PERSONNEL
QUALIFICATION
STANDARD
FOR
DAMAGE CONTROL (DC)

NAME (Rate/Rank)______________________________

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.
Although the words “he”, “him,” and “his” are used sparingly in this manual to enhance communication, they are not intended to be gender driven nor to affront or discriminate against anyone reading this material.
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<td>316</td>
<td>Crash and Salvage Scene Leader</td>
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<td>317</td>
<td>Computer Based Damage Control (DC) Management System and Software Operator</td>
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<td>318</td>
<td>Repair Party Leader</td>
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<td>319</td>
<td>Repair Party Electrician</td>
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<td>320</td>
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<td></td>
<td>QUALIFICATION PROGRESS SUMMARY</td>
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<tr>
<td></td>
<td>LIST OF REFERENCES</td>
</tr>
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</table>
ACKNOWLEDGEMENTS

The PQS Development Group gratefully acknowledges the assistance of the following personnel in writing this PQS:

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Ms. DELPHINE LONG PROGRAM MANAGER

The Model Manager for this PQS:

CENTER FOR NAVAL ENGINEERING DSN 564-5332
INTRODUCTION

PQS PROGRAM

This PQS program is a qualification system for officers and enlisted personnel where certification of a minimum level of competency is required prior to qualifying to perform specific duties. A PQS is a compilation of the minimum knowledge and skills that an individual must demonstrate in order to qualify to stand watches or perform other specific routine duties necessary for the safety, security or proper operation of a ship, aircraft or support system. The objective of PQS is to standardize and facilitate these qualifications.

CANCELLATION

This Standard cancels and supersedes NAVEDTRA 43119-I.

APPLICABILITY

This PQS is applicable to all naval ships.

MODEL MANAGER

The Model Manager Command manages a specific PQS manual. This includes overseeing the process of monitoring and updating assigned PQS manuals from the standpoint of technical content and relevance within the community.

TAILORING

To command tailor this package, first have it reviewed by one or more of your most qualified individuals. Delete any portions covering systems and equipment not installed on your ship, aircraft or unit. Next, add any line items, fundamentals, systems and watchstations/workstations that are unique to your command but not already covered in this package. Finally, the package should be reviewed by the cognizant department head and required changes approved by the Commanding Officer or his designated representative. Retain the approved master copy on file for use in tailoring individual packages.

QUALIFIER

The PQS Qualifier is designated in writing by the Commanding Officer to sign off individual watchstations. Qualifiers will normally be E-5 or above and, as a minimum, must have completed the PQS they are authorized to sign off. The names of designated Qualifiers should be made known to all members of the unit or department. The means of maintaining this listing is at the discretion of individual commands. For more information on the duties and responsibilities of PQS Qualifiers, see the PQS Unit Coordinator’s Guide.
CONTENTS

PQS is divided into three sections. The 100 Section (Fundamentals) contains the fundamental knowledge from technical manuals and other texts necessary to satisfactorily understand the watchstation/workstation duties. The 200 Section (Systems) is designed to acquaint you with the systems you will be required to operate at your watchstation/workstation. The 300 Section (Watchstations) lists the tasks you will be required to satisfactorily perform in order to achieve final PQS qualification for a particular watchstation/workstation. All three sections may not apply to this PQS, but where applicable, detailed explanations are provided at the front of each section.

REFERENCES

The references used during the writing of this PQS package were the latest available to the workshop, however, the most current references available should be used when qualifying with this Standard.

NOTES

Classified references may be used in the development of PQS. If such references are used, do not make notes in this book as answers to questions in this Standard may be classified.

TRAINEE

Your supervisor will tell you which watchstations/workstations you are to complete and in what order. Before getting started, turn to the 300 Section first and find your watchstation/workstation. This will tell you what you should do before starting your watchstation/workstation tasks. You may be required to complete another PQS, a school, or other watchstations/workstations within this package. It will also tell you which fundamentals and/or systems from this package you must complete prior to qualification at your watchstation/workstation. If you have any questions or are unable to locate references, contact your supervisor or qualifier. Good luck!

PQS FEEDBACK REPORTS

This PQS was developed using information available at the time of writing. When equipment and requirements change, the PQS needs to be revised. The only way the PQS Development Group knows of these changes is by you, the user, telling us either in a letter or via the Feedback Report contained in the back of this book. You can tell us of new systems and requirements, or of errors you find.
## SUMMARY OF CHANGES

### Changes to Fundamentals, Systems, and Watchstations:

<table>
<thead>
<tr>
<th>Fundamental Title</th>
<th>Action</th>
<th>Comment</th>
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<tr>
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<td>Updated to reflect current information</td>
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<td>Watertight Closures/Hull Fittings System</td>
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<td>Updated to reflect current information</td>
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<td>Portable Damage Control (DC) Equipment System</td>
<td>Modified</td>
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<td>Installed Fire Extinguishing System</td>
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<tr>
<td>Firemain System</td>
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<tr>
<td>Access/Overhaul Equipment System</td>
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<tr>
<td>Ventilation System</td>
<td>Modified</td>
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<tr>
<td>Installed Drainage System</td>
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<td>Chemical, Biological, and Radiological (CBR) Detection and Decontamination Equipment System</td>
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### SUMMARY OF CHANGES (CONT’D)

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<td>Shoring System</td>
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<tr>
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<td>Added</td>
<td>Required course added to prerequisites</td>
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<tr>
<td>Basic Chemical, Biological, and Radiological (CBR) Defense</td>
<td>Modified</td>
<td>Updated to reflect current information. Added Ventilation System</td>
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<tr>
<td>Basic Damage Control</td>
<td>Modified</td>
<td>Updated to reflect current information</td>
</tr>
<tr>
<td>Advanced Damage Control</td>
<td>Modified</td>
<td>Updated to reflect current information</td>
</tr>
<tr>
<td>Team Leader</td>
<td>Modified</td>
<td>Updated to reflect current information</td>
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<td>Advanced Chemical, Biological, and Radiological (CBR) Defense Person</td>
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<td>Updated to reflect current information. Added ILE courses as recommended pre-requisite.</td>
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<td>Scene Leader</td>
<td>Modified</td>
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<td>Crash and Salvage Crewman/Rescuesman</td>
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<td>Repair Locker Leader</td>
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<tr>
<td>Damage Control Training Team (DCCT) Member</td>
<td>Modified</td>
<td>Updated to reflect current information. Added Team Leader as a pre-requisite.</td>
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</table>
WATCHSTATION REQUALIFICATIONS

Due to changes in policies, systems, or procedures, personnel dealing with the subject matter of this PQS may be required to requalify IAW NAVEDTRA 43100-1F, Ch. 5, PQS Unit Coordinator’s Guide.

The following watchstations regardless of qualifications achieved in previous versions, shall be completed.

None.
ACRONYMS USED IN THIS PQS

Not all acronyms or abbreviations used in this PQS are defined here. The Subject Matter Experts from the Fleet who wrote this Standard determined the following acronyms or abbreviations may not be commonly known throughout their community and should be defined to avoid confusion. If there is a question concerning an acronym or abbreviation not spelled out on this page nor anywhere else in the Standard, use the references listed on the line item containing the acronym or abbreviation in question.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>ALO</td>
<td>Action Lightweight Overboot</td>
</tr>
<tr>
<td>APC</td>
<td>Aqueous Potassium Carbonate</td>
</tr>
<tr>
<td>BACS</td>
<td>Breathing Air Charging System</td>
</tr>
<tr>
<td>CANA</td>
<td>Convulsion Antidote for Nerve Agent</td>
</tr>
<tr>
<td>CBR</td>
<td>Chemical Biological Radiological</td>
</tr>
<tr>
<td>CCA</td>
<td>Contamination Control Area</td>
</tr>
<tr>
<td>CMWD</td>
<td>Counter Measure Washdown</td>
</tr>
<tr>
<td>CPR</td>
<td>Cardio-pulmonaire Ressuscitation</td>
</tr>
<tr>
<td>CPS</td>
<td>Collective Protection System</td>
</tr>
<tr>
<td>CTA</td>
<td>Casualty Triage Area</td>
</tr>
<tr>
<td>DCA</td>
<td>Damage Control Assistant</td>
</tr>
<tr>
<td>DCAMS</td>
<td>Damage Control Action Management Software</td>
</tr>
<tr>
<td>DCO</td>
<td>Damage Control Officer</td>
</tr>
<tr>
<td>DCRS</td>
<td>Damage Control Repair Station</td>
</tr>
<tr>
<td>DCTT</td>
<td>Damage Control Training Team</td>
</tr>
<tr>
<td>DFU</td>
<td>Dry Filter Unit</td>
</tr>
<tr>
<td>EEBD</td>
<td>Emergency Escape Breathing Device</td>
</tr>
<tr>
<td>EMP</td>
<td>Electromagnetic Pulse</td>
</tr>
<tr>
<td>EWARP</td>
<td>Emergency Water Activated Repair Patch</td>
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<tr>
<td>FFE</td>
<td>Firefighting Ensemble</td>
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<tr>
<td>FO</td>
<td>Fuel Oil</td>
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<tr>
<td>HHA</td>
<td>Hand Held Assay</td>
</tr>
<tr>
<td>HM</td>
<td>Hazardous Material</td>
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<td>HP</td>
<td>High Pressure</td>
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<td>IMS</td>
<td>Inventory Management System</td>
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<td>IVCS</td>
<td>Interior Voice Communication System</td>
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<td>JBPDS</td>
<td>Joint Biological Pint Detector System</td>
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<td>Joint Service Integrated Lightweight Suit Technology</td>
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<td>LO</td>
<td>Lube Oil</td>
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<tr>
<td>MOPP</td>
<td>Mission Oriented Protective Posture</td>
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<td>MPE</td>
<td>Maximum Permissible Exposure</td>
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<td>NAPP</td>
<td>Nerve Agent Pretreatment Pyridostigmine</td>
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<td>PECU</td>
<td>Portable Exothermic Cutting Unit</td>
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<td>PHARS</td>
<td>Portable Hydraulic Access and Rescue System</td>
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<td>PJHS</td>
<td>Pipe Jumper Hose System</td>
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<td>PKP</td>
<td>Potassium Bicarbonate</td>
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<td>RIP</td>
<td>Readiness Improvement Program</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>RPM</td>
<td>Repair Party Manual</td>
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<tr>
<td>SACPS</td>
<td>Selected Area Collective Protection System</td>
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<td>SCBA</td>
<td>Self-Contained Breathing Apparatus</td>
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<tr>
<td>TREE</td>
<td>Transition Radiation Effect on Electronics</td>
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</tbody>
</table>
100 INTRODUCTION TO FUNDAMENTALS

100.1 INTRODUCTION

This PQS begins with a Fundamentals section covering the basic knowledge and principles needed to understand the equipment or duties to be studied. Normally, you would have acquired the knowledge required in the Fundamentals section during the school phase of your training. If you have not been to school or if you need a refresher, the references listed at the beginning of each fundamental will aid you in a self-study program. All references cited for study are selected according to their credibility and availability.

100.2 HOW TO COMPLETE

The fundamentals you will have to complete are listed in the watchstation (300 section) for each watchstation. You should complete all required fundamentals before starting the systems and watchstation portions of this PQS, since knowledge gained from fundamentals will aid you in understanding the systems and your watchstation tasks. When you feel you have a complete understanding of one fundamental or more, contact your Qualifier. If you are attempting initial qualification, your Qualifier will expect you to satisfactorily answer all line items in the fundamentals. If you are requalifying or have completed the appropriate schools, your Qualifier may require you to answer representative line items to determine if you have retained the necessary knowledge for your watchstation. If your command requires an oral board or written examination for final qualification, you may be asked any questions from the fundamentals required for your watchstation.
101.1 State the safety precautions for portable electrical power tools. [ref. a, vol. I, ch. B7]

(Signature and Date)

.2 Discuss the safety precautions associated with disposing of an expended OBA canister. [ref. b, ch. 5]

(Signature and Date)

.3 Discuss the safety precautions associated with the SCBA. [ref. g, sec. 1]

(Signature and Date)

.4 What are the dangers to personnel entering an unventilated space filled with CO₂? [ref. d, sec. 2]

(Signature and Date)

.5 What precautions must be followed prior to re-entering a compartment flooded with HALON/HFP/HFP? [ref. d, sec. 10]

(Signature and Date)
101.6 What are the personnel hazards involving HALON/HFP 1301/HFP when it is used to extinguish a fire in a compartment? [ref. d, sec. 1]

(Signature and Date)

.7 What are the products of HALON/HFP 1301/HFP when exposed to open flame? [ref. d, sec. 1]

(Signature and Date)

.8 Discuss the hazards of HALON/HFP 1301/HFP to personnel. [ref. d, sec. 1]

(Signature and Date)

.9 Discuss the proper procedures for opening a watertight closure when flooding is suspected on the opposite side. [ref. c, sec. 40]

(Signature and Date)

.10 State the reasons for not using a solid stream of water on class B and C fires. [ref. d, sec. 1]

(Signature and Date)

.11 Discuss safety requirements prior to passing through watertight closures. [ref. a, vol. III, ch. D1]

(Signature and Date)

.12 Discuss safety requirements when opening accesses in bulkheads or decks that are normally closed. [ref. a, vol. III, ch. D1]

(Signature and Date)

.13 State the precautions to be observed when handling and stowing all compressed gas cylinders. [ref. a, vol. II, ch. C23]

(Signature and Date)
Discuss the safety precautions associated with handling a submersible pump. [ref. d, sec. 5]

(Signature and Date)

What are the dangers involved in the operation of an internal combustion engine below decks? [ref. d, sec. 4]

(Signature and Date)

State the reason for using a strainer when using portable pumps. [ref. d, sec. 4]

(Signature and Date)

What are the routes of travel to be followed when proceeding to general quarters, abandon ship, and man overboard stations? [ref. k, ch. 5]

(Signature and Date)

What hazards exist during the operation of the PECU? [ref. f, ch. 2]

(Signature and Date)

Discuss the safety precautions to be observed when using wireless communications systems. [ref. e, ch. 2]

(Signature and Date)

State the precautions associated with using the Thermal Imager in a hot, smoke-filled environment. [ref. d, sec. 6]

(Signature and Date)

State the protection provided by the following safety equipment, including examples of shipboard evolutions that require their use: [ref. a, vol. I]

a. Long-sleeved shirt/fire retardant coverall/apron [ch. B12]
b. Goggles/face shields [ch. B5]
101.21

c. Protective/rubber gloves [ch. B12]
d. Safety shoes [ch. B12]
e. Ear plugs/protectors [ch. B4]
f. Life jacket [ch. B12]

(Signature and Date)

.22 State the reasons for grounding the ramfan. [ref. j, ch. 4]

(Signature and Date)

.23 State the hazards and ship wide impact associated with leaving sound-powered phone jackbox caps off after use. [ref. c, sec. 37]

(Signature and Date)

.24 Discuss the safety precautions associated with PHARS. [ref. h]

(Signature and Date)

.25 State the safety precautions involving operation of equipment without proper machine guards. [ref. a, vol. II, ch. C1]

(Signature and Date)

.26 Discuss the concept of ORM. [ref. i]

(Signature and Date)

.27 Explain the following as they apply to ORM: [ref. i]
   a. Identifying hazards
   b. Assessing hazards
   c. Making risk decisions
   d. Implementing controls
   e. Supervising

(Signature and Date)

.28 Discuss the proper procedure for opening a pressurized sounding tube. [ref. a, vol. II, ch. B1]

(Signature and Date)
102.1 For the following, draw the symbols used in DC communications: [ref. d, app. B]

a. Fire (classes Unknown/A/B/C/D):
   1. Class __ fire reported
   2. Class __ fire engaged
   3. No class __ fire

b. Smoke (Unknown/White/Black):
   1. __Smoke reported
   2. __Smoke engaged
   3. No __ smoke

c. Heat Transfer
   1. Heat transfer reported
   2. Heat transfer engaged
   3. No heat transfer

d. Flooding:
   1. Flooding reported
   2. Flooding engaged
   3. No flooding

e. Ruptured system
   1. Rupture reported
   2. Rupture engaged
   3. No rupture

f. Point of weapon impact:
   1. Point of weapon impact reported
   2. Point of weapon impact engaged
   3. No point of weapon impact

g. Fragmentation:
   1. Fragmentation reported
   2. Fragmentation engaged
   3. No fragmentation

h. Debris:
   1. Debris reported
   2. Debris engaged
   3. No debris
102 DAMAGE CONTROL (DC) COMMUNICATIONS/SYMOLOGY FUNDAMENTALS (CONT’D)

102.1 i. Hole (OVHD/BHD/DECK):
   1. Hole reported
   2. Hole engaged
   3. No hole

j. Structural damage:
   1. Structural damage reported
   2. Structural damage engaged
   3. No structural damage

k. Jammed access:
   1. Jammed access reported
   2. Jammed access engaged
   3. No jammed access

l. Electrical power lost:
   1. Electrical power lost reported
   2. Electrical power lost engaged
   3. No electrical power lost

m. Electrical damage:
   1. Electrical damage reported
   2. Electrical damage engaged
   3. No electrical damage

n. Casualty power:
   1. Casualty power ordered reported
   2. Casualty power engaged
   3. No casualty power

o. Casualty power lost:
   1. Casualty power lost reported
   2. Casualty power lost engaged
   3. No casualty power lost

p. Communications lost:
   1. Lost communications reported
   2. Lost communications engaged
   3. No lost communications

q. Mechanical failure:
   1. Mechanical failure reported
   2. Mechanical failure engaged
   3. No mechanical failure

r. Mechanical damage:
   1. Mechanical damage reported
   2. Mechanical damage engaged
   3. No mechanical damage

s. Hazmat/toxic spill:
   1. __ reported
   2. __ engaged
   3. No__
102.1 **t. Chemical hazard:**
   1. Chemical hazard reported
   2. Chemical hazard engaged
   3. No chemical hazard

**u. Biological hazard:**
   1. Biological hazard reported
   2. Biological hazard engaged
   3. No biological hazard

**v. Radiation hazard:**
   1. Radiation hazard reported
   2. Radiation hazard engaged
   3. No radiation hazard

**w. Unexploded ordnance**
   1. Unexploded ordnance reported
   2. Unexploded ordnance engaged
   3. No unexploded ordnance

**x. Primary casualty boundaries:**
   1. Primary casualty boundary ordered
   2. Primary casualty boundary set

**y. Secondary casualty boundaries:**
   1. Secondary casualty boundary ordered
   2. Secondary casualty boundary set

**z. Primary Fire boundaries:**
   1. Primary fire boundary ordered
   2. Primary fire boundary set

**aa. Secondary fire boundaries:**
   1. Secondary fire boundary ordered
   2. Secondary fire boundary set

**ab. Primary flooding boundaries:**
   1. Primary flooding boundary ordered
   2. Primary flooding boundary set

**ac. Secondary flooding boundaries:**
   1. Flooding boundaries ordered
   2. Flooding boundaries set

**ad. Primary smoke boundaries:**
   1. Primary smoke boundary ordered
   2. Primary smoke boundary set

**ae. Secondary smoke boundaries:**
   1. Secondary smoke boundary ordered
   2. Secondary smoke boundary set

**ad. Crew casualty: (personnel)**
   1. Personnel casualty reported
   2. Personnel casualty engaged
   3. No personnel casualty

___________________________________
(Signature and Date)
102.2 State the abbreviations for the following DC terms: [ref. d, app. A]

a. AFFF
b. Air test cap
c. Battle dressing station
d. Bulkhead
e. Collection, holding, and transfer
f. Chilled water
g. Chilled water cutout valve
h. CMWD system
i. Compartment
j. Cutout valve
k. CPS
l. Circle William
m. DC Central
n. DC repair station
o. Deck drain valve
p. Deck
q. Drain
r. EEBD
s. Firefighting ensemble
t. Firemain valve
u. Fire plug
v. Naval firefighter’s thermal imager
w. Oxygen breathing apparatus
x. Overboard
y. Potable water
z. Quick acting watertight door
aa. Quick acting watertight hatch
ab. Quick acting watertight scuttle
ac. SCBA
ad. Supply
ae. Sounding tube cap
af. Tank
ag. Wire free communications
ah. Watertight

(Signature and Date)
102.3 Explain the basic operation of the following DC communication systems:

a. Sound-powered telephone [ref. a, sec. 4]
b. Wire free/HYDRA [ref. d, sec. 37]
c. IVCS [ref. a, ch. 4]
d. DCAMS [ref. d, sec. 38]
e. Ship’s general announcing [ref. c, ch. 2]
f. Intercom units [ref. c, ch. 2]
g. Ship’s service telephones [ref. c, ch. 2]
h. Messengers [ref. d, sec. 37]

.4 State the rules for circuit discipline. [ref. b, ch. 2]

.5 What are the three parts of a message? [ref. d, sec. 37]

.6 Explain the proper way to acknowledge a message. [ref. d, sec. 37]

.7 Explain the procedures for temporary leaving the circuit/relieving the phone talker. [ref. b, ch. 2]

.8 Explain the procedure for securing from phone talking and storing sound-powered phones. [ref. b, chs. 2, 3]

.9 Explain the procedure for checking sound-powered phone operations when battle damage is sustained. [ref. b, ch. 2]
102.10 Explain the station communication priority reporting sequence used aboard your ship. [ref. c, ch. 2]

(Signature and Date)

.11 State the titles of the following sound-powered telephone circuits and discuss their uses: [ref. a, ch. 4]

a. JA
b. 4JG
c. IJV
d. 2JV
e. 3JV
f. 4JV
g. 5JV
h. 2JZ
i. 3JZ
j. 4JZ
k. 5JZ
l. 6JZ
m. 7JZ
n. 11JZ
o. X4OJ
p. X50J

(Signature and Date)

.12 State the titles of the following IVCS circuits: [ref. a, ch. 4]

a. N51
b. N53
c. N84
d. N85
e. N80
f. N81
g. N82
h. N86

(Signature and Date)
103  FIREFIGHTING FUNDAMENTALS

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[b] NAVEDTRA 14057-PPR, Damage Controlman
[c] NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual
[d] NAVEDTRA 14109, Gunner's Mate 3 & 2
[e] NSTM S9086-QH-STM-010/CH-470R3, Shipboard BW/CW Defense and Countermeasures

103.1 Explain the fire tetrahedron and state how it relates to firefighting and fire prevention procedures. [ref. a, sec. 1]

(Signature and Date)

.2 Define the following terms: [ref. b]

a. Flash point [Glossary]
b. Fire point [Glossary]
c. Spontaneous combustion [ch. 4]
d. Auto-ignition/self-ignition point [Glossary]

(Signature and Date)

.3 Explain the following extinguishing agents: [ref. a, sec. 1]

a. Water
b. CO₂
c. AFFF
d. PKP
e. HALON/HFP
f. APC

(Signature and Date)

.4 For each of the following items identify what class of fire it falls under, explain why it must be treated as a special hazard, and state the recommended extinguishing agent: [ref. a]

a. Lithium [sec. 8]
b. Magnesium [sec. 1]
103.4 c. Deep fat fryer [sec. 8]  
d. Otto fuel II [sec. 1]

(Signature and Date)

.5 Explain the importance of isolating the following at the scene: [ref. a]

a. Electrical power [sec. 7]  
b. Mechanical systems [sec. 10]

(Signature and Date)

.6 Discuss the methods of cooling the boundary area to reduce the intensity of a fire. [ref. a, sec. 7]

(Signature and Date)

.7 What are the proper procedures for reporting a fire or other casualty? [ref. a, sec. 8]

(Signature and Date)

.8 Discuss the procedures and limitations of the Thermal Imager. [ref. a, sec. 6]

(Signature and Date)

.9 Discuss the following as applied to fires and firefighting:

a. Conditions that must exist for spontaneous combustion to take place [ref. b, ch. 4]  
b. Four classes of fires and how each class of fire is extinguished [ref. a, sec. 1]  
c. Three ways heat can be transmitted [ref. a, sec. 1]  
d. Use of horizontal and vertical fire boundaries to control the spread of fire [ref. a, sec. 7]  
e. Use of smoke boundaries [ref. a, sec. 7]  
f. Smoke curtains/blankets [ref. a, sec. 7]  
g. Use of positive and negative ventilation [ref. a, sec. 10]

(Signature and Date)
103.10 Discuss the direct and indirect methods of firefighting. [ref. a, sec. 7]

(Signature and Date)

.11 Discuss the procedure of fire venting. [ref. a, sec. 7]

(Signature and Date)

.12 Discuss the procedure of active desmoking. [ref. a, sec. 7]

(Signature and Date)

.13 Define the following: [ref. a, Glossary]

a. Smoke control zone
b. Buffer zone

(Signature and Date)

.14 Describe the procedures for vertical trunk access. [ref. a, sec. 7]

(Signature and Date)

.15 Discuss the procedures for attack from above (inclined descent). [ref. a, sec. 7]

(Signature and Date)

.16 Discuss the procedures for multiple attack team hose lines. [ref. a, sec. 7]

(Signature and Date)

.17 Discuss the firefighting procedures involving ordnance. [ref. c, ch. 2]

(Signature and Date)

.18 Discuss the procedures for desmoking by using vari-nozzles. [ref. a, sec. 7]

(Signature and Date)
103.19 Discuss the procedures for desmoking by using ship's CPS. [ref. e]

(Signature and Date)

.20 Discuss the basic principles for overhauling a fire. [ref. a, sec. 7]

(Signature and Date)

.21 Discuss the firefighting procedures to be followed in a CBR contaminated environment. [ref. a, sec. 7]

(Signature and Date)

.22 Discuss the unique fire hazards associated with main and auxiliary machinery spaces. [ref. a, sec. 10]

(Signature and Date)

.23 Discuss how the ship's Main Space Fire Doctrine assists in space isolation. [ref. a, sec. 10]

(Signature and Date)

.24 Discuss the hazards of saltwater-activated ordnance and flares. [ref. d, ch. 1]

(Signature and Date)
104.1 What is the purpose of the watch, quarter, and station bill? [ref. c, ch. 6]

(Signature and Date)

.2 Describe the following major components which makeup the ship's watertight hull form: [ref. d, ch. 3]

- Keel
- Frames
- Hull plates
- Decks
- Bulkheads

(Signature and Date)

.3 Discuss the four common types of closures that penetrate watertight boundaries. [ref. d, ch. 3]

(Signature and Date)

.4 Explain the method of compartment numbering used aboard U.S. Navy ships. [ref. d, ch. 3]

(Signature and Date)

.5 Define watertight integrity. [ref. d, ch. 3]

(Signature and Date)
104.6 Define the following material conditions of readiness/special classifications and the conditions under which watertight integrity may be broken: [ref. e, sec. 22]

a. X-RAY
b. YOKE
c. ZEBRA
d. Modified YOKE
e. Circle X-RAY and YOKE
f. Circle ZEBRA
g. Dog ZEBRA
h. WILLIAM
i. Circle WILLIAM
j. Modified ZEBRA
k. Fire zone boundaries

___________________________________
(Signature and Date)

.7 What is the DC Closure Log, where is it maintained, and what is the maximum length of time a fitting may be logged open? [ref. e, sec. 22]

___________________________________
(Signature and Date)

.8 What are the procedures to be followed when changing the material condition of readiness? [ref. d, ch. 3]

___________________________________
(Signature and Date)

.9 Explain the composition and use of a CCOL, master CCOL, duplicate CCOL, and partial CCOL. [ref. e, sec. 21]

___________________________________
(Signature and Date)

.10 Describe proper battle dress. [ref. b, ch. 8]

___________________________________
(Signature and Date)

.11 Identify the type of firemain system aboard your ship. [ref. f]

___________________________________
(Signature and Date)
104.12 Who gives the order to abandon ship? [ref. c, ch. 6]

___________________________________
(Signature and Date)

.13 State the number and locations of your ship’s DCRS. [ref. f]

___________________________________
(Signature and Date)

.14 Define the following: [ref. a, sec. 7]

a. Primary fire boundary
b. Secondary fire boundary
c. Inner smoke boundary
d. Outer smoke boundary
e. Buffer zone

___________________________________
(Signature and Date)

.15 What normally constitutes a fire boundary? [ref. a, sec. 7]

___________________________________
(Signature and Date)

.16 What normally constitutes a smoke boundary? [ref. a, sec. 7]

___________________________________
(Signature and Date)

.17 What normally constitutes a flooding boundary? [ref. e, sec. 42]

___________________________________
(Signature and Date)

.18 State the reasons for establishing proper fire/flooding boundaries. [ref. a, sec. 7; ref. e, sec. 42]

___________________________________
(Signature and Date)

.19 Explain how pressure affects the rate of flooding. [ref. e, sec. 42]

___________________________________
(Signature and Date)
104.20 Discuss the importance of securing the source of flooding. [ref. e, sec. 42]

(Signature and Date)

.21 Discuss the reason for not securing an entire firemain system to stop flooding caused by a rupture in the system. [ref. a, sec. 2]

(Signature and Date)
105  FIRST-AID AND RESCUE FUNDAMENTALS

References:
[a] NAVEDTRA 14295, Hospital Corpsman
[b] Ship’s Information Book (SIB)

105.1 State the purposes of first-aid. [ref. a, ch. 4]

(Signature and Date)

.2 State the three basic rules of the treatment of wounds. [ref. a, ch. 4]

(Signature and Date)

.3 State the principles involved in dressing wounds to the following areas: [ref. a, ch. 4]
   a. Chest
   b. Head
   c. Abdominal

(Signature and Date)

.4 Where are the major pressure points on the body located? [ref. a, ch. 4]

(Signature and Date)

.5 Explain the three methods of controlling hemorrhage. [ref. a, ch. 4]

(Signature and Date)

.6 What conditions warrant the use and application of a tourniquet? [ref. a, ch. 4]

(Signature and Date)
105.7 State the following as applied to a fracture: [ref. a, ch. 4]
   a. Difference between closed and open fractures
   b. How to immobilize a fracture using a splint
   c. Care of a person with a fractured spine

(Signature and Date)

.8 State the following as applied to respiratory arrest: [ref. a, ch. 4]
   a. Factors that can cause failure of the breathing mechanism
   b. Need for immediate treatment of patient
   c. Mouth-to-mouth method of artificial respiration
   d. Abdominal thrust technique (Heimlich maneuver)

(Signature and Date)

.9 State the following as applied to shock: [ref. a, ch. 4]
   a. Definition of shock
   b. Most common causes of shock
   c. Symptoms of shock
   d. Procedures for treatment of a victim in shock

(Signature and Date)

.10 What are the symptoms of the following heat casualties: [ref. a, ch. 4]
   a. Heat cramps
   b. Heat exhaustion
   c. Heat stroke

(Signature and Date)

.11 What is the first-aid treatment for the following: [ref. a, ch. 4]
   a. Heat cramps
   b. Heat exhaustion
   c. Heat stroke

(Signature and Date)
105.12 What are the three degrees of burns and how are they determined? [ref. a, ch. 4]

(Signature and Date)

.13 What are the treatments for the three degrees of burns and the method of estimating the burn area? [ref. a, ch. 4]

(Signature and Date)

.14 Explain each of the following stretchers and their use: [ref. a, ch. 3]

a. Stokes
b. Miller body boards/extraction splints
c. Army litter

(Signature and Date)

.15 State the location(s) of each kind of stretcher within or next to your divisional spaces. [ref. b]

(Signature and Date)

.16 What items could be used instead of stretchers? [ref. a, ch. 3]

(Signature and Date)

.17 Identify the methods for moving an injured person. [ref. a, ch. 3]

(Signature and Date)

.18 In terms of the rescuer’s safety, state the precautions to be taken for the following: [ref. a, ch. 3]

a. Removing a victim from an energized circuit
b. Rescuing victim overcome by toxic fumes

(Signature and Date)

.19 State the locations of first-aid boxes in your divisional spaces. [ref. b]

(Signature and Date)
105 FIRST-AID AND RESCUE FUNDAMENTALS (CONT’D)

105.20 How many battle dressing stations are on your ship, and where are they located? [ref. b]

___________________________________
(Signature and Date)

.21 State the locations of poison antidote lockers. [ref. b]

___________________________________
(Signature and Date)
References:

[a] NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[c] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures
[d] EE700-AD-LSS-010, User's Logistic Support Summary (ULSS) for Multifunction Radiac (MFR) Sets, AN/PDQ-1 and AN/PDQ-2 and Ancillary Probes
[e] NAVMED P-5041, Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries

106.1 Discuss the following terms associated with nuclear defense:

a. Initial nuclear radiation [ref. b, sec. 1]
b. Roentgen [ref. b, app. A]
c. Rad [ref. b, app. A]
d. Contamination [ref. b, app. A]
e. Radiac [ref. b, app. A]
f. Dosimeter [ref. b, app. A]
g. MPE [ref. b, app. A]
h. Casualty exposure [ref. b, app. A]
i. Ready and deep shelter [ref. b, sec. 5, app. A]
j. Casualty collection station [ref. c, sec. 7]
k. CCA [ref. c, sec. 7]
l. Decontamination station [ref. c, sec. 7]
m. CMWD [ref. c, sec. 7]
n. Flash blindness [ref. a, ch. 14]
o. Base surge [ref. b, app. A]
p. Flash burns [ref. a, ch. 14]
q. EMP [ref. b, app. A]
r. TREE [ref. b, app. A]
s. Blackout [ref. b, app. A]
t. Blueout [ref. b, app. A]
u. Air blast [ref. a, app. E]
v. Rotating watch [ref. a, ch. 14]
w. Dose and dose rate [ref. b, app. A]
x. Residual radiation [ref. b, app. A]
y. Centi-gray [ref. b, app. A]
z. Nomograms [ref. b, sec. 2]
zz. Collective protection [ref. c, sec. 6]
106.2 What markers are used to indicate nuclear contamination areas? [ref. c, sec. 7]

(Signature and Date)

.3 Describe the three basic processes by which decontamination is performed. [ref. c, sec. 7]

(Signature and Date)

.4 Describe the following procedures: [ref. c, sec. 7]

a. Personnel decontamination
b. Material decontamination

(Signature and Date)

.5 Describe the following nuclear bursts: [ref. b, sec. 1]

a. Air
b. Surface
c. Underwater

(Signature and Date)

.6 What is the procedure for self-protection in the event of the following: [ref. b, sec. 1]

a. Chemical attack
b. Biological attack
c. Radiological attack
d. Nuclear attack

(Signature and Date)

.7 Discuss the following radiation surveys: [ref. b, sec. 3]

a. Rapid internal
b. Rapid (gross) external
106.7 c. Detailed  
d. On station  
e. Supplementary  

(Signature and Date)

.8 State how effective use of time, distance, and shielding minimize radiation dosage to personnel. [ref. b, sec. 5]

(Signature and Date)

.9 State the following characteristics of: [ref. b, sec. 1]  
a. Alpha radiation  
b. Beta radiation  
c. Gamma radiation  
d. Neutron radiation  

(Signature and Date)

.10 Discuss the use of the following radiological monitoring equipment:  
a. IM-270/PD [ref. b, sec. 3]  
b. CP-95/PD [ref. b, sec. 3]  
c. IM-143/PD [ref. b, sec. 3]  
d. AN/PDR-65 [ref. b, sec. 3]  
e. IM-265/PDQ [ref. f, ch. 6]  
f. AN/PDQ-1 [ref. d, ch. 1]  
g. PP-4276 [ref a ch 1]

(Signature and Date)

.11 State the following as applied to biological warfare: [ref. c]  
a. Definition of biological agent [sec. 3]  
b. Means by which biological agents may enter the body [sec. 3]  
c. MOPP levels [sec. 8]  
d. Measures to be taken for self-protection during a biological attack [sec. 5]  
e. Markers used to indicate biological contaminants [sec. 7]  
f. Method used to decontaminate personnel and equipment [sec. 7]  
g. Methods by which BW agents are dispersed/delivered [sec. 3]
106.11 h. Methods used to detect and provide defense against BW agents [sec. 4]  
i. Methods used to collect biological samples [sec. 4]  
j. Collective protection [sec. 6]  

(Signature and Date)

.12 Discuss the use of the following biological detection equipment: [ref. c sec. 4]  
   a. DFU  
   b. HHA  
   c. JBPDS  

(Signature and Date)

.13 State the following as applied to chemical warfare: [ref. c]  
   a. Definition of chemical agent [sec. 2]  
   b. Means by which chemical agents may enter the body [sec. 2]  
   c. MOPP levels [sec. 8]  
   d. Markers used to indicate chemical contamination [sec. 7]  
   e. Methods used to decontaminate personnel and equipment [sec. 7]  
   f. Methods by which CW agents are dispersed/delivered [sec. 3]  
   g. Collective protection [sec. 6]  

(Signature and Date)

.14 State the protective measures to be taken at each MOPP level. [ref. c, sec. 8]  

(Signature and Date)

.15 What are the physical symptoms of and treatment for:  
   a. Blood agents [ref. c, sec. 2; ref. e, ch. 6]  
   b. Blister agents [ref. c, sec. 2; ref. e, ch. 4]  
   c. Nerve agents [ref. c, sec. 2; ref. e, ch. 2]  
   d. Choking agents [ref. c, sec. 2; ref. e, ch. 5]  
   e. Pathogens [ref. c, sec 3; ref. e, ch. 5]  
   f. Toxins [ref. c, sec 3; ref. e, ch. 2]  

(Signature and Date)
Discuss the use of the following chemical monitoring equipment: [ref. c, sec. 4]

a. M-8 paper 
b. M-9 paper 
c. M-256/A-1 chemical detector 
d. IPDS 
e. Phosgene gas Draeger detection tubes 
f. AN/KAS-1/1A

(Signature and Date)

Discuss the function of the following items:

a. Atropine [ref. e, ch. 2] 
b. 2-PAM-chloride/auto injector [ref. e, ch. 2] 
c. CANA [ref. e, ch. 2] 
d. MCU-2 series personal protective mask [ref. c, sec. 5] 
e. JSLST [ref. c, sec. 5] 
f. Chemical protective gloves (outer and inner) [ref. c, sec. 5] 
g. Chemical protective footwear cover [ref. c, sec. 5] 
h. Wet weather clothing [ref. c, sec. 5] 
i. M291 skin decontamination kit [ref. c, sec. 7] 
j. NAPP tablets [ref. e, ch. 2] 
k. ALO [ref. c, sec 5] 
l. HHA’s Immunoassay strips [ref. c, sec 4] 
m. De-ionized water, phosphate buffered saline solutions (JBPDS) [ref. c, sec 4] 
n. TDA-99M mask leak tester [ref. c, sec 5]

(Signature and Date)
107.1 Discuss the duties of the following in the DC organization:

a. DCO [ref. b, sec. 5]
b. DCA [ref. a, ch. 2]
c. Fire Marshall [ref. b, sec. 5]
d. Repair Party Leader [ref. a, ch. 9]
e. Scene Leader [ref. a, ch. 9]
f. Team Leader [ref. b, sec. 5]
g. Repair Party Electrician [ref. e, ch. 2]
h. Messenger [ref. e, ch. 2]
i. Stretcher Bearer [ref. e, ch. 2]
j. Accessman [ref. e, ch. 2]
k. Boundaryman [ref. e, ch. 2]

(Signature and Date)

.2 Explain the functions of the following team members:

a. Investigator [ref. e, ch. 2]
b. Plugman [ref. e, ch. 2]
c. Nozzleman/hoseman [ref. e, ch. 2]
d. Rapid response [ref. a, sec. 9]
e. Emergency hull repair [ref. d, ch. 8]
f. Dewatering [ref. c, sec. 29]
g. Desmoking [ref. b, sec. 5]
107.2 h. Material decontamination [ref. c, sec. 7]
i. Monitoring [ref. c, sec. 4]
j. Personnel decontamination [ref. c, sec. 7]

(Signature and Date)

.3 Explain the function of DCTT. [ref. a, ch. 3]

(Signature and Date)

.4 Explain the areas of responsibility for the following repair parties: [ref. a]

a. Repair 1 [sec. 2]
b. Repair 2 [sec. 2]
c. Repair 3 [sec. 2]
d. Repair 4 [sec. 2]
e. Repair 5 [sec. 2]
f. Repair 6 [sec. 2]
g. Repair 7 [sec. 2]
h. Repair 8 [sec. 2]
i. Aviation Fuel Repair Team [sec. 2]
j. Crash and Salvage Team [sec. 2]
k. Ordnance Disposal Team [sec. 2]
l. In-Port Emergency Team [sec. 9]
m. At Sea Fire Party [sec. 9]
n. Rapid Response Team [sec. 9]
o. Rescue and Assistance Detail (in-port/at sea) [sec. 2]

(Signature and Date)
108.1 Define hot-work. [sec. 22]

(Signature and Date)

.2 What are the precautions that must be observed prior to performing hot-work operations? [sec. 22]

(Signature and Date)

.3 What are the procedures that must be completed prior to performing hot-work in or on compartments, tanks, voids, or piping systems near explosive materials, liquids, or vapors? [sec. 22]

(Signature and Date)

.4 Discuss the post fire watch procedures. [sec. 22]

(Signature and Date)

.5 What information is contained in a hot-work/gas-free certificate? [sec. 20]

(Signature and Date)
109.1 Discuss major conflagration. [ref. a, sec. 8]

(Signature and Date)

.2 What is a conflagration station? [ref. b, sec. 21]

(Signature and Date)

.3 Discuss the relationship between conflagration stations, hangar deck control, and DC central. [ref. a, sec. 2; ref. d, ch. 9]

(Signature and Date)

.4 Describe the function of sprinkler groups. [ref. c, ch. 6]

(Signature and Date)

.5 Discuss the locations of the following: [ref. e]

a. Aircraft fueling stations
b. O₂N₂ plants
c. Boat fueling stations
d. Vehicle fueling stations
e. Hangar deck fire stations
f. HAZMAT stowage area

(Signature and Date)
110.1 Generally, how may battle damage be classified? [ref. a, sec. 42]

(Signature and Date)

.2 Discuss the two general methods of repairing holes. [ref. a, sec. 42]

(Signature and Date)

.3 Discuss the methods of reinforcing beams and frames. [ref. a, sec. 42]

(Signature and Date)

.4 Discuss the methods of reinforcing cracked machinery supports. [ref. a, sec. 42]

(Signature and Date)

.5 Define the various types of ruptures that could occur to piping. [ref. a, sec. 42]

(Signature and Date)

.6 Define shoring. [ref. a, sec. 43]

(Signature and Date)

.7 Define the following:

a. Direct compression (I-type) [ref. a, sec. 43]
b. Preferred method of measuring shoring [ref. b, ch. 8]
c. Strain on shoring [ref. a, sec. 43]
d. Angle of shoring [ref. a, sec. 43]
e. Shore [ref. b, ch. 8]
110.7 f. Wedge [ref. a, sec. 43]
g. Shole [ref. b, ch. 8]
h. Strongback [ref. b, ch. 8]

(Signature and Date)

.8 Discuss the various types of patches that can be used to repair damaged piping. [ref. a, sec. 42, ref. c]

(Signature and Date)

.9 Discuss the use of plugs and wedges in plugging a hole. [ref. b, ch. 8]

(Signature and Date)

.10 Discuss the use of patches in patching a hole. [ref. b, ch. 8]

(Signature and Date)

.11 Describe the steps involved in the application of the following patches:
   a. Soft [ref. b, ch. 8]
   b. Jubilee [ref. b, ch. 8]
   c. EWARP [ref. b, ch. 8]
   d. Banding [ref. a, sec. 42]

(Signature and Date)

.12 Describe the steps involved in erecting shoring by using wooden shores and a framing square. [ref. a, sec. 43]

(Signature and Date)

.14 Describe the steps involved in erecting shoring by using a shoring batten. [ref. a, sec. 43]

(Signature and Date)
110.15 Describe the steps involved in shoring a watertight door/hatch. [ref. a, sec. 43]

(Signature and Date)
111.1 Discuss the following: [ref. a]

   a. HMC&M [vol. III, Glossary]
   b. HW [vol. III, Glossary]
   c. HM labeling requirements [vol. II, ch. C23]
   d. HW labeling requirements [vol. II, ch. C23]
   e. MSDS [vol. I, ch. B3]
   f. DOD HMIS [vol. III, Glossary]

(Signature and Date)

.2 Discuss where the following documents are located?

   a. HMIS for MSDS [ref. a, vol. I, ch. B3; ref. b]
   b. SHML [ref. a, vol. I, ch. B3; ref. b]
   c. List of authorized HM storage locations [ref. b]
   d. HM inventory [ref. b]
   e. HMUG [ref. b]

(Signature and Date)

.3 Discuss the duties and responsibilities of the: [ref. a, vol. I, ch. B3]

   a. Safety Officer
   b. HM Coordinator
   c. Division Officer
   d. Work Center Supervisor
   e. Individual crew member

(Signature and Date)
111.4 Discuss the procedures for disposal of HW. [ref. a, vol. I, ch. B3]

(Signature and Date)

.5 What are the restrictions on the stowage of HMC&M in spaces? [ref. a, vol. II, ch. C23]

(Signature and Date)
112.1 Discuss the features of the ADCS.

(Signature and Date)

112.2 Discuss the features of the software:

a. DCAMS
b. CCOL
c. DCTMS

(Signature and Date)

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control, Sec. 39
113 INVESTIGATION FUNDAMENTALS

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control, Sec. 40
[b] NAVEDTRA 14057-PPR, Damage Controlman
[c] NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[d] Allowance Equipage List (AEL) 2-880044262, Kit, Investigator

113.1 Discuss the principles governing damage investigation. [ref. a]

(Signature and Date)

.2 Discuss reasons investigators work in pairs. [ref. a]

(Signature and Date)

.3 Describe obvious signs of damage. [ref. a]

(Signature and Date)

.4 Describe indications of hidden damage. [ref. a]

(Signature and Date)

.5 Discuss the procedures for reporting damage. [ref. a]

(Signature and Date)

.6 Discuss the procedure of investigation for following: [ref. a]

a. Torpedo hit
b. Underwater penetration
c. Compartment flooding

(Signature and Date)
1137 Discuss the investigators’ responsibilities with regard to boundaries. [ref. b]

(Signature and Date)

.8 Discuss the primary means of communication between investigators and the controlling station. [ref. c]

(Signature and Date)

.9 Discuss the contents and purpose of the investigator’s kit. [refs. b, d]

(Signature and Date)
114 STABILITY FUNDAMENTALS

References:

[a] NSTM S9086-CN-STM-010/CH-079V1R1, Damage Control-Stability and Buoyancy
[b] NAVEDTRA 14057-PPR, Damage Controlman

114.1 Discuss the following terms as they relate to ship's stability:

a. Buoyancy [ref. a, sec. 3]
b. Center of buoyancy [ref. a, sec. 3]
c. Center of gravity [ref. a, sec. 3]
d. Righting arm [ref. a, sec. 3]
e. Displacement [ref. a, sec. 3]
f. Heel [ref. a, sec. 11]
g. Roll [ref. a, sec. 11]
h. List [ref. a, sec. 11]
i. Trim [ref. a, sec. 7]
j. Draft marks: [ref. a]
   1. Navigational [sec. 13]
   2. Mean [sec. 13]
   3. Limiting [sec. 14]
   k. Freeboard/reserve buoyancy [ref. a, sec. 3]
   l. Free surface effect [ref. b, ch. 12]
   m. Free communication effect [ref. a, sec. 9]
   n. Solid flooding [ref. a, sec. 10]
o. Clinometer [ref. a, sec. 16]
p. Metacenter [ref. a, sec. 3]

(Signature and Date)

.2 Discuss the effects on stability of: [ref. a]

a. Weight additions above and below the center of gravity [sec. 1]
b. Weight removals above and below the center of gravity [sec. 3]
c. Weight shifts [sec. 5]

(Signature and Date)

.3 Discuss counterflooding. [ref. a, sec. 17]

(Signature and Date)
114.4 Explain the use of the liquid loading diagram. [ref. a, sec. 13]

(Signature and Date)
200 INTRODUCTION TO SYSTEMS

200.1 BASIC BUILDING BLOCKS

In this section, the equipment is broken down into smaller, more comprehensible, functional systems as basic building blocks in the learning process. Each system is written to reflect specific watchstation requirements by identifying the equipment most relevant to one or more designated watchstanders. The less complex systems may be identified and covered quickly or relegated to a lower priority to permit greater emphasis on more significant or complex systems.

200.2 COMPONENTS AND COMPONENT PARTS

For learning purposes each system is disassembled into two levels. Systems have components and components have parts. Do not expect to see every item which appears on a parts list to be in the PQS. Only those items which must be understood for operation/maintenance are listed. Normally a number of very broad (overview) systems are disassembled into their components or parts with the big picture as the learning goal. Items listed as components in such a system may then be analyzed as separate systems and broken down into components and parts. Example: the turbogenerators may be listed as a component of the Ship’s Service Electrical Distribution system and then later detailed as an individual system for closer study.

200.3 FORMAT

Each system is organized within the following format:

C. It lists the references to be used for study and asks you to explain the function of each system.
D. It asks for the static facts of what or where the components and component parts are in relation to the system.
E. It directs attention to the dynamics of how the component and component parts operate to make the system function.
F. It specifies the parameters that must be immediately recalled.
G. It requires study of the relationship between the system being studied and other systems or areas.

200.4 HOW TO COMPLETE

The systems you must complete are listed in the Prerequisites section of each watchstation. When you have mastered one or more systems, contact your Qualifier. The Qualifier will give you an oral examination on each system and, if satisfied you have sufficient knowledge of the system, will sign the appropriate system line items. You will be expected to demonstrate through oral or written examination a thorough understanding of each system required for your watchstation.
201 DAMAGE CONTROL (DC) COMMUNICATIONS SYSTEM

References:

[a] Ship's Information Book (SIB)
[b] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control
[c] NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[d] 61Z1-288-1-332, Damage Control Wirefree Communications (DC WIFCOM) System, AN/DTV-53(V)/SC100-AS-MMO-010-SRC-53V
[e] NSTM S9086-PA-STM-000/CH-430R1, Interior Communications Installations
[f] Ship's Local Instruction

201.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the safety/protective devices for this component/component part?

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>201.1.1 Sound-powered telephones: [ref. e, sec. 3]</td>
</tr>
<tr>
<td>a. Sound-powered handset</td>
</tr>
<tr>
<td>b. Sound-powered headset (chestset-type)</td>
</tr>
<tr>
<td>.2 IVCS [ref. e, sec. 3]</td>
</tr>
<tr>
<td>.3 Ship's service telephone (J-DIAL) [ref. e, sec. 3]</td>
</tr>
<tr>
<td>.4 General announcing system [ref. a; ref. b, sec. 37; ref. e, sec. 4]</td>
</tr>
<tr>
<td>.5 Wire free [ref. b, sec. 37]</td>
</tr>
<tr>
<td>a. Base station cabinet [ref. a; ref. d, sec. 1]</td>
</tr>
<tr>
<td>1. Speaker [ref. d, sec. 1]</td>
</tr>
<tr>
<td>b. Base station unit [ref. a; ref. d, sec. 1]</td>
</tr>
<tr>
<td>1. Battery charger [ref. a; ref. d, sec. 1]</td>
</tr>
<tr>
<td>2. Signal relay [ref. a; ref. d, sec. 5]</td>
</tr>
<tr>
<td>c. Portable radios [ref. a; ref. d, sec. 1]</td>
</tr>
<tr>
<td>1. On/off volume control [ref. d, sec. 1]</td>
</tr>
<tr>
<td>2. Frequency select switch [ref. d, sec. 1, Table 1.2]</td>
</tr>
<tr>
<td>3. DPL select switch [ref. d, sec. 1, Table 1.2]</td>
</tr>
<tr>
<td>4. Squelch switch [ref. d, sec. 1, Table 1.2]</td>
</tr>
<tr>
<td>5. Antenna [ref. d, sec. 1, Table 1.2]</td>
</tr>
<tr>
<td>6. Battery status and transmit indicator [ref. d, sec. 1, Table 1.2]</td>
</tr>
</tbody>
</table>
201.1.6 PTT switch [ref. d, sec. 1, Table 1.2]  
.7 Message blanks [ref. a; ref. c, ch. 4]  
.8 DC plates [ref. a; ref. c, ch. 3]  

(Signature and Date)

201.2 PRINCIPLES OF OPERATION

201.2.1 What is the purpose of system redundancy in achieving the system's function? [ref. b, sec. 37]

(Signature and Date)

201.3 PARAMETERS/OPERATING LIMITS

201.3.1 What is the maximum operating time of the rechargeable battery? [ref. d, sec. 1]

.2 What is the maximum charging time of the rechargeable battery? [ref. d, sec. 4]

(Signature and Date)

201.4 SYSTEM INTERFACE

201.4.1 How does the loss of electrical power affect the operation of this system? [ref. d, sec. 1]

.2 What alternate means of communication are available to report damage to DC central during a major conflagration? [ref. f]

.3 How do the following outside influences affect the operation of this system:

a. EMCON [ref. b, sec. 44]
 b. RFI/EMP [ref. b, sec. 44]
 c. HERO [ref. d, sec. 2]

(Signature and Date)

201.5 SAFETY PRECAUTIONS

201.5.1 What special safety precautions apply to wire free communications? [ref. d, sec. 1]

(Signature and Date)
202.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What protection is provided by this component/component part?
D. What are the probable indications if this component fails?

Questions

EEBD [ref. a, sec. 3]

a. OCENCO:
   1. Storage rack [ref. a, sec. 3]
   2. Storage case [ref. a, sec. 3]
   3. Carrying case [ref. a, sec. 3; ref. b]
   (a) Tamper seal [ref. b]
   4. Gauge window [ref. a, sec. 3; ref. b]

b. 5. Teflon hood [ref. a, sec. 3; ref. b]
   6. Mouth piece [ref. a, sec. 3; ref. b]
   7. Nose clip [ref. a, sec. 3; ref. b]
   8. Breathing bag [ref. a, sec. 3; ref. b]
   9. Relief valve [ref. b]
   10. Oxygen cylinder [ref. a, sec. 3; ref. b]
      (a) Pressure gage [ref. b]
      (b) Oxygen regulator [ref. b]

(Signature and Date)
202.2 PRINCIPLES OF OPERATION

202.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 3]

.2 What is the sequence of events for using an EEBD? [ref. a, sec. 3]

(Signature and Date)
202.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. a, sec. 3]

A. What is the normal operating value?
B. Where are the parameters sensed or monitored?
C. What is the operational time limit?
D What is the fire resistance time limit in front of an open flame?

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>202.3.1 Humidity level on the EEBD (SCOTT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.2 EEBD (OCENCO) cylinder pressure</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.3 EEBD</td>
<td></td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>.4 EEBD (SCOTT)</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
</tbody>
</table>

(Signature and Date)

202.4 SYSTEM INTERFACE

202.4.1 How do variations in storage temperature affect the operation of this system? [ref. a, sec. 4]

.2 How does labored or heavy breathing affect the operating time of an EEBD? [ref. a, sec. 3; ref. b]

(Signature and Date)

202.5 SAFETY PRECAUTIONS

202.5.1 What special safety precautions apply to: [ref. a, sec. 3]

a. Removal of the EEBD hood
b. EEBD usage

(Signature and Date)
203  **OXYGEN BREATHING APPARATUS (OBA) SYSTEM**

References:

[a] NAVEDTRA 14057-PPR, Damage Controlman  
[b] NSTM S9086-CL-STM-010/CH-077R4, Personnel Protection Equipment

203.1  **SYSTEM COMPONENTS AND COMPONENT PARTS**

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each: [ref. b, sec. 3]

A. What is its function?  
B. Where is it located?  
C. What are the probable indications if this component fails?

<table>
<thead>
<tr>
<th>Questions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>203.1.1 Facepiece</td>
<td>A</td>
</tr>
<tr>
<td>a. Lens</td>
<td>A</td>
</tr>
<tr>
<td>b. Speaking diaphragm</td>
<td>A B</td>
</tr>
<tr>
<td>c. Spectacle kit</td>
<td>A</td>
</tr>
<tr>
<td>d. Head straps</td>
<td>A</td>
</tr>
<tr>
<td>.2 Breathing tubes</td>
<td>A C</td>
</tr>
<tr>
<td>.3 Breast plate assembly</td>
<td>A</td>
</tr>
<tr>
<td>.4 Plunger assembly</td>
<td>A B</td>
</tr>
<tr>
<td>.5 Breathing bags</td>
<td>A C</td>
</tr>
<tr>
<td>.6 Pressure relief valve</td>
<td>A B</td>
</tr>
<tr>
<td>.7 Harness assembly</td>
<td>B</td>
</tr>
<tr>
<td>.8 Timer</td>
<td>A B</td>
</tr>
<tr>
<td>.9 Canister</td>
<td>A</td>
</tr>
<tr>
<td>a. Lanyard</td>
<td>A C</td>
</tr>
<tr>
<td>b. Candle</td>
<td>A B</td>
</tr>
</tbody>
</table>

(Signature and Date)

203.2  **PRINCIPLES OF OPERATION**

203.2.1 How do the components work together to achieve the OBA’s function?  
[ref. b, sec. 3]

.2 What is the sequence of component involvement to activate the OBA using the lanyard? [ref. b, sec. 3]

.3 What is the sequence of component involvement to manually start the OBA?  
[ref. b, sec. 3]
203.2.4 How does heavy work/heavy breathing affect canister life? [ref. a, ch. 5]

(Signature and Date)

203.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions:

A. What are the allowable operating limits?
B. What is the alarm set point?

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A B</td>
</tr>
</tbody>
</table>

203.3.1 Timer assembly [ref. a, ch. 5; ref. b, sec. 3]  
203.3.2 Canister [ref. b, sec. 3]

(Signature and Date)

203.4 SYSTEM INTERFACE – None to be discussed.

203.5 SAFETY PRECAUTIONS

203.5.1 What special safety precautions apply to: [ref. b, sec. 3]

a. Pulling the lanyard on a sealed canister  
b. Operating the bail assembly  
c. Removing used canisters

(Signature and Date)
204  SELF-CONTAINED BREATHING APPARATUS (SCBA) SYSTEM

References:
[a]  NAVSEA S6226-PD-MMO-010/07070, Self-Contained Breathing Apparatus Breathing Air Charging System (SCBA BACS)
[b]  NSTM S9086-CL-STM-010/CH-077R4, Personnel Protection Equipment

204.1  SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each: [ref. b, sec. 3]

A. What is its function?
B. Where is it located?
C. What are the probable indications if this component fails?

Questions

204.1.1  Air cylinder and valve assembly:
  a. Air cylinder
  b. Cylinder valve
  c. Cylinder pressure gauge

204.1.2  Carrier and harness assembly:
  a. Back frame
  b. Cylinder retention system
  c. Flame and heat resistant harness
  d. Remote pressure gauge
  e. Quick charge assembly
  f. Regulator holder

204.1.3  Pressure reducing regulator:
  a. Pressure reducer hose coupling
  b. First stage regulator

204.1.4  Mask-mounted regulator (second-stage regulator)
  a. Air-saver/donning switch
  b. Purge valve/bypass valve
  c. Unlocking/locking device
  d. Heads up display

204.1.5  Low pressure alarm
204  

**SELF-CONTAINED BREATHING APPARATUS (SCBA) SYSTEM (CONT’D)**

204.1.6 Face piece:
   a. Face piece seal  
   b. Lens  
   c. Nose cup  
   d. Head harness  
   e. Voicemitter  
   f. Voice amplifier

   (Signature and Date)

204.2 PRINCIPLES OF OPERATION

204.2.1 How do the components work together to achieve the system’s function? [ref. b, sec. 3]

   .2 What are the SCBA donning procedures? [ref. b, sec. 3]

   .3 What is the sequence to activate the SCBA? [ref. b, sec. 3]

   .4 The air supply duration usually depends on what factors? [ref. b, sec. 3]

   .5 What indications will you receive if the system is malfunctioning? [ref. b, sec. 3]

   (Signature and Date)

204.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. b, sec. 3]

A. What are the allowable operating limits?
B. What is/are the indicators located?
C. What is the alarm set point?

204.3.1 Cylinder

   (Signature and Date)

204.4 SYSTEM INTERFACE

204.4.1 How does this system interface with the recharging station? [ref. b, sec. 3]
204.4.2 How do the following outside influences affect the operation of this system:
[ref. a, ch. 1; ref. b, sec. 3]

a. Air quality testing  
b. Low or loss of HP air  
c. Personnel workload

___________________________________
(Signature and Date)

204.5 SAFETY PRECAUTIONS

204.5.1 What safety precautions must be observed when operating this system?
[ref. b, sec. 3]

___________________________________
(Signature and Date)
205 PERSONAL PROTECTIVE CLOTHING EQUIPMENT SYSTEM

References:

[a] NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[b] NSTM S9086-QH-STM-010/CH-470R3, Shipboard BW/CW Defense and Countermeasures
[c] NSTM S9086-CL-STM-010/CH-077R4, Personnel Protection Equipment

205.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
H. What are the probable indications if this component fails?

205.1.1 Battle dress/antiflash gear [ref. a, ch. 8; ref. c, sec. 5] A B
.2 Helmets/cranials [ref. c, sec. 4] A B
.3 Proximity suit [ref. c, sec. 4] A B
.4 FFE [ref. c, sec. 4] A B
   a. Firefighter's coveralls A
   b. Firefighter's hood A
   c. DC/firefighter's helmet A
   d. Firefighter's gloves A
   e. Fireman's boots A
.5 Advance chemical protective ensemble [ref. a, ch. 5] A B
   a. JSLIST [ref. b, sec. 5] A B
   b. Gloves [ref. b, sec. 5] A B
   c. Boots [ref. b sec. 5] A B
.6 MCU-2/P [ref. b, sec. 5] A B C
   a. C-2 canister A B C
   b. Voice amp A B C
.7 Wet weather clothing [ref. b, sec. 5] A B C

(Signature and Date)
205.2 PRINCIPLES OF OPERATION

How do the components work together to achieve the system’s function? [ref. b, sec. 5]

(Signature and Date)

205.3 PARAMETERS/OPERATING LIMITS

205.3.1 What is the allowable wear-time for the JSLIST? [ref. b, sec. 5]

205.3.2 What is the allowable operational use of the C-2/C-2A1-canister? [ref. b, sec. 5]

(Signature and Date)

205.4 SYSTEM INTERFACE

205.4.1 How do the following outside influences affect the setting of MOPP levels aboard ship: [ref. b, sec. 8]

a. Area of known or suspected CBR threat
b. Area of known or possible CBR threat
c. CBR attack is probable
d. CBR attack is imminent

(Signature and Date)

205.5 SAFETY PRECAUTIONS

205.5.1 What special safety precautions apply to using the following:

a. Firefighting ensemble [ref. c, sec. 4]
b. Proximity suit [ref. c, sec. 4]
c. JSLIST [ref. b, sec. 5]
d. C-2 canister [ref. b, sec. 5]

(Signature and Date)
206 WATERTIGHT CLOSURES/HULL FITTINGS SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control
[b] NAVEDTRA 14057-PPR, Damage Controlman
[c] NAVSEA S9169-AW-DCB-010, Damage Control Watertight Closures Inspection, Maintenance, and Repair Booklet
[d] NSTM S9086-UF-STM-010/CH600V1R2, Structural Closures
[e] NAFO/Holtkamp Watertight Door Technical Manual

206.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. What are the probable indications if this component fails?
C. What protection is provided by this component?

Questions

206.1.1 Watertight/airtight closures and fittings [ref. a, sec. 22; refs. d, e] A B C
.2 Sounding tubes [ref. a, sec. 40] A B C
.3 Ventilation closures [ref. a, sec. 22] A B C
.4 Stuffing tubes [ref. a, secs. 22, 40] A B C
.5 Armored/ballistic doors, hatches, and scuttles [ref. c, sec. 7 ref d] A B C
.6 Overboard discharge [ref. a, sec. 29] A B C

(Signature and Date)

206.2 PRINCIPLES OF OPERATION

206.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 22; refs. d, e]

.2 What indications are received if the system is malfunctioning? [ref. a, sec. 40]

(Signature and Date)

206.3 PARAMETERS/OPERATING LIMITS – None to be discussed.
206.4 SYSTEM INTERFACE

How do the following outside influences affect the operation of this system:

a. Lack of maintenance [ref. b, ch. 3]
b. Battle damage [ref. a, sec. 23]

c. Weather [ref. b, ch. 3]

(Signature and Date)

206.5 SAFETY PRECAUTIONS

What safety precautions apply to:

a. Hold-open devices for doors, hatches, scuttles, and portholes [ref. a, sec. 40]

b. Soundings [ref. a, sec. 40]

c. Balance armored hatches [ref. c, sec. 7]

(Signature and Date)
PORTABLE FIREFIGHTING EQUIPMENT SYSTEM

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[b] NAVEDTRA 14057-PPR, Damage Controlman

207 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the modes of operation or control?
D. What are the probable indications if this component fails?

**Questions**

207.1.1 15-pound CO₂:

a. Squeeze grip release lever [ref. a, sec. 4] A
b. D-yoke ring [ref. a, sec. 4] A B
c. Locking pin and seal [ref. a, sec. 4] B
d. Horn assembly [ref. b, ch. 5] B

2. Dry chemical extinguisher, 18- and 27-pound (PKP): [ref. a, sec. 4]

a. CO₂ cartridge A B
b. Cartridge guard assembly B
c. Pull pin/seal B
d. Puncture lever A B
e. Carry handle B
f. Squeeze grip nozzle A B
g. Fill cap B

3. Portable AFFF extinguisher [ref. a, sec. 4]

a. Pull pin/seal B
b. Aerating nozzle B
c. Pressure gage A B

4. Fire hose station [ref. a, sec. 4] A B D

a. Vari-nozzle C

5. All-purpose nozzle [ref. a, sec. 4] A B C

a. Applicator A

6. In-line eductor [ref. a, sec. 4] A D

(Signature and Date)
207 PORTABLE FIREFIGHTING EQUIPMENT SYSTEM (CONT’D)

207.2 PRINCIPLES OF OPERATION

207.2.1 What is the sequence of steps to operate the following: [ref. a, sec. 4]

- a. Portable CO₂ extinguisher
- b. Portable PKP extinguisher
- c. Portable AFFF extinguisher
- d. In-line eductor

(Signature and Date)

207.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. a, sec. 4]

A. How long will it last during continuous use?
B. What is the effective range?
C. What is the weight/capacity of the extinguishing agent inside the extinguisher?

<table>
<thead>
<tr>
<th>Questions</th>
<th>207.3.1</th>
<th>207.3.2</th>
<th>207.3.3</th>
<th>207.3.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. How long will it last during continuous use?</td>
<td>CO₂</td>
<td>PKP</td>
<td>AFFF</td>
<td>Fire hose</td>
</tr>
<tr>
<td>B. What is the effective range?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. What is the weight/capacity of the extinguishing agent inside the extinguisher?</td>
<td></td>
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</tbody>
</table>

(Signature and Date)

207.4 SYSTEM INTERFACE – None to be discussed.

207.5 SAFETY PRECAUTIONS

207.5.1 What safety precautions must be observed when using/handling: [ref. a, sec. 4]

- a. CO₂
- b. 27-pound and 18-pound PKP
- c. AFFF
- d. Fire hose
- e. Navy all-purpose nozzle
- f. Vari-nozzle

(Signature and Date)
208 PORTABLE DAMAGE CONTROL (DC) EQUIPMENT SYSTEM

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting

208.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the safety/protective devices for this component/component part?
F. What protection is provided by this component/component part?
G. What are the probable indications if this component fails?
H. What is the function of each position?

208.1.1 Thermal Imager [ref. a, sec. 6]

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Battery condition indicator [ref. a, sec. 6]
(b) Pan/chop mode button [ref. a, sec. 6]
(c) Battery cartridge [ref. a sec. 6]
(d) Protective muff and visor [ref. b]
(e) Voltage stabilizer [ref. b]
(f) K90 [ref. b]

Questions
A B C D E G H

208.2 PRINCIPLES OF OPERATION

208.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 6]

(Signature and Date)
208 Portable Damage Control (DC) Equipment System (Cont’d)

208.3 Parameters/Operating Limits

208.3.1 What is the allowable operating time of the thermal imager? [ref. a, sec. 6]

_________________________________
(Signature and Date)

208.4 System Interface – None to be discussed.

208.5 Safety Precautions

208.5.1 What safety precautions must be observed when operating the thermal imager? [ref. a, sec. 6]

_________________________________
(Signature and Date)
## 209 Installed Fire Extinguishing System

### References:

<table>
<thead>
<tr>
<th>Reference Code</th>
<th>Reference Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[a]</td>
<td>Ship's Damage Control Book</td>
</tr>
<tr>
<td>[b]</td>
<td>NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting</td>
</tr>
<tr>
<td>[c]</td>
<td>Ship's Information Book (SIB)</td>
</tr>
<tr>
<td>[d]</td>
<td>NAVSEA 0910-LP-038-0700, Halon/HFP Fire Extinguishing Components</td>
</tr>
<tr>
<td>[e]</td>
<td>NAVSEA 0993-LP-031-3000, CO₂ Fixed Flooding</td>
</tr>
</tbody>
</table>

### 209.1 System Components and Component Parts

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

- **A.** What is its function?
- **B.** Where is it located?

#### 209.1.1 CO₂ hose reel system [ref. a; ref. b, sec. 2; ref. c; ref. e, fig. 8-7]

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 50-pound CO₂ cylinder/discharge head</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>b. Hose reel</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

#### 209.1.2 CO₂ fixed flooding system [ref. a; ref. b, sec. 3]

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pull box</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>b. Cable operated control head</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>c. 50-pound CO₂ cylinder/flood valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>d. Activation pressure switch</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>e. Alarm indicators</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>f. Ventilation pressure switch</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>g. Discharge time delay</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

#### 209.1.3 HALON/HFP 1301/HFP system [ref. a; ref. b, sec. 3]

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Five-pound CO₂ actuation cylinder</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>b. Pressure switches</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>c. Alarm indicators</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>d. Ventilation pressure switch</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>e. Time delay device</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>f. Time delay bypass valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>g. Discharge pressure switch</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

#### 209.1.4 Salt/fresh water sprinkling systems [ref. a; ref. b, sec. 3]

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Magazine sprinkler system</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

#### 209.1.5 Freshwater hose reels [ref. b, sec. 3]

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Activation push button</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>b. Holding tank</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>c. Hose reel nozzle</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>
209  **INSTALLED FIRE EXTINGUISHING SYSTEM (CONT’D)**

209.1.6 APC extinguishing system (range guard) [ref. a; ref. b, sec. 3]  
   a. Remote manual control box  
   b. Pressure release control box  
   c. Fusible links  
   d. APC cylinder  
   e. Lever control head  
   f. Pressure switches  
   .7 Steam smothering [ref. b, sec. 1]

   Questions
   A B

   (Signature and Date)

209.2 PRINCIPLES OF OPERATION

209.2.1 Using a diagram of this system, show the path of the agent from the activation stations to the discharge nozzles: [ref. b, sec. 3]

   a. Fixed CO₂ systems  
   b. HALON/HFP/HFP  
   c. Saltwater  
   d. Range guard (APC)  
   e. Freshwater hose reel ref [f]

   (Signature and Date)

209.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

209.4 SYSTEM INTERFACE

209.4.1 How does the loss of electrical power effect the operation of the HALON/HFP system? [ref. d, ch. 5]

   (Signature and Date)

209.5 SAFETY PRECAUTIONS

209.5.1 What safety precautions must be observed when operating this system? [ref. b, sec. 2-3]

   (Signature and Date)
AQUEOUS FILM FORMING FOAM (AFFF) SYSTEM

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[b] S9555-B9-MMA-010, Aqueous Film Forming Foam Equipment
[c] Ship's Information Book (SIB)
[d] Ship’s Damage Control Book

210.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the probable indications if this component fails?

210.1.1 AFFF systems:
a. Hose reel cutout valve [refs. c, d]  B
b. Hose reel/stations [ref. a, sec. 3; refs. c, d]  A B

c. Vari-nozzle [ref. a, sec. 4]  A

d. AFFF concentrate service tank [ref. a, sec. 3; refs. c, d]  A B

e. AFFF tank fill connection/valve [refs. c, d]  A B

f. Tank level indicator [refs. c, d]  A B

g. Hytrol/hycheck valve [ref. a, sec. 3; refs. c, d]  A B C E

h. Powertrol/powercheck valve [ref. a, sec. 3; refs. c, d]  A B C E

i. SOPV [ref. a, sec. 3, fig. 3-10; refs. c, d]  A B C D

j. Remote operation control switch [ref. a. sec. 2; refs. c, d]  A B E

k. AFFF concentrate transfer main cutout valves [ref. a, sec. 2; refs. c, d]  A B E

l. AFFF concentrate supply cutout valves [ref. a, sec. 2; refs. c, d]  A B E

m. Power panel/ABT [ref. a, sec. 3; refs. c, d]  A B C D E

n. Firemain cutout valve [ref. a, sec. 3; refs. c, d]  A B

o. Gages [ref. a, sec. 2; refs. c, d]  A B

p. Tank vent [ref. a, sec. 3; refs. c, d]  A B

q. Riser/system drain valves [ref. a, sec. 3; refs. c, d]  A B

r. Riser cutout valves [ref. a, sec. 3; refs. c, d]  A B E

s. Y-strainer [ref. a, sec. 2; refs. c, d]  A B E

t. Barrel Cut-Out switch [ref. b]  A B E

Questions
210 AQUEOUS FILM FORMING FOAM SYSTEM (CONT’D)

210.1.2 Installed FP-180 [ref. a, sec. 3; refs. c, d]  
   a. Manual control valve [ref. a, sec. 2; refs. c, d]  A B C D E
   b. Sprinkler group control valves/groups [ref. a, sec. 2; refs. c, d]  A B C E

.3 HCFF two-speed system:
   a. Two-speed pump with motor [ref. a, sec. 3; refs. c, d]  A B C D E
   b. Sprinkler group control valves/groups [ref. a, sec. 2; refs. c, d]  A B C E

.4 Flight deck AFFF injection system:
   a. Injection pump/motor [ref. a, sec. 3; refs. c, d]  A B
   b. Gallery deck injection stations [refs. c, d]  B
   c. Hydraulically operated 2½-inch check valve [refs. c, d]  B
   d. Gallery deck bypass cutout valve [refs. c, d]  B
   e. Flush deck nozzle cutout [ref. a, sec. 2; refs. c, d]  A B
   f. Deck edge nozzle cutout valve [ref. a, sec. 2; refs. c, d]  A B

.5 Balanced pressure proportioner system: [ref. a, sec. 3; refs. c, d]
   a. Concentrate pump  A B C E
   b. AFFF proportioner/venturi  A B E
   c. Balancing valve  A B E

.6 Installed in-line eductor (MCM/MHC class) [ref. b, sec. 4; refs. c, d]
   a. Manual control valve [ref. a, sec. 2; refs. c, d]  A B E
   b. Hose reel activation valve [ref. a, sec. 3; refs. c, d]  A B E
   c. Sprinkler activation valve [ref. a, sec. 2; refs. c, d]  A B E

.7 AFFF transfer main system:
   a. AFFF reserve tank [ref. a, sec. 3, par. 3.1.6; refs. c, d]  A B
   b. AFFF transfer pump/motor [ref. a, sec. 3, par. 3.1.4; refs. c, d]  A B C E
   c. AFFF remote reserve TLI [ref. a, sec. 3, par. 3.1.6; refs. c, d]  A B
   d. AFFF transfer main isolation valves  [ref. a, sec. 2, fig. 2.6; refs. c, d]  A B E

.8 12-GPM pump/motor [ref. a, sec. 3; refs. c, d]  A B C

(Signature and Date)

210.2 PRINCIPLES OF OPERATION

210.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 2]

.2 Draw a diagram of this system. [refs. c, d]

.3 Using a diagram of this system, show the path of: [refs. c, d]
   a. AFFF concentrate from the tank to the discharge outlet
   b. Seawater from the firemain root valve to the discharge outlet
   c. AFFF reserve concentrate from the tank to the receiving station
   d. AFFF concentrate in recirculation mode

80
210  **AQUEOUS FILM-FORMING FOAM SYSTEM (CONT’D)**

210.2.4 What indications will you receive in the event of the loss of AFFF concentrate? [ref. b, sec. 6, fig. 6-1]

________________________________________________________________________

(Signature and Date)

210.3 **PARAMETERS/OPERATING LIMITS**

210.3.1 What is the allowable operating limit of the AFFF firemain pressure? [refs. c, d]

.2 What is the maximum capacity of the AFFF station tank? [refs. c, d]

.3 What is the maximum capacity of the AFFF storage/transfer tank? [refs. c, d]

________________________________________________________________________

(Signature and Date)

210.4 **SYSTEM INTERFACE**

210.4.1 How do the following outside influences affect the operation of this system: [ref. b, sec. 6, fig. 6-1]

a. Loss of firemain
b. Loss of electrical power
c. Improper valve alignment

________________________________________________________________________

(Signature and Date)

210.5 **SAFETY PRECAUTIONS** – None to be discussed.
211  FIREMAIN SYSTEM

References:

[a]  NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[b]  NSTM S9086-QH-STM-010/CH-470R3, Shipboard BW/CW Defense and Countermeasures
[c]  Ship's Information Book (SIB)
[d]  Ship's Damage Control Book
[e]  NAVEDTRA 14057-PPR, Damage Controlman

211.1  SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located within your assigned berthing compartment and workstation?
C. Where is it located on your ship?
D. What are the modes of operation or control?
E. What is the function of each position?

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
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<tbody>
<tr>
<td>A C D</td>
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<tr>
<td>A C D</td>
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<tr>
<td>A B C D</td>
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<td>A C D</td>
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</table>

(Signature and Date)
211 **FIREMAIN SYSTEM (CONT’D)**

211.2 **PRINCIPLES OF OPERATION**

211.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 2]

.2 Draw a diagram of your ship’s Firemain system. [refs. c, d]

(Signature and Date)

211.3 **PARAMETERS/OPERATING LIMITS**

For the items listed, answer the following questions:

A. What is the normal operating value?
B. What are the allowable operating limits?
C. What is/are the physical location(s) of the indicator(s)?
D. What is the standard size?

211.3.1 Firemain pressure [ref. a, sec. 2; refs. c, d]

.2 Fire hose length [ref. a, sec. 4]

(Signature and Date)

211.4 **SYSTEM INTERFACE**

211.4.1 How do the auxiliary systems effect the operation of this system? [ref. a, sec. 2]

(Signature and Date)

211.5 **SAFETY PRECAUTIONS** – None to be discussed.
212  ACCESS/OVERHAUL EQUIPMENT SYSTEM

References:

[a]  NA VedTRA 14057-PPR, Damage Control
[b]  S6290-AQ-MMC-010/09687, The Arcair Slice (PECU) Portable Exotherimic Cutting Unit
[d]  NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[e]  Power Hawk Manufacturer's Technical Manual

212.1  SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What accessories are commonly used with this component part?

212.1.1  Access and overhaul hand tools [ref. d, sec. 7]  A B
.2  PHARS [ref. a, ch. 8]  A B C D
.3  PECU [ref. b, ch. 1]  A B C D
.4  Vari-nozzle [ref. d, sec. 7]  A
.5  Power Hawk [ref. e]  A B C

(Signature and Date)

212.2  PRINCIPLES OF OPERATION – None to be discussed.

212.3  PARAMETERS/OPERATING LIMITS – None to be discussed.

212.4  SYSTEM INTERFACE – None to be discussed.

212.5  SAFETY PRECAUTIONS

212.5.1  What safety precautions must be observed when operating the following:

a.  PHARS [ref. c, ch. 1]
b.  PECU [ref. b, sec. 1]
c.  Power Hawk [ref e]

(Signature and Date)
213 VENTILATION SYSTEM

References:

[a] NSTM S9086-RQ-STM-010/CH-510, Heating, Ventilating, and A/C Systems for Surface Ships
[b] Ship’s Damage Control Book
[c] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[d] NSTM S9086-RS-STM-010/CH-512, Fans
[f] Ship’s Information Book (SIB)
[g] S9512-CA-MMC-010/93457, Fan, Portable, Desmoking, Medium Capacity
[h] NTTP 3-20.31-470, Shipboard Biological Chemical Warfare Defense

213.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What protection is provided by this component/component part?

Questions

213.1.1 Supply ventilation [ref. a, sec. 1; ref. f] A B C
.2 Exhaust ventilation [ref. a, sec. 1; ref. f] A B C
.3 Air-conditioning/recirculation ventilation [ref. a, sec. 1; ref. f] A B C
.4 Grease interceptor hood (Gaylord) [ref. a, sec. 7] A B
.5 Ventilation fans [ref. a, sec. 4; ref. f] A B C
.6 Ventilation closures [ref. a, sec. 2; ref. b, ch. 3; ref. f] A B C D
.7 Vent screens [ref. d, secs. 1, 2] A B
.8 Air filters [ref. a, sec. 4; ref. b, ch. 3] A B
.9 Ramfan [ref. b, ch. 5] A B C
.10 Portable electric desmoking fan (box fan) [ref. b] A B C
.11 Portable ventilation duct (elephant trunk) [ref. b; ref. c, sec. 7] A B
.12 Scott point screening [ref h] A B
.13 Smoke ejection system [ref. c, sec. 7] A B C D

(Signature and Date)

213.2 PRINCIPLES OF OPERATION – None to be discussed.
213 **VENTILATION SYSTEM (CONT’D)**

213.3 **PARAMETERS/OPERATING LIMITS**

213.3.1 What is the air moving capacity of the ramfan and box fan? 
[ref. e, sec. 7; ref. g, sec. 1]

(Signature and Date)

213.4 **SYSTEM INTERFACE**

213.4.1 How do the following outside influences affect the operation of this system:

a. Loss of firemain [ref. e, sec. 1]
b. Particulate matter [ref. e, sec. 4]
c. Loss of electrical power [ref. d, secs. 1, 2]
d. Loss of Supply air [refs. a, g]

.2 How does this system interface with the collective protection system? [ref. c, sec. 7]

(Signature and Date)

213.5 **SAFETY PRECAUTIONS**

213.5.1 What special safety precautions apply to:

a. Securing ventilation for a fire [ref. c, sec. 7]
b. Desmoking a compartment [ref. c, sec. 7]
c. Operating installed ventilation [ref. c, ch. 10]
d. Operating a ramfan [ref. e, ch. 4]
e. Operating a box fan [ref. d, sec. 1]

(Signature and Date)
214  INSTALLED DRAINAGE SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control Practical Damage
[b] Ship's Damage Control Diagrams
[c] NSTM S9086-T8-STM-010/CH-593R5, Pollution Control
[d] Engineering Operational Sequencing System (EOSS)
[e] NSTM S9086-RJ-STM-000/CH-504, Pressure, Temperature, and other Mechanical and Electromechanical Measuring Instruments
[f] NAVEDTRA 14057-PPR, Damage Controlman

214.1  SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the modes of operation or controls?

214.1.1 Main drainage system [ref. a, sec. 29; ref. b]
a. Pumps/eductors [ref. a, sec. 29; ref. b] A B
b. Valves and piping [ref. a, sec. 29; ref. b] A B C
c. Remote operators [ref. a, sec. 24; ref. b] A B C
d. Gages [ref. b; ref. e, sec. 2] A B

.2 Secondary drainage system [ref. a, sec. 29; ref. b] A B
a. Pumps/eductors [ref. a, sec. 29; refs. b, d] A B C
b. Valves and piping [ref. a, sec. 29; refs. b, d] A B C
c. Remote operators [ref. a, sec. 24; ref. b] A B C
d. Gages [ref. b; ref. e, sec. 2] A B

.3 Gravity drains [ref. a, sec. 29] B
a. Plumbing and deck drains A
b. Deck drain valves and overboard discharge A

(Signature and Date)
214 INSTALLED DRAINAGE SYSTEM (CONT’D)

214.2 PRINCIPLES OF OPERATION

214.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 29]

.2 What is the proper step-by-step procedure for operating an eductor? [ref. d]

(Signature and Date)

214.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

214.4 SYSTEM INTERFACE

214.4.1 How do the following outside influences affect the operation of this system:

a. Loss of firemain pressure [ref. f, sec. 5]
b. Loss of electrical power [ref. f, sec. 5]
c. Battle damage [ref. a, sec. 29]

.2 How does this system interface with the firemain system? [ref. a, sec. 29]

(Signature and Date)

214.5 SAFETY PRECAUTIONS

214.5.1 What safety/environmental precautions must be observed when discharging fluids overboard? [ref. c, sec. 3]

.2 What are the dangers of: [ref. a, sec. 29]

a. Improper operation of an installed eductor
b. Operating an eductor in an enclosed space

(Signature and Date)
215.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the safety/protective devices for this component/component part?
F. What are the probable indications if this component fails?

Questions

| 215.1.1 | IM-265/PDQ [ref. e] | A B C D E F |
| 215.1 | AN/PDR-65 [ref. b, sec. 3] | A B C D F |
| 215.1.1 | AN/PDQ-1 [ref. e, sec. 3] | A B C D F |
| 215.1.1 | CP-95 [ref. d, ch. 11] | A B C D F |
| 215.1.1 | Log book [ref. d, ch. 8] | A B |
| 215.1 | IM-270 [ref. d, ch. 11] | A B |
| 215.1.1 | Self-reading, IM series pocket dosimeters (143/109/270) [ref. h] | A B |
| 215.1 | PP4276A/PD pocket dosimeter charger [ref. d, ch. 11] | A B C |
| 215.1 | M256 chemical agent detection kit [ref. d, ch. 9] | A B E |
| 215.1 | M8/M9 detector paper [ref. c, sec. 4; ref. d, ch. 9] | A B E |
| 215.1 | AN/KAS-1 [ref. c, sec. 4] | A B C D E F |
| 215.1 | IPDS [ref. b, sec. 4; ref. d, ch. 9] | A B C D E F |
| 215.1 | DFU/HHA [ref. c, sec 4] | A B C D E F |
215.1.13 JPBDS [ref. c, sec 4] A B C D E F
.14 Calcium hypochlorite (HTH) [ref. c, sec. 7] A B E F
15 Trash cans with liners [ref. c, sec. 7] A B
.16 Decontamination cabinet [ref. c, sec. 7] A B
.17 Clean clothing [ref. c, sec. 7] A B
.18 Clean towels [ref. c, sec. 7] A B
.19 M291 skin decontamination kit [ref. c, sec. 7] A B
.20 Buckets/brushes/swabs [ref. c, sec. 7] A B
.21 Firehosing (fire hose with nozzle) [ref. c, sec. 7] A B
.22 Decontamination/detergent solutions [ref. c, sec. 7] A B
.23 Contamination markers [ref. c, sec. 7] A B
.24 Unexploded munitions marker [ref. a, ch. 11] A B
.25 Atropine, 2-PAM-chloride (CANA auto injectors) [ref. c, sec. 5; ref. f, ch. 2] A B E
.26 Nerve agent pyridostigmine bromide pretreatment [ref. f, ch. 2] A B
.27 Ready shelter station [ref. b, sec. 5] A B
.28 Deep shelter station [ref. b, sec. 5] A B
.29 Personnel decontamination station [ref. c, sec. 7] A B
.30 CCA [ref. c, sec. 7] A B
.31 Casualty collection station(s) [ref. c, sec. 7] A B
.32 Battle dressing station(s) [ref. a, ch. 2] A B
.33 CMWD [ref. c, sec. 7] A B C D E F
.34 Casualty decontamination station [ref. c, sec. 6] A B D E F

215.2 PRINCIPLES OF OPERATION

215.2.1 Describe the procedures for using the following:

a. Reading with a CP-95 [ref. b, sec. 3]
b. Zeroing a pocket dosimeter with a PP4276/PD dosimeter charger [ref. b, sec. 3]
c. Personnel decontamination in the decontamination station/CCA [ref. b, sec. 5]
d. Topside decontamination of a weather deck [ref. c, sec. 7]
e. Interior decontamination of a space [ref. b, sec. 5]
f. Reading an IM-270 pocket dosemeter [ref. h]

2. What decontamination solution can be used aboard ship in place of calcium HTH? [ref. c, sec. 7]

215.3 PARAMETERS/OPERATING LIMITS – None to be discussed.
215.4 SYSTEM INTERFACE

215.4.1 How do the following outside influences affect the operation of this system?

a. Loss of ship’s electrical power to:
   1. CP-95 [ref. b, sec. 3]
   2. AN/PDR-65 [ref. b, sec. 3]
   3. AN/KAS-1/1A [ref. b, sec. 4]
   4. IPDS [ref. c, sec. 4]
   5. JBPDS [ref. c, sec. 4]
   6. DFU [ref. c, sec. 4]
   7. CMWD [ref. c, sec. 7]
   8. CPS [ref. c, sec. 6]

b. Rain and sunlight exposure to M-256/M256A-1 [ref. c, sec. 4]

c. Loss of firemain [ref. c, sec. 7]

d. Material decontamination of absorbent materials (i.e. rope and canvas, snow and ice) on the weather decks [ref. b, sec. 3]

e. Loss of CPS zone [ref. b, sec. 4]
   1. CCA [ref. c, sec. 7; ref. g]
   2. Casualty collection station [ref. c, sec. 7; ref. g]

(Signature and Date)

215.5 SAFETY PRECAUTIONS

215.5.1 What special safety precautions apply to:

a. Radiac monitoring [ref. c, sec. 3]

b. Chemical agent detection with M-256 [ref. c, sec. 4]

c. Chemical agent detection with M-9 par [ref. c, sec. 4]

d. M291 kit around eyes and mouth [ref. c, sec. 7]

e. Washing down contamination on the weather decks [ref. c, sec. 7]

f. Performing interior decontamination [ref. b, sec. 5]

g. NAPP [ref. f, ch. 2]

h. Atropine/2-PAM-chloride and CANA auto-injectors [ref. f, ch. 2]

i. M-256A1 chemical detection kit [ref. c, sec. 4]

j. Mixing HTH with other decontamination solutions [ref. c, sec. 7]

k. Biological detection with the DFU [ref. c, sec. 4]

l. Chemical detection with the DFU [ref. c, sec. 4]

m. Handling/shipping potential biological contaminated samples. [ref. c, sec. 4]

n. Biological detection with a JBPDS [ref c, sec. 4]

(Signature and Date)
CASUALTY POWER DISTRIBUTION SYSTEM

References:

[a] NSTM S9086-CN-STM-030/CH-079V3R3, Damage Control, Engineering Casualty Control
[c] Ship's Information Book (SIB)
[d] Ship's Casualty Power Doctrine

216.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?

Questions

216.1.1 Portable cables [ref. a, sec. 47; ref. b, sec. 1; ref. c]
   a. Phase identification markings [ref. a, sec. 47; ref. b, sec. 1] A B D
   .2 Riser terminals [ref. b, sec. 1; ref. c] A B D
   .3 Bulkhead terminals [ref. b, sec. 1; ref. c] A B D
   .4 Switchboard terminals [ref. b, sec. 1; ref. c] A B D
   .5 Casualty power circuit breaker [ref. b, sec. 1; ref. c] A B D

___________________________________
(Signature and Date)

216.2 PRINCIPLES OF OPERATION

216.2.1 How do the components work together to achieve the system’s function? [ref. b, sec. 2]
   .2 What is the sequence of component involvement to accomplish: [ref. a, sec. 47; ref d]
      a. Rigging casualty power
      b. Securing casualty power
      c. Unrigging casualty power

___________________________________
(Signature and Date)
216.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions:

A. What is the normal rating?
B. What is the casualty power application rating?

216.3.1 Portable cable amperage [ref. a, sec. 47] A B
.2 Casualty power circuit breaker amperage [ref. c] A

(Signature and Date)

216.4 SYSTEM INTERFACE – None to be discussed.

216.5 SAFETY PRECAUTIONS

216.5.1 What safety precautions must be observed when operating this system? [ref. a, sec. 47]

(Signature and Date)
217 Dewatering Equipment/Pumps System

References:

[a] NAVEDTRA 14057-PPR, Damage Controlman
[b] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[c] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control
[d] Ship’s Damage Control Book

217.1 System Components and Component Parts

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the probable indications if this component fails?
E. What is the effect on system operation if this component fails?

Questions

217.1.1 Eductors (S-type, Peri-jet) [ref. a, sec. 5; ref. d] A B C D
   a. Supply/discharge hoses [ref. a, sec. 5; ref. d] A
   b. Overboard discharge fittings [ref. c, sec. 29; ref. d] A

.2 Electric submersible pump [ref. a, sec. 5; ref. d] A B C D
   a. Motor [ref. a, secs. 5, 26] A
   b. Electrical cable and switch box [ref. a, sec. 5] A
   c. Handling line [ref. a, sec. 5] A
   d. Strainers [ref. a, sec. 5] A
   e. Hoses [ref. a, sec. 5; ref. d] A B D

.3 P-100 pump [ref. b, sec. 4; ref. d] A B D E
   a. Exhaust primer valve A B D E
   b. Primer hose assembly A B D E
   c. Discharge valve and head assembly A B D E
   d. Primer shutoff valve A B D E
   e. Suction connection A B D E
   f. Pump drain valve A B D E
   g. Exhaust muffler A
   h. Air cleaner assembly A B D E
   i. Fuel tank A B D E
   j. Starter assembly A B D E
   k. Throttle A B D E
217.1.3  
I. Oil dipstick  
  A B  
m. Packing adjustment plunger  
  A B D E  
n. Pressure gage  
  A B D E  

(Signature and Date)  

217.2  
**PRINCIPLES OF OPERATION**  

217.2.1  What is the sequence of component involvement to: [ref. a, chs. 4, 6]  
  a. Use electrical submersible pumps in tandem  
  b. Increase the suction lift of the P-100 with eductor  
  c. Increase dewatering capability using an eductor on discharge side of P-100  

(Signature and Date)  

217.3  
**PARAMETERS/OPERATING LIMITS**  

For the items listed, answer the following questions:  

A. What is the normal operating value?  
B. What is the maximum self-priming lift?  
C. What is the physical location of the indicator?  
D. What is the rate of delivery (capacity)?  

217.3.1  
  Peri-jet eductor [ref. a, sec. 5]  
  .2 S-type eductor [ref. a, sec. 5]  
  .3 Electrical submersible pump [ref. a, sec. 5]  
  .4 P-100 pump [ref. b, sec. 4]  

(Signature and Date)  

217.4  
**SYSTEM INTERFACE**  

217.4.1  How does the loss of/low firemain pressure affect the operation of the eductors?  
  [ref. a, ch. 6]  

(Signature and Date)
217.5 SAFETY PRECAUTIONS

217.5.1 What safety precautions must be observed when operating the P-100?
[ref. b, sec. 4]

.2 What special safety precautions apply to the operation of the submersible pump?
[ref. a, ch. 5]

(Signature and Date)
CRASH AND SALVAGE EQUIPMENT SYSTEM

References:

[a] NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual

218.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the components?

Questions

218.1.1 Crash and salvage equipment: [chs. 8, 9]
   a. Crash and rescue tool kit
   b. Firefighting clothing [ch. 3]
   c. CO₂ extinguisher with extension hose assembly [ch. 8]

218.2 PRINCIPLES OF OPERATION

218.2.1 How do the components work together to achieve the system’s function? [ch. 9]

218.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

218.4 SYSTEM INTERFACE – None to be discussed.

218.5 SAFETY PRECAUTIONS

218.5.1 When evacuating the aircrew and passengers during rescue evolutions, what safety precaution is required if the rescue person's firefighting clothing becomes wet during entry? [ch. 9]

(Signature and Date)
219 CONFLAGRATION STATION SYSTEM

References:

[a] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[b] Ship's Information Book (SIB)
[c] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control
[d] NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual

219.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the safety/protective devices for this component/component part?
E. What are the probable indications if this component fails?

Questions

219.1.1 Sprinkler group system control switch [ref. a, sec. 3; ref. b; ref. d, chs. 7, 8] A B D
.2 Divisional/deck edge doors control switch [ref. b] A B C
.3 Hangar deck lighting control switch [ref. b] A B C
.4 Ordnance elevators sprinkler control switch [ref. a, sec. 2; ref. b] A B C
.5 Vehicle(upper/lower storage) ramp sprinkler control [ref. b; ref. d, ch. 8] A B C
.6 Sound-powered circuit:
   a. X50J [ref. a, sec. 2; ref. b; ref. d, ch. 8] A B
   b. JZ [ref. a, sec. 2; ref. b] A B
.7 High temperature alarms [ref. b; ref. c, ch. 37] A B E
.8 Hangar deck 3MC units [ref. b; ref. d, ch. 8] A B C

(Signature and Date)

219.2 PRINCIPLES OF OPERATION

219.2.1 Draw a block diagram showing the locations of sprinkler groups. [ref. b]

.2 During what conditions are the conflagration stations manned? [ref. d, ch. 8]

(Signature and Date)
219.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following question: [ref. a, sec. 2; ref. b]

A. What are the allowable operating limits?
B. What is the physical location of the indicators?

Questions

219.3.1 Firemain pressure

(Signature and Date)

219.4 SYSTEM INTERFACE

219.4.1 How do the following outside influences affect the operation of this system: [ref. b]

a. Loss of firemain pressure
b. Loss of AFFF
c. Loss of electrical power
d. Loss of communications

(Signature and Date)

219.5 SAFETY PRECAUTIONS

219.5.1 What special safety precautions apply to the operation of deck edge/divisional doors? [ref. b]

(Signature and Date)
220 PIPE REPAIR/PATCHING SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control
[b] SS-100-AG-MAN-010, Damage Control and Firefighting Equipment Layout Booklet
[c] Emergency Water Activated Repair Patch (EWARP) Operating Procedures

220.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?

220.1.1 Pipe patching kit [ref. a, sec. 42] A B
a. Hacksaw with spare 12-inch blades A
b. Canvas-duck cloth A
c. Wood chisel A
d. Diver's gloves A
e. 1/8-to-2-inch pipe cutter A B
f. 2½-to-4-inch pipe cutter A B
g. Ball peen hammer A
h. Hatchet A
i. Tarred marline A
j. Spun tarred oakum A
k. Wooden tapered plugs of various sizes A
l. Rubber sheet A
m. Metal cutting saw A
n. Tailor shears A
o. Wooden tapered wedges of various sizes A

.2 Banding kit [ref. a, sec. 42] A B
a. Clamping tool strap A
b. Steel strapping/band-it buckle A
c. Container A
d. Gloves A
e. Strong back A
f. Chain wrench A
220 PIPE REPAIR/PATCHING SYSTEM (CONT’D)

220.1.3 Jubilee pipe patches [ref. a, sec. 42]  
  .4 EWARP [ref. b, sec. 1]  
  .5 Plastic patch pipe repair kit (MHC/PC class only) [ref. a, sec. 42]  
    a. Bag tools satchel  
    b. Chalk line  
    c. Abrasive cloth  
    d. Glass woven roving cloth  
    e. Void cover  
    f. Tongue depressor  
    g. Polyvinyl chloride film  
    h. Polyvinyl chloride film gloves  
    i. Hardener paste  
    j. Hardener liquid  
    k. Plastic patch/pipe patching kit No. 1  
    l. Plastic patch/pipe patching kit No. 2  
    m. Liquid resin  
    n. Paste resin kit No. 2  
    o. Shears  
    p. Wood spatula

(Signature and Date)

220.2 PRINCIPLES OF OPERATION

220.2.1 How do the components work together to achieve the system’s function? [ref. a, sec. 42]

(Signature and Date)

220.3 PARAMETERS/OPERATING LIMITS

220.3.1 What are the allowable piping system limits when using the following:

  .1 Jubilee pipe patch [ref. a, sec. 42]  
  .2 EWARP [ref. c]  
  .3 Soft patch [ref. a, sec. 42]  
  .5 Plastic patch [ref. a, sec. 42]  
  .4 Banding patch [ref. a, sec. 42]

(Signature and Date)
220 PIPE REPAIR/PATCHING SYSTEM (CONT’D)

220.4 SYSTEM INTERFACE

220.4.1 What piping systems would the EWARP not be used on? [ref. d]

.2 How can a plastic pipe patch be used in hull repair (MHC/PC class only)? [ref. a, sec. 42]

(Signature and Date)

220.5 SAFETY PRECAUTIONS

220.5.1 What special safety precautions apply to using the:

a. EWARP [ref. c]

b. Banding kit [ref. a, sec. 42]

c. Plastic pipe repair kit (MHC/PC class) [ref. a, sec. 42]

(Signature and Date)
# Plugging Kit Equipment System

## References:

| [a] | NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control |
| [b] | NAVSEA S5090-B1-TAB-010, Training Aid Booklet for Damage Control Equipment |
| [c] | Ship’s Information Book (SIB) |
| [d] | NAVEDTRA 14057-PPR, Damage Controlman |

## 221.1 System Components and Component Parts

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?

<table>
<thead>
<tr>
<th>Questions</th>
<th></th>
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<tbody>
<tr>
<td>221.1.1 Plugging kit [ref. b, sec. 1; ref. c; ref. d, sec. 2]</td>
<td>A B</td>
</tr>
<tr>
<td>a. Bag, kit/tool box portable</td>
<td>A B</td>
</tr>
<tr>
<td>b. Caulking iron</td>
<td>A B</td>
</tr>
<tr>
<td>c. Cold chisel</td>
<td>A B</td>
</tr>
<tr>
<td>d. Ball peen hammer</td>
<td>A B</td>
</tr>
<tr>
<td>e. C-type hatchet</td>
<td>A B</td>
</tr>
<tr>
<td>f. Lathing hatchet</td>
<td>A B</td>
</tr>
<tr>
<td>g. Spun tarred oakum</td>
<td>A B</td>
</tr>
<tr>
<td>h. Tapered wood plugs</td>
<td>A B</td>
</tr>
<tr>
<td>i. Hand saw</td>
<td>A B</td>
</tr>
<tr>
<td>j. Shears</td>
<td>A B</td>
</tr>
<tr>
<td>k. Wood wedges</td>
<td>A B</td>
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<tr>
<td>.2 Box patch [ref. a, sec. 42]</td>
<td>A B</td>
</tr>
<tr>
<td>.3 Bucket patch [ref. a, sec. 42]</td>
<td>A B</td>
</tr>
<tr>
<td>.4 Square plate patch [ref. a, sec. 42]</td>
<td>A B</td>
</tr>
<tr>
<td>.5 Hinged plate patch [ref. a, sec. 42]</td>
<td>A B</td>
</tr>
<tr>
<td>.6 Hook bolts (T, J, and L type) [ref. a, sec. 42]</td>
<td>A B</td>
</tr>
</tbody>
</table>

(Signature and Date)

## 221.2 Principles of Operation

– None to be discussed.

## 221.3 Parameters/Operating Limits

– None to be discussed.
221 PLUGGING KIT EQUIPMENT SYSTEM (CONT’D)

221.4 SYSTEM INTERFACE

221.4.1 Discuss how the plugging kit interfaces with the shoring system.
[ref. a, sec. 42, fig. 079-42-24]

(Signature and Date)

221.5 SAFETY PRECAUTIONS

221.5.1 What safety precautions must be observed when performing a plugging repair?
[ref. a, sec. 42-7]

(Signature and Date)
# SHORING SYSTEM

## References:

[a] NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control  
[b] NAVEDTRA 14057-PPR, Damage Controlman  
[c] Ships DC book part 1

## 222.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each: [ref. a, sec. 43; ref. b, ch. 8; ref c]

A. What is its function?  
B. Where is it located?  
C. What are the components of the kit?

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>222.1.1 Shoring tool kit</td>
<td></td>
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<tr>
<td>.2 Shoring material kit:</td>
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<td></td>
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</tr>
<tr>
<td>a. Shoring lumber (wood)</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>b. Shoring steel</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>c. Wood wedges</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>d. Steel wedges</td>
<td>A</td>
<td>B</td>
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<tr>
<td>.3 Strongback</td>
<td>A</td>
<td>B</td>
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<td>.4 Shole</td>
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<td>B</td>
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<tr>
<td>.5 Shoring batten</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

(Signature and Date)

## 222.2 PRINCIPLES OF OPERATION

– None to be discussed.

## 222.3 PARAMETERS/OPERATING LIMITS

### 222.3.1 What is the formula for determining the maximum length of a wood shore?  
[ref. a, sec. 43]

.2 What is the maximum length of a wood wedge? [ref. a, sec. 43]

.3 What is the maximum weight metal shoring can support when: [ref. a, sec. 43]

a. Collapsed  
   b. Extended

(Signature and Date)
222 SHORING SYSTEM (CONT’D)

222.4 SYSTEM INTERFACE

222.4.1 How do the following outside influences affect the operation of this system: [ref. a, sec. 43]

a. Paint on wood shore/wedge
b. Sea and ship’s motion
c. Explosive/flammable hazards in relation to using steel shore

(Signature and Date)

222.5 SAFETY PRECAUTIONS

222.5.1 What special safety precautions apply to bulged or panting bulkhead/deck/overhead? [ref. a, sec. 43]

.2 What safety precautions must be observed after shoring is completed? [ref. a, sec. 43]

(Signature and Date)
223.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

223.1.1 What is the function of the computer based DC Management system? [ref. a, sec. 39]

(Signature and Date)

223.2 PRINCIPLES OF OPERATION – None to be discussed.

223.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

223.4 SYSTEM INTERFACE

223.4.1 How do the EMP/TREE affect the operation of this system? [ref. b, sec. 1.3]

.2 How does this system interface with the following: [ref. a, sec. 39]

a. LAN databases
b. Alarm sensors
c. Communications
d. Remote monitoring stations

(Signature and Date)

223.5 SAFETY PRECAUTIONS

223.5.1 What safety precautions must be observed when operating this system? [ref. b, sec. 1.3]

(Signature and Date)
224 Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)

References:

[a] S6226-PD-MMO-010/07070R2, Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)
[c] Electric High Pressure Air Compressor Manufacturer Technical Manual
[d] NTTP 320.31-470, Shipboard Biological/Chemical Warfare

224.1 System Components and Component Parts

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the probable indications if this component fails?

224.1.1 SCBA/BACS [ref. a, ch.3]

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Air booster pump assembly [ref. a, chs. 2, 3, 5, 7]</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Drive air inlet pressure gauge</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Drive air regulator</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Regulated air pressure gauge</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Drive air bleed valve</td>
<td>A B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Drive air control valve</td>
<td>A B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Filtered air inlet pressure gauge</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Filtered air inlet valve</td>
<td>A B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Filtered air outlet pressure gauge</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Drive air filter</td>
<td>A B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Drive air LP relief valve</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Booster pump</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Surge tank</td>
<td>A B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Filtered air HP relief valve</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Pilot switch</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. In-line filter</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)

224.1.1 b. HP filter assembly [ref. a, chs. 2, 3, 5, 7]  
1. Coalesor filter  
2. Relief valve  
3. Check valve  
4. Cartridge holders  
5. Manifold  
6. H₂O/CO indicator  
7. HPFA gauge  
8. In-line filter  
c. HPAC CBR filter [ref d]  
d. 1. Shut-off valve  
2. Bleed valve  
3. Drain valve  
e. Connecting hose assemblies: [ref. a, chs. 2, 3, 5, 7]  
1. Drive air hose assembly (H-101)  
2. Filtered air hose assembly (H-102)  
3. Filtered air supply hose assembly (H-103)  
4. Charging wands

(Signature and Date)

224.1.2 EBAC [ref. b, ch 1,2]  
a. LO  
b. Pressure gages  
c. Charging hose  
d. Relief valve assemblies  
e. Fuel system  
f. Compressor drive belt  
g. Compressor carrying assembly  
h. Air filters  
i. Moisture indicator

(Signature and Date)

224.1.3 Electric HP breathing air compressor [ref. c, ch, 1]  
a. Electric compressor drive belt  
b. LO  
c. Relief valves  
d. Low LO shut down switch  
e. Final discharge air regulating pressure valve  
f. HP flasks  
g. Breathing air charging panel

(Signature and Date)
224 \textbf{SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)}

224.1.3 \begin{itemize}
\item [h.] Gages
\item [i.] Charging hoses
\item [j.] Back pressure regulating valve
\item [k.] HP air cut out valves
\item [l.] Coalescer drain
\item [m.] Moisture/humidity indicator
\item [n.] Auto start/stop
\item [o.] Pressure regulator
\end{itemize}

\begin{center}
(\text{Signature and Date})
\end{center}

224.2 \textbf{PRINCIPLES OF OPERATION}

224.2.1 How do the components work together to achieve the system’s function? [ref. a, ch. 3]

.2 Trace the air paths for the following equipment: [ref. a, ch. 3]

\begin{itemize}
\item [a.] ABPA drive air path and filtered air path
\item [b.] HPFA drive air path and filtered air path
\item [c.] EBAC
\item [d.] Electric HP breathing air compressor
\end{itemize}

\begin{center}
(\text{Signature and Date})
\end{center}

224.3 \textbf{PARAMETERS/OPERATING LIMITS}

For the items listed, answer the following questions: [ref. a, ch. 2]

A. What is the normal operating value?
B. What are the allowable operating limits?

224.3.1 \begin{itemize}
\item [2] Filtered air outlet pressure gauge
\item [3] Filtered air inlet pressure gauge
\item [4] Drive air bleed valve
\item [5] Regulated air pressure gauge
\item [6] Drive air inlet pressure gauge
\item [7] Filtered air inlet valve
\item [8] Drive air control valve
\item [9] Drive air regulator
\item [10] HPFA gauge
\item [11] Shut-off valve
\item [12] Bleed valve
\item [13] Drain valve
\end{itemize}

\begin{center}
\textbf{Questions}
\end{center}

\begin{center}
\begin{tabular}{ll}
A & B \\
-- & --
\end{tabular}
\end{center}
224.3.13 H₂O/CO indicator
.14 Relief valve
.15 Shut-off knob (hose isolation valve)
.16 Bleed handle (hose isolation valve)
.17 Back pressure regulator
.18 Pressure regulator

(Signature and Date)

224.4 SYSTEM INTERFACE

224.4.1 How do the following outside influences affect the operation of this system: [ref. a, ch. 5]

a. Low or loss of HP air
b. Air quality testing
c. Breathing air test kit
d. Loss of electrical power

(Signature and Date)

224.4 SAFETY PRECAUTIONS

224.4.1 What safety precautions must be observed when operating this system? [ref. a, sec. 1, chs. 4, 6]

(Signature and Date)
225 INSTALLED WATER MIST FIRE EXTINGUISHING SYSTEM

References:

[a] Ship's Damage Control Book
[b] NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
[c] Ship's Information Book (SIB)

225.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the indications if the component fails?

Questions

225.1.1 Water mist pumping station components [refs. a, c]

<p>| | | | | |</p>
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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>a.</td>
<td>Water mist supply tank</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>b.</td>
<td>Water mist pump</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>c.</td>
<td>Primary and secondary supply/isolation valves</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>d.</td>
<td>Simplex strainer</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>e.</td>
<td>Bulkhead isolation valves</td>
<td>A</td>
<td>B</td>
<td>E</td>
</tr>
<tr>
<td>f.</td>
<td>Primary and secondary high pressure water supply valves</td>
<td>A</td>
<td>B</td>
<td>E</td>
</tr>
<tr>
<td>g.</td>
<td>Water mist piping</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>h.</td>
<td>Nozzles</td>
<td>A</td>
<td>B</td>
<td>E</td>
</tr>
</tbody>
</table>

225.2 PRINCIPLES OF OPERATION

225.2.1 Draw a simple diagram of this system, show the path of the agent from the pumping stations to the discharge nozzles: [ref. c]

(Signature and Date)
### parameters/operating limits

For the items listed, answer the following questions: [ref. a]

A. What is the normal operating value?
B. What are the allowable operating limits?

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>224.3.1 System pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.2 FWD tank capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.3 Aft tank capacity</td>
<td></td>
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</tr>
</tbody>
</table>

(Signature and Date)

### system interface

224.4.1 How do the following outside influences affect the operation of this system: [ref. b]

a. Loss of potable water main
b. Loss of electrical power
c. Improper valve alignment

(Signature and Date)

.2 How do the auxiliary systems affect the operation of this system? [ref. b]

(Signature and Date)

.3 Discuss how a loss of AFFF would affect operation of this system? [ref. b]

(Signature and Date)

### safety precautions

225.5.1 What safety precautions must be observed when operating this system? [ref. b]

(Signature and Date)

.2 List all safety devices in this system and their settings. [ref. b]

(Signature and Date)
INTRODUCTION TO WATCHSTATIONS

300.1 INTRODUCTION

The Watchstation section of your PQS is where you get a chance to demonstrate to your Qualifier that you can put the knowledge you have gained in the previous sections to use. It allows you to practice the tasks required for your watchstation and to handle abnormal conditions and emergencies. Before starting your assigned tasks, you must complete the prerequisites that pertain to the performance of that particular task. Satisfactory completion of all prerequisites is required prior to achievement of final watchstation qualification.

300.2 FORMAT

Each watchstation in this section contains:

I. A FINAL QUALIFICATION PAGE, which is used to obtain the required signatures for approval and recording of Final Qualification.

J. PREREQUISITES, which are items that must be certified completed before you can begin qualification for a particular watchstation. Prerequisites may include schools, watchstation qualifications from other PQS books, and fundamentals, systems, or watchstation qualifications from this book. Prior to signing off each prerequisite line item, the Qualifier must verify completion from existing records. Record the date of actual completion, not the sign-off date.

K. WATCHSTATION Performance, which is the practical factors portion of your qualification. The performance is broken down as follows:

   - Tasks (routine operating tasks that are performed frequently)
   - Infrequent Tasks
   - Abnormal Conditions
   - Emergencies
   - Training Watches

If there are multiple watchstations, a QUALIFICATION PROGRESS SUMMARY will appear at the end of the Standard.
300 INTRODUCTION TO WATCHSTATIONS (CONT’D)

300.3 OPERATING PROCEDURES

The PQS deliberately makes no attempt to specify the procedures to be used to complete a task or control or correct a casualty. The only proper sources of this information are the technical manuals, Engineering Operational Sequencing System (EOSS), Naval Air Training and Operating Procedures Standardization (NATOPS) or other policy-making documents prepared for a specific installation or a piece of equipment. Additionally, the level of accuracy required of a trainee may vary from school to school, ship to ship, and squadron to squadron based upon such factors as mission requirements. Thus, proficiency may be confirmed only through demonstrated performance at a level of competency sufficient to satisfy the Commanding Officer.

300.4 DISCUSSION ITEMS

Though actual performance of evolutions is always preferable to observation or discussion, some items listed in each watchstation may be too hazardous or time consuming to perform or simulate. Therefore, you may be required to discuss such items with your Qualifier.

300.5 NUMBERING

Each Final Qualification is assigned both a watchstation number and a NAVEDTRA Final Qualification number. The NAVEDTRA number is to be used for recording qualifications in service and training records.

300.6 HOW TO COMPLETE

After completing the required prerequisites applicable to a particular task, you may perform the task under the supervision of a qualified watchstander. If you satisfactorily perform the task and can explain each step, your Qualifier will sign you off for that task. After all line items have been completed, your Qualifier will verify Final Qualification by signing and dating the Final Qualification pages.
This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as qualified in BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
301.1 PREREQUISITES

For optimum training effectiveness, the following items should be completed prior to starting your assigned tasks but shall be completed prior to final watchstation qualification.

301.1.1 Fundamentals from this PQS:

101 Damage Control (DC) Safety Precautions
Completed ________________________________ 3% of Watchstation
(Qualifier and Date)

102 Damage Control (DC) Communications/Symbology
Completed ________________________________ 3% of Watchstation
(Qualifier and Date)

107 Damage Control (DC) Organization
Completed ________________________________ 3% of Watchstation
(Qualifier and Date)

112 Computer Based Damage Control (DC) Management System and Software
Completed ________________________________ 3% of Watchstation
(Qualifier and Date)

301.2 Systems from this PQS:

201 Damage Control (DC) Communications
Completed ________________________________ 3% of Watchstation
(Qualifier and Date)
301 Basic Damage Control (DC) Communications (Cont’d)

301.2 Tasks

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What means of communications are used?
D. Satisfactorily perform this task.

301.2.1 Obtain and inspect DC communications equipment

Questions

A D

(Signature and Date)

.2 Establish and test communications

A B D

(Signature and Date)

.3 Transmit messages using standard phraseology

A B D

(Signature and Date)

.4 Receive and record messages using standard DC symbology

A B D

(Signature and Date)

.5 Secure and stow DC communications equipment

A B D

(Signature and Date)

.6 Deliver an oral and a written message within your DC repair station area (2 times)

A B C D

(Signature and Date)

.7 Plot a fire scenario using standard DC symbology (2 times)

A C D

(Signature and Date)
301 BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)

301.2.8 Plot a flooding scenario using standard DC symbology

(Signature and Date)

301.2.9 Plot a chemical scenario using standard DC symbology

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 42% OF WATCHSTATION.

301.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What means of communications are used?
D. What conditions require this infrequent task?
E. Satisfactorily perform or simulate this infrequent task.

301.3.1 Transmit messages through a sound-powered telephone earpiece

(Signature and Date)

301.3.2 Receive messages through a sound-powered telephone mouthpiece

(Signature and Date)

301.3.3 Reestablish communications upon evacuation of the DC repair station

(Signature and Date)
301 BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)

301.3.4 Reestablish communications using the emergency communication kit

______________________________
(Signature and Date)

COMPLETED .3 AREA COMPRIS 24% OF WATCHSTATION.

301.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What emergencies or malfunctions may occur if immediate action is not taken?
E. How does this condition affect other operations/equipment/watchstations?
F. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

Questions

301.4.1 Loss of communication

______________________________
(Signature and Date)

.2 Malfunctioning DC communication equipment

______________________________
(Signature and Date)

COMPLETED .4 AREA COMPRIS 9% OF WATCHSTATION.

301.5 EMERGENCIES – None to be discussed.
301  BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)

301.6  WATCHES

301.6.1  STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Sound-Powered Phone Talker (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

Plotter (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISIES 10% OF WATCHSTATION.

301.7  EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

301.7.1  EXAMINATIONS  Pass a written/oral examination

___________________________________
(Signature and Date)
### 302 BASIC FIRST-AID

<table>
<thead>
<tr>
<th>NAME</th>
<th>RATE/RANK</th>
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This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

---

The trainee has completed all PQS requirements for this watchstation. Recommend designation as qualified BASIC FIRST-AID (NAVEDTRA 43119-J).

<table>
<thead>
<tr>
<th>RECOMMENDED</th>
<th>DATE</th>
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<td>Supervisor</td>
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<td>Division Officer</td>
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<td>Department Head</td>
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<th>QUALIFIED</th>
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<td>Commanding Officer or Designated Representative</td>
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<th>SERVICE RECORD ENTRY</th>
<th>DATE</th>
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125
302 BASIC FIRST-AID

Estimated completion time: 2 weeks

302.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

302.1.1 OTHER QUALIFICATIONS:

American Heart Association Basic Life Support Certification (RECOMMENDED)

Completed ________________________________
(Qualifier and Date)

.2 WATCHSTATIONS FROM THIS PQS:

301 Basic Damage Control (DC) Communications

Completed ________________________________
(Qualifier and Date)

.3 FUNDAMENTALS FROM THIS PQS:

105 First-Aid and Rescue

Completed ________________________________ 5% of Watchstation
(Qualifier and Date)
302 BASIC FIRST-AID (CONT’D)

302.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What means of communications are used?
D. What safety precautions must be observed?
E. What parameters/operating limits must be monitored?
F. Satisfactorily perform this task.

302.2.1 Demonstrate patient evaluation procedures

Questions: A B C D E F

(Signature and Date)

.2 Locate designated first-aid boxes

(Signature and Date)

.3 Locate battle dressing stations

(Signature and Date)

COMPLETED .2 AREA COMPRISES 15% OF WATCHSTATION.

302.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What conditions require this infrequent task?
G. Satisfactorily perform or simulate this infrequent task.

302.3.1 Place a personnel casualty in a Neil-Robertson stretcher

Questions: A B C D E F G

(Signature and Date)
302 BASIC FIRST-AID (CONT’D)

302.3.2 Place a personnel casualty in a Stokes stretcher

(Signature and Date)

.3 Place a personnel casualty in a Miller body board stretcher

(Signature and Date)

.4 Rescue victim from an energized circuit

(Signature and Date)

.5 Control hemorrhage by direct pressure

(Signature and Date)

.6 Control hemorrhage by tourniquet

(Signature and Date)

.7 Control hemorrhage by using pressure points

(Signature and Date)

.8 Treat for shock

(Signature and Date)

.9 Apply a splint to a simple fracture

(Signature and Date)

.10 Apply a splint to a compound fracture

(Signature and Date)
COMPLETED.
.

.3 AREA COMPRISES 80% OF WATCHSTATION.

302.4 ABNORMAL CONDITIONS—None to be discussed.

302.5 EMERGENCIES—None to be discussed.

302.6 WATCHES—None.

302.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

302.7.1 EXAMINATIONS Pass a written/oral examination

(Signature and Date)
FINAL QUALIFICATION NAVEDTRA 43119-J

303 BASIC FIREFIGHTING

NAME______________________________ RATE/RANK____________________

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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as qualified BASIC FIREFIGHTING (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
303 BASIC FIREFIGHTING

Estimated completion time: 4 weeks

303.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

303.1.1 SCHOOLS:

Self Contained Breathing Apparatus (SCBA) Scott Air Pak 4.5 (A-495-0012) (REQUIRED)

Completed ____________________________

(Qualifier and Date)

.2 WATCHSTATIONS FROM THIS PQS:

302 Basic First-Aid

Completed ____________________________

(Qualifier and Date)

.3 FUNDAMENTALS FROM THIS PQS:

103 Firefighting

Completed ____________________________ 1% of Watchstation

(Qualifier and Date)

.4 SYSTEMS FROM THIS PQS:

203 Oxygen Breathing Apparatus (OBA)

Completed ____________________________ 1% of Watchstation

(Qualifier and Date)

204 Self-Contained Breathing Apparatus (SCBA)

Completed ____________________________ 1% of Watchstation

(Qualifier and Date)
303 BASIC FIREFIGHTING (CONT'D)

303.1.4 205 Personal Protective Clothing Equipment

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

207 Portable Firefighting Equipment

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

208 Portable Damage Control (DC) Equipment

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

209 Installed Fire Extinguishing

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

211 Firemain

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

212 Access/Overhaul Equipment

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

213 Ventilation

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

225 Installed Water Mist Fire Extinguishing

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)
303 BASIC FIREFIGHTING (CONT’D)

303.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What parameters/operating limits must be monitored?
G. Satisfactorily perform this task.

303.2.1 Don and doff FFE

Questions  
A B E F G

(Signature and Date)

.2 Inspect, don, and activate OBA using quick-start candle  
A B C D E F G

(Signature and Date)

.3 Remove used canister, clean, inspect, and restow OBA  
A B C E G

(Signature and Date)

.4 Relieve nozzle position on charged hose  
A B C D E F G

(Signature and Date)

.5 Inspect, don, and activate SCBA  
A B C D E F G

(Signature and Date)

.6 Charge, clean, inspect, and restow the SCBA  
A B C D E F G

(Signature and Date)

.7 Inspect, layout, charge, and restow fire hose  
A B C E G

(Signature and Date)
303.2.8 Charge hose and operate firefighting nozzles through all patterns

(Signature and Date)

.9 Demonstrate proper water management techniques

(Signature and Date)

.10 Maneuver charged hoses up and down ladders

(Signature and Date)

.11 Demonstrate the ability to activate the following installed equipment:
   a. CO₂ hose reel
      (Signature and Date)
   b. CO₂ flooding system
      (Signature and Date)
   c. AFFF sprinkling system
      (Signature and Date)
   d. Saltwater sprinkling system
      (Signature and Date)
   e. HALON/HFP system
      (Signature and Date)
   f. APC extinguishing system (range guard)
      (Signature and Date)
303.2.11  

**g.** AFFF hose reel

(Signature and Date)

**Questions**  
A B C D E F G

**h.** Water Mist system remotely/locally

(Signature and Date)

A B C D E F G

12. Locate the following items and demonstrate the ability to use them:

**a.** AFFF in-line eductor

(Signature and Date)

A B C F G

**b.** Smoke curtains

(Signature and Date)

A B C G

**c.** Smoke blankets

(Signature and Date)

A B C G

**d.** Thermal imager

(Signature and Date)

A B C F G

**e.** PECU

(Signature and Date)

A B C E F G

**f.** Ramfan

(Signature and Date)

A B E F G

**g.** Box fan

(Signature and Date)

A B E F G
303.2.12 h. Portable firefighting pump (P-100) and related equipment

(Signature and Date)

j. PHARS

(Signature and Date)

k. Power hawk

(Signature and Date)

l. Portable CO₂ extinguisher

(Signature and Date)

m. Portable AFFF extinguisher

(Signature and Date)

n. Portable PKP extinguishers

(Signature and Date)

o. Overhaul equipment

(Signature and Date)

.13 Demonstrate the ability to set and maintain the following:

a. Fire boundaries

(Signature and Date)
**BASIC FIREFIGHTING (CONT’D)**

303.2.13  b. Smoke boundaries

(Signature and Date)

**COMPLETED .2 AREA COMPRISSES 47% OF WATCHSTATION.**

303.3 **INFREQUENT TASKS**

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What conditions require this infrequent task?
G. Satisfactorily perform or simulate this infrequent task.

303.3.1 Vent compartments

(Signature and Date)

.2 Maneuver charged hoses through a vertical trunk

(Signature and Date)

.3 Don and activate OBA using manual method

(Signature and Date)

.4 Perform indirect firefighting procedures

(Signature and Date)

.5 Perform fog firefighting procedures

(Signature and Date)
303  **BASIC FIREFIGHTING (CONT’D)**

303.3.6 Rig portable desmoking equipment inside fire/smoke boundaries to achieve active desmoking

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(Signature and Date)

COMPLETED .3 AREA COMPRISSES 10% OF WATCHSTATION.

303.4 **ABNORMAL CONDITIONS**

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

303.4.1 Collapsed OBA breathing bag

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(Signature and Date)

.2 Leaking of OBA/SCBA facepiece

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(Signature and Date)

.3 Jammed OBA canister

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(Signature and Date)

.4 SCBA second stage regulator failure

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(Signature and Date)
303 BASIC FIREFIGHTING (CONT’D)

303.4.5 SCBA quick charge in smoke filled environment

Questions
A B D E G H

(Signature and Date)

.6 Whiteout of Thermal Imager

Questions
A B C D F G H

(Signature and Date)

.7 Loss of ship’s electrical power

Questions
A B C D E F G H

(Signature and Date)

.8 Improperly stowed hazardous/combustible materials

Questions
B C E F G H

(Signature and Date)

.9 Loss of HP air

Questions
A B C D E F G H

(Signature and Date)

.10 Ruptured hose

Questions
A B C D E F G H

(Signature and Date)

.11 Clogged vari-nozzle

Questions
A B C D E F G H

(Signature and Date)

.12 Compartment obstructed by debris

Questions
A B C D E F G H

(Signature and Date)

COMPLETED .4 AREA COMPRISSES 15% OF WATCHSTATION.
### 303.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the immediate action for this emergency.

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<td>Fire in ventilation system</td>
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303 BASIC FIREFIGHTING (CONT’D)

303.5.8 Class C fire

___________________________________
(Signature and Date)

.9 Class D fire

___________________________________
(Signature and Date)

.10 Fire in CBR environment

___________________________________
(Signature and Date)

COMPLETED .5 AREA COMPRISES 12% OF WATCHSTATION.

303.6 WATCHES

303.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Plugman (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

Boundaryman (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)
303.6.1 Accessman/overhaulman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISSES 5% OF WATCHSTATION.

303.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

303.7.1 EXAMINATIONS Pass a written/oral examination

(Signature and Date)
This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified FIRE WATCH STANDER (NAVEDTRA 43119-J).

RECOMMENDED____________________________DATE______________
Supervisor

RECOMMENDED____________________________DATE______________
Division Officer

RECOMMENDED____________________________DATE______________
Department Head

QUALIFIED_____________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY____________________________DATE______________
304.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

304.1.1 WATCHSTATIONS FROM THIS PQS:

303 Basic Firefighting

Completed ____________________________
(Qualifier and Date)

.2 FUNDAMENTALS FROM THIS PQS:

108 Fire Watch

Completed ____________________________ 7% of Watchstation
(Qualifier and Date)

304.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

304.2.1 Muster, obtain, and inspect equipment

Questions
A B C E F

(Signature and Date)

.2 Setup communications between hot-work operator and fire watch when on opposite sides of bulkhead/deck

Questions
A B C D E F

(Signature and Date)
304.2.3 Maintain surveillance over hot-work area

(Signature and Date)

.4 Inspect area after hot-work is completed

(Signature and Date)

.5 Inspect and return fire watch equipment

(Signature and Date)

COMPLETED .2 AREA COMPRIVES 35% OF WATCHSTATION.

304.3 INFREQUENT TASKS – None to be discussed.

304.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. How does this condition affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

304.4.1 Loss of firemain

(Signature and Date)

.2 Excessive smoke/fumes from hot-work

(Signature and Date)

.3 Fuel spill

(Signature and Date)

COMPLETED .4 AREA COMPRIVES 22% OF WATCHSTATION.
304 FIRE WATCH STANDER (CONT’D)

304.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the immediate action for this emergency.

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<td>Loss of communications with hot-work operator</td>
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<td>Fire extinguishing equipment malfunctions</td>
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COMPLETED .5 AREA COMPRISES 22% OF WATCHSTATION.

304.6 WATCHES

304.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Fire Watch Stander (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISES 14% OF WATCHSTATION.
304.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

304.7.1 EXAMINATIONS Pass a written/oral examination

___________________________________

(Signature and Date)
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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as qualified BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________

Supervisor

RECOMMENDED________________________________________DATE______________

Division Officer

RECOMMENDED________________________________________DATE______________

Department Head

QUALIFIED_____________________________________________DATE______________

Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
305.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

305.1.1 WATCHSTATIONS FROM THIS PQS:

301  Basic Damage Control (DC) Communications

Completed ___________________________________  (Qualifier and Date)

.2 FUNDAMENTALS FROM THIS PQS:

106 Chemical, Biological, and Radiological (CBR) Defense

Completed ___________________________________ 5% of Watchstation (Qualifier and Date)

.3 SYSTEMS FROM THIS PQS:

204 Self-Contained Breathing Apparatus (SCBA)

Completed ___________________________________ 5% of Watchstation (Qualifier and Date)

205 Personal Protective Clothing Equipment

Completed ___________________________________ 3% of Watchstation (Qualifier and Date)

206 Watertight Closures/Hull Fittings

Completed ___________________________________ 2% of Watchstation (Qualifier and Date)

213 Ventilation

Completed ___________________________________ 5% of Watchstation (Qualifier and Date)
305 BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (CONT’D)

305.1.3 215 Chemical, Biological, and Radiological (CBR) Detection and Decontamination Equipment

Completed _______________________________ 5% of Watchstation
(Qualifier and Date)

305.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What safety precautions must be observed?
E. What parameters/operating limits must be monitored?
F. Satisfactorily perform this task.

305.2.1 Locate decontamination/CCA stations

(Signature and Date)

.2 Transit through a CCA and decontamination station

(A B C D E F)

(Signature and Date)

.3 Locate casualty collection stations

(F)

(Signature and Date)

.4 Locate deep shelter stations

(F)

(Signature and Date)

.5 Don and doff chemical protective ensemble

(A B D F)

(Signature and Date)
305.2.6 Change protective mask canister

(Signature and Date)

.7 Use the M-291 skin decontamination kit

(Signature and Date)

.8 Demonstrate self and buddy aid for nerve agent exposure using atropine and 2-PAM/chloride/CANA training injectors

(Signature and Date)

.9 Pass through CPS/SACPS air lock/pressure lock

(Signature and Date)

.10 Decontaminate external and internal areas

(Signature and Date)

.11 Transit through a DECON station

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 45% OF WATCHSTATION.
305 BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (CONT’D)

305.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What parameters must be monitored?
F. What conditions require this infrequent task?
G. Satisfactorily perform or simulate this infrequent task.

305.3.1 Post M8 and M9 paper

______________________________
(Signature and Date)

COMPLETED .3 AREA COMPRISSES 5% OF WATCHSTATION.

305.4 ABNORMAL CONDITIONS— None to be discussed.

305.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What operating limitations are imposed?
D. What other emergencies or malfunctions may occur if immediate action is not taken?
E. How does this emergency affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the immediate action for this emergency.

305.5.1 Nuclear blast

______________________________
(Signature and Date)

.2 Chemical attack

______________________________
(Signature and Date)
305.3 Basic Chemical, Biological, and Radiological (CBR) Defense (Cont’d)

305.5.3 Biological attack

Questions
A B C D E F G

(Signature and Date)

.4 Nuclear radiation exposure

A B C D E F G

(Signature and Date)

.5 Chemical agent exposure
a. Nerve
b. Blister
c. Blood

A B C D E F G

(Signature and Date)

.6 Biological agent exposure
a. Toxins
b. Pathogens

A B C D E F G

(Signature and Date)

Completed .5 area comprises 30% of watchstation.

305.6 Watches – None.

305.7 Examinations (Optional except as required by TYCOM/ISIC, etc.)

305.7.1 Examinations
Pass a written/oral examination

(Signature and Date)
306  BASIC DAMAGE CONTROL (DC)

NAME________________________________ RATE/RANK________________________________

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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as qualified BASIC DAMAGE CONTROL (DC) (NAVEDTRA 43119-J).

RECOMMENDED________________________________ DATE_________________
  Supervisor

RECOMMENDED________________________________ DATE_________________
  Division Officer

RECOMMENDED________________________________ DATE_________________
  Department Head

QUALIFIED________________________________ DATE_________________
  Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________ DATE_________________
306.1 PREREQUISITES

For optimum training effectiveness, the following items should be completed prior to starting your assigned tasks but shall be completed prior to final watchstation qualification.

306.1.1 Watchstations from this PQS:

303 Basic Damage Control
Completed ____________________________
(Qualifier and Date)

304 Fire Watch Stander
Completed ____________________________
(Qualifier and Date)

305 Basic Chemical, Biological, and Radiological (CBR) Defense
Completed ____________________________
(Qualifier and Date)

.2 Fundamentals from this PQS:

104 Basic Damage Control (DC)
Completed ____________________________ 1% of Watchstation
(Qualifier and Date)

107 Damage Control (DC) Organization
Completed ____________________________ 1% of Watchstation
(Qualifier and Date)

110 Battle Damage Repair
Completed ____________________________ 1% of Watchstation
(Qualifier and Date)

111 Hazardous Material Control and Management (HMC&M) Program
Completed ____________________________ 1% of Watchstation
(Qualifier and Date)
306  **BASIC DAMAGE CONTROL (DC) (CONT’D)**

306.1.2  113 Investigation

Completed _________________________________ 1% of Watchstation
(Qualifier and Date)

.3 SYSTEMS FROM THIS PQS:

202  Emergency Escape Breathing Device (EEBD)

Completed _________________________________ 1% of Watchstation
(Qualifier and Date)

214  Installed Drainage

Completed _________________________________ 1% of Watchstation
(Qualifier and Date)

216  Casualty Power Distribution

Completed _________________________________ 1% of Watchstation
(Qualifier and Date)

217  Dewatering Equipment/Pumps

Completed _________________________________ 1% of Watchstation
(Qualifier and Date)

224  Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)

Completed _________________________________ 1% of Watchstation
(Qualifier and Date)

306.2  **TASKS**

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

306.2.1  Dog and undog individually dogged watertight doors

_______________________________________
(Signature and Date)

**Questions**

A B E F
306.2.2 Dog and undog quick-acting watertight doors

(Signature and Date)

.3 Dog and undog a watertight hatch

(Signature and Date)

.4 Dog and undog a raised scuttle/flush deck scuttle

(Signature and Date)

.5 Dog and undog a ballistic hatch

(Signature and Date)

.6 Dog and undog a ballistic scuttle

(Signature and Date)

.7 Open and close deck drains

(Signature and Date)

.8 Open and close battle ports

(Signature and Date)

.9 Open and close a sounding tube

(Signature and Date)

.10 Open and close ventilation closures

(Signature and Date)

.11 Open and close air test fittings

(Signature and Date)
306.2.12 Open and close overboard discharge fittings

(Signature and Date)

.13 Set and maintain material condition YOKE

(Signature and Date)

.14 Set and maintain material condition ZEBRA

(Signature and Date)

.15 Log DC fittings open/closed in the closure log (2 times)

(Signature and Date)

(Signature and Date)

.16 Demonstrate proper procedures for reporting emergencies

(Signature and Date)

.17 Demonstrate proper procedures for bracing for shock (2 times)

(Signature and Date)

(Signature and Date)

.18 Demonstrate proper battle dress

(Signature and Date)

.19 Transit to assigned battle station using proper traffic routes

(Signature and Date)
306.2.20 Locate piping system/isolation valves in assigned areas

(Signature and Date)

.21 Locate and operate system valves equipped with remote operators

(Signature and Date)

.22 Isolate ventilation systems in assigned area

(Signature and Date)

.23 Set and maintain flooding boundaries

(Signature and Date)

COMPLETED .2 AREA COMPRISIES 50% OF WATCHSTATION.

306.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What conditions require this infrequent task?
G. Satisfactorily perform or simulate this infrequent task.

306.3.1 Identify and report material conditions of readiness discrepancies

(Signature and Date)
306.3.2 Set modified condition YOKE

(Signature and Date)

.3 Set modified condition ZEBRA

(Signature and Date)

.4 Set William fittings in assigned area

(Signature and Date)

.5 Set circle William fittings in assigned area

(Signature and Date)

.6 Rig jumper hoses around damaged piping to reestablish systems

(Signature and Date)

.7 Align/secure an installed eductor

(Signature and Date)

COMPLETED .3 AREA COMPRISIES 12% OF WATCHSTATION.
306 BASIC DAMAGE CONTROL (DC) (CONT’D)

306.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

Questions

306.4.1 Violations of material conditions of readiness

(A B C D E F G H)

(Signature and Date)

.2 Improperly stowed materials and equipment

(A B C E F G H)

(Signature and Date)

COMPLETED .4 AREA COMPRISES 4% OF WATCHSTATION.

306.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the immediate action for this emergency.

Questions

306.5.1 Presence of unusual odors or vapors

(A B C D E F G H)

(Signature and Date)
### Questions

306.5.2 Ruptured pipes/flooding

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<thead>
<tr>
<th>A</th>
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(Signature and Date)

.3 Loss of flooding boundaries

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(Signature and Date)

.4 Progressive flooding

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(Signature and Date)

.5 Failed isolation valves

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(Signature and Date)

.6 HAZMAT spill

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(Signature and Date)

**COMPLETED .5 AREA COMPRICES 12% OF WATCHSTATION.**

### WATCHES

306.6

306.6.1 **STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:**

Closure Detail (during drills) (2 times)

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<th>A</th>
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(Signature and Date)

(Signature and Date)

Isolation Detail (during drills) (2 times)

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(Signature and Date)

(Signature and Date)
306.6.1 Flooding Boundaryman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

Hoseman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

Nozzleman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

**COMPLETED .6 AREA COMPRISES 12% OF WATCHSTATION.**

306.7 **EXAMINATIONS**

306.7.1 **EXAMINATIONS** Pass a written/oral examination

(Signature and Date)

**COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.**
307 ADVANCED DAMAGE CONTROL (DC)

NAME______________________________ RATE/RANK____________________

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as qualified ADVANCED DAMAGE CONTROL (DC) (NAVEDTRA 43119-J).

RECOMMENDED_____________________________ DATE______________
Supervisor

RECOMMENDED_____________________________ DATE______________
Division Officer

RECOMMENDED_____________________________ DATE______________
Department Head

QUALIFIED_______________________________ DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____________________________ DATE______________
WATCHSTATION 307

ADVANCED DAMAGE CONTROL (DC)

Estimated completion time: 8 weeks

NOTE: UPON COMPLETION OF THIS WATCHSTATION, PERSONNEL SHALL BE QUALIFIED TO
PERFORM IN THE FOLLOWING TEAMS: DEWATERING, HULL PATCHING/PLUGGING,
PIPE PATCHING, SHORING, AND SOUNDING.

307.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE
COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED
PRIOR TO FINAL WATCHSTATION QUALIFICATION.

307.1.1 WATCHSTATIONS FROM THIS PQS:

301-306 Basic Damage Control (DC)
Completed ____________________________
(Qualifier and Date)

.2 SYSTEMS FROM THIS PQS:

220 Pipe Repair/Patching
Completed ____________________________ 2% of Watchstation
(Qualifier and Date)

221 Plugging Kit Equipment
Completed ____________________________ 2% of Watchstation
(Qualifier and Date)

222 Shoring
Completed ____________________________ 2% of Watchstation
(Qualifier and Date)
307 ADVANCED DAMAGE CONTROL (DC) (CONT’D)

307.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What parameters/operating limits must be monitored?
G. Satisfactorily perform this task.

307.2.1 Take, record, and report soundings on all tanks/voids within
DC repair station areas/adjacent areas

Questions

.2 Inventory and inspect a plugging kit

.3 Demonstrate plugging procedures to control a crack and
a hole above and below the waterline

.4 Inventory and inspect a shoring tool kit

.5 Locate shoring materials in assigned areas

.6 Construct I-type shoring

(Signature and Date)
307.2.7  Construct H-type shoring

(Signature and Date)

.8  Construct wood K-type shoring utilizing a carpenter square

(Signature and Date)

.9  Construct wood K-type shoring utilizing a shoring batten

(Signature and Date)

.10  Construct K-type shoring using steel shores

(Signature and Date)

.11  Describe the duties of a shoring watch

(Signature and Date)

.12  Inventory and inspect a pipe patching kit

(Signature and Date)

.13  Perform pipe repair using a soft patch

(Signature and Date)

.14  Perform pipe repair using jubilee patch

(Signature and Date)

.15  Perform pipe repair using a plastic pipe patch

(Signature and Date)
### Advanced Damage Control (DC) (Cont’d)

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Answers</th>
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<tbody>
<tr>
<td>307.2.16</td>
<td>Perform pipe repair using an EWARP</td>
<td>A B C D E F G</td>
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<td>.17</td>
<td>Inventory and inspect a banding kit</td>
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<td>.18</td>
<td>Perform pipe repair using a banding kit</td>
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<td>.19</td>
<td>Restore repaired piping systems</td>
<td>A B C D E F G</td>
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<td>.20</td>
<td>Rig, operate, secure, and stow P-100</td>
<td>A B C D E F G</td>
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<td>.21</td>
<td>Rig, operate, secure, and stow a portable eductor</td>
<td>A B C D E F G</td>
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<td>.22</td>
<td>Rig, operate, secure, and stow an electric submersible pump</td>
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**COMPLETED .2 AREA COMPRISSES 46% OF WATCHSTATION.**
307 ADVANCED DAMAGE CONTROL (DC) (CONT’D)

307.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What parameters must be monitored?
F. How are the monitored parameters changed by this infrequent task?
G. What conditions require this infrequent task?
H. Satisfactorily perform or simulate this infrequent task.

307.3.1 Use submersible pumps in tandem

(Signature and Date)

.2 Dewater using a P-100 pump with an eductor

(Signature and Date)

.3 Dewater contaminated water/fuel/hot water

(Signature and Date)

.4 Rig a submersible pump with a suction hose

(Signature and Date)

.5 Control/combat structural damage in a CBR contaminated environment

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 24% OF WATCHSTATION.

307.4 ABNORMAL CONDITIONS— None to be discussed.
307  **ADVANCED DAMAGE CONTROL (DC) (CONT’D)**

307.5  **EMERGENCIES**

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. Satisfactorily perform or simulate the immediate action for this emergency.

### Questions

<table>
<thead>
<tr>
<th>Emergency</th>
<th>A</th>
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<tr>
<td>Pressurized sounding tube</td>
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<td>Progressive flooding</td>
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<tr>
<td>Ruptured fuel piping</td>
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<td>Ruptured toxic liquid lines</td>
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<td>Progressive crack/split seam</td>
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<td>Shoring collapses</td>
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<td>Loss of firemain</td>
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</table>
307.5.8 Loss of electrical power

(Signature and Date)

COMPLETED .5 AREA COMPRISES 16% OF WATCHSTATION.

307.6 WATCHES

307.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Plugging Team Member (during drills)

(Signature and Date)

Shoring Team Member (during drills)

(Signature and Date)

Pipe Patching Team Member (during drills)

(Signature and Date)

Dewatering Team Member (during drills)

(Signature and Date)

COMPLETED .6 AREA COMPRISSES 8% OF WATCHSTATION.

307.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

307.7.1 EXAMINATIONS Pass a written examination

(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

(Signature and Date)
This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified TEAM LEADER (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
 WATCHSTATION 308

308 TEAM LEADER

Estimated completion time: 6 weeks

NOTE: UPON COMPLETION OF THIS WATCHSTATION, PERSONNEL SHALL BE QUALIFIED TO PERFORM IN THE FOLLOWING FUNCTIONS: TEAM LEADER.

308.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

308.1.1 WATCHSTATIONS FROM THIS PQS:

301-306 Basic Damage Control (DC)

Completed ___________________________________ (Qualifier and Date)

308.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

308.2.1 Coordinate efforts of multiple Attack Team hose lines while using the thermal imager

___________________________________ (Signature and Date)

Questions

A B C D E F

308.2.2 Lead efforts of Attack Team while accessing from above

___________________________________ (Signature and Date)

Questions

A B C D E F

308.2.3 Lead efforts of Attack Team in an indirect attack

___________________________________ (Signature and Date)

Questions

A B C D E F
308.2.4 Coordinate efforts to overhaul the following:

a. Class A fire

(Signature and Date)

b. Class B fire

(Signature and Date)

c. Class C fire

(Signature and Date)

d. Class D fire

(Signature and Date)

e. Machinery space fire

(Signature and Date)

.5 Report status of Attack Team progress to Scene Leader

(Signature and Date)

.6 Determine damage in affected space and make reports to Scene Leader

(Signature and Date)

.7 Direct evacuation of the Attack Team

(Signature and Date)
308 TEAM LEADER (CONT’D)

308.2.8 Assist in the employment of heat management techniques

(Signature and Date)

308.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What safety precautions must be observed?
D. What conditions require this infrequent task?
E. Satisfactorily perform or simulate this infrequent task.

308.3.1 Lead efforts to control/combat a fire in a CBR contaminated environment

(Signature and Date)

.2 Lead efforts of the Attack Team in controlling/extinguishing a fire involving a weapon

(Signature and Date)

.3 Lead efforts of the Attack Team to combat a ventilation system fire

(Signature and Date)

.4 Demonstrate the ability to desmoke a space adjacent to the weather deck by using a vari-nozzle

(Signature and Date)
308  TEAM LEADER (CONT’D)

308.3.5 Lead efforts of Attack Team during vertical trunk access

(Signature and Date)

0.6 Assist in the employment of active desmoking procedures

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 24% OF WATCHSTATION.

308.4 ABNORMAL CONDITIONS—None to be discussed.

308.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. Satisfactorily perform or simulate the immediate action for this emergency.

308.5.1 Ruptured hose in the fire-affected space

(Signature and Date)

.2 Loss of one or more Attack Team members while combating the fire

(Signature and Date)

.3 Fire out of control

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 12% OF WATCHSTATION.
308  TEAM LEADER (CONT’D)

308.6  WATCHES

308.6.1  STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Team Leader (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRIS 16% OF WATCHSTATION.

308.7  EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

308.7.1  EXAMINATIONS  Pass a written examination

___________________________________
(Signature and Date)

.2  EXAMINATIONS  Pass an oral examination board

___________________________________
(Signature and Date)
This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________

Supervisor

RECOMMENDED________________________________________DATE______________

Division Officer

RECOMMENDED________________________________________DATE______________

Department Head

QUALIFIED_____________________________________________DATE______________

Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
NOTE: UPON COMPLETION OF THIS WATCHSTATION, PERSONNEL SHALL BE QUALIFIED TO PERFORM IN THE FOLLOWING FUNCTIONS: CP-95 OPERATOR, DECON STATION CUTTER/OPERATOR/LEADER, INTERNAL/EXTERNAL MONITOR, MONITOR (TRAFFIC CONTROL), AND RECORDER.

309.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

309.1.1 Schools:

NKO ILE CBR and HAZMAT Identification, Protective Equipment, and Measures (CNE-CBR-001) (Recommended)

Completed __________________________________ (Qualifier and Date)

NKO ILE Chemical Warfare Directional Detector (CWDD) AN/KAS-1/1A (CNE-CWDD-1.0) (Recommended)

Completed __________________________________ (Qualifier and Date)

NKO ILE Dry Filter Unit (DFU) (CNE-DFU-1.0) (Recommended)

Completed __________________________________ (Qualifier and Date)

NKO ILE Improved (Chemical Agent) Point Detection System (IPDS) (CNE-IPDS-1.0) (Recommended)

Completed __________________________________ (Qualifier and Date)

NKO ILE Navy Shipboard Collective Protection System (CPS) and Navy Selected Area Collective Protection System (SACPS) (NAVSEA-CPS-1.0) (Recommended)

Completed __________________________________ (Qualifier and Date)
309.1.2 Watchstations from this PQS:

301-306 Basic Damage Control (DC)

Completed ________________________________

(Qualifier and Date)

309.2 Tasks

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What parameters/operating limits must be monitored?
G. Satisfactorily perform this task.

309.2.1 Inventory decontamination equipment (2 times)

Questions

G

(Signature and Date)

(Signature and Date)

.2 Decontaminate external area (2 times)  A B C D E F G

(Signature and Date)

(Signature and Date)

.3 Decontaminate internal area (2 times)  A B C D E F G

(Signature and Date)

(Signature and Date)
309.2.4 Process personnel casualties through a CCA/decontamination station (2 times)  

Questions: A B C D E F G

(Signature and Date)

(Signature and Date)

.5 Process personnel casualties through a CTA decontamination station (2 times)  

Questions: A B C D E G

(Signature and Date)

(Signature and Date)

.6 Decontaminate aircraft (2 times)  

Questions: A B C D E G

(Signature and Date)

(Signature and Date)

.7 Properly dispose and/or decontaminate decontamination equipment (2 times)  

Questions: A B C E F G

(Signature and Date)

(Signature and Date)

.8 Test and operate all radiac devices (2 times)  

Questions: A B C D E F G

(Signature and Date)

(Signature and Date)
309.2.9 Take, record, and report radiation readings using radiacs (2 times)  

_________________________  

(Signature and Date)  

_________________________  

(Signature and Date)  

.10 Take, record, and report results using chemical detection kits (2 times)  

_________________________  

(Signature and Date)  

_________________________  

(Signature and Date)  

.11 Post and read M8 and M9 paper (2 times)  

_________________________  

(Signature and Date)  

_________________________  

(Signature and Date)  

.12 Conduct on-station monitoring for chemical agents (M-256, IPDS, AN/KAS-1A) (2 times)  

_________________________  

(Signature and Date)  

_________________________  

(Signature and Date)  

.13 Conduct on-station monitoring for radiological contamination (AN-PDR-65 and AN-PDQ1 (MFR)) (2 times)  

_________________________  

(Signature and Date)  

_________________________  

(Signature and Date)
309.2.14 Conduct internal surveys for chemical agents (M-256) (2 times)  

(Signature and Date)  

(Signature and Date)  

.15 Conduct internal surveys for radiological contamination (AN-PDR-65 and AN-PDQ1 (MFR) IM 270) (2 times)  

(Signature and Date)  

(Signature and Date)  

.16 Conduct external surveys for chemical agents (IPDS) (2 times)  

(Signature and Date)  

(Signature and Date)  

.17 Conduct external surveys for radiological contamination (AN-PDR-65 and AN-PDQ1 (MFR) IM270) (2 times)  

(Signature and Date)  

(Signature and Date)  

.18 Conduct rapid and detailed chemical surveys (2 times)  

(Signature and Date)  

(Signature and Date)
309.2.19 Conduct rapid and detailed radiological surveys (AN-PDQ1 (MFR)) (2 times)

(Signature and Date)

(Signature and Date)

309.2.20 Collect biological sample package and submit for test-after a biological attack (2 times)

(Signature and Date)

(Signature and Date)

309.2.21 Collect biological sample using the DFU/JBPDS (2 times)

(Signature and Date)

(Signature and Date)

309.2.22 Collect suspected surface biological sample for presumptive test

(Signature and Date)

309.2.23 Package and deliver presumptive positive sample to confirmatory lab (2 times)

(Signature and Date)

(Signature and Date)

309.2.24 Isolate, mark, record, and report contaminated areas (2 times)

(Signature and Date)
309.2.24

(Signature and Date)

.25 Setup a decontamination/casualty decontamination station (2 times) A B C D E F G

(Signature and Date)

(Signature and Date)

.26 Test/operate decontamination showers/hand held nozzles A B C D E F G

(Signature and Date)

.27 Setup personnel routes to a decontamination/casualty decontamination station, casualty triage area, casualty collection station, and deep shelter (2 times) A B C D E F G

(Signature and Date)

(Signature and Date)

.28 Setup a CCA/CTA (if installed) (2 times) A B C D E F G

(Signature and Date)

(Signature and Date)

.29 Perform background readings in decontamination station (2 times) A B C D E F G

(Signature and Date)

(Signature and Date)
309.2.30 Adjust and operate the CP-95/PD radiac computer indicator set (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.31 Read the IM-270 dosimeter and record the reading in the IM-270 Log (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.32 Decontaminate and secure a decontamination station and CCA/CTA

___________________________________
(Signature and Date)

.33 Demonstrate gross decontamination procedures prior to CCA/CTA entry (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.34 Remove protective clothing from contaminated personnel (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)
309.2.35 Properly dispose of contaminated clothing/equipment (2 times)

(Signature and Date)

(Signature and Date)

.36 Maintain a record of personnel entering a decontamination station (2 times)

(Signature and Date)

(Signature and Date)

.37 Maintain a disposition record of personnel exiting a decontamination station (2 times)

(Signature and Date)

(Signature and Date)

.38 Control traffic through a decontamination station (2 times)

(Signature and Date)

(Signature and Date)

.39 Test and monitor chemical detection equipment (2 times)

(Signature and Date)

(Signature and Date)
Test and operate the CCA and casualty decontamination station (2 times)

(A Signature and Date)

(A Signature and Date)

Test and monitor AN/PDR-65 (2 times)

(A Signature and Date)

(A Signature and Date)

Demonstrate proper procedures when detecting radiation on personnel using AN/PDQ-1 (2 times)

(A Signature and Date)

(A Signature and Date)

Charge and read a pocket dosimeter (2 times)

(A Signature and Date)

(A Signature and Date)

Test for phosgene gas using the Draeger and Drager tubes (2 times)

(A Signature and Date)

(A Signature and Date)

COMPLETED .2 AREA COMPRISSES 70% OF WATCHSTATION.
309.3 **INFREQUENT TASKS** – None to be discussed.

309.4 **ABNORMAL CONDITIONS**

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What operating limitations are imposed?
D. What emergencies or malfunctions may occur if immediate action is not taken?
E. How does this condition affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

309.4.1 Malfunctioning or contaminated radiac (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.2 Loss of CPS/SACPS zone pressure (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.3 Over-pressurization of CPS/SACPS zone (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)
309.3.4 Low CPS/SACPS zone pressure (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .4 AREA COMPRIS 10% OF WATCHSTATION.

309.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What other emergencies or malfunctions may occur if immediate action is not taken?
E. How does this emergency affect other operations/equipment/watchstations?
F. Satisfactorily perform or simulate the immediate action for this emergency.

309.5.1 Contaminated personnel casualty (2 times)

(Signature and Date)

(Signature and Date)

.2 Contaminated decontamination station (2 times)

(Signature and Date)

(Signature and Date)

.3 Low CPS zone pressure (2 times)

(Signature and Date)

(Signature and Date)
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (CONT’D)

309.5.4 Loss of CPS/SACPS zone pressure in CBR environment (2 times)

Questions

A B C D E F

(Signature and Date)

(Signature and Date)

Desmoking CPS/SACPS zone

Questions

A B C D E F

(Signature and Date)

COMPLETED .5 AREA COMPRIS 10% OF WATCHSTATION.

309.6 WATCHES

309.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Radiac Operator (during drills)

(Signature and Date)

Chemical Detector Operator (during drills)

(Signature and Date)

Chemical Monitor (during drills) (2 times)

(Signature and Date)

Radiological Monitor (during drills) (2 times)

(Signature and Date)
309.6.1  CCA Operator (during drills) (3 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

Personnel Decontamination Station Operator (during drills) (3 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISES 10% OF WATCHSTATION.

309.7  EXAMINATIONS

309.7.1  EXAMINATIONS  Pass a written/oral examination

___________________________________
(Signature and Date)
310  **ADVANCED FIRST-AID/STRETCHER BEARER**

<table>
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<th>NAME</th>
<th>RATE/RANK</th>
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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified ADVANCED FIRST-AID/STRETCHER BEARER (NAVEDTRA 43119-J).

<table>
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205
**310**

**ADVANCED FIRST-AID/STRETCHER BEARER**

Estimated completion time: 10 weeks

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310.1 **PREREQUISITES**

**FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.**

310.1.1 **WATCHSTATIONS FROM THIS PQS:**

306 Basic Damage Control (DC)

Completed ___________________________________

(Qualifier and Date)

310.2 **TASKS**

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

---

310.2.1 **Demonstrate triage procedures**

A B C D E F

(Signature and Date)

.2 **Demonstrate CPR**

A B C D E F

(Signature and Date)

.3 **Transport personnel casualties through a passageway**

A B C D E F

(Signature and Date)

.4 **Transport personnel casualties up and down ladders**

A B C D E F

(Signature and Date)
Questions
310.2.5 Transport personnel casualties through a scuttle A B C D E F
__________________________
(Signature and Date)

.6 Transport personnel casualties through a hatch A B C D E F
__________________________
(Signature and Date)

.7 Transport personnel casualties through a vertical trunk A B C D E F
__________________________
(Signature and Date)

.8 Transport personnel casualties to the designated battle dressing station A B C D E F
__________________________
(Signature and Date)

.9 Locate, inventory, and inspect a first-aid kit/box A F
__________________________
(Signature and Date)

COMPLETED .2 AREA COMPRISSES 56% OF WATCHSTATION.

310.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform or simulate this infrequent task.

Questions
310.3.1 Constrain/assist with a panicked or irrational personnel A B C D E F
__________________________
(Signature and Date)
310.3.2 Demonstrate the use of the bag-valve-mask system

(Signature and Date)

COMPLETED .3 AREA COMPRISKS 13% OF WATCHSTATION.

310.4 ABNORMAL CONDITIONS— None to be discussed.

310.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the immediate action for this emergency.

310.5.1 Inability to clear obstructed airway

(Signature and Date)

COMPLETED .5 AREA COMPRISKS 6% OF WATCHSTATION.
310  ADVANCED FIRST-AID/STRETCHER BEARER (CONT’D)

310.6  WATCHES

310.6.1  STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Stretcher Bearer (during drills) (4 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISES 25% OF WATCHSTATION.

310.7  EXAMINATIONS

310.7.1  EXAMINATIONS  Pass a written/oral examination

___________________________________
(Signature and Date)
The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________

Supervisor

RECOMMENDED________________________________________DATE______________

Division Officer

RECOMMENDED________________________________________DATE______________

Department Head

QUALIFIED_____________________________________________DATE______________

Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
311 PREREQUISITES

For optimum training effectiveness, the following items should be completed prior to starting your assigned tasks but shall be completed prior to final watchstation qualification.

311.1.1 Watchstations from this PQS:

306 Basic Damage Control (DC)

Completed ____________________________
(Qualifier and Date)

.2 Fundamentals from this PQS:

109 Conflagration

Completed ____________________________ 5% of Watchstation
(Qualifier and Date)

.3 Systems from this PQS:

210 Aqueous Film Forming Foam (AFFF)

Completed ____________________________ 5% of Watchstation
(Qualifier and Date)

311.2 Tasks

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What parameters/operating limits must be monitored?
G. Satisfactorily perform this task.

311.2.1 Man an AFFF station and establish communications

________________________________________________________________________
(Signature and Date)
311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)

311.2.2 Operate an AFFF system (2 times)

Questions: A B C D E F G

(Signature and Date)

(Signature and Date)

.3 Identify on-station alarms and indicators

(Signature and Date)

.4 Replenish AFFF tanks manually

(Signature and Date)

.5 Operate the AFFF transfer system

(Signature and Date)

.6 Operate an AFFF mixing station

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 42% OF WATCHSTATION.

311.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What conditions require this infrequent task?
F. Satisfactorily perform or simulate this infrequent task.

Questions: A B C D E F

311.3.1 Manually operate an AFFF system

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 6% OF WATCHSTATION.
311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)

311.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

Questions

311.4.1 AFFF transfer system is unusable or fails

(A Signature and Date)

COMPLETED .4 AREA COMPRISES 6% OF WATCHSTATION.

311.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. Satisfactorily perform or simulate the immediate action for this emergency.

Questions

311.5.1 Loss of electrical power

(A Signature and Date)

.2 Loss of firemain pressure

(A Signature and Date)
311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)

311.5.3 Failed valves/SOPV

_______________________________
(Signature and Date)

COMPLETED .5 AREA COMPRISSES 18% OF WATCHSTATION.

311.6 WATCHES

311.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Aqueous Film Forming Foam (AFFF) Station Operator (during drills) (2 times)

_______________________________
(Signature and Date)

_______________________________
(Signature and Date)

Aqueous Film Forming Foam (AFFF) Transfer Station Operator (during drills)

_______________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISSES 18% OF WATCHSTATION.

311.7 EXAMINATIONS

311.7.1 EXAMINATIONS Pass a written/oral examination

_______________________________
(Signature and Date)
312  REPAIR PARTY INVESTIGATOR

NAME________________________________________ RATE/RANK____________________

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified REPAIR PARTY INVESTIGATOR (NAVEDTRA 43119-J).

RECOMMENDED________________________________________ DATE______________
    Supervisor

RECOMMENDED________________________________________ DATE______________
    Division Officer

RECOMMENDED________________________________________ DATE______________
    Department Head

QUALIFIED____________________________________________ DATE______________
    Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
312  REPAIR PARTY INVESTIGATOR

Estimated completion time: 4 weeks

NOTE: UPON COMPLETION OF THIS WATCHSTATION, PERSONNEL SHALL BE QUALIFIED TO
PERFORM IN THE FOLLOWING FUNCTIONS: INVESTIGATOR AND RAPID RESPONSE
TEAM MEMBER.

312.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE
COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED
PRIOR TO FINAL WATCHSTATION QUALIFICATION.

312.1.1 WATCHSTATIONS FROM THIS PQS:

307  Advanced Damage Control (DC)

Completed _________________________________
(Qualifier and Date)

309  Advanced Chemical, Biological, and Radiological (CBR) Defense Person

Completed _________________________________
(Qualifier and Date)

310  Advanced First-aid/Stretcher Bearer

Completed _________________________________
(Qualifier and Date)

311  Aqueous Film Forming Foam (AFFF)/Transfer Station Operator

Completed _________________________________
(Qualifier and Date)


312.2 **REPAIR PARTY INVESTIGATOR (CONT’D)**

**TASKS**

For the tasks listed below:

A. What are the steps of this procedure?  
B. What are the reasons for each step?  
C. What control/coordination is required?  
D. What means of communications are used?  
E. What safety precautions must be observed?  
F. What parameters/operating limits must be monitored?  
G. Satisfactorily perform this task.

312.2.1 Conduct a continuous investigation of the assigned area  
(A B C D E G)  
(Signature and Date)

.2 Make reports to the Scene Leader and controlling station using standard phraseology and symbology  
(A B C D G)  
(Signature and Date)

.3 Sound tanks and voids  
(A B E F G)  
(Signature and Date)

.4 Investigate watertight closures  
(A B C D E G)  
(Signature and Date)

.5 Investigate bulkhead, deck, and overhead penetrations  
(A B C D E G)  
(Signature and Date)

.6 Inventory and inspect investigator kit  
(G)  
(Signature and Date)

.7 Monitor fire, flooding, and smoke/toxic gas boundaries  
(A B C D E G)  
(Signature and Date)

**COMPLETED .2 AREA COMPRISES 25% OF WATCHSTATION.**

220
312  REPAIR PARTY INVESTIGATOR (CONT’D)

312.3  INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What conditions require this infrequent task?
F. Satisfactorily perform or simulate this infrequent task.

312.3.1 Determine the effectiveness of an installed firefighting system

Questions
A B C D E F

(Signature and Date)

COMPLETED .3 AREA COMPRIS 5% OF WATCHSTATION.

312.4  ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

312.4.1 Access blocked/locked

Questions
A B D E F H

(Signature and Date)

.2 Inability to locate other investigator

Questions
B C D E F G H

(Signature and Date)
312  **REPAIR PARTY INVESTIGATOR (CONT’D)**

312.4.3  Smoke/fire/flooding/boundaries compromised

___________________________________

(Signature and Date)

**COMPLETED .4 AREA COMPRISES 15% OF WATCHSTATION.**

312.5  **EMERGENCIES**

For the emergencies listed below:

A.  What indications and alarms are received?
B.  What immediate action is required?
C.  What are the probable causes?
D.  What operating limitations are imposed?
E.  What other emergencies or malfunctions may occur if immediate action is not taken?
F.  How does this emergency affect other operations/equipment/watchstations?
G.  What follow-up action is required?
H.  Satisfactorily perform or simulate the immediate action for this emergency.

312.5.1  Class A fire

___________________________________

(Signature and Date)

.2  Class B fire

___________________________________

(Signature and Date)

.3  Class C fire

___________________________________

(Signature and Date)

.4  Class D fire

___________________________________

(Signature and Date)

.5  Magazine fire

___________________________________

(Signature and Date)
312 REPAIR PARTY INVESTIGATOR (CONT’D)

312.5.6 Flooding

Questions
A B C D E F G H

(Signature and Date)

.7 Structural damage

(Signature and Date)

.8 Toxic gas/HM spill (installed systems)

(Signature and Date)

.9 Personnel casualties

(Signature and Date)

.10 Loss of electrical power

(Signature and Date)

COMPLETED .5 AREA COMPRISES 45% OF WATCHSTATION.

312.6 WATCHES

312.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Repair Party Investigator (during drills) (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISES 10% OF WATCHSTATION.
312.7 EXAMINATIONS

312.7.1 EXAMINATIONS  Pass a written/oral examination

___________________________________
(Signature and Date)
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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified SCENE LEADER (NAVEDTRA 43119-J).

RECOMMENDED______________________________DATE______________
   Supervisor

RECOMMENDED______________________________DATE______________
   Division Officer

RECOMMENDED______________________________DATE______________
   Department Head

QUALIFIED______________________________DATE______________
   Commanding Officer or Designated Representative

SERVICE RECORD ENTRY______________________________DATE______________
313 SCENE LEADER

Estimated completion time: 6 weeks

313.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE
COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED
PRIOR TO FINAL WATCHSTATION QUALIFICATION.

313.1.1 WATCHSTATIONS FROM THIS PQS:

308 Team Leader
Completed ___________________________________
(Qualifier and Date)

312 Repair Party Investigator
Completed ___________________________________
(Qualifier and Date)

.2 SYSTEMS FROM THIS PQS:

223 Computer Based Damage Control (DC) Management
Completed ___________________________________ 2% of Watchstation
(Qualifier and Date)

313.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

313.2.1 Read and review ship’s RPM

____________________________________
(Signature and Date)

Questions
F
313.2.2 Make required reports to the controlling station using standard phraseology and symbology for the following scenarios:

a. Fire

(Signature and Date)

b. Flood

(Signature and Date)

c. Structural damage

(Signature and Date)

d. Toxic gas/HAZMAT spill

(Signature and Date)

e. CBR environment

(Signature and Date)

.3 Determine method of fire attack

(Signature and Date)

.4 Determine the need for multi-hose attack

(Signature and Date)
313  **SCENE LEADER (CONT’D)**

313.2.5 Determine the protective clothing required for Attack Team A B C E F

(Signature and Date)

.6 Determine/direct the rotation of personnel A B C D E F

(Signature and Date)

.7 Direct personnel in active desmoking operations (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

(Signature and Date)

.8 Determine method and direct personnel to desmoke (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

(Signature and Date)

.9 Direct atmospheric testing A B C D E F

(Signature and Date)

(Signature and Date)

(Signature and Date)

.10 Determine the method and direct personnel to control flooding (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

(Signature and Date)

.11 Determine the method and direct piping isolation and patching (2 times) A B C D E F

(Signature and Date)

(Signature and Date)
313 SCENE LEADER (CONT’D)

313.2.12 Determine the method and direct personnel in dewatering (2 times)

(A) (Signature and Date)

(B) (Signature and Date)

.13 Determine the method and direct personnel to repair structural damage (2 times)

(A) (Signature and Date)

(B) (Signature and Date)

.14 Determine the method and direct rescue personnel

(A) (Signature and Date)

313.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What conditions require this infrequent task?
G. Satisfactorily perform or simulate this infrequent task.

313.3.1 Direct personnel to control/extinguish a fire involving ordnance

(A) (Signature and Date)

.2 Direct personnel in a vertical trunk entry

(A) (Signature and Date)

COMPLETED .2 AREA COMPRIZES 45% OF WATCHSTATION.
313 SCENE LEADER (CONT’D)

313.3.3 Combat casualties in a CBR environment

(Signature and Date)

COMPLETED .3 AREA COMPRIS 8% OF WATCHSTATION.

313.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

313.4.1 Failure of an installed firefighting system to activate

(Signature and Date)

.2 Access blocked/locked

(Signature and Date)

.3 Loss of communications

(Signature and Date)

COMPLETED .4 AREA COMPRIS 10% OF WATCHSTATION.
### SCENE LEADER (Cont’d)

#### 313.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. Satisfactorily perform or simulate the immediate action for this emergency.

#### Questions

313.5.1 Major conflagration

(A B C D E F G)

(Signature and Date)

.2 Reflash

(A B C D E F G)

(Signature and Date)

.3 Boundaries compromised

(A B C D E F G)

(Signature and Date)

.4 Loss of firemain

(A B C D E F G)

(Signature and Date)

.5 Progressive flooding

(A B C D E F G)

(Signature and Date)

.6 Explosion

(A B C D E F G)

(Signature and Date)

.7 Personnel casualties

(A B C D E F G)

(Signature and Date)
313 SCENE LEADER (CONT’D)

313.5.8 Toxic gas/HAZMAT spill (installed systems)  
______________________________  
(Question and Date)

313.5.8 Spread of CBR contamination  
______________________________  
(Question and Date)

COMPLETED .5 AREA COMPRISES 15% OF WATCHSTATION.

313.6 WATCHES

313.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Scene Leader (2 times)  
______________________________  
(Question and Date)

______________________________  
(Question and Date)

COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.

313.7 EXAMINATIONS

313.7.1 EXAMINATIONS Pass a written/oral examination  
______________________________  
(Question and Date)
314 CONFLAGRATION STATION OPERATOR

NAME______________________________ RATE/RANK____________________

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The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified CONFLAGRATION STATION OPERATOR (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
314 CONFLAGRATION STATION OPERATOR

Estimated completion time: 2 weeks

314.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

314.1.1 WATCHSTATIONS FROM THIS PQS:

311 Aqueous Film Forming Foam (AFFF)/Transfer Station Operator

Completed ___________________________________
(Qualifier and Date)

.2 SYSTEMS FROM THIS PQS:

219 Conflagration Station

Completed ___________________________________ 5% of Watchstation
(Qualifier and Date)

314.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What means of communications are used?
D. What safety precautions must be observed?
E. Satisfactorily perform this task.

314.2.1 Maintain log

___________________________________
(Qualifier and Date)

314.2.2 Monitor hangar deck security and make reports

___________________________________
(Qualifier and Date)
CONFLAGRATION STATION OPERATOR (CONT’D)

314.2.3 Monitor vehicle/equipment stowage

Questions
A B D E

(Signature and Date)

.4 Monitor fueling stations

Questions
A B C D E

(Signature and Date)

COMPLETED .2 AREA COMPRIS 20% OF WATCHSTATION.

314.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What is the alarm set point?
F. What parameters must be monitored?
G. How are the monitored parameters changed by this infrequent task?
H. What conditions require this infrequent task?
I. Satisfactorily perform or simulate this infrequent task.

314.3.1 Energize/secure all designated sprinkler groups

Questions
A B C D E F G H I

(Signature and Date)

.2 Monitor ordnance handling

Questions
A B C D E F G H I

(Signature and Date)

.3 Monitor fueling and defueling open fuel cells

Questions
A B C D E F G H I

(Signature and Date)

.4 Operate a divisional door

Questions
A B C D E F G H I

(Signature and Date)
CONFLAGRATION STATION OPERATOR (CONT’D)

314.3.5 Operate a deck edge door

(Signature and Date)

COMPLETED .3 AREA COMPRISÉS 20% OF WATCHSTATION.

314.4 ABNORMAL CONDITIONS— None to be discussed.

314.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. Satisfactorily perform or simulate the immediate action for this emergency.

314.5.1 Liquid oxygen leak/spill

(Signature and Date)

.2 Fuel spill

(Signature and Date)

.3 Loss of electrical power

(Signature and Date)

.4 Fire

(Signature and Date)

.5 Explosion

(Signature and Date)
314.5.6 Smoke  

(Signature and Date)

.7 Runaway aircraft or vehicle

(Signature and Date)

.8 Loss of communications

(Signature and Date)

.9 Inadvertent activation of divisional/deck edge doors

(Signature and Date)

.10 Inadvertent activation of sprinkler systems

(Signature and Date)

.11 Loss of firemain

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 45% OF WATCHSTATION.

314.6 WATCHES

314.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Conflagration Station Operator (during drills) (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISSES 10% OF WATCHSTATION.
314  CONFLAGRATION STATION OPERATOR (CONT’D)

314.7  EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

314.7.1 EXAMINATIONS  Pass a written examination

___________________________________
(Signature and Date)

.2 EXAMINATIONS  Pass an oral examination board

___________________________________
(Signature and Date)
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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified CRASH AND SALVAGE CREWMAN/RESCUEMAN (NAVEDTRA 43119-J).

RECOMMENDED __________________________ DATE ____________
Supervisor

RECOMMENDED __________________________ DATE ____________
Division Officer

RECOMMENDED __________________________ DATE ____________
Department Head

QUALIFIED ______________________________ DATE ____________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY __________________________ DATE ____________
315.1  PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

315.1.1  SYSTEMS FROM THIS PQS:

218 Crash and Salvage Equipment

Completed ___________________________________ 2% of Watchstation (Qualifier and Date)

315.2  TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What safety precautions must be observed?
D. What parameters/operating limits must be monitored?
E. Satisfactorily perform this task.

315.2.1   Inspect and don proximity suits and SCBA  Questions

A B C D E

(Signature and Date)

.2  Inspect and operate aviation forcible entry equipment  A B C E

(Signature and Date)

.3  Inventory and inspect tool roll  E

(Signature and Date)
Inspect and don PPE

(Signature and Date)

Completed .2 area comprises 15% of watchstation.

INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What parameters must be monitored?
F. How are the monitored parameters changed by this infrequent task?
G. What conditions require this infrequent task?
H. Satisfactorily perform or simulate this infrequent task.

Electrically isolate a helicopter (2 times)

(Signature and Date)

(Signature and Date)

Electrically isolate a fixed-wing aircraft (2 times)

(Signature and Date)

(Signature and Date)

Operate aircraft seat restraint equipment (2 times)

(Signature and Date)

(Signature and Date)
315  **CRASH AND SALVAGE CREWMAN/RESCUEMAN (CONT’D)**

315.3.4  Rescue personnel from a helicopter (2 times)  

(Signature and Date)

(Signature and Date)

.5  Activate and use an AFFF hose reel/in-line eductor  

(Signature and Date)

.6  Rescue personnel from a fixed wing aircraft  

(Signature and Date)

**COMPLETED .3 AREA COMPRIZES 35% OF WATCHSTATION.**

315.4  **ABNORMAL CONDITIONS**– None to be discussed.

315.5  **EMERGENCIES**

For the emergencies listed below:

A.  What indications and alarms are received?  
B.  What immediate action is required?  
C.  What are the probable causes?  
D.  What operating limitations are imposed?  
E.  What other emergencies or malfunctions may occur if immediate action is not taken?  
F.  How does this emergency affect other operations/equipment/watchstations?  
G.  Satisfactorily perform or simulate the immediate action for this emergency.

315.5.1  Aircraft fire  

(Signature and Date)

315.5.2  Aircraft crash  

(Signature and Date)
<table>
<thead>
<tr>
<th>Question</th>
<th>Answers</th>
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<tbody>
<tr>
<td>315.5.3</td>
<td>Reflash</td>
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<tr>
<td>.4</td>
<td>Aircraft suspended over the side</td>
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<tr>
<td>.5</td>
<td>Conflagration</td>
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<tr>
<td>.6</td>
<td>Ordnance on aircraft/deck</td>
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<td>.7</td>
<td>Fuel spill</td>
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<td>.8</td>
<td>Jammed door/canopy on aircraft</td>
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<td>.9</td>
<td>Thermal runaway</td>
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<tr>
<td>.10</td>
<td>Jettisoned auxiliary tank</td>
</tr>
<tr>
<td>.11</td>
<td>Inadvertent activation of the ejection seat</td>
</tr>
</tbody>
</table>

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 40% OF WATCHSTATION.
315  **Crash and Salvage Crewman/Rescueman (Cont’d)**

315.6 **Watches**

315.6.1 **Stand the following watches under qualified supervision:**

- Crash and Salvage Crewman (during drills)

  _____________________________
  (Signature and Date)

- Rescueman (during drills)

  _____________________________
  (Signature and Date)

  **Completed .6 area comprises 8% of watchstation.**

315.7 **Examinations**

315.7.1 **Examinations** Pass a written/oral examination

  _____________________________
  (Signature and Date)
316  CRASH AND SALVAGE SCENE LEADER

NAME______________________________ RATE/RANK____________________

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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified CRASH AND SALVAGE SCENE LEADER (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
         Supervisor

RECOMMENDED________________________________________DATE______________
         Division Officer

RECOMMENDED________________________________________DATE______________
         Department Head

QUALIFIED_____________________________________________DATE______________
         Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
316 CRASH AND SALVAGE SCENE LEADER

Estimated completion time: 2 weeks

316.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

316.1.1 WATCHSTATIONS FROM THIS PQS:

313 Scene Leader

Completed _____________________________
(Qualifier and Date)

315 Crash and Salvage Crewman/Rescueman

Completed _____________________________
(Qualifier and Date)

316.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

316.2.1 Supervise prepositioning and inspection of crash and salvage equipment

(A B C D E F)

(Signature and Date)

.2 Establish communications

(A B F)

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 20% OF WATCHSTATION.
316 CRASH AND SALVAGE SCENE LEADER (CONT’D)

316.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What conditions require this infrequent task?
G. Satisfactorily perform or simulate this infrequent task.

316.3.1 Supervise the salvage operation of a helicopter in the water

Questions A B C D E F G

(Signature and Date)

.2 Direct activities of a Crash and Salvage Fire Team (2 times)

Questions A B C D E F G

(Signature and Date)

(Signature and Date)

.3 Direct activities of a Rescue Team (2 times)

Questions A B C D E F G

(Signature and Date)

(Signature and Date)

.4 Direct the jettisoning of an aircraft

Questions A B C D E F G

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 60% OF WATCHSTATION.

316.4 ABNORMAL CONDITIONS – None to be discussed.

316.5 EMERGENCIES – None to be discussed.
316 CRASH AND SALVAGE SCENE LEADER (CONT’D)

316.6 WATCHES

316.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Crash and Salvage Scene Leader (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.

316.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

316.7.1 EXAMINATIONS Pass a written examination

___________________________________
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

___________________________________
(Signature and Date)
This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
317.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

317.1.1 WATCHSTATIONS FROM THIS PQS:

306 Basic Damage Control (DC)

Completed ________________________________
(Qualifier and Date)

.2 SYSTEMS FROM THIS PQS:

223 Computer Based Damage Control (DC) Management

Completed ________________________________ 5% of Watchstation
(Qualifier and Date)

317.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. Satisfactorily perform this task.

317.2.1 Log on system

__________________________________________
(Signature and Date)

.2 Use the event function

__________________________________________
(Signature and Date)

.3 Use the stability function

__________________________________________
(Signature and Date)
<table>
<thead>
<tr>
<th>Questions</th>
<th>317.2.4 Use the readiness function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Signature and Date)</td>
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<tr>
<td></td>
<td>.5 Use the CCOL function</td>
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<td>.6 Use the compartment KILL CARD function</td>
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<td>.7 Use the portable assets function</td>
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<td>.8 Access the DC plate function</td>
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<td>.9 Use the plot damage function</td>
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<td>.10 Use the view flooding effects function</td>
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<td>.11 Use the zoom function</td>
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<tr>
<td></td>
<td>.12 Use the find function</td>
</tr>
<tr>
<td></td>
<td>(Signature and Date)</td>
</tr>
</tbody>
</table>
317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR

317.2.13 Use the overlays function

(Signature and Date)

.14 Display various systems

(Signature and Date)

.15 Use the BA function

(Signature and Date)

.16 Use the configuration setting

(Signature and Date)

COMPLETED .2 AREA COMPRISES 80% OF WATCHSTATION.

317.3 INFREQUENT TASKS – None to be discussed.

317.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. How does this condition affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

317.4.1 Computer malfunction

(Signature and Date)

COMPLETED .4 AREA COMPRISES 5% OF WATCHSTATION.
317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR

317.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. What must be monitored during the procedure?
G. How does this emergency affect other operations/equipment/watchstations?
H. What follow-up action is required?
I. Satisfactorily perform or simulate the immediate action for this emergency.

Questions

317.5.1 Class C fire

A B C D E F G H I

(Signature and Date)

.2 Loss of power

A B C D E F G H I

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 10% OF WATCHSTATION.

317.6 WATCHES – None to be discussed.

317.7 EXAMINATIONS

317.7.1 EXAMINATIONS

Pass a written/oral examination

(Signature and Date)
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A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified REPAIR PARTY LEADER (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
318 REPAIR PARTY LEADER

Estimated completion time: 8 weeks

318.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

318.1.1 SCHOOL:

Repair Party Leader (K-495-0040)

Completed ___________________________________ (Qualifier and Date)

.2 WATCHSTATIONS FROM THIS PQS:

314 Conflagration Station Operator

Completed ___________________________________ (Qualifier and Date)

316 Crash and Salvage Scene Leader (RECOMMENDED)

Completed ___________________________________ (Qualifier and Date)

317 Computer Based Damage Control (DC) Management System and Software Operator

Completed ___________________________________ (Qualifier and Date)

.3 FUNDAMENTALS FROM THIS PQS:

114 Stability

Completed ___________________________________ 2% of Watchstation (Qualifier and Date)
318 REPAIR PARTY LEADER (CONT’D)

318.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. Satisfactorily perform this task.

318.2.1 Locate, identify, and demonstrate the ability to use the following:

a. RPM

__________________________
(Signature and Date) 

   E

b. DC Book

__________________________
(Signature and Date) 

   E

.2 Supervise the training of Repair Party personnel (2 times)

__________________________
(Signature and Date) 

   C E

__________________________
(Signature and Date) 

.3 Maintain PQS assignments/qualifications for assigned personnel

__________________________
(Signature and Date) 

   E

.4 Coordinate the efforts of repair parties to combat/control:

a. Fire/smoke (2 times)

__________________________
(A B C D E

(Signature and Date) 

__________________________
(Signature and Date)
318.2.4 b. Toxic gas/HAZMAT spill (2 times)  

(Signature and Date)  

(Signature and Date)  

c. Flooding (2 times)  

(Signature and Date)  

(Signature and Date)  

d. Structural damage (2 times)  

(Signature and Date)  

(Signature and Date)  

e. Personnel casualties  

(Signature and Date)  

.5 Coordinate efforts with other repair parties  

(Signature and Date)  

COMPLETED .2 AREA COMPRIZES 50% OF WATCHSTATION.
318 REPAIR PARTY LEADER (CONT’D)

318.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What conditions require this infrequent task?
F. Satisfactorily perform or simulate this infrequent task.

318.3.1 Assume duties as Secondary DC Central

(Signature and Date)

.2 Coordinate efforts of repair party in CBR defense – chemical

(Signature and Date)

.3 Coordinate efforts of repair party in CBR defense – biological

(Signature and Date)

.4 Coordinate efforts of repair party in CBR defense - radiological

(Signature and Date)

.5 Evacuate/relocate and reestablish a DC repair station

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 30% OF WATCHSTATION.
318  **REPAIR PARTY LEADER (CONT'D)**

318.4  **ABNORMAL CONDITIONS**– None to be discussed.

318.5  **EMERGENCIES**

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What other emergencies or malfunctions may occur if immediate action is not taken?
F. How does this emergency affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the immediate action for this emergency.

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<th>Questions</th>
<th>A B C D E F G H</th>
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<td>.2</td>
<td>Mass casualties</td>
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<td>Loss of communications</td>
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</table>

**COMPLETED .5 AREA COMPRISES 10% OF WATCHSTATION.**
318  **REPAIR PARTY LEADER (CONT’D)**

318.6 **WATCHES**

318.6.1 **STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:**

Repair Party Leader (during drills) (2 times)

___________________________________
(Signature and Date)

(___________________________________)
(Signature and Date)

COMPLETED .6 AREA COMPRISES 8% OF WATCHSTATION.

318.7 **EXAMINATIONS**

318.7.1 **EXAMINATIONS**  Pass a written/oral examination

___________________________________
(Signature and Date)
This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified REPAIR PARTY ELECTRICIAN (NAVEDTRA 43119-J).

RECOMMENDED __________________________________________ DATE ____________
Supervisor

RECOMMENDED __________________________________________ DATE ____________
Division Officer

RECOMMENDED __________________________________________ DATE ____________
Department Head

QUALIFIED ___________________________________________ DATE ____________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ________________________________ DATE ____________
319 REPAIR PARTY ELECTRICIAN

Estimated completion time: 4 weeks

319.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

319.1.1 WATCHSTATIONS FROM THIS PQS:

312 Repair Party Investigator (RECOMMENDED)

Completed __________________________
(Qualifier and Date)

.2 FUNDAMENTALS FROM NAVEDTRA 43103, ENGINEERING FUNDAMENTALS:

108 Electrical

Completed __________________________
(Qualifier and Date)

319.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What parameters/operating limits must be monitored?
G. Satisfactorily perform this task.

319.2.1 Inventory and inspect an electrical repair kit

________________________________________
(Signature and Date)

Questions

G

.2 Don electrical safety equipment and demetalize

A B F G

________________________________________
(Signature and Date)
319.2.3 Electrically isolate a space as directed (2 times)

(Signature and Date)

(Signature and Date)

.4 Locate electrical distribution systems and components in an assigned area

(Signature and Date)

.5 Conduct electrical damage survey of affected spaces, provide ETR, and submit a report (2 times)

(Signature and Date)

(Signature and Date)

.6 Check and assess installed ventilation systems prior to their use in desmoking operations (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .2 AREA COMPRIS 50% OF WATCHSTATION.
319  Repair Party Electrician (Cont’d)

319.3  Infrequent Tasks

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What is the alarm set point?
F. What parameters must be monitored?
G. How are the monitored parameters changed by this infrequent task?
H. What conditions require this infrequent task?
I. Satisfactorily perform or simulate this infrequent task.

319.3.1  Don OBA/SCBA and electrically investigate/repair circuits inside smoke/fire boundaries

Questions

A B C D E F G H I

(Signature and Date)

.2  Rig/unrig casualty power system

A B C D E F G H I

(Signature and Date)

.3  Conduct emergency repairs to vital circuits (2 times)

A B C D E F G I

(Signature and Date)

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 26% OF WATCHSTATION.
319  **REPAIR PARTY ELECTRICIAN (CONT’D)**

319.4  **ABNORMAL CONDITIONS**

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

319.4.1 Casualty power terminal damaged

(Questions) A B C

(Signature and Date)

.2 Casualty power cables missing

(Questions) A B C

(Signature and Date)

**COMPLETED .4 AREA COMPRISES 12% OF WATCHSTATION.**

319.5  **EMERGENCIES** – None to be discussed.

319.6  **WATCHES**

319.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Repair Party Electrician (during drills) (2 times)

(Signature and Date)

(Signature and Date)

**COMPLETED .6 AREA COMPRISES 12% OF WATCHSTATION.**

319.7  **EXAMINATIONS**

319.7.1 EXAMINATIONS Pass a written/oral examination

(Signature and Date)
NAME______________________________ RATE/RANK____________________

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee’s knowledge. Should supervisors give away their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual’s training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (NAVEDTRA 43119-J).

RECOMMENDED________________________________________DATE______________
Supervisor

RECOMMENDED________________________________________DATE______________
Division Officer

RECOMMENDED________________________________________DATE______________
Department Head

QUALIFIED_____________________________________________DATE______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE______________
320.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

320.1.1 WATCHSTATIONS FROM THIS PQS:

NOTE: DCTT MEMBERS SHALL BE PQS QUALIFIED AT LEAST THE LEVEL OF THE WATCHSTATION THE MEMBER IS DESIGNATED TO EVALUATE.

307 Advanced Damage Control (DC)
Completed ________________________________
(Qualifier and Date)

308 Team Leader
Completed ________________________________
(Qualifier and Date)

309 Advanced Chemical, Biological, and Radiological (CBR) Defense Person
Completed ________________________________
(Qualifier and Date)
For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. What parameters/operating limits must be monitored?
G. Satisfactorily perform this task.

320.2.1 Check closure log for accuracy and completeness prior to checking condition YOKE (2 times) A B F G

(Signature and Date)

(Signature and Date)

.2 Check material condition YOKE (2 times) A B F G

(Signature and Date)

(Signature and Date)

.3 Check material condition ZEBRA (2 times) A B F G

(Signature and Date)

(Signature and Date)

.4 Assist in developing a scenario including ORM for a class A fire (2 times) A B C G

(Signature and Date)

(Signature and Date)
320.2.5 Assist in developing a scenario including ORM for a class B fire (2 times)  

(Signature and Date)  

(Signature and Date)  

.6 Assist in developing a scenario/ORM for a class C fire (2 times)  

(Signature and Date)  

(Signature and Date)  

.7 Assist in developing a scenario/ORM for a class D fire  

(Signature and Date)  

.8 Conduct a safety walk-through prior to conducting a drill (2 times)  

(Signature and Date)  

(Signature and Date)  

.9 Evaluate and critique a fire drill (2 times)  

(Signature and Date)  

(Signature and Date)  

.10 Assist in developing a scenario for rescue and assistance  

(Signature and Date)  

.11 Evaluate and critique a rescue and assistance drill  

(Signature and Date)
320.2.12 Assist in developing a scenario for ruptured piping

(Signature and Date)

.13 Evaluate and critique a ruptured piping drill

(Signature and Date)

.14 Assist in developing a scenario for structural damage

(Signature and Date)

.15 Evaluate and critique a shoring drill

(Signature and Date)

.16 Assist in developing a scenario for progressive flooding

(Signature and Date)

.17 Evaluate and critique a progressive flooding drill

(Signature and Date)

.18 Assist in developing a scenario for a chemical attack

(Signature and Date)

.19 Develop a scenario for a biological attack

(Signature and Date)

.20 Develop a scenario for radiological contamination

(Signature and Date)
320.2.21 Evaluate and critique a CBR defense drill

(Signature and Date)

.22 Assist in developing a scenario for a major conflagration

(Signature and Date)

.23 Evaluate and critique a major conflagration drill

(Signature and Date)

.24 Assist in developing integrated scenarios

(Signature and Date)

.25 Observe actions of the controlling stations

(Signature and Date)

.26 Locate, identify and demonstrate the use of the following:

a. RPM
d. DC Book

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 80% OF WATCHSTATION.

320.3 INFREQUENT TASKS – None to be discussed.

320.4 ABNORMAL CONDITIONS – None to be discussed.
320.5 **EMERGENCIES**

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What other emergencies or malfunctions may occur if immediate action is not taken?
D. Satisfactorily perform or simulate the immediate action for this emergency.

320.5.1 Actual casualty situations during a training exercise

___________________________________

(Signature and Date)

*COMPLETED .5 AREA COMPRISSES 4% OF WATCHSTATION.*

320.6 **WATCHES**

320.6.1 **CONDUCT THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:**

Fire Drill (2 times)

___________________________________

(Signature and Date)

___________________________________

(Signature and Date)

Flooding Drill (2 times)

___________________________________

(Signature and Date)

___________________________________

(Signature and Date)

Major Conflagration Drill

___________________________________

(Signature and Date)

*COMPLETED .6 AREA COMPRISSES 16% OF WATCHSTATION.*
320.7  EXAMINATIONS

320.7.1  EXAMINATIONS  Pass a written/oral examination

___________________________________
(Signature and Date)
QUALIFICATION PROGRESS SUMMARY FOR
DAMAGE CONTROL (DC)

NAME_____________________________________ RATE/RANK___________________

This qualification progress summary is used to track the progress of a trainee in the watchstations for this PQS and ensure awareness of remaining tasks. It should be kept by the individual or in the individual’s training jacket and updated with an appropriate signature (Training Petty Officer, Division Officer, Senior Watch Officer, etc.) as watchstations are completed.

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<td>BASIC DAMAGE CONTROL (DC) COMMUNICATIONS</td>
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<td>302</td>
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<td>303</td>
<td>BASIC FIREFIGHTING</td>
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<tr>
<td>304</td>
<td>FIRE WATCH STANDER</td>
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QUALIFICATION PROGRESS SUMMARY FOR
DAMAGE CONTROL (DC) (CONT'D)

305  BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE
Completed ___________________________  Date_______________
(Signature)

306  BASIC DAMAGE CONTROL (DC)
Completed ___________________________  Date_______________
(Signature)

307  ADVANCED DAMAGE CONTROL (DC)
Completed ___________________________  Date_______________
(Signature)

308  TEAM LEADER
Completed ___________________________  Date_______________
(Signature)

309  ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON
Completed ___________________________  Date_______________
(Signature)

310  ADVANCED FIRST-AID/STRETCHER BEARER
Completed ___________________________  Date_______________
(Signature)
QUALIFICATION PROGRESS SUMMARY FOR
DAMAGE CONTROL (DC) (CONT’D)

311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR
Completed ___________________________ Date ____________
(Signature)

312 REPAIR PARTY INVESTIGATOR
Completed ___________________________ Date ____________
(Signature)

313 SCENE LEADER
Completed ___________________________ Date ____________
(Signature)

314 CONFLAGRATION STATION OPERATOR
Completed ___________________________ Date ____________
(Signature)

315 CRASH AND SALVAGE CREWMAN/RESCUEMAN
Completed ___________________________ Date ____________
(Signature)

316 CRASH AND SALVAGE SCENE LEADER
Completed ___________________________ Date ____________
(Signature)
QUALIFICATION PROGRESS SUMMARY FOR
DAMAGE CONTROL (DC) (CONT’D)

317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR

Completed ___________________________________  Date_______________
(Signature)

318 REPAIR PARTY LEADER

Completed ___________________________________  Date_______________
(Signature)

319 REPAIR PARTY ELECTRICIAN

Completed ___________________________________  Date_______________
(Signature)

320 DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER

Completed ___________________________________  Date_______________
(Signature)
LIST OF REFERENCES USED IN THIS PQS

Allowance Equipage List (AEL) 2-880044262, Kit, Investigator
EE100-BU-CYD-010, Damage Control Wirefree Communications System, AN/SRC-53(V)
  MX300R Limited, AN/SRC-53A(V) MX300R Full, AN/SRC-53A(V1 Saber R Full,
  AN/SRC-53(V)1 LHA-1
EE700-AD-LSS-010, User’s Logistic Support Summary (ULSS), for Multifunction Radiac (MFR)
  Sets, AN/PDQ-1 and AN/PDQ-2 and Ancillary Probes
EE700-AD-MMO-010, Radiac Sets, AN/PD-1 and AN/PDQ-2, and Ancillary Probes/Interfaces
  Engineering Operational Sequencing System (EOSS)
  Emergency Water Activated Repair Patch (EWARP) Operating Procedures
  Instruction Manual and Technical Manual Naval Fire Fighter’s Thermal Imager (THERMAL
  IMAGER) P4428
Instruction Manual, Jaws of Life Rescue Tools, JL32b, JL27
Local Ship’s Instructions
Manufacturer’s Technical Manual for Portable Exothermic Cutting Unit
Manufacturer’s Technical Manual for Portable Hydraulic Access and Rescue System (PHARS)
NAVAR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual
NAVEDTRA 14057-PPR, Damage Controlman
NAVEDTRA 14109, Gunner’s Mate 3 & 2
NAVEDTRA 14232, Sound Powered Phone Talker’s Manual
NAVEDTRA 14295, Hospital Corpsman
NAVMED P-5041, Treatment of Chemical Agent Casualties and Conventional Military Chemical
  Injuries
NAVSEA 0910-LP-038-0700, Halon/HFP Fire Extinguishing Components
NAVSEA 0993-LP-031-3000, CO2 Fixed Flooding
NAVSEA S5090-B1-TAB-010, Training Aid Booklet for Damage Control Equipment
NAVSEA S5090-CL-MMC-010, Pipe Jumper Hose System (PJHS) Kit No. 1 and No. 2
NAVSEA S6226-PD-MMO-010/07070, Self-Contained Breathing Apparatus Breathing Air
  Charging System (SCBA BACS)
NAVSEA S6290-AQ-MMC-010/09687, Arcair Slice Cutting System Instruction Manual
NAVSEA S9169-AW-DCB-101, Damage Control Watertight Closures Inspection, Maintenance,
  and Repair Booklet
NAVSEA S9512-CA-MMC-010/93457 Operating instructions for Fan, Portable, Desmoking,
  Medium Capacity
NAVSEA S9555-B9-MMA-010, Aqueous Film Forming Foam Equipment
NAVSEA SS-100-AG-MAN-010, Damage Control and Firefighting Equipment Layout Booklet
  61Z1-288-1-332, Damage Control Wirefree Communications (DC WIFCOM) System, AN/DTV-
  53(V)/SC100-AS-MMO-010-SRC-53V
NSTM S9086-CD-STM-000/CH-070R4, Radiological Recovery of Ships After Nuclear Weapons
  Explosion
NSTM S9086-CD-STM-010/CH-070R3, Nuclear Defense at Sea and Radiological Recovery of
  Ships After Nuclear Weapons Explosion
NSTM S9086-CH-STM-030/CH-074V3R4, Gas Free Engineering
NSTM S9086-CL-STM-010/CH-077R4, Personnel Protection Equipment
LIST OF REFERENCES USED IN THIS PQS (CONT'D)

NSTM S9086-CN-STM-010/CH-079V1R1, Vol. 1, Damage Control, Stability and Buoyancy
NSTM S9086-CN-STM-020/CH-079V2R2, Damage Control, Practical Damage Control
NSTM S9086-CN-STM-030/CH-079V3R3, Damage Control, Engineering Casualty Control
NSTM S9086-KY-STM-010/CH-320R4, Electrical Power Distribution System
NSTM S9086-PA-STM-000/CH-430R1, Interior Communications Installations
NSTM S9086-QH-STM-010/CH-470R3, Shipboard BW/CW Defense and Countermeasures
NSTM S9086-RJ-STM-000/CH-504, Pressure, Temperature, and other Mechanical and Electromechanical Measuring Instruments
NSTM S9086-RQ-STM-010/CH-510R6, Heating, Ventilating, and A/C Systems for Surface Ships
NSTM S9086-RS-STM-010/CH-512R2, Fans
NSTM S9086-S3-STM-010/CH-555V1R12, Surface Ship Firefighting
NSTM S9086-T8-STM-010/CH-593R4, Pollution Control
NSTM S9086-UF-STM-010/CH-600V1R2, Structural Closures
NWP 3-20.31 (Rev. A), Surface Ship Survivability
NH22505 R-E, OCENCO Technical Manual
OPNAVINST 3120.32C, Standard Organization and Regulations Manual of the U.S. Navy (SORM)
OPNAVINST 3500.39A, Operational Risk Management
OPNAVINST 5100.19E, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat
Scott Field Level Maintenance Manual for the Air-Pak 4.5 and 2.2
Ship’s Damage Control Book
Ship’s Damage Control Diagrams
Ship’s Information Book (SIB)
Ship’s Local Instruction
Technical Manual, Model WF-20 RAMFAN/Model RAMFAN 2000
PERSONNEL QUALIFICATION STANDARD
Feedback Form for NAVEDTRA 43119-J

From____________________________________________________Date________________

Via______________________________________________________Date________________

Department Head

Activity ______________________________________________________________________

Mailing Address_______________________________________________________________

Email Address____________________________________________DSN_______________

PQS Title____________________________________________NAVEDTRA_______________

Section Affected_______________________________________________________________

Page Number(s)_______________________________________________________________

For faster response, you may email your feedback to the CNE PQS Program Managers at CNE_PQSProgramMgr@navy.mil information so that we may better serve you.

Remarks/Recommendations (Use additional sheets if necessary):