, trichloroethane, freon™.	Containerize for shore disposal. Keep separate from chlorinated solvents.
Non-chlorinated solvents	Cleaning operations.	Ethyl acetate, acetone, morpholine, methyl ethyl ketone, toluene, xylene, kerosene, petroleum naptha, petroleum ether, petroleum distillates.	Containerize for shore disposal. Keep separate from chlorinated solvents.
		Ethylene and propylene glycols. Methyl, ethyl, isopropyl and butyl alcohols.	Overboard discharge permitted beyond 12 nm of shore. In port, containerize for offload.
Vitreous fibers, materials containing man-made fibers	Thermal insulation, pipe lagging.	Man-made vitreous fibers (MMVF).	Dispose in accordance with requirements set forth in OPNAVINST 5100.19C chapter B1
Water, waste			
Water with corrosion Inhibitors	Diesel generator cooling water, diesel engine cooling water, electronic cooling water, closed loop cooling water, locked-in ballast, fuel ballast.	MIL-A-46153, Paxcool, Catcool (ethylene glycol based antifreezes).	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
		MIL-A-53009 (sodium metaborate, potassium silicate, mercaptobenzothiazole)	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Water, waste (continued)			
Water with corrosion Inhibitors (continued)	Diesel generator cooling water, diesel engine cooling water, electronic cooling water, closed loop cooling water, locked-in ballast, fuel ballast. (continued)	Nalcool 2000, Nalfleet 9-111	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
		Soluble Oil	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
	Residue from diesel engine coolant testing	Chloride test residues; copper sulfate mixed with MIL-A-46153 antifreeze or MIL-A-53009 or Nalcool 2000 or a combination treatment	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
		Sodium chromate solution mixed with residual fuel or soluble oil.	Overboard discharge permitted beyond 50 nm of shore. Within 50 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal.
	Detergent flush of engine cooling systems	MIL-D-16791 detergent	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
	Acid cleaning of engine cooling systems	Diammonium citrate, DETU, MIL-D-16791 detergent	Beyond 12 nm of shore, overboard discharge permitted after neutralizing with sodium bicarbonate. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal

* Contact local public works center/public works department for authorized procedures.

** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Water, waste (continued)			
Water with corrosion Inhibitors (continued)	Acid cleaning of IF diesel engine cooler cores	Sulfamic acid, MIL-D-16791 detergent	Beyond 12 nm of shore, overboard discharge permitted after neutralizing with sodium bicarbonate. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
Aircraft engine washdown Wastewater	Water solutions with detergents, solvents, marine salts, and engine corrosion products.	Glycols, triethanolamine, naptha, 2-butoxyethanol, cadmium, chromium.	Overboard discharge permitted beyond 12 nm of shore. Inside 12 nm and in port, collect and containerize for shore disposal.*
CO2 Scrubber Waste MEA and Acid Flush Waste Solutions	Normal submarine CO2 scrubber maintenance	Monoethanolamine (MEA), citric acid	Overboard discharge permitted beyond 12 nm of shore. Inside 12 nm and in port, collect and containerize for shore disposal.*
Submarine missile tube post launch wastewater	Submarine missile tubes	Heavy metals, cyanide (CN)	Overboard discharge permitted beyond 12 nm of shore. Inside 12 nm and in port, collect and containerize for shore disposal.*

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

APPENDIX M

PRELIMINARY IMPACT & EXPOSURE REPORT (PIER)

Natural Resource Damages

Name of Surveyor:	Rank / Rate:
Command:	Code: Phone:

1. SURVEY ENVIRONMENTAL IMPACT

a. Survey area to assess imminent danger to the public (i.e. water intakes close to spill).

b. Survey area to assess imminent danger to wildlife or environmentally sensitive areas. (i.e. marshes, hatcheries, rookeries).

c. ***If spill threatens human health and safety, wildlife or environmentally sensitive areas, call:***

2. SURVEY THE SPILL

a. Date and Time of Spill:	b. Location:
c. Suspected Substance:	d. Estimated Amount:
e. Likely Source:	f. Proximity of slick edge to nearest shoreline:

g. Describe the visual impact of spill (sheen, emulsion, slick size, color, movement). Photograph or videotape if appropriate.

h. Describe predicted spill pathways (to assist in the strategic positioning of response assets).

3. WEATHER CONDITIONS:

a. Air Temp:	b. Water Temp:
c. Wave Height:	d. Wave Period:
e. Wind Direction:	f. Wind Speed:
g. Tide: Ebb / Flood:	h. Current: Direction / Speed:

4. ODORS

Describe Odors Observed:

5. WITNESSES

List name, address, phone of witnesses on scene at time of survey:

6. NATURAL ENVIRONMENT EXPOSED TO OHS.
a. reef structure
b. bluffs
c. beaches
d. rocky shoreline
e. river banks
f. mangroves
g. tidal flats
h. marshes
i. other vegetation
7. MANMADE STRUCTURE EXPOSED TO OHS.
a. seawalls
b. breakwaters
c. piers
d. dolphins
e. riprap
f. other structure
8. WILDLIFE EXPOSED TO OHS.
a. oiled or dead birds
b. dead fish / fish pens / fishing grounds
c. shellfish beds
d. marine mammals
e. amphibians / reptiles
f. other animal life
9. OPERATIONS
a. Describe relevant operations occurring at or near spill site (i.e. refueling, construction, salvage, etc.).
b. Describe in narrative summary the operations undertaken to minimize injury to natural resources, if any.
This PIER report must be filed with the Navy Regional Environmental Coordinator (REC) by close of business on the next business day following notification of the spill / release.

Signature of Surveyor:	Date:	Time:
Reviewing REC Officer:	Date:	Time:

10. RECOMMENDATION
Do you recommend a more detailed damage assessment survey? (Yes / No)

Receiving Natural Resource Officer:	Date:

APPENDIX O

ENVIRONMENTAL RESPONSE PROCEDURES FOR SUNKEN VESSELS

1 Background

Many older, historic U.S. Navy vessels have sunk around the world due to armed conflict, act of God, or other reason. As these vessels age, corrosion or other natural processes may result in a failure in hull integrity or associated systems, leading to potential releases of oil into the sea. Such situations can present difficult questions of national sovereignty, jurisdiction, political sensitivity, and legal responsibility. Because each situation is unique, the appropriate U.S. response to potential oil releases from historic U.S. Navy vessels can only be determined on a case-by-case basis. This appendix outlines environmental response procedures for oil releases from sources that have been reported to be, or may be identified as, sunken U.S. Navy vessels.

This appendix in no way implies or creates any legal liability on behalf of the Navy not otherwise provided by existent U.S. law. Under no circumstances do the procedures described in this appendix obligate the Navy to perform any action on any vessel, or constitute tacit admission of fault, imply legal liability, or grant authority to obligate funds to carry out preemptive response actions on sunken Navy vessels. Further, this appendix does not create any right or benefit, substantive or procedural, enforceable in law or equity by a party against the U.S. Navy, the United States, its agencies, its officers, or any person.

2 Procedures

These procedures describe a process that, upon receipt of a report alleging an oil release from a sunken Navy vessel, the Navy will use to evaluate the incident and implement steps that facilitate an appropriate response under the circumstances. These steps will include initiation of a review/decision panel composed of subject matter experts from pertinent commands, allocation of responsibilities, and recommendations for appropriate responses, if any, based on the existing circumstances presented by the oil release incident on a case-by-case basis.

2.1 Review Panel

Upon notification or discovery of an oil release that may be attributed to a sunken Navy vessel, a review panel, convened by CNO (N45), will meet to address issues, coordinate actions, and make recommendations to DASN (E) concerning Navy's response to the event. At a minimum, the review panel should include the commands/activities shown in Table P.1.

The review panel will make recommendations to DASN (E) concerning the Navy's appropriate response for each vessel on a case-by-case basis. Pertinent factors to be considered when addressing releases from sunken Navy vessels include legal liability, political implications, technical feasibility of response, magnitude of the release, historical significance of the vessel, whether the vessel may contain human remains, environmental impacts, interest by foreign governments, and interest from other U.S. Government agencies.

Table O.1 – Minimum Review Panel Representation

Command	Functions
CNO N45 - N452 & N45J	Policy, resources, legal, environmental planning, public affairs
CNO N3/N5	Fleet coordination and operational tasking
JAG Admiralty - Code 11	Legal
OLA - Legislative Division	Congressional inquiries
NAVSEASYSCOM - SEA 00C & SEA 04RE	Technical support, response actions, environmental planning
COMPACFLT or USFLTFORCOM - N465 (as appropriate)	Local support (assets, media, etc)

2.2 Navy Actions

Table O.2 presents an outline of procedures that the review panel may follow when notified of a potential oil release from a sunken vessel. This is a general outline and the actual process used may vary based on the nature of the release, the resources at risk, and other factors.

Table O.2 – Outline of Procedures

A. Determine Title
Evaluate location and probability of vessel being Navy owned
Investigate any transfers and chain of custody
B. Determine Risk
Conduct literature/document research on sinking
Determine ship condition
Determine expected quantity of fuel on board
Evaluate need for a physical survey
Evaluate feasibility of conducting surveys (including technical approach and cost)
Evaluate applicable law if any
C. Determine Appropriate Response
Assess/survey the scene, as needed
Determine options/alternatives
Provide recommendations to chain of command
D. Respond if Appropriate for the Circumstances

NAVSEASYSCOM 00C shall work with the Navy Historical Center to research the subject vessel as a potential source of the release. If there are any questions surrounding ownership or title, Navy JAG Admiralty shall provide support to resolve such issues prior to conducting a risk assessment. Only where the vessel in question is determined to be a Navy vessel will the review panel determine the appropriate actions, if any.

NAVSEASYSCOM 00C will work with the applicable Fleet staff in developing risk assessments including ship information, alternative response actions, and potentially affected resources. NAVSEASYSCOM 00C and the Fleet staff representative shall summarize the information and present options for action to the review panel for consideration. DASN (E) or his designee shall approve any release to outside agencies of information developed or decisions reached by the review panel. CNO (N45) and DASN (E) shall approve the distribution of any information developed or decisions reached to the media. CNO (N45J) shall coordinate any legal issues that arise with Navy Admiralty and OGC (I&E), as well as legal representatives from other commands represented on the review panel. If DASN (E) determines that on-scene response actions are appropriate, NAVSEASYSCOM OOC shall assume technical lead and work with the appropriate Fleet to ensure effective use of Navy resources. Environmental planning, if required for proposed actions, shall be coordinated through CNO (N456) and NAVSEASYSCOM 04RE.

2.3 Coordination with Other Agencies

The review panel shall assist DASN (E) in coordinating with other Federal and State agencies that may have jurisdiction over property or resources that may be affected by operations on sunken vessels, or delegate authority to coordinate with other agencies. The Federal agencies involved may include the Department of State, Department of Interior, U.S. Coast Guard, EPA, NOAA, or others. The level of assistance required will vary depending on the nature of the actions considered and/or taken.

2.4 Funding

Advance programming for funds is not an available option in the case of unspecified future oil response actions. If the review panel determines that site surveys are needed to fully assess the risk, or that response and/or follow-on remediation operations are warranted for a specific incident, coordination with ASN (FM&C) and FMB shall be initiated to identify potential funding options for each incident on a case-by-case basis. When advance planning is possible, claimants shall use POM/PR process to identify necessary funds.

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APPENDIX P

FORMAL NAVY ENVIRONMENTAL, NATURAL AND CULTURAL RESOURCES TRAINING COURSES AND BILLET-SPECIFIC COURSE

1 Formal Navy Environmental Training Courses. Following are the Navy environmental training courses available through (1) the Naval School, Civil Engineer Corps Officer (CECOS), Port Hueneme, CA and (2) Naval Occupational Safety and Health and Environmental Training Center (NAVOSHENVTRACEN), Norfolk, VA, and (3) the Interservice Environmental Education Review Board (ISEERB). Commands desiring course quotas should contact those schools directly. Footnotes denote that the course may cross environmental pillars and be suitable for other environmental target audiences. For these cases the specific OPNAV 5090 chapter/s will be noted in the footnote unless the course is suitable to numerous chapters (i.e., Basic Environmental Law).

1.1 CECOS Courses:

Advanced Environmental Law (A-4A-0068)[1]
Advanced Environmental Management (A-4A-0063)[1]
Air Installations Compatible Use Zones Seminar (A-4A-0035)[2]
Basic Environmental Law (A-4A-0058)[1]
Conducting Environmental Management System Reviews (A-4A-0079)
Ecological Risk Assessment (A-4A-0081)[3]
Environmental Background Analysis (A-4A-0092)
Environmental Geographic Information Systems (A-4A-0084)
Environmental Negotiation Workshop (A-4A-0067)[1]
Environmental Protection & Environmental Protection Final Governing Standards (FGS) (A-4A-0036)[1]
Environmental Quality Sampling- (A-4A-0026)[4]
Emergency Planning and Community Right to Know (EPCRA) and Toxic Release Inventory (TRI) Reporting (A-4A-0082)
Environmental Management Systems 101
Environmental Management Systems Implementation Workshop
Geostatistics (A-4A-0091)
Hazardous Waste Facility Operators (A-4A-0076)
Hazardous Waste Operations and Emergency Response (HAZWOPER) – For Uncontrolled Hazardous Waste Site Worker (A-4A-0075)
HAZWOPER for Uncontrolled Hazardous Waste Site Worker Refresher (A-4A-0074)
Health & Environmental Risk Communication Workshop (A-4A-0072)[1]
Historic Preservation Law and Section 106 Compliance (A-4A-0073)[2]
Human Health Risk Assessment and Management (A-4A-0078)
Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)[2]
Introduction to Hazardous Waste Generation and Handling (A-4A-0080)
Munitions Response Site Management (A-4A-0093)[2]

[1] Suitable to all OPNAV 5090 Chapters (except 19).
[2] See Chapters 1, 2, 22 and 23 (suitable to planners, natural and cultural resource personnel).
[3] See Chapter 1 and 22 (suitable to natural resource and restoration personnel).
[4] Suitable for compliance and restoration personnel.

National Environmental Policy Act (NEPA) Navy Executive Overview (A-4A-0076)[1,2]
National Environmental Policy Act (NEPA) Application (A-4A-0077)[1,2]
Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)[1,2]
Natural Resources Compliance (A-4A-0087)[2,3]
Navy Environmental Restoration Program (A-4A-0069)
Overseas Hazardous Waste Generator (A-493-0094)
Overseas Hazardous Waste Facility Operations (A-493-0093)
RCRA Hazardous Waste Annual Refresher (A-493-0081)
Optimizing Remedy Selection and Site Closeout Process (A-4A-0089)

1.2 NAVOSHENVTRACEN Courses:

Afloat Environmental Protection Coordinator (A-4J-0021)
Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP)/Hazardous Material Inventory Control System (HICS) Technician (A-493-0049)
Facility Response Team (FRT) 24 hour (A-493-0013)
Facility Response Team (FRT) 40 hour (A-493-0012)
Hazardous Material Control and Management (HMC&M) Technician Mobile Training Team (MTT) (A-322-2601)
Hazardous Material Control and Management (HMC&M) Technician (A-322-2600)
Hazardous Substance Incident Response Management (HSIRM) Refresher (A-493-0083)
Hazardous Substance Incident Response Management (A-493-0077)
Introduction to Hazardous Materials (Ashore) (A-493-0031)
Spill Management Team Basic (SMT) (A-493-2100)
Incident Command System 200 (ICS 200) (A-493-2200)
Incident Command System 300 (ICS 300) (A-493-2300)
Incident Action Plan (IAP) (A-493-2400)
Worst Case Discharge Scenario (WCD) Triennial Tabletop Exercise (TTX) (A-493-2500)

1.3 ISEERB Courses:

Air Quality Management (AFIT ENV 531)
Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)
Defense Hazardous Material/Waste Handling (ALMC-HA)
Defense Metals and Recycling Course (8G-F2)
Ecological Risk Assessment (A-4A-0081)
Environmental Laws and Regulations (PDSC-ID#3170/CECC-E33ELRO1A)
Hazardous Materials Train-the-Trainer (ITRO, Joint Fire Fighting Training School-WXC-DDO495)
Hazardous Waste Manifest/DOT Certification and Re-certification PDSC 26HWRO1A)
HAZWOPER for Uncontrolled Hazardous Waste Site Workers (USAFSAM B30ZY0000E-001)
Health and Environmental Risk Communication Workshop (A-4A-0072)
Historic Preservation Law and Section 106 Compliance (A-4A-0073)
Historic Structures 1 (PDSC 392/CECW-EI)[2]
Human Health Risk Assessment and Management (A-4A-0078)
Introduction to Cultural and Natural Resources Compliance (Web U)

Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)[2]
Introduction to Natural and Cultural Resources (Web-U)
Natural Resources Compliance (A-4A-0087)[2, 5]
Pollution Prevention Program Operations and Management (AFIT ENV 022)
Transportation and Storage of Hazardous Material (A-822-0012) Navy Supply School (ITRO course)
Transportation for Hazardous Material/Hazardous Waste for DOD (DLA-DCPSO00R510)

2 Billet-Specific Environmental Training. Navy personnel will receive training as applicable to their specific job assignments and level of responsibility. For further clarification, please contact assigned training coordinators.

2.1 Regional Environmental Coordinators (RECs). Regional Environmental Coordinators, or their staff, will receive the following training:

a. Advanced Environmental Management (A-4A-0065)
b. Advanced Environmental Law (A-4A-0068)
c. Basic Environmental Law (A-4A-0068)
d. Spill Management Team Basic (SMT) (A-493-2100)
e. NEPA Navy Executive Overview (A-4A-0076)

Additionally:

f. Environmental Negotiation Workshop (A-4A-0067)
g. Health and Environmental Risk Communication Workshop (A-4A-0072)
h. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)
i. Natural Resources Compliance (A-4A-0087)
j. Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)
k. Worst Case Discharge (WCD) Triennial Tabletop Exercise (TTX) (A-493-2500)

2.2 Installation Commanding Officers of Shore Activities. Personnel assigned command of shore activities (including shore-based aviation commands) will receive general and command-specific training on Federal, State, and local environmental compliance laws and regulations within 6 months of taking command, as follows:

a. Basic Environmental Law (A-4A-0058)
b. NEPA Navy Executive Overview (A-4A-0076)

Additionally:

c. Health and Environmental Risk Communication Workshop (A-4A-0072)
d. Pollution Prevention Program Operations and Management (AFIT ENV 022) or CECOS web conference version
e. Environmental Negotiation Workshop (A-4A-0067)
f. Advanced Environmental Management (A-4A-0063)

[5] See Chapter s 1, 2, 23, 7, 9, 10, 13, 15, 18, 19, 21, 23, 25, 27, and 28

g. Advanced Environmental Law (A-4A-0068)
h. Natural Resources Compliance (A-4A-0087)
i. Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)
j. Historic Preservation Law and Section 106 Consultation (A-4A-0073)

2.3 Commander's Staff (Deputy Commanders, and Key Major Staff). Deputy Commanders and senior personnel assigned environmental responsibilities on major claimant staffs will receive the following training, as appropriate:

a. Basic Environmental Law (A-4A-0058)
b. NEPA Navy Executive Overview (A-4A-0076)
c. Advanced Environmental Management (A-4A-0063)

Additionally:

d. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085) (not funded) or DOD American Indian Cultural Communication (DENIX)
e. Health & Environmental Risk Communication Workshop (A-4A-0072)
f. Pollution Prevention Program Operations and Management (AFIT ENV 022) or CECOS web conference version
g. Environmental Management Systems 101
h. Environmental Negotiation Workshop (A-4A-0067)
i. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)

2.4 Supply Officers whose duties involve Hazardous Material Control and Management. Training includes:

a. CHRIMP/HICS Technician (A-493-0049)
b. Introduction to Hazardous Materials (Ashore) (A-493-0031)

Additionally:

c. Pollution Prevention Program Operations and Management (AFIT ENV 022) or CECOS web conference version
d. Defense Metals and Recycling Course (8G-F2)
e. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)

2.5 Public Affairs Officers. Public affairs officers assigned to shore activities will receive both general and command-specific training on environmental compliance laws and regulations, including:

a. Environmental Protection (A-4A-0036)
b. Basic Environmental Law (A-4A-0058)
c. NEPA Navy Executive Overview (A-4A-0076)

Additionally:

d. Health and Environmental Risk Communication Workshop (A-4A-0072)
e. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085) (not funded)
f. Environmental Negotiation Workshop (A-4A-0067)
g. Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)
h. Incident Command System 200 (ICS 200) (A-493-2200) (duty dependant)
i. Incident Command System 300 (ICS 300) (A-493-2200) (duty dependant)
j. Incident Action Plan (IAP) A-493-2400 (duty dependant)

2.6 Public Works Facilities Engineering and Acquisition Division (FEAD) Personnel and Resident Officers in Charge of Construction/Officers in Charge of Construction (ROICC)/(OICC). Training will include:

a. HAZWOPER for Uncontrolled Hazardous Waste Site Workers (A-4A-0075) (if working on a hazardous waste site)
b. HAZWOPER for Uncontrolled Hazardous Waste Site Workers Refresher (A-4A-0074) (if working on a hazardous waste site)
c. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)

Additionally:

d. Munitions Response Site Management (A-4A-0093)
e. Historic Preservation Law and Section 106 Compliance (A-4A-0073)
f. Historic Structures 1 (PDSC 392-CECW-EI)
g. Introduction to Cultural Resources Management Laws and Regulations (A-4A-0070)
h. Intro to Natural and Cultural Resources Compliance (Web U)
i. Natural and Cultural Resources Management (Web U)
j. Navy Environmental Restoration Program (A-4A-0069)
k. Advanced Environmental Management (A-4A-0063)
l. Pollution Prevention Program Operations & Management (AFIT ENV 022) or CECOS web conference version
m. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)
n. Cultural Resources Training for ROICCs and PWOs
o. Environmental Training for ROICCs and PWOs

2.7 Public Works Officers (PWO). Civil Engineering Corps (CEC) officers assigned as Public Works Officers will receive the following training:

a. Environmental Protection (A-4A-0036)
b. Basic Environmental Law (A-4A-0058)
c. NEPA Application (A-4A-0077)
d. Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)
e. Spill Management Team (SMT) Basic (A-493-2100)
f. Cultural Resources Training for ROICCs and PWOs (CECOS web based)
g. Environmental Training for ROICCs and PWOs (CECOS web based)

Additionally:

h. Health and Environmental Risk Communication Workshop (A-4A-0072)
i. Environmental Negotiation Workshop (A-4A-0067)
j. Introduction to Hazardous Waste Generation and Handling (A-4A-0080)
k. Facility Response Team (duty specific) (24 HR A-493-0013; 40 HR A-493-0012)
l. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)
m. Pollution Prevention Program Operations & Management (AFIT ENV 022) or CECOS web conference version
n. Historic Preservation Law and Section 106 Compliance (A-4A-0073)
o. Natural Resource Compliance (A-4A-0087)
p. Bird Aircraft Strike Hazard (BASH) (A-4A-0028) web based
q. Air Installations Compatible Use Zones (AICUZ) (A-4A-0035)
r. Environmental Management Systems 101
s. Asbestos courses provided by NAVOSHENVTRACEN

2.8 Civil Engineering Corps (CEC) Officers. CEC officers will receive the following training:

a. Environmental Protection (A-4A-0036) (within initial 3 tours; ENS/LTJG/LT)
b. Advanced Environmental Management (A-4A-0063)
c. Basic Environmental Law (A-4A-0058)

Additionally:

d. Health and Environmental Risk Communication Workshop (A-4A-0072)
e. Environmental Negotiation Workshop (A-4A-0067)
f. Spill Management Team (SMT) Basic (A-493-2100)
g. Facility Response Team (24 / 40) (A-493-0013/0012)
h. Emergency Planning and Community Right to Know (EPCRA) and TRI Reporting (A-4A-0082)
i. Environmental Management Systems 101
j. Historic Structures 1(PDSC 392/CECW-EI)
k. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)
l. Pollution Prevention Program Operations & Management (AFIT ENV 022) or CECOS web conference version

2.9 Compliance/P2 Environmental Managers, Engineers and Staff. Compliance Environmental managers, engineers and staff will receive training appropriate to duties assigned, including the following formal courses, as applicable. Provide training before assignment of environmental project or program management responsibilities:

a. Environmental Protection (within 1 year of initial assignment) (A-4A-0036)
b. Advanced Environmental Management (A-4A-0063)
c. Basic Environmental Law (A-4A-0058)
d. Advanced Environmental Law (A-4A-0068)
e. Environmental Negotiation Workshop (A-4A-0067)

f. Health and Environmental Risk Communication Workshop (A-4A-0072)
g. Environmental Management Systems 101 (no CIN)
h. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)
i. Pollution Prevention Program Operations & Management (AFIT ENV 022) or CECOS web conference version
j. Environmental Management Systems 101 (no CIN)
k. NEPA Application (A-4A-0077)
l. Water Quality Management (AFIT ENV 541)
m. Air Quality Management (AFIT ENV 531)

Additionally:

n. Hazardous Waste Facility Operators (A-493-0076) or Introduction to Hazardous Waste Generation and Handling (A-4A-0080)
o. RCRA Hazardous Waste Refresher (A-493-0081)
p. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)
q. Historic Preservation Law and Section 106 Compliance (A-4A-0073)
r. Natural Resources Compliance (A-4A-0087)
s. Introduction to Cultural Resources Management Laws and Regulations (A-4A-0070)
t. Pollution Prevention Operations and Management (AFIT ENV 022) or CECOS web based version
u. Emergency Planning & Community-Right-to-Know (EPRCA)/TRI (A-4A-0082)
v. Environmental Geographic Information Systems (GIS) (A-4A-0091)
w. Spill Management Team Basic (A-493-2100)
x. Environmental Quality Sampling (A-4A-0026)
y. Environmental Management Systems Implementation Workshop
z Conducting Environmental Management System Reviews (A-4A-0079)
aa HAZWOPER for Uncontrolled Hazardous Waste Site Workers (A-4A-0075)
bb. HAZWOPER for Uncontrolled Hazardous Waste Site Workers – Refresher (A-4A-0074)
cc. Hazardous Waste Facility Operators (A-4A-0076)
dd. Introduction to Hazardous Waste Generation and Handling (A-4A-0080)
ee. RCRA Hazardous Waste Refresher (A-493-0081)
ff. Transportation of Hazardous Material/Hazardous Waste (HM/HW) for DOD (DCP500R510) (DLA)
gg. Hazardous Waste Manifest/DOT Re-certification (26 HWRO1A) (ARMY COE)

2.10 Environmental Planners: Environmental planners will receive training appropriate to duties assigned, including the following formal courses, as applicable. Provide training before assignment of environmental project or program management responsibilities:

a Environmental Protection (within 1 year of initial assignment) (A-4A-0036)
b. Advanced Environmental Management (A-4A-0063)
c. Basic Environmental Law (A-4A-0058)
d. Advanced Environmental Law (A-4A-0068)
e. Environmental Negotiation Workshop (A-4A-0067)
f. Health and Environmental Risk Communication Workshop (A-4A-0072)
g. NEPA Application (A-4A-0077)

h. Historic Preservation Law and Section 106 Compliance (A-4A-0073)
i. Natural Resources Compliance (A-4A-0087)
j. Introduction to Cultural Resources Management Laws and Regulations (A-4A-0070)

Additionally:

k. Water Quality Management (AFIT ENV 541)
l. Air Quality Management (AFIT ENV 531)
m. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)
n. Environmental Laws and Regulations (PDSC 170/CECC-E) (wetlands emphasis)
o. Air Installation Compatible Use Zones (AICUZ) (A-4A-0035)

2.11 Environmental Restoration Managers, Remedial Program Managers, BRAC and Related Cleanup Personnel: Environmental Restoration Managers, Remedial Program Managers, BRAC and related cleanup personnel will receive training appropriate to duties assigned, including the following formal courses, as applicable. Provide training before assignment of environmental project or program management responsibilities:

a. Navy Environmental Restoration Program (A-4A-0069)
b. Uniform Federal Policy for Quality Assurance Project Plans (A-4A-0095)
c. Environmental Background Analysis (A-4A-0092)
d. Ecological Risk Assessment (A-4A-0081)
e. Human Health Risk Assessment (A-4A-0078)
f. Environmental Geographic Information Systems (GIS)/Geostatistics (A-4A-0084)
g. Optimizing Remedy Selection and Site Closeout Process (A-4A-0089)
h. Munitions Response Site Management (A-4A-0093)
i. Environmental Protection (A-4A-0036) or Advanced Environmental Management (A-4A-0063) (depending on level of knowledge required of position)
j. Basic Environmental Law (A-4A-0058)
k. Advanced Environmental Law (A-4A-0068)
l. Environmental Negotiation Workshop (A-4A-0067)
m. Health and Environmental Risk Communication Workshop (A-4A-0072)

Additionally:

n. Water Quality Management (AFIT ENV 541)
o. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)
p Environmental Quality Sampling (A-4A-0026)

2.12 Natural and Cultural Resources Managers and Staff. Personnel assigned natural and cultural resources management responsibilities and staff will receive the following training:

a. Environmental Protection (A-4A-0036) or Advanced Environmental Management (A-4A-0063) (depending on level of knowledge required of position)

b. Basic Environmental Law (A-4A-0058)
c. Advanced Environmental Law (A-4A-0068)
d. Environmental Negotiation Workshop (A-4A-0067)
e. NEPA Application (A-4A-0077)
f. Historic Preservation Law and Section 106 Compliance (A-4A-0073)
g. Introduction to Cultural Resources Management Laws and Regulations (A-4A-0070)
h. Health & Environmental Risk Communication Workshop (A-4A-0072)
i. Natural Resources Compliance (A-4A-0087)
j. Natural and Cultural Resources Management (Web U)
k. Native American Traditions and Cultures: Implementing DOD Native American Policy (A-4A-0085)
l. DOD Migratory Bird Act Training (DENIX)
m. DOD ICRMP course (DENIX)

Additionally:

m. Ecological Risk Assessment (A-4A-0081)
n. Environmental Geographic Information Systems (A-4A-0084)
o. Environmental Quality Sampling (A4A-0026)
p. Water Quality Management (AFIT 541)
q. Environmental Laws and Regulations (PDSC-170/CECC-E) –wetlands emphasis
r. DOD Pest Management courses as appropriate
s. Environmental Geographic Information Systems (GIS)/Geostatistics (A-4A-0084)
t. Buying Green: A Multifunctional Approach to Pollution Prevention (DCPSO00R750)
u. Bird Aircraft Strike Hazard Awareness (A-4A- 0028)
v. Spill Management Team (SMT) Basic (A-493-2100)
w. Incident Command System 200 (ICS 200) (A-493-2200)
x. Incident Command System 300 (ICS 300) (A-493-2300)
y. Incident Action Plan (IAP) A-493-2400

2.15 Environmental Sampling, Technicians and Laboratory Personnel. Documentation of training must include, at a minimum successful completion of (see Chapter 25 for more specific training requirements):

a. Environmental Quality Sampling (A-4A-0026)
b. Uniform Federal Policy for Quality Assurance Plans (A-4A-0095) for Environmental Restoration Program personnel

2.16 Incident Responders. Designated incident responders (military and civilian) will receive the following training, as appropriate. Regional Oil and Hazardous Substance Spill Management Team formerly (NOSC/FIC) Course and SMT are appropriate for incident commanders and other spill management personnel working in the incident command posts. All other courses are appropriate training for 'hands on' spill responders. Spill preparedness and response often overlaps with natural and cultural resource protection requirements (see Integrated Natural Resource Management Plans and Integrated Cultural Resource Management Plans), planning (Base Master Plans and SPCC Plans) and natural resource damage assessment.

a. Spill Management Team (SMT) Basic (A-493-2100)

b. Hazardous Substance Incident Response Management (A-493-0077) or Hazardous Substance Incident Response Management Refresher as appropriate (A493-0083). This course is responsive to OSHA HAZWOPER (q) requirements.
c. Introduction to Hazardous Waste Generation and Handling (A-4A-0080)
d. RCRA Hazardous Waste Refresher (A-493-0081)
e. Incident Command System 200 (ICS 200) (A-493-2200)
f. Incident Command System 300 (ICS 300) (A-493-2300)
g. Incident Action Plan (IAP) A-493-2400
h. Worst Case Discharge (WCD) Triennial Tabletop Exercise (TTX) (A-493-2500)
i. Facility Response Team (FRT); Three Day (A-493-0013) or Five Day (A-493-0012), as appropriate
j. Environmental Management Systems 101
k. Water Quality Management (AFIT 541)

Additionally:

k. Natural Resource Compliance (A-4A-0087)
l. Introduction to Cultural Resource Management Laws and Regulations (A-4A-0070)
m. Health and Environmental Risk Communication Workshop (A-4A-0072)
n. Environmental Negotiation Workshop (A-4A-0067)

2.17 Other. Environmental training is necessary for other positions at shore commands, in which work practices have a significant potential impact on the environment. Environmental laws and regulations require COs to provide these personnel, as appropriate, with the following training:

a. HAZWOPER for Uncontrolled Hazardous Waste Site Workers (A-4A-0075)
b. HAZWOPER for Uncontrolled Hazardous Waste Site Workers Refresher (A-4A-0074)
c. Introduction to Hazardous Waste Generation and Handling (A-4A-0080) or OJT equivalent for Hazardous Waste Generators/Workers that generate Hazardous Waste, or are assigned to manage/work at either a Hazardous Waste Satellite Accumulation site less than 90 day Hazardous Waste storage site, Treatment, Storage, Disposal Facility shall have training within 90 days of being assigned or employed and have refresher training annually (i.e., RCRA Hazardous Waste Refresher A-493-0081).
d. Hazardous Substance Incident Response Management (HSIRM) (A-493-0077)

2.18 Reserve Component Environmental Training. Commanders and COs of Naval Reservists will provide environmental training appropriate for mobilization duties to the greatest extent possible. COs will ensure full time personnel are trained at their facility if they are responsible for the facility. Naval Reserve unit commanders and COs will obtain training for reservists that they consider the minimum for individual mobilization missions and responsibilities.

APPENDIX Y
ACRONYM LIST

72-COLREGS	International Regulations for Preventing Collisions at Sea
A/I	Aspects/Impacts
A2LA	American Association for Laboratory Accreditation
A2R2	Annual Allowance Requirements Requests
AAR	After Action Reports
AC	Area Committee
AC	Alternating Current
AC&R	Air Conditioning and Refrigeration
ACP	Area Contingency Plan
AEC	Area Environmental Coordinator
AEDA	Ammunition, Explosives, and Dangerous Articles
AEPC	Afloat Environmental Protection Coordinator
AESO	Aircraft Environmental Support Office
AFFF	Aqueous Film-Forming Foam
AFIT	Air Force Institute of Technology
AFV	Alternative Fuel Vehicles
AICUZ	Air Installations Compatible Use Zone
AIMM	Assess, Implement, Manage and Measure
AIRFA	American Indian Religious Freedom Act
AL	Action Level
AOC	Areas of Concern
AOR	Area of Responsibility
APN	Aircraft Procurement, Navy
AQD	Air Quality District
ARARs	Applicable or Relevant and Appropriate Requirements
ARPA	Archaeological Resources Protection Act
ASD (P&L)	Assistant Secretary of Defense (Production and Logistics)
ASN (FM&C)	Assistant Secretary of the Navy (Financial Management and Comptroller)
ASN (I&E)	Assistant Secretary of the Navy (Installations and Environment)
ASN (RDA)	Assistant Secretary of the Navy (Research, Development and Acquisition)
AST	Above-ground Storage Tank
ATR	Authorized Technical Representative
ATSDR	Agency for Toxic Substance and Disease Registry
AUL	Authorized User List
BA	Biological Assessment
BACM	Best Available Control Measures
BACT	Best Available Control Technology
BASH	Bird Aircraft Strike Hazards
BDAT	Best Demonstrated Available Technology
BEACH	Beaches Environmental Assessment and Coastal Health Act
BIRDRAD	Avian Radar
BMP	Best Management Practice
BOA	Basic Ordering Agreements
BOMBEX	Bombing Exercise

BOS	Base Operating Services
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
BSO	Budget Submitting Office
BTU	British Thermal Units
BUMED	Bureau of Medicine and Surgery
C&D	Construction and demolition
CAA	Clean Air Act
CATEX	Categorical Exclusion
CBT	Computer-based training
CCR	Consumer Confidence Report
CEC	Civil Engineering Corps
CECOS	Civil Engineering Corps of Officers School
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CFC	Chlorofluorocarbon
CFO	Chief Financial Officers
CFR	Code of Federal Regulations
CFST	Contaminated Fuel Settling Tank
CHINFO	Chief of Information
CHRIMP	Consolidated Hazardous Material Reutilization and Inventory Management Program
CHT	Collection, Holding and Transfer system (for shipboard sewage and waste water)
CMI	Corrective Measures Implementation
CMP	Coastal Management Program
CMS	Corrective Measurers Study
CN	Conservation
CNIC	Commander, Navy Installations Command
CNO	Chief of Naval Operations
CNO (N00N)	Director of Naval Nuclear Propulsion Program
CNO (N4)	Deputy Chief of Naval Operations (Fleet Readiness and Logistics)
CNO (N45)	Director, Environmental Readiness Division
CO	Commanding Officer
COCOM	Combatant Commander
COMUSFLTFORCOM	Commander, United States Fleet Forces Command
COMNAVAIRSYSCOM	Commander, Naval Air Systems Command
COMNAVCENT	Commander, United States Naval Forces Central Command
COMNAVEUR	Commander, United States Forces Europe
COMNAVFACENGCOM	Commander, Naval Facilities Engineering Command
COMNAVRESFOR	Commander, Naval Reserve Force
COMNAVSEASYSCOM	Commander, Naval Sea Systems Command
COMPACFLT	Commander, United States Pacific Fleet
COMNAVSUPSYSCOM	Commander, Naval Supply Systems Command
COMSC	Commander, Military Sealift Command

CONUS	Continental United States
COR	Contracting Officer's Representative
CRE	Comprehensive Range Evaluation
CRP	Community Relations Plan
CTG	Control Techniques Guidelines
CUP	Consumptive Use Permit
CWA	Clean Water Act
CWM	Chemical Warfare Material
CWS	Community Water System
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Plan
DASN(E)	Deputy Assistant Secretary of the Navy (Environment)
DBP	Disinfection Byproducts
DC	Direct Current
DCNO	Deputy Chief of Naval Operations
DCO	Delay Compliance Order
DCS	Data Call Station
DDESB	DOD Explosives Safety Board
DEIS	Draft Environmental Impact Statement
DEMIL	Demilitarization
DENIX	Defense Environmental Network and Information Exchange
DENIX BBS	Defense Environmental Network and Information Exchange Bulletin Board System
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DESCIM	Defense Environmental Security Corporate Information Management
DFARS	Defense Federal Acquisition Regulation Supplement
DFPO	Deputy Federal Preservation Officer
DHS	Department of Homeland Security
DISP	Defense Installations Strategic Plan
DLA	Defense Logistics Agency
DMM	Discarded military munitions
DNWG	Defense Noise Working Group
DOD	Department of Defense
DODD	Department of Defense Directive
DOE	Department of Energy
DOI	Department of Interior
DOJ	Department of Justice
DON	Department of the Navy
DOPAA	Description of Proposed Action and Alternatives
DOS	Department of State
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
DRMS	Defense Reutilization and Marketing Service
DSCR	Defense Supply Center, Richmond, Virginia
DSMOA	Defense/State Memorandum of Agreement
DUSD (AT&L)	Deputy Under Secretary of Defense (Acquisition, Technology & Logistics)
DUSD (ES)	Deputy Under Secretary of Defense (Environmental Security)

DUSD (I&E)	Deputy Under Secretary of Defense (Installations & Environmental)
E.O. (EO)	Executive Order
EA	Environmental Assessment
EA	Executive Agent
EC	Environmental Compliance
ECE	Environmental Compliance Evaluation
ECP	Engineering Change Proposal
ECP	Environmental Conditions of Property
EDQW	Environmental Data Quality Workgroup
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EHS	Extremely Hazardous Substance
EIS	Environmental Impact Statement
ELAC	Environmental Laboratory Advisory Council
EM	Emergency Management
EMP	Environmental Management Procedures
EMS	Environmental Management System
ENRP	Environmental and Natural Resources Program (now NETP)
EOD	Explosives Ordnance Disposal
EPA	Environmental Protection Agency
EPACT05	Energy Policy Act of 2005
EPCRA	Emergency Planning and Community Right-to-Know Act
EPR	Environmental Program Requirements
EPRWEB	Environmental Program Requirements Website
EQ	Environmental Quality
EQA	Environmental Quality Assessment
EQI	Environmental Quality Initiative
EQS	Environmental Quality Sampling
ER,N	Environmental Restoration, Navy
ERA	Ecological Risk Assessment
ERC	Emission Reduction Credit
ERL	Environmental Readiness Level
ERP	Emergency Response Plan
ESA	Endangered Species Act
ESO	Environmental Specialty Office
ESOH	Environmental, Safety, and Occupational Health
ESOP	Environmental StandardOperating Procedures
ESS	Explosive Safety Submission
FAA	Federal Aviation Administration
FASTT	Fleet Assistance Support and Technology Transfer Team
FDCA	Food, Drug and Cosmetic Act
FEAD	Facilities Engineering and Acquisition Division
FEC	Facilities Engineering Commands
FEIS	Final Environmental Impact Statement
FFA	Federal Facility Agreement
FFC	Fleet Forces Command
FFCA	Federal Facility Compliance Act

FFSRA	Federal Facility State Remediation Agreement
FGS	Final Governing Standards
FIC	Facility Incident Commander
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIP	Federal Implementation Plan
FISC	Fleet Industrial Supply Centers
FMB	Fiscal Management Bureau
FMP	Fleet Modernization Program
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
FOPTW	Federally Owned Pre-Treatment Works
FOSC	Federal On-Scene Coordinator
FOSL	Finding of Suitability for Lease
FOST	Finding of Suitability for Transfer
FOTW	Federally Owned Treatment Works
FPO	Federal Preservation Officer
FR	Federal Register
FRP	Facility Response Plan
FRT	Facility Response Team
FS	Feasibility Study
FUDS	Formerly Used Defense Site
FWPCA	Federal Water Pollution Control Act
FY	Fiscal Year
GC/MS	Gas Chromatography/Mass Spectrometry
GIS	Geographic Information System
GOCO	Government Owned-Contractor Operated Facilities
GPP	Green Procurement Program
GSA	General Services Administration
GUNEX	Gunnery Exercise
GWUDI	Ground Water Under the Direct Influence
HAA5	Haloacetic Acids
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HAP	Hazardous Air Pollutants
HAZCOM	Hazard Communication
HAZMIN	Hazardous Waste Minimization
HAZMINCEN	Hazardous Material Minimization Center
HAZWOPER	Hazardous Waste Operations and Emergency Response
HC	Hazardous Chemical
HCFC	Hydrochlorofluorocarbons
HM	Hazardous Material
HMC&M	Hazardous Material Control and Management
HMIRS	Hazardous Material Information Resource System
HMIS	Hazardous Material Information System
HMTA	Hazardous Materials Transportation Act
HRS	Hazard Ranking System
HS	Hazardous Substance
HSMS	Hazard Substance Management System

HSPD	Homeland Security Presidential Directive
HSWA	Hazardous and Solid Waste Amendments
HVAC&R	Heating, Ventilation, Air Conditioning and Refrigeration
HW	Hazardous Waste
I/M	Inspection and Maintenance
IAG	Interagency Agreement
IC	Institutional Controls
IC	Incident Commander
ICO	Installation Commanding Officer
ICP	Integrated Contingency Plan
ICRMP	Integrated Cultural Resources Management Plan
ICS	Incident Command System
ID	Identification
IDQTF	Intergovernmental Data Quality Task Force
IEC	International Electrotechnical Commission
IHA	Incidental Harassment Authorization
ILS	Integrated Logistics System
IMO	International Maritime Organization
INRMP	Integrated Natural Resources Management Plan
IPM	Integrated Pest Management
IQG	Information Quality Guidelines
IR	Installation Restoration
IRP	Installation Restoration Program
ISA	Interservice Support Agreements
ISEERB	Interservice Environmental Education Review Board
ISIC	Immediate Superior In Command
ISO	International Organization for Standardization
ISP	Information Security Program
ISSA	Interservice Support Agreement
ISWMP	Integrated Solid Waste Management Plan
ITRO	Interservice Training Review Organization
IWTP	Industrial Waste Treatment Plant
JAG	Judge Advocate General
JSP2TL	Joint Service Pollution Prevention Technical Library
kg	Kilogram
KVA	Kilovolt-ampere
LAER	Lowest Achievable Emission Rate
LAT	Lead Administrative Trustee
lbs	Pounds
LCAC	Landing Craft, Air Cushion
LCC	Life Cycle Cost
LCR	Lead and Copper Rule
LCS	Laboratory Control Sample
LDR	Land Disposal Restriction
LDV	Light-Duty Vehicle
LEA	Lead Environmental Activity
LEC	Lead Environmental Component

LEIS	Legislative Environmental Impact Statement
LEPC	Local Emergency Planning Committee
LOGREQ	Logistics Requirements
LQAO	Navy Laboratory Quality and Accreditation Office
LTMgt	Long-term Management
LTO	Long-term Operation
LUC	Land Use Controls
MACT	Maximum Achievable Control Technology
MARLAP	Multi-Agency Radiation Laboratory Analysis Protocols
MARAD	U.S. Maritime Administration
MARPOL	International Maritime Convention for the Prevention of Pollution from Ships
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MAWP	Maximum Allowable Working Pressure
MC	Munitions Constituent
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDL	Method Detection Limit
MEC	Munitions and Explosives of Concern
MERIT	Materials of Evolving Regulatory Interest Team
MFT	Mobile Fuel Tanker Trucks
MILCON	Military Construction
MISSILEX	Missile Firing Exercise
MMPA	Marine Mammal Protection Act
MMS	Mineral Management Service
MO	Manual of Operation
MOA	Memorandum of Agreement
MODEF	Mineral Oil Dielectric Fluid
MOM	Measures of Merit
MOU	Memorandum of Understanding
MPRSA	Marine Protection, Research and Sanctuaries Act
MR	Munitions Response
MR	Munitions Rule
MRA	Marine Resource Assessment
MRC	Maintenance Requirement Card
MRDL	Maximum Residual Disinfectant Levels
MRP	Maintenance Requirement Plan
MRP	Munitions Response Program
MRS	Munitions Response Sites
MRSPP	Munitions Response Site Prioritization Protocol
MS4s	Municipal Separate Storm Sewer Systems
MSC	Military Sealift Command
MSD	Marine Sanitation Device
MSDD	Marine Species Density Data
MSDS	Material Safety Data Sheet
MTR	Marine Transportation-Related
MWR	Morale, Welfare, and Recreation
NAAQS	National Ambient Air Quality Standards

NAGPRA	Native American Grave Protection and Repatriation Act
NAICS	North American Industry Classification System
NAVAIR	Naval Air Systems Command
NAVCOMPT	Navy Comptroller
NAVEUR	U.S. Naval Forces, Europe
NAVFACENGCOM	Naval Facilities Engineering Command
NAVFOR	Naval Forces
NAVICP-M	Navy Inventory Control Point, Mechanicsburg
NAVOSH	Navy Occupational Safety and Health
NAVOSHENVTRACEN	Naval Occupational Safety and Health, and Environmental Training Center
NAVRAMP	Navy Radon Assessment and Mitigation Program
NAVSEA	Naval Sea Systems Command
NAVSUP	Naval Supply Systems Command
NCP	National Contingency Plan (National Oil and Hazardous Substance Pollution Contingency Plan)
NDAA	National Defense Authorization Act
NEESA	Naval Energy and Environmental Support Activity (see NFESC)
NEHC	Navy Environmental Health Center
NELAP	National Environmental Laboratory Accreditation Program
NEPA	National Environmental Policy Act
NEPSS	Naval Environmental Protection Support Service
NERP	Navy Environmental Restoration Program
NES	Navy EQA Software
NESHAP	National Emission Standards for Hazardous Air Pollutants
NETC	Naval Education and Training Command
NETP	Navy Environmental Training Program
NEXCOM	Naval Exchange Service Command
NFESC	Naval Facilities Engineering Services Center
NFRAP	No Further Response Action Planned
NHC	Naval Historical Center
NHL	National Historic Landmark
NHO	Native Hawaiian Organizations
NHPA	National Historic Preservation Act
NIMS	National Incident Management System
NKO	Navy Knowledge On-line
nm	Nautical Mile
NMCARS	Navy/Marine Corps Acquisition Regulations Supplement
NMFS	National Marine Fisheries Service
NNPI	Naval Nuclear Propulsion Information
NNPP	Navy Nuclear Propulsion Program
NNPS	Nuclear Propulsion Plant Space
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOSC	Navy On-Scene Coordinator
NOSSA	Navy Ordnance Safety and Security Activity
NOTAL	Not to All
NOTW	Navy Owned Treatment Works

NOV	Notice of Violation
NPDC	Naval Personnel Development Center
NPDES	National Pollutant Discharge Elimination System
NPDWR	National Primary Drinking Water Regulations
NPFC	National Pollution Funds Center
NPL	National Priorities List
NPS	Non-point Source
NPS	National Park Service
NRC	National Response Center
NRCS	Natural Resources Conservation Service
NRD	Natural Resource Damage
NRDA	Natural Resource Damage Assessment
NRM	Natural Resources Management
NRP	National Response Plan
NRT	National Response Team
NSDWR	National Secondary Drinking Water Regulations
NSN	National Stock Number
NSPS	New Source Performance Standards
NSR	New Source Review
NSTM	Naval Ships Technical Manual
NTNCWS	Non-Transient, Non-Community Water System
NTSP	Navy Training System Plan
O&M	Operations and Maintenance
O&MN	Operations and Maintenance, Navy
O&Ts	Objectives & Targets
OAGC (I&E)	Office of the Assistant General Counsel (Installations and Environment)
OB/OD	Open burning and open detonation
OCM	Oil Content Monitor
OCONUS	Outside the Continental United States
ODP	Ozone Depletion Potential
ODR	Oil Discharge Raft
ODS	Ozone Depleting Sustance
OEA	Overseas Environmental Assessment
OEBGD	Overseas Environmental Baseline Guidance Document
OEIS	Overseas Environmental Impact Statement
OEL	Other Environmental Liabilities
OESO	Ordnance Environmental Support Office
OFPP	Office of Federal Procurement Policy
OGC	Office of General Counsel (Navy)
OHS	Oil or Hazardous Substance
OIC	Officers in Charge
OICC	Officers in Charge of Construction
OLA	Office of Legislative Affairs
OM,N	Operation and Maintenance, Navy
OMB	Office of Management and Budget
OPA 90	Oil Pollution Act of 1990
OPAREA	Operational Area
OPNAV	Office of the Chief of Naval Operations

OPNAVINST	OPNAV Instruction
OPREP	Operational Report
ORC	Operational Range Clearance
ORSM	Operational range site models
OSC	On-Scene Coordinator
OSD	Office of the Secretary of Defense
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
OSHA	Occupational Safety and Health Act
OSLTF	Oil Spill Liability Trust Fund
OU	Operable Unit
OW/WO	Oily Waste/Waste Oil
OWHT	Oily Waste Holding Tank
OWS	Oil/Water Separator
OWTS	On-site Wastewater Treatments Systems
P.L.	Public Law
P2	Pollution Prevention
P2ADS	Pollution Prevention Annual Data Summary
PA	Preliminary Assessment
PBT	Persistent, Bioaccumulative, and Toxic
PCB	Polychlorinated Biphenyl
pCi/L	Picocurie per Liter
PCPAR	Pest Control Performance Assessment Representatives
PCQAE	Pest Control Quality Assurance Evaluator
PE	Professional Engineer
PESHE	Programmatic Environment Safety and Occupational Health Evaluation
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIER	Preliminary Impact & Exposure Report
PM	Particulate Matter
PMC	Pest Management Consultant
PMO	Program Management Office
POA&M	Plan of Action and Milestones
POE	Point-Of-Entry
POL	Petroleum-Oil-Lubricant
POM	Program Objective Memorandum
POTW	Publicly Owned Treatment Works
POU	Point-Of-Use
PP&E	Plant, Property, and Equipment
PPA	Pollution Prevention Act
ppb	Parts per billion
PPBES	Planning, Programming Budget Execution System
ppm	Parts per million
PPEP	Pollution Prevention Equipment Program
PQS	Personnel Qualification Standards
PREP	Preparedness for Response Exercise Program
PROTW	Privately Owned Treatment Works
PRP	Potentially Responsible Party

PSD	Prevention of Significant Deterioration
PT	Proficiency-Testing
PWC	Public Works Center
PWS	Public Water System
QA	Quality Assurance
QC	Quality Control
QAM	Quality Assurance Manager
QAP	Quality Assurance Plan
QAPP	Quality Assurance Project Plans
QI	Qualified Individual
QMP	Quality Management Plan
QRP	Qualified Recycling Program
QS	Quality Systems
QSM	Quality Systems Manual
R&D	Research and Development
RA	Remedial Action
RAB	Restoration Advisory Board
RA-C	Remedial Action-Construction
RACM	Reasonable Available Control Measures
RACT	Reasonably Available Control Technology
RADCON	Radiological Controls
RA-O	Remedial Action-Operations
RC	Response Complete
RD	Remedial Design
RCA	Range Condition Assessment
RCP	Regional Contingency Plans
RCRA	Resource Conservation and Recovery Act
RDF	Range Data Folder
RDT&E	Research, Development, Test, and Evaluation
REC	Regional Environmental Coordinator
RFA	RCRA Facility Assessment
RFI	RCRA Facility Inspection
RFP	Reasonable Further Progress
RHA	Rivers and Harbors Act
RHICS	Regional Hazardous Inventory Control System
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy in Place
RMP	Risk Management Plans
ROD	Record of Decision
ROICC	Resident Officer in Charge of Construction
RP	Responsible Party
RPM	Remedial Project Manager
RQ	Reportable Quantity
RRT	Regional Response Team
RS	Range Sustainment
RSEPA	Range Sustainability Environmental Program Assessment
SAO	Senior Acquisition Official
SARA	Superfund Amendments and Reauthorization Act

SAV	Submerged Aquatic Vegetation
SC	Site Closeout
SCORE	Sustained Compliance plus Operational Readiness equals Environmental Excellence
SCP	Spill Contingency Plan
SDOSS	Sewage Disposal Operation Sequencing System
SDWA	Safe Drinking Water Act
SECDEF	Secretary of Defense
SECNAV	Secretary of the Navy
SECNAVINST	SECNAV Instruction
SERC	State Emergency Response Commission
SES	Senior Executive Service
SHPO	State Historic Preservation Office
SI	Site Inspection
SIC	Standard Industrial Classification
SIM	Shore Installation Management
SINKEX	Sinking Exercise
SIP	State Implementation Plan
SITREP	Situation Report
SJA	Staff Judge Advocate
SMCA	Sunken Military Craft Act
SME	Subject Matter Expert
SMSA	Standard Metropolitan Statistical Area
SMT	Spill Management Team
SNAP	Significant New Alternatives Policy
SNM	Special Nuclear Material
SOFA	Status of Forces Agreement
SONS	Spills of National Significance
SOPA	Senior Officer Present Ashore (or Afloat)
SOSCP	Shipboard Oil Spill Contingency Plans
SPCC	Spill Prevention Control and Countermeasure
SPCR	Spill Prevention, Control, and Reporting
SRO	Sustainable Range Oversight
ST	Storage Tank
STEP	Shipboard Training Enhancement Program
SUPSALV	Supervisor of Salvage
SUPSHIP	Supervisor of Shipbuilding
SW	Solid Waste
SWAP	Source Water Assessment Programs
SWAR	Solid Waste Annual Report
SWDA	Solid Waste Disposal Act
SWMP	Solid Waste Management Plan
SWMU	Solid Waste Management Unit
SYSCOM	System Commands
TAP	Theater Assessment and Planning
TAPP	Technical Assistance for Public Participation
TC	Toxic Chemical

TCLP	Toxicity Characteristics Leaching Procedure
TCR	Technical Content Review
THPO	Tribal Historic Preservation Office
TMDL	Total Maximum Daily Loads
TNCWS	Transient Non-community Water System
TNR	Trap Neuter Release
TPQ	Threshold Planning Quantity
TPY	Tons per year
TRI	Toxic Release Inventory
TRI-DDS	Toxics Release Inventory Data Delivery System
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage and/or Disposal
TTHM	Trihalomethanes
U.S.C.	United States Code
UC	Unified Command
UDF	Unidirectional Flushing
UFP	Uniform Federal Policy
UIC	Unit Identification Code
UICP	Underground Injection Control Program
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USNRC	U.S. Nuclear Regulatory Commission
USNS	U.S. Naval Ship
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
WCD	Worst Case Discharge
WCF	Working Capital Fund
WMM	Waste Military Munition
WOCT	Waste Oil Collecting Tank
WQS	Water Quality Standard
WSVA	Water System Vulnerability Assessment