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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ACKNOWLEDGEMENTS

The Surface Warfare Officer’s School (SWOS) PQS Development Team gratefully acknowledges the assistance of the following personnel in writing this PQS:

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The Model Manager for this PQS:

SWOSCOLCOM 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-K.

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.
INTRODUCTION (CONT'D)

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:

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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 43100-1K, 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.

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<td>ADCS</td>
<td>Advanced Damage Control System</td>
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<td>Aqueous Film Forming Foam</td>
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<td>ALB</td>
<td>Automatic Limited Breaker</td>
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<td>Double Pole Single Throw</td>
</tr>
<tr>
<td>EBAC</td>
<td>Emergency Breathing Air Compressor</td>
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<td>ACRONYMS USED IN THIS PQS (CON’T)</td>
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<tr>
<td>ECW</td>
<td>Electronics Cooling Water</td>
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<tr>
<td>EDG</td>
<td>Emergency Diesel Generator</td>
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<tr>
<td>EEBD</td>
<td>Emergency Escape Breathing Device</td>
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<td>EMCON</td>
<td>Emissions Control</td>
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<td>EMP</td>
<td>Electromagnetic Pulse</td>
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<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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<td>FPG</td>
<td>Fire Protective Garment</td>
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<td>FO</td>
<td>Fuel Oil</td>
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<td>GTG</td>
<td>Gas Turbine Generator</td>
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<tr>
<td>HERO</td>
<td>Hazards of Electromagnetic Radiation To Ordnance</td>
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<td>HHA</td>
<td>Hand Held Immuno-Assay</td>
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<td>HM</td>
<td>Hazardous Material</td>
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<tr>
<td>HFP</td>
<td>Heptafluoropropane</td>
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<td>HP</td>
<td>High Pressure</td>
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<td>HPAC</td>
<td>High Pressure Air Compressor</td>
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<td>HPBAC</td>
<td>High Pressure Breathing Air Compressor</td>
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<td>HPFA</td>
<td>High Pressure Filter Assembly</td>
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<td>HMC&amp;M</td>
<td>Hazardous Material Control and Management</td>
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<td>Hazardous Material Users Guide</td>
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<td>Hazardous Waste</td>
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<td>Integrated Learning Environment</td>
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<td>IPDS</td>
<td>Improved Point Detection System</td>
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<td>IPDS-LR</td>
<td>Improved Point Detection System Lifecycle Replacement</td>
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<td>IVCS</td>
<td>Interior Voice Communication System</td>
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<td>JBAIDS</td>
<td>Joint Biological Agent Identification and Diagnostic System</td>
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<td>JBPDS</td>
<td>Joint Biological Pint Detector System</td>
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<td>JSLIST</td>
<td>Joint Service Integrated Lightweight Suit Technology</td>
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<td>MFR</td>
<td>Multifunction Radiac</td>
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<td>MBT</td>
<td>Manual Bus Transfer</td>
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<td>MG</td>
<td>Main Generator</td>
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<td>MOPP</td>
<td>Mission Oriented Protective Posture</td>
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<td>MOPV</td>
<td>Master Operated Pilot Valve</td>
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<td>MSDS</td>
<td>Material Safety Data Sheets</td>
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<td>NAPP</td>
<td>Nerve Agent Pretreatment Pyridostigmine</td>
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<tr>
<td>NC</td>
<td>Normally Close</td>
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<td>NKO</td>
<td>Navy Knowledge Online</td>
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<tr>
<td>NLB</td>
<td>Non Automatic Limited Breaker</td>
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ACRONYMS USED IN THIS PQS (CON’T)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>NO</td>
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<td>NQB</td>
<td>Non Automatic Quenching Breaker</td>
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<td>NSWC</td>
<td>Naval Surface Warfare Center</td>
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<td>OL</td>
<td>Overload</td>
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<td>OOC</td>
<td>Out of Commission</td>
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<td>ORM</td>
<td>Operational Risk Management</td>
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<td>PDAC</td>
<td>Primary Damage Area Cooling</td>
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<tr>
<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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<tr>
<td>PEARS</td>
<td>Portable Electric Powered All Purpose Rescue Kit</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>PMA</td>
<td>Permanent Magnet Alternator</td>
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<td>R and A</td>
<td>Rescue and Assistance</td>
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<td>RFI</td>
<td>Radio Frequency Interference</td>
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<td>RPM</td>
<td>Repair Party Manual</td>
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<td>RSDL</td>
<td>Reactive Skin Decontamination Lotion</td>
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<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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<td>SES</td>
<td>Smoke Ejection System</td>
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<td>SHML</td>
<td>Ship Hazardous Material List</td>
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<td>SOPV</td>
<td>Solenoid Operated Pilot Valve</td>
</tr>
<tr>
<td>SPDT</td>
<td>Single Pole Double Throw</td>
</tr>
<tr>
<td>SPST</td>
<td>Single Pole Single Throw</td>
</tr>
<tr>
<td>SSDG</td>
<td>Ship’s Service Diesel Generator</td>
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<tr>
<td>SSTG</td>
<td>Ship’s Service Turbine Generator</td>
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<tr>
<td>TFN</td>
<td>Telerobotic Firefighting Nozzles</td>
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<tr>
<td>TLI</td>
<td>Tank level Indicator</td>
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<tr>
<td>TREE</td>
<td>Transition Radiation Effect On Electronics</td>
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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.
DAMAGE CONTROL (DC) SAFETY PRECAUTIONS FUNDAMENTALS

References:

[b] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[c] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[d] Planned Maintenance System Hurst/Hale (6641/012), Holmatro (6641/020), F M Brick/Phoenix (6641/021)
[e] S6290-AQ-MMN-C10 R1, The Arcair Slice (PECU) Portable Exothermic Cutting Unit
[f] S6220-EN-MMO-010, Self-Contained Breathing Apparatus Scott Air Pak 4.5, Rev. 4
[g] Power Hawk P-16 Rescue Systems Manufacturer's Technical Manual
[h] OPNAVINST 3500.39C, Operational Risk Management

101.1 State the safety precautions for portable electrical power tools. [ref. a, ch. B7]

(Signature and Date)

.2 Discuss the safety precautions associated with the SCBA. [ref. f, sec. 1]

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

.6 Discuss the hazards of HALON/HFP to personnel. [ref. c, sec. 1]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.9 Discuss safety requirements prior to passing through watertight closures. [ref. a, ch. C1, Vol. II]

(Signature and Date)

.10 Discuss safety requirements when opening accesses in bulkheads or decks that are normally closed. [ref. a, ch. C1, Vol. II]

(Signature and Date)

.11 State the precautions to be observed when handling and stowing all compressed gas cylinders. [ref. a, ch. C11, Vol. II]

(Signature and Date)
101.12 Discuss the safety precautions associated with handling a submersible pump. [ref. k, sec. 2]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.17 Discuss the safety precautions to be observed when using wireless communications systems. [ref. c, ch. 8]

(Signature and Date)

.18 State the precautions associated with using the thermal imager in a hot, smoke-filled environment. [ref. c, sec. 6]

(Signature and Date)

.19 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]
101.20  
(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)  

.21  
State the reasons for grounding the RAMFAN. [ref. i, ch. 4]  

(Signature and Date)  

.22  
State the hazards and ship wide impact associated with leaving sound-powered phone jackbox caps off after use. [ref. b, sec. 37]  

(Signature and Date)  

.23  
Discuss the safety precautions associated with PEARs. [ref. g]  

(Signature and Date)  

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

(Signature and Date)  

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

(Signature and Date)  

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

(Signature and Date)  

.27  
Explain the following as they apply to ORM: [ref. h]  

a. Identifying hazards  
b. Assessing hazards  
c. Making risk decisions  
d. Implementing controls  
e. Supervising  

(Signature and Date)
101.28 Discuss the proper procedure for opening a pressurized sounding tube. [ref. b, sec.40]

(Signature and Date)
102.1 For the following, draw the symbols used in DC communications: [ref. c, 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
102.1 *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. Communication lost:*
1. Lost communication reported
2. Lost communication 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. Chemical decontamination complete
u. Biological hazard:
1. Biological hazard reported
2. Biological hazard engaged
3. Biological decontamination complete
v. Radiation hazard:
1. Radiation hazard reported
2. Radiation hazard engaged
3. No radiological contamination
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
af. 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. c, app. A]

a. Aqueous Film Forming Foam
b. Air test cap
c. Battle dressing station
d. Bulkhead
e. Collection, holding, and transfer
f. Chill water
g. Chill water cutout valve
h. Counter Measure Wash-down system
i. Compartment
j. Cutout valve
k. Collective Protection System
l. Circle William
m. Damage Control Central
n. Damage Control repair station
o. Deck drain valve
p. Deck
q. Drain
r. Emergency Escape Breathing Device
s. Firefighting ensemble/Fire protection gear
t. Firemain valve
u. Fire plug
v. Naval firefighter’s thermal imager
w. Overboard
x. Potable water
y. Quick acting watertight door
z. Quick acting watertight hatch
aa. Quick acting watertight scuttle
ab. Self-Contained Breathing Apparatus
ac. Supply
ad. Sounding tube cap
ae. Tank
af. Wire free communications
ag. Watertight
ah. Damage Control Rescue and Assistance Reentry Locker
ai. Air Booster Pump Assembly
aj. Compartment Check-Off List
ak. Emergency Breathing Air Compressor
al. Firefighter Extraction system
am. Ladder Safety system
an. Portable Electric Access Rescue system
ao. Portable Hydraulic Access Rescue system
ap. High Pressure Filter Assembly
aq. Smoke Ejection system

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

a. Sound-powered telephone [ref. a, ch. 4]
b. Wireless communication [ref. c, sec. 37]
c. IVCS [ref. a, ch. 4]
d. DCAMS [ref. c, sec. 39]
e. Ship’s general announcing [ref. b, ch. 2]
f. Intercom units [ref. b, ch. 2]
g. Ship’s service telephones [ref. b, ch. 2]
h. Messenger [ref. c, sec. 37]
i. DDA (DDG 1000 only)

(Signature and Date)

.4 State the rules for circuit discipline. [ref. c, sec 37]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.7 Explain the procedures for temporary leaving the circuit/relieving the phone talker. [ref. c, sec. 37]

(Signature and Date)

.8 Explain the procedure for securing from phone talking and storing sound-powered phones. [ref. c, sec. 37]

(Signature and Date)

.9 Explain the procedure for checking sound-powered phone operations when battle damage is sustained. [ref. c, sec. 37]

(Signature and Date)
102.10 Explain the station communication priority reporting sequence used aboard your ship. [ref. b, ch. 2; ref. c, sec. 37]

(Signature and Date)

.11 State the titles of the following sound-powered telephone circuits and discuss their uses: [ref. a, ch. 4; ref. c, sec. 37]

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. X40J  
p. X50J

(Signature and Date)

.12 State the titles of the following IVCS/IVN circuits: [ref. a, ch. 4; ref. c, sec. 37]

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-555V1R13, 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 14324A, Gunner's Mate

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, ch.4, and Glossary]

a. Flash point
b. Fire point
c. Spontaneous combustion
d. Auto-ignition/self-ignition point

(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
g. Watermist

(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 Describe the procedures in a vertical entry utilizing Ladder Safety system. [ref. a sec 10]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)
103.19 Discuss the procedures for desmoking by using vari-nozzles. [ref. a, sec. 7]

(Signature and Date)

.20 Discuss the procedures for desmoking by using ship’s CPS. [ref. a, sec. 7]

(Signature and Date)

.21 Discuss the procedures for desmoking by using ship’s SES. [ref. a, sec. 7]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)
References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] NTTP 3-20.31 Surface Ship Survivability
[d] NAVEDTRA 14057-PPR, Damage Controlman
[e] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[f] Ship's Damage Control Book

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]

a. Keel
b. Frames
c. Hull plates
d. Decks
e. 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. b, ch. 1; ref. d, ch. 3; ref. e, sec. 21]

___________________________________
(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. b, ch. 3; ref. e, sec. 22]

___________________________________  
(Signature and Date)

.8 What are the procedures to be followed when changing the material condition of readiness? [ref. b, ch. 1; 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/DCREL/DCUL. [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  
f. Smoke Control 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 **BASIC DAMAGE CONTROL (DC) FUNDAMENTALS (CONT’D)**

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 14295B, Hospital Corpsman
[b] Ship’s Information Book (SIB)
[c] NAVEDTRA 14325, Basic Military Requirements

105.1 State the purposes of first-aid. [ref. a, ch. 20]

___________________________________
(Signature and Date)

.2 State the three basic rules for the treatment of soft tissue wounds. [ref. a, ch. 21]

___________________________________
(Signature and Date)

.3 State the principals involved in treating and dressing wounds to the following areas: [ref. a, chs. 20, 21]

   a. Chest
   b. Head
   c. Abdominal

___________________________________
(Signature and Date)

.4 Explain the three methods of controlling hemorrhage. [ref. a, ch. 21]

___________________________________
(Signature and Date)

.5 What conditions warrants the use and application of a tourniquet? [ref. a, ch. 21]

___________________________________
(Signature and Date)

.6 State the following as applied to a fracture: [ref. a, ch. 21]

   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)
105.7 State the following as applied to airway management: [ref. a, ch. 21]

a. Head tilt/chin lift
b. Jaw thrust
c. Inserting a NPA

(Signature and Date)

.8 State the following as applied to shock: [ref. a, ch. 21]

a. Definition of shock
b. Three major types of shock
c. Symptoms of shock
d. Procedures for treatment of a victim in shock by type:
   1. Hypovolemic
   2. Distributive
   3. Cardiogenic

(Signature and Date)

.9 What are the symptoms of the following heat casualties: [ref. a, ch. 21]

a. Heat cramps
b. Heat exhaustion
c. Heat stroke

(Signature and Date)

.10 What is the first-aid treatment for the following: [ref. a, ch. 21]

a. Heat cramps
b. Heat exhaustion
c. Heat stroke

(Signature and Date)

.11 What are the three degrees of burns and how are they determined? [ref. a, ch. 21]

(Signature and Date)

.12 What are the treatments for the three degrees of burns and the method of estimating the burn area? [ref. a, ch. 21]

(Signature and Date)
105.13 Explain each of the following extraction devices and their use: [ref. a, ch. 20]

a. Stokes
b. Firefighter Extraction system
c. Reeves sleeve
d. Army litter

(Signature and Date)

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

(Signature and Date)

.15 What items could be used instead of stretchers? [ref. a, ch. 20]

(Signature and Date)

.16 Identify the rescue drag and carry techniques for moving an injured person: [ref. a, ch. 20]

a. One rescuer
b. Two rescuer

(Signature and Date)

.17 In terms of the rescuer’s safety, state the precautions to be taken for the following: [ref. a, ch. 20]

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

(Signature and Date)

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

(Signature and Date)

.19 State the location of installed Firefighter Extraction System onboard. [ref. b]

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

Control hemorrhage by direct pressure. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Control hemorrhage by tourniquet. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Control hemorrhage by using pressure points. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Treat for shock. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Apply a splint to a simple fracture. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Apply a splint to a compound fracture. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Treat a heat exhaustion casualty. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)

Treat a heat stroke casualty. [ref. a, ch. 21; ref. c, ch. 14]
(Signature and Date)
105.29 Treat a heat cramps casualty. [ref. a, ch. 21; ref. c, ch. 14]

(Signature and Date)

.30 Treat a first degree burn. [ref. a, ch. 21; ref. c, ch. 14]

(Signature and Date)

.31 Treat a second degree burn. [ref. a, ch. 21; ref. c, ch. 14]

(Signature and Date)

.32 Treat a third degree burn. [ref. a, ch. 21; ref. c, ch. 14]

(Signature and Date)
References:

[a] NTTP 3-20.31, 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
[f] Planned Maintenance System (PMS) 6642/200

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. Maximum permissible exposure [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. DECON 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. Nomograms [ref. b, sec. 2]
z. Collective Protection system [ref. c, sec. 6]
106.2 What markers are used to indicate contamination areas? [ref. a, ch. 11]

(Signature and Date)

.3 Describe the three basic processes by which DECON is performed. [ref. b, sec. 5; ref. c, sec. 7]

(Signature and Date)

.4 Describe the following procedures: [ref. b, sec. 5; ref. c, sec. 7]

a. Personnel DECON
b. Material DECON

(Signature and Date)

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

a. Air
b. Surface
c. Underwater
d. High altitude

(Signature and Date)

.6 What is the procedure for self-protection in the event of the following: [ref. b, sec. 4; ref. c, sec. 5]

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. MFR [ref. b, sec. 3; ref. d, ch. 1]  
c. DT-680 probe [ref. b, sec. 3; ref. d, ch. 1]  
d. BMMFR [ref. d, 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. Method used to decontaminate personnel and equipment [sec. 7]  
f. Methods by which BW agents are dispersed/delivered [sec. 3]
106.11 g. Methods used to detect and provide defense against BW agents [sec. 4]
   h. Methods used to collect biological samples [sec. 4]
   i. Collective Protection system [sec. 6]

(Signature and Date)

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

(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. Methods used to decontaminate personnel and equipment [sec. 7]
   e. Methods by which CW agents are dispersed/delivered [sec. 3]
   f. Collective Protection system [sec. 6]

(Signature and Date)

.14 State the protective measures to be taken at each MOPP level.
   [ref. a, ch. 4; ref. b, sec. 6; ref. c, sec.1]

(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)
106.16 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/A2 chemical detector
d. IPDS/IPDS LR
e. Phosgene gas Draeger detection tubes

(Signature and Date)

.17 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-2P 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 covers [ref. c, sec. 5]
h. Wet weather clothing [ref. c, sec. 5]
i. RSDL [ref. c, sec. 7]
j. NAPP tablets [ref. e, ch. 2]
k. HHA’s Immunoassay strips [ref. c, sec 4]
m. De-ionized water, phosphate buffered saline solutions (JBPDS) [ref. c, sec 4]

(Signature and Date)
107  DAMAGE CONTROL (DC) ORGANIZATION FUNDAMENTALS

References:
[a] NTTP 3-20.31, Surface Ship Survivability
[b] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[c] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures/CBR-D NEC 4805
[d] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[e] NAVEDTRA 14057-PPR, Damage Controlman

107.1 Discuss the duties of the following in the DC organization:

a. DCO [ref. b, sec. 5; ref. f, sec. 1]
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]
l. DDA Operator (DDG 1000 only)
m. DCCO

(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. d, sec. 29]
g. Desmoking [ref. b, sec. 5]
h. Material DECON [ref. c, sec. 7]
i. Monitoring [ref. c, sec. 4]
j. Personnel DECON [ref. c, sec. 7]
107.2 k. Assessment Team [ref. b, sec. 10]

(Signature and Date)

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

(Signature and Date)

.4 Explain the areas of responsibility for the following repair parties:

a. DCRS1 [ref. a, sec. 2]
b. DCRS 2 [[ref. a, sec. 2]
c. DCRS3 [ref. a, sec. 2]
d. DCRS 4 [ref. a, sec. 2]
e. DCRS 5 [ref. a, sec. 2]
f. DCRS 6 [ref. a, sec. 2]
g. DCRS 7 [ref. a, sec. 2]
h. DCRS 8 [ref. a, sec. 2]
i. DCREL [ref. a, sec 2]
j. DCUL [ref. a, sec 2]
k. Aviation Fuel Repair Team [ref. a, sec. 2]
l. Crash and Salvage Team [ref. a, sec. 2]
m. Ordnance Disposal Team [ref. a, sec. 2]

. n. In-Port Emergency Team [ref. a, sec. 9]
o. At Sea Fire Party [ref. a, sec. 9]
p. Rapid Response Team [ref. a, sec.9]
q. R and A Detail (in-port/at sea) [ref. a, sec. 2]
r. Assessment Team [ref. b, sec. 10]
s. Forward repair (DDG 1000 only)
t. Aft repair (DDG 1000 only)

(Signature and Date)
108  FIRE WATCH FUNDAMENTALS

References:

[a] NSTM S9086-CH-STM-030/CH-074V3R6, Gas Free Engineering
[b] NSTM S9086-CH-STM-010/CH-074V1R5, Welding and Allied Processes

108.1 Define hot-work. [ref. a, sec. 22; ref. b, sec. 10]

___________________________________
(Signature and Date)

.2 What are the precautions that must be observed prior to performing hot-work operations? [ref. a, sec. 22; ref. b, sec. 10]

___________________________________
(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? [ref. a, sec. 22; ref. b, sec. 10]

___________________________________
(Signature and Date)

.4 Discuss the post fire watch procedures. [ref. a, sec. 22; ref. b, sec. 10]

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)
109 CONFLAGRATION STATION FUNDAMENTALS

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[c] NAVAIR 00-80R-14, NATOPS, U.S. Navy Aircraft Firefighting and Rescue Manual
[d] Ship's Information Book (SIB)

109.1 Discuss a conflagration. [ref. a, sec. 8]

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

.4 Describe the function of sprinkler groups and TFN's. [ref. c, ch. 7]

___________________________________
(Signature and Date)

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

a. Aircraft fueling stations
b. O₂N₂ plants
c. Boat fueling stations
d. Vehicle fueling stations
e. Hangar bay sprinkling groups
f. HAZMAT stowage area
g. Weapons stage elevators
h. Vehicle stowage decks
i. Fantail sprinkler stations
j. Well deck sprinkling groups

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

Discuss the use and the purpose of a Pipe Jumper Hose system. [ref. a, sec. 42; ref. c]

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

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

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]

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

(Signature and Date)

.15 Describe the steps involved in shoring a watertight door/hatch. [ref. a, sec. 43]

(Signature and Date)
111.1 Discuss the following:

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

(Signature and Date)

.2 Discuss where the following documents are located?

a. HMIS for MSDS [ref. a, ch. B3; ref. b]
b. SHML [ref. a, 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, ch. B3]

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

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

(Signature and Date)

.5 What are the restrictions on the stowage of HMC&M in spaces? [ref. c, ch. C23; ref. b]

(Signature and Date)
Discuss the features of the ADCS. [sec. 39]

(Signature and Date)

.2 Discuss the features of the software: [sec. 39]

a. DCAMS
b. DCTM
c. DDA (DDG 1000 only)

(Signature and Date)
INVESTIGATION FUNDAMENTALS

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[b] NAVEDTRA 14057-PPR, Damage Controlman
[c] NTTP 3-20.31, Surface Ship Survivability
[d] Allowance Equipage List (AEL) 2-880044262, Kit, Investigator

113.1 Discuss the principles governing damage investigation. [ref. a, sec. 40]

(Signature and Date)

.2 Discuss reasons investigators work in pairs. [ref. a, sec. 40]

(Signature and Date)

.3 Describe obvious signs of damage. [ref. a, sec. 40]

(Signature and Date)

.4 Describe indications of hidden damage. [ref. a, sec. 40]

(Signature and Date)

.5 Discuss the procedures for reporting damage. [ref. a, sec. 40]

(Signature and Date)

.6 Discuss the procedure of investigation for following: [ref. a, sec. 40]

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

(Signature and Date)
113.7 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)

.10 Discuss the location of the investigators 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]

114.2 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]

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

(Signature and Date)
114  **STABILITY FUNDAMENTALS (CONT’D)**

114.4  Explain the use of the liquid loading diagram. [ref. a, sec. 13]

(Signature and Date)

.5  Discuss the purpose of DDA in regards to counterflooding (**DDG 1000 only**).

(Signature and Date)

.6  Discuss and explain the use of the liquid loading diagram in DDA (**DDG 1000 only**).

(Signature and Date)
115. **Electrician Electrical Fundamentals**

References:

[a] NAVEDTRA 14344, Electrician's Mate
[b] NAVEDTRA 14173, NEETS Module 1—Introduction to Matter, Energy, and Direct Current
[c] NAVEDTRA 14174, NEETS Module 2—Introduction to Alternating Current and Transformers
[d] NAVEDTRA 14175, NEETS Module 3—Introduction to Circuit Protection, Control, and Measurement
[e] NAVEDTRA 14177, NEETS Module 5—Introduction to Generators and Motors
[f] NSTM S9086-KC-STM-010/CH-300R7, Electric Plant-General
[g] NSTM S9086-KN-STM-010/CH-310R3, Electric Power Generators and Conversion Equipment
[h] NSTM S9086-KY-STM-010/CH-320R6, Electric Power Distribution Systems
[i] NSTM S9086-PA-STM-010/CH-430R2, Interior Communication Installations
[j] Ship's Information Book (SIB)
[k] NAVEDTRA 14150A, Machinist's Mate (Surface)
[l] NSTM S9056-CN-STM-030/CH-079V3R2, Damage Control Engineering Casualty Control

115.1 Explain the basic units of measure, symbols, or abbreviations for the following terms:

a. Capacitance [ref. c, ch. 3]
b. Conductance [ref. a, app. I]
c. Current [ref. a, app. I]
d. Frequency [ref. a, ch. 3]
e. Impedance [ref. c, ch. 4]
f. Inductance [ref. c, ch. 3]
g. Potential [ref. a, app. I]
h. Power [ref. a, app. I]
i. Resistance [ref. b, ch. 1]

(Signature and Date)

115.2 Discuss the applications and functions of the following switchboards:

a. Action cutout [ref. i, app. I]
b. Control board [ref. a, ch. 14]
c. Main switchboard [ref. a, ch. 14]
115.2 d. IC switchboard [ref. i, sec. 2]  
e. Local IC switchboard [ref. i, sec. 2]

(Signature and Date)

.3 Discuss the function of the following indicators:

a. Ammeter [ref. d, app. I]  
b. Enunciator [ref. i, sec. 3]  
c. Auto start indicator [ref. f, sec. 2]  
d. Blown fuse indicator [ref. d, ch. 2]  
e. Frequency meter [ref. d, app. I]  
f. Ground indicator [ref. i, sec. 7]  
g. Wattmeter [ref. d, app. I]  
h. Megohmmeter [ref. d, app. I]  
i. Phase–sequence indicator [ref. c]  
j. Salinity indicator [ref. k, ch. 6]  
k. Stroboscope [ref. a, ch. 7]  
l. Synchronizing monitor [ref. a, ch. 8]  
m. Synchroscope [ref. a, ch. 3]  
n. Tachometer [ref. a, ch. 7]  
o. Voltmeter [ref. a, ch. 1]

(Signature and Date)

.4 Define the following:

a. Selected tripping [ref. a, ch. 2]  
b. Alternating current [ref. c, ch. 1]  
c. Auto paralleling device [ref. h, sec. 1]  
d. Auto bus transfer [ref. h, sec. 1]  
e. Bus [ref. h, sec. 1]  
f. Bus tie [ref. a, ch. 3]  
g. Casualty power [ref. f, sec. 1]  
h. Conductor [ref. c, ch. 1]  
i. Distribution panel [ref. h, sec. 1]  
j. Direct current [ref. a, ch. 4]  
k. Droop [ref. a, app. l]  
l. Isochronous [ref. h, sec. 1]  
m. Kilowatt [ref. b, ch. 3]  
n. Load center [ref. h, sec. 1]  
o. Manual bus transfer [ref. a, ch. 3]  
p. Mimic bus [ref. h, sec. 1]  
q. Parallel circuit [ref. h, sec. 2]
115.4 r. Polarity [ref. h, sec. 2]
s. Prime mover [ref. a, ch. 5]
t. Power factor [ref. c, ch. 4]
u. Reverse power relay [ref. a, ch. 2]
v. Rheostat [ref. a, app. l]
w. Selective tripping [ref. a, ch. 2]
x. Ship’s service diesel generator [ref. h, sec. 2]
y. Ship’s service turbine generator [ref. h, sec. 1]
z. Shore power [ref. a, ch. 3]
aa. Solenoid [ref. a, ch. 5]
ab. Split plant [ref. h, sec. 1]
ac. Switchboard [ref. h, sec. 1]
ad. Thermocouple [ref. a, app. l]
ae. Ungrounded system [ref. a, ch. 1]
af. Voltage regulator [ref. a, ch. 8]
ag. PMA [ref. a, ch. 9]
ah. Fault current detector [ref. a, ch. 2]
ai. Over power [ref. a, ch. 2]
aj. Load shed [ref. h, sec. 1]
ak. Current transformer [ref. h, sec. 1]
al. Motor generator [ref. h, sec. 1]
am. Static frequency converter [ref. h, sec. 1]

(Signature and Date)

.5 Describe the applications of the following switches:

a. Knife [ref. d, ch. 2]
b. Toggle (SPST, SPDT, DPST, and DPDT) [ref. d, ch. 3]
c. Push button [ref. d, ch. 2]
d. Rotary snap [ref. i, sec. 3]
e. Rotary selector [ref. i, sec. 3]
f. Microswitch (precision snap-acting switch) [ref. d, ch. 3]
g. Magnetically operated (relay, solenoid) [ref. d, app. l]
h. Limit switch (mechanical) [ref. a, ch. 2]
i. Proximity switch [ref. a, ch. 2]

(Signature and Date)
115.6 Discuss the applications of the following circuit breakers: [ref. a, ch. 2]

  a. ACB  
  b. AQB  
  c. NQB  
  d. ALB  

(Signature and Date)

.7 Explain Ohm's law as it pertains to circuits. [ref. a, app. l]

(Signature and Date)

.8 Explain the following electromagnetic terms:

  a. Right/left-hand rule [ref. e, ch. 2]  
  b. Rotating magnetic field [ref. e, ch. 3]  
  c. Magnetic flux [ref. e, ch. 3]  
  d. Self-induction [ref. c, ch. 2]  
  e. Mutual inductance [ref. c, ch. 2]  
  f. Residual magnetism [ref. b, ch. 1]  

(Signature and Date)

.9 Discuss the relationship between voltage and current in the primary and secondary windings of a transformer compared to the number of windings in each. [ref. d, ch. 1]

(Signature and Date)

.10 Describe the operation of the following types of ac generators: [ref. e, ch. 4]

  a. Rotating armature  
  b. Rotating field  

(Signature and Date)
Discuss the applications of the following ac motors: [ref. e]

a. Characteristics [ch. 4]
b. Induction [ch. 4]
c. Synchronous [ch. 4]
d. Series [ch. 1]

Explain the difference between capacitive-start and repulsion-start ac motors. [ref. e, ch. 4]

Discuss the procedures for rigging and unrigging including safety precautions:

a. Casualty power [ref. h, sec. 15]
b. Shore power [ref. a, ch. 12]

Explain the meaning of the following terms associated with shipboard electrical motor controllers: [ref. a]

a. NO/NC [ch. 2]
b. Contact (main/Aux) [ch. 5]
c. Latching relay [ch. 5]
d. OL protection [ch. 6]
e. LVP [ch. 6]
f. LVR/LVRE [ch. 6]
g. Timing relay [ch. 2]
h. Solid state relay [ch. 8]

Discuss the function, locations, and operation of a submersible pump. [ref. l, sec. 47]
115.16 Define electrochemical action. [ref. b, ch. 2]

(Signature and Date)

.17 Explain the basic principle of electrical power generation. [ref. f; ref. g, sec. 1]

(Signature and Date)

.18 Discuss what conditions must be met prior to paralleling ac generators. [ref. g, sec. 1; ref. h, sec. 2]

(Signature and Date)

.19 Discuss the applications of the following: [ref. i, sec. 7]

a. Audible signal devices
b. Visual indicators

(Signature and Date)

.20 Discuss the following color codes associated with visual alarms and indicators: [ref. i, sec. 1]

a. Red
b. White
c. Blue
d. Green
e. Yellow/Amber
f. Clear

(Signature and Date)

.21 Explain the function of the following devices:

a. Circuit breakers [ref. a, ch. 1]
b. Fuse [ref. d, ch. 2]
c. Ground detector lamps [ref. a, ch. 3]
d. Motor [ref. e, app. l]
e. Transformer [ref. a, ch. 3]

(Signature and Date)
115.22 Explain the ratings of the following: [ref. j]

a. SSTG  
b. SSDG  
c. GTG  
d. EDG  
e. MG sets (60/400Hz)  
f. Static frequency converter

(Signature and Date)

.23 Discuss which components use the following type of controllers: [ref. j]

a. LVR  
b. LVP  
c. LVRE

(Signature and Date)

.24 Explain the difference between selective and selected tripping. [ref. d, ch. 2]

(Signature and Date)

.25 Describe the effects of a ground in a three-phase system. [ref. f, sec. 2]

(Signature and Date)

.26 Discuss which in-space components are supplied with power from a(n): [ref. j]

a. ABT  
b. MBT

(Signature and Date)

.27 Describe the effects of each of the following engineering spaces when it has been electrically isolated: [ref. j]

a. AMR  
b. Firerooms  
c. Enginerooms

(Signature and Date)
115.28 State the requirements for working on energized equipment [ref: f, sec. 2]

(Signature and Date)

.29 Discuss the identification markings for electrical power panels [ref: d, ch. 3]

(Signature and Date)

.30 State the requirements for verifying equipment is deenergized. [ref: f, sec. 2]

(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:

- It lists the references to be used for study and asks you to explain the function of each system.
- It asks for the static facts of what or where the components and component parts are in relation to the system.
- It directs attention to the dynamics of how the component and component parts operate to make the system function.
- It specifies the parameters that must be immediately recalled.
- 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.
201.1 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 as applicable to ship class:

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?

### Questions

<table>
<thead>
<tr>
<th>201.1.1</th>
<th>Sound-powered telephones: [ref. d, sec. 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Sound-powered handset</td>
</tr>
<tr>
<td>b.</td>
<td>Sound-powered headset (chest set-type)</td>
</tr>
<tr>
<td>.2</td>
<td>IVCS [ref. d, sec. 3]</td>
</tr>
<tr>
<td>.3</td>
<td>Ship’s service telephone (J-DIAL) [ref. d, sec. 3]</td>
</tr>
<tr>
<td>.4</td>
<td>General announcing system [ref. a; ref. b, sec. 37; ref. d, sec. 4]</td>
</tr>
<tr>
<td>.5</td>
<td>Wire free [ref. b, sec. 37]</td>
</tr>
<tr>
<td>a.</td>
<td>Base station cabinet [ref. a; ref. b, sec. 37]</td>
</tr>
<tr>
<td>1.</td>
<td>Speaker [ref. b, sec. 37]</td>
</tr>
<tr>
<td>2.</td>
<td>Microphone [ref. b, sec. 37]</td>
</tr>
<tr>
<td>b.</td>
<td>Base station unit [ref. a; ref. b, sec. 37]</td>
</tr>
<tr>
<td>1.</td>
<td>Battery charger [ref. a; ref. b, sec. 37]</td>
</tr>
<tr>
<td>2.</td>
<td>Signal relay [ref. a; ref. d, sec. 5]</td>
</tr>
<tr>
<td>c.</td>
<td>Portable radios [ref. a; ref. b, sec. 37]</td>
</tr>
<tr>
<td>1.</td>
<td>On/off volume control [ref. b, sec. 37]</td>
</tr>
<tr>
<td>2.</td>
<td>Frequency select switch [ref. b, sec. 37]</td>
</tr>
<tr>
<td>3.</td>
<td>DPL select switch [ref. b, sec. 37]</td>
</tr>
<tr>
<td>4.</td>
<td>Squelch switch [ref. b, sec. 37]</td>
</tr>
<tr>
<td>5.</td>
<td>Antenna [ref. b, sec. 37]</td>
</tr>
<tr>
<td>6.</td>
<td>Battery status and transmit indicator [ref. b, sec. 37]</td>
</tr>
</tbody>
</table>
201  DAMAGE CONTROL (DC) COMMUNICATIONS SYSTEM (CONT’D)

201.1.6  Push to Talk switch [ref. b, sec. 37]  
.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 – None to be discussed.

201.4  SYSTEM INTERFACE

201.4.1  How does the loss of electrical power affect the operation of this system? [ref. b, sec. 37]

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

.3  How does the following outside influences affect the operation of this system: [ref. b, sec. 44]

a. EMCON  
b. RFI/EMP  
c. HERO

(Signature and Date)

201.5  SAFETY PRECAUTIONS

201.5.1  What special safety precautions apply to communications? [ref. f, ch. C1]

(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 as applicable to ship class:

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?

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>202.1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEBD [ref. a, sec. 3]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Storage rack [ref. a, sec. 3]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>b. Storage case [ref. a, sec. 3]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>c. Carrying case [ref. a, sec. 3; ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>1. Tamper indicating ball [ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>2. Gauge window [ref. a, sec. 3; ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>d. Teflon hood [ref. a, sec. 3; ref. b]</td>
<td></td>
<td>A</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>e. Mouth piece [ref. a, sec. 3; ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>f. Nose clip [ref. a, sec. 3; ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>g. Breathing bag [ref. a, sec. 3; ref. b]</td>
<td></td>
<td></td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>h. Relief valve [ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>i. Oxygen cylinder [ref. a, sec. 3; ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>1. Pressure gage [ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td>D</td>
</tr>
<tr>
<td>2. Oxygen regulator [ref. b]</td>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
</tbody>
</table>

(Signature and Date)
202  **EMERGENCY ESCAPE BREATHING DEVICE (EEBD) SYSTEM (CONT’D)**

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 donning 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 are the normal operating parameters?
B. What is the operational time limit?

| 202.3.1 | EEBD (OCENCO) pressure gage | A |
| 202.3.2 | EEBD (OCENCO) | B |

(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 EEBD usage and disposal? [ref. a, sec. 3]

(Signature and Date)
203 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-077R7, 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 as applicable to ship class:

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

203.1.1 Air cylinder and valve assembly: [ref. b, sec. 3]

a. Air cylinder
b. Cylinder valve
c. Dual-reading pressure indicator

Questions

203.1.2 Carrier and harness assembly: [ref. b, sec. 3]

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

203.1.3 Pressure reducing regulator: [ref. b, sec. 3]

a. Pressure reducer hose coupling
b. First stage regulator

203.1.4 Mask-mounted regulator (second-stage regulator) [ref. b, sec. 3]

a. Air-saver switch
b. Purge valve/bypass valve
c. Latch Mechanism
d. Heads up display

203.1.5 End of service time indicator [ref. b, sec. 3]

203.1.6 Face piece: [ref. b, sec. 3]

a. Face piece seal
b. Lens
c. Nose cup
d. Size color coding
**203 SELF-CONTAINED BREATHING APPARATUS (SCBA) SYSTEM (CONT’D)**

203.1.6  

<table>
<thead>
<tr>
<th>Questions</th>
<th>A B C</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. Head harness</td>
<td>A B C</td>
</tr>
<tr>
<td>f. Voicemitter</td>
<td>A B C</td>
</tr>
<tr>
<td>g. Voice amplifier</td>
<td>A B C</td>
</tr>
</tbody>
</table>

(Signature and Date)

203.2 PRINCIPLES OF OPERATION

203.2.1 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)

203.3 PARAMETERS/OPERATING LIMITS

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

<table>
<thead>
<tr>
<th>Questions</th>
<th>A B C</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. What are the allowable operating limits?</td>
<td></td>
</tr>
<tr>
<td>B. Where are the indicators located?</td>
<td></td>
</tr>
<tr>
<td>C. What is the alarm set point?</td>
<td></td>
</tr>
</tbody>
</table>

203.3.1 Cylinder

(Signature and Date)

203.4 SYSTEM INTERFACE

203.4.1 How does the SCBA interface with the recharging station? [ref. b, sec. 3]
203.4.2 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
d. Loss of electrical power

(Signature and Date)

203.5 SAFETY PRECAUTIONS

203.5.1 What safety precautions must be observed when operating this system?
[ref. a, ch. 1; ref. b, sec. 3]

(Signature and Date)
204 PERSONAL PROTECTIVE CLOTHING EQUIPMENT SYSTEM

References:

[a] NTTP 3-20.31, Surface Ship Survivability
[b] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures
[c] NSTM S9086-CL-STM-010/CH-077R7, Personnel Protection Equipment
[d] MSGID 241800Z OCT 13
[e] NAVAIR 00-80R-14, NATOPS, U.S. Navy Aircraft Firefighting and Rescue Manual

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 as applicable to ship class:

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>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>204.1.1 Battle dress/antiflash gear [ref. a, ch. 8; ref. c, sec. 5]</td>
</tr>
<tr>
<td>.2 Helmets/cranials [ref. c, sec. 4]</td>
</tr>
<tr>
<td>.3 Proximity suit [ref. e, ch. 3]</td>
</tr>
<tr>
<td>.4 FFE/FPG [ref. c, sec. 4; ref. d]</td>
</tr>
<tr>
<td>a. Firefighter's coveralls</td>
</tr>
<tr>
<td>b. Firefighter's hood</td>
</tr>
<tr>
<td>c. DC/firefighter's helmet</td>
</tr>
<tr>
<td>d. Firefighter's gloves</td>
</tr>
<tr>
<td>e. Fireman's boots</td>
</tr>
<tr>
<td>f. Flame resistant variant coveralls</td>
</tr>
<tr>
<td>.5 Advance chemical protective ensemble [ref. b, sec. 5]</td>
</tr>
<tr>
<td>a. JSLIST</td>
</tr>
<tr>
<td>b. Gloves</td>
</tr>
<tr>
<td>c. Boots</td>
</tr>
<tr>
<td>.6 MCU-2/P [ref. b, sec. 5]</td>
</tr>
<tr>
<td>a. C-2 canister</td>
</tr>
<tr>
<td>b. Voice amp</td>
</tr>
<tr>
<td>c. Inserts</td>
</tr>
<tr>
<td>.7 Wet weather clothing [ref. b, sec. 5]</td>
</tr>
</tbody>
</table>

(Signature and Date)
204 PERSONAL PROTECTIVE CLOTHING EQUIPMENT SYSTEM (CONT’D)

204.2 PRINCIPLES OF OPERATION

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

(Signature and Date)

204.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. b, sec. 5]

A. What is the allowable wear-time?
B. Where is the allowable operational use?

204.3.1 JSLIST
   .2 C-2/C-2A1 canister

(Signature and Date)

204.4 SYSTEM INTERFACE

204.4.1 How do the following outside influences affect the setting of MOPP levels aboard ship: [ref. a, ch. 11]

   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)

204.5 SAFETY PRECAUTIONS

204.5.1 What special safety precautions apply to using the following:

   a. Firefighting ensemble/Fire Protective Garment [ref. c, sec. 4]
   b. Proximity suit [ref. e, ch. 3]
   c. JSLIST [ref. b, sec. 5]
   d. C-2 canister [ref. b, sec. 5]
   e. MCU-2P [ref. b, sec 5]

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

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, 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/CH-600V1R3, Structural Closures

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 as applicable to ship class:

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

Questions

205.1.1 Watertight/airtight closures and fittings [ref. a, sec. 22; ref. d]  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, sec. 42]  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
  .7 Automatic doors  A B C
  .8 Boat bay doors  A B C
  .9 Hangar bay doors  A B C

(Signature and Date)

205.2 PRINCIPLES OF OPERATION

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

(Signature and Date)

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

(Signature and Date)
205 WATERTIGHT CLOSURES/HULL FITTINGS SYSTEM (CONT’D)

205.2.3 Discuss the manual operation of mechanically or electrically operated doors.

____________________________________
(Signature and Date)

205.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

205.4 SYSTEM INTERFACE

205.4.1 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]
d. Loss of computers or control consoles
e. Loss of electrical power

____________________________________
(Signature and Date)

205.5 SAFETY PRECAUTIONS

205.5.1 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]
d. OOC/missing CPS door safety latch [ref. c, sec. 6]
e. External Hatches
f. Personnel safety barriers (DDG 1000 only)

____________________________________
(Signature and Date)
PORTABLE FIREFIGHTING EQUIPMENT SYSTEM

References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, , Surface Ship Firefighting
[b] NADEVTRA 14057-PPR, Damage Controlman

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

<table>
<thead>
<tr>
<th>Questions</th>
<th>206.1.1 15-pound CO₂:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Squeeze grip release lever [ref. a, sec. 4]</td>
</tr>
<tr>
<td>b.</td>
<td>D-yoke ring [ref. a, sec. 4]</td>
</tr>
<tr>
<td>c.</td>
<td>Locking pin and seal [ref. a, sec. 4]</td>
</tr>
<tr>
<td>d.</td>
<td>Horn assembly [ref. b, ch. 5]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Questions</th>
<th>206.2 Dry chemical extinguishers, 18- and 27-pound (PKP): [ref. a, sec. 4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>CO₂ cartridge</td>
</tr>
<tr>
<td>b.</td>
<td>Cartridge guard assembly</td>
</tr>
<tr>
<td>c.</td>
<td>Pull pin/seal</td>
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<tr>
<td>d.</td>
<td>Puncture lever</td>
</tr>
<tr>
<td>e.</td>
<td>Carry handle</td>
</tr>
<tr>
<td>f.</td>
<td>Squeeze grip nozzle</td>
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<tr>
<td>g.</td>
<td>Fill cap</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Questions</th>
<th>206.3 Portable AFFF extinguisher [ref. a, sec. 4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Pull pin/seal</td>
</tr>
<tr>
<td>b.</td>
<td>Aerating nozzle</td>
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<tr>
<td>c.</td>
<td>Pressure gage</td>
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<table>
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<tr>
<th>Questions</th>
<th>206.4 Vari-nozzle [ref. a, sec. 4]</th>
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<tbody>
<tr>
<td>a.</td>
<td>Applicator</td>
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<th>Questions</th>
<th>206.5 All-purpose nozzle [ref. a, sec. 4]</th>
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<tbody>
<tr>
<td>a.</td>
<td>Applicator</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Questions</th>
<th>206.6 In-line eductor [ref. a, sec. 4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
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</tbody>
</table>

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

206.2 PRINCIPLES OF OPERATION

206.2.1 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)

206.3 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 capacity/pressure of the extinguishing agent inside the extinguisher?

<table>
<thead>
<tr>
<th>Questions</th>
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<tbody>
<tr>
<td>Portable 15-pound CO₂ extinguisher</td>
<td>A B C</td>
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<tr>
<td>Portable 18-pound PKP extinguisher</td>
<td>A B C</td>
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<tr>
<td>Portable 27-pound PKP extinguisher</td>
<td>A B C</td>
</tr>
<tr>
<td>Portable AFFF extinguisher</td>
<td>A B C</td>
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</tbody>
</table>

(Signature and Date)

206.4 SYSTEM INTERFACE – None to be discussed.

206.5 SAFETY PRECAUTIONS

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

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

(Signature and Date)
207 INSTALLED FIRE EXTINGUISHING SYSTEM

References:

[a] Ship's Damage Control Book
[b] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[c] Planned Maintenance System (PMS) 5553/026
[d] NAVSEA 0910-LP-038-0700, Halon/HFP Fire Extinguishing Components
[e] NAVSEA 0993-LP-031-3000, CO₂ Fixed Flooding

207.1 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 as applicable to ship class::

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

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

a. 50-pound CO₂ cylinder/discharge head
b. Hose reel

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

a. Pull box
b. Cable operated control head
c. 50-pound CO₂ cylinder/flood valve
d. Activation pressure switch
e. Alarm indicators
f. Ventilation pressure switch
g. Discharge time delay

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

a. Five-pound CO₂ actuation cylinder
b. Pressure switches
c. Alarm indicators
d. Ventilation dampers
e. Time delay device
f. Time delay bypass valve
g. Stop valve (Diverter)

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

a. Magazine sprinkler system
b. Miscellaneous sprinkler systems

.5 Freshwater hose reels [ref. b, sec. 3]

a. Activation push button
207 **INSTALLED FIRE EXTINGUISHING SYSTEM (CONT’D)**

207.1.5
b. Holding tank
   - A

c. Hose reel nozzle
   - B

d. Pumps
   - A B

.6 APC extinguishing system (range guard) [ref. a; ref. b, sec. 3]
   a. Remote manual control box
      - A B
   b. Pressure release control box
      - A B
   c. Fusible links
      - A B
   d. APC cylinder
      - A B
   e. Lever control head
      - A B
   f. Pressure switches
      - A B

.7 Steam smothering [ref. b, sec. 1]
.8 Water mist components [ref. a; ref. b, sec. 2]
   a. Water mist supply tank
      - A B C
   b. Water mist pump
      - A B C D E
   c. Primary and secondary supply/isolation valves
      - A B C E
   d. Simplex strainer
      - A B C E
   e. Bulkhead isolation valves
      - A B E
   f. Primary and secondary HP water supply valves
      - A B E
   g. Water mist piping
      - A B C E
   h. Nozzles
      - A B E
   i. Smart valves
      - A B C E

.9 AFFF Sprinkler system [ref. a]
   a. Remote manual control box
      - A B C D E

.10 Primary Damage Area Cooling system (PDAC)
   - A B D E

.11 Telerobotic Firefighting Nozzles (TFN’s)
   - A B C E

_________________________________
(Signature and Date)

207.2 **PRINCIPLES OF OPERATION**

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

a. Fixed CO₂ systems
b. HALON/HFP
c. Miscellaneous sprinkling
d. Range guard (APC)
e. Freshwater hose reel
f. Watermist
g. PDAC
h. TFN’s

_________________________________
(Signature and Date)
207 INSTALLED FIRE EXTINGUISHING SYSTEM (CONT’D)

207.3 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>
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<tbody>
<tr>
<td>Watermist system pressure</td>
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<tr>
<td>A B</td>
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<tr>
<td>Watermist FWD tank capacity</td>
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<tr>
<td>A B</td>
</tr>
<tr>
<td>Watermist AFT tank capacity</td>
</tr>
<tr>
<td>A B</td>
</tr>
</tbody>
</table>

(Signature and Date)

207.4 SYSTEM INTERFACE

207.4.1 How does the loss of electrical power effect the operation of the installed firefighting systems? [ref. a; ref. b, sec. 3; ref. d, ch. 5]

(Signature and Date)

207.5 SAFETY PRECAUTIONS

207.5.1 What safety precautions must be observed when operating installed firefighting systems? [ref. b, secs. 2, 3]

(Signature and Date)
References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] S955-B9-MMA-010, Aqueous Film Forming Foam Equipment
[c] Ship’s Information Book (SIB)
[d] Ship’s Damage Control Book
[e] NSTM S9086-CH-STM-030/CH-074V3R1, Gas Free Engineering
[f] Planned Maintenance System (PMS)

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 as applicable to ship class:

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?

208.1.1 AFFF systems:

a. Hose reel cutout valve [refs. c, d] A 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/power check valve [ref. a, sec. 3; refs. c, d] A B C E
i. SOPV/MOPV [ref. a, sec. 3, fig. 3-10; refs. c, d, f] A B C D E
j. Remote operation control switch [ref. a. sec. 2; refs. c, d] A B E

208.1.2 AFFF concentrate transfer main cutout valves

[k. [ref. a, sec. 2; refs. c, d] A B E

208.1.3 AFFF concentrate supply cutout valves

[l. [ref. a, sec. 2; refs. c, d] A B E

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

208.1.5 Firemain cutout valve [ref. a, sec. 2; refs. c, d] A B

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

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

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

208.1.9 Riser cutout valves [ref. a, sec. 2; refs. c, d] A B E

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

208.1.11 Barrel Cut-Out switch [ref. b] A B E
208.1.1 u. Pumps A B C D E
v. Motor A B C D E
w. Radar TLI A B C
dx. Smart valves A B C E
y. MOPV A B C D E
z. Fresh water connections A B

.2 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

.3 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
d. Sprinkler group control valves/groups [ref. a, sec. 2; refs. c, d] A B C E
e. AFFF activation push buttons [ref. a, sec. 2; refs. c, d] A B C D E

.4 Installed in-line eductor (MCM/PC class) [ref. b, sec. 4; refs. c, d] A B E
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

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

(Signature and Date)

208.2 PRINCIPLES OF OPERATION

208.2.1 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
208 **AQUEOUS FILM FORMING FOAM SYSTEM (CONT’D)**

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

________________________________________________________________________

(Signature and Date)

208.3 **PARAMETERS/OPERATING LIMITS**

For the items listed, answer the following questions: [refs. c, d]

A. What is the allowable operating limit?
B. Where is the maximum capacity?

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFFF firemain pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFFF station tank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFFF storage/transfer tank</td>
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<td></td>
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</tbody>
</table>

________________________________________________________________________

(Signature and Date)

208.4 **SYSTEM INTERFACE**

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

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

________________________________________________________________________

(Signature and Date)

208.5 **SAFETY PRECAUTIONS**

208.5.1 What safety precautions apply to: [ref. e, sec. 19]

a. Hydrogen sulfide (H₂S) exposure
b. Hearing protection

________________________________________________________________________

(Signature and Date)
209  FIREMAIN SYSTEM

References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures
[c] Ship’s Information Book (SIB)
[d] Ship’s Damage Control Book
[e] NAVEDTRA 14057-PPR, Damage Controlman
[f] Planned Maintenance System (PMS)

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 as applicable to ship class::

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

209.1.1 Fire pumps [ref. a, sec. 2; refs. c, d]  
2 Firemain piping [ref. a, sec. 2; ref. c]  
3 Firemain cutout/ smart valves [ref. a, sec. 2; ref. c]  
4 Firemain Pressure control valve [ref. a, sec 2; ref c]  
5 Fire station:
   a. Fireplug [ref. a, sec. 4; refs. c, d]  
   b. Wye-gate [ref. a, sec. 4; ref. d]  
   c. Spanner wrench [ref. a, sec. 4]  
   d. 1 ½-inch fire hose [ref. a, sec. 4; ref. d]  
   e. 1 ¾-inch hose [ref. a, sec. 4; ref. d]  
   f. 2 ½-inch fire hose [ref. a, sec. 4; ref. d]  
   g. 1 ½-inch vari-nozzle [ref. a, sec. 4; ref. d]  
   h. 2 ½-inch vari-nozzle [ref. a, sec. 4; ref. d]  
   i. 1 inch fire hose  
   j. Hose reel stations  

Questions

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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</table>

.6 CMWD system [ref. b, sec. 7; refs. c, d]  
   a. Cutout valves [refs. c, d]  
   b. SOPV/MOPV [refs. c, d, f]  
   c. Nozzles [refs. c, d]  
   d. Push button activation [refs. c, d]  
   e. Smart valves

Table:<br>209.1.1 Fire pumps [ref. a, sec. 2; refs. c, d]  
2 Firemain piping [ref. a, sec. 2; ref. c]  
3 Firemain cutout/ smart valves [ref. a, sec. 2; ref. c]  
4 Firemain Pressure control valve [ref. a, sec 2; ref c]  
5 Fire station:
   a. Fireplug [ref. a, sec. 4; refs. c, d]  
   b. Wye-gate [ref. a, sec. 4; ref. d]  
   c. Spanner wrench [ref. a, sec. 4]  
   d. 1 ½-inch fire hose [ref. a, sec. 4; ref. d]  
   e. 1 ¾-inch hose [ref. a, sec. 4; ref. d]  
   f. 2 ½-inch fire hose [ref. a, sec. 4; ref. d]  
   g. 1 ½-inch vari-nozzle [ref. a, sec. 4; ref. d]  
   h. 2 ½-inch vari-nozzle [ref. a, sec. 4; ref. d]  
   i. 1 inch fire hose  
   j. Hose reel stations  

Questions

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<tr>
<th></th>
<th>A</th>
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</table>

.6 CMWD system [ref. b, sec. 7; refs. c, d]  
   a. Cutout valves [refs. c, d]  
   b. SOPV/MOPV [refs. c, d, f]  
   c. Nozzles [refs. c, d]  
   d. Push button activation [refs. c, d]  
   e. Smart valves

Table:<br>
209.1.7 Magazine sprinkling system [ref. a, sec. 3; refs. c, d; ref. e, sec. 6]
   a. Valves [ref. a, sec. 3; ref. c; ref. e, ch. 6]
   b. Manual control valves [ref. a, sec. 4; ref. c]
   c. Nozzles [ref. c; ref. e, ch. 6]

   (Signature and Date)

209.2 PRINCIPLES OF OPERATION

209.2.1 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)

209.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions:

A. What are the normal operating parameters?
B. Where are the pressure indicators located?

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

   (Signature and Date)

209.4 SYSTEM INTERFACE

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

   (Signature and Date)

   .2 What happens when there is a loss of fresh water?

   (Signature and Date)

209.5 SAFETY PRECAUTIONS – None to be discussed.
# Access/Overhaul Equipment System

References:

[a] S6290-AQ-MMC-A10 R1, The Arcair Slice (PECU) Portable Exothermic Cutting Unit
[b] Manufacturer’s Technical Manual for Portable Hydraulic Access and Rescue System (PHARS)
[c] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[d] Power Hawk Manufacturer’s Technical Manual
[e] Allowance Equipage List (AEL) 2-880044252-425

## 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 as applicable to ship class::

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?
E. What are the modes of operation or control?
F. What are the safety/protective devices for this component/component part?
G. What protection is provided by this component/component part?
H. What are the probable indications if this component fails?

### Questions

| 210.1 Access and overhaul equipment [ref. c, sec. 7] | A B |
| 210.2 PHARS [ref. b] | A B C D |
| 210.3 PECU [ref. a, ch. 1] | A B C D |
| 210.4 Vari-nozzle [ref. c, sec. 7] | A |
| 210.5 Power Hawk/PEARS [ref. d] | A B C D |
| 210.6 Overhaul rake [ref. e] | A B |
| 210.7 Halligan tool [ref. e] | A B |
| 210.8 Firefighter’s axe [ref. e] | A B |
| 210.9 Thermal imager [ref. c, sec. 6] | A B C D E G H |
| a. Battery condition indicator [ref. c, sec. 6] | A |
| b. Battery cartridge [ref. c sec. 6] | A B C |
| c. Protective visor [ref. c, sec. 6] | A B F |

(Signature and Date)
210  **ACCESS/OVERHAUL EQUIPMENT SYSTEM (CONT’D)**

210.2  **PRINCIPLES OF OPERATION**

210.2.1  How do the components work together to achieve the equipment’s function? [ref. c, sec. 7]

_______________________________
(Signature and Date)

210.3  **PARAMETERS/OPERATING LIMITS** – None to be discussed.

210.4  **SYSTEM INTERFACE** – None to be discussed.

210.5  **SAFETY PRECAUTIONS**

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

a.  PHARS [ref. b, ch. 1]

b.  PECU [ref. a, sec. 1]

c.  Power Hawk/ PEARS [ref d]

_______________________________
(Signature and Date)
211 VENTILATION SYSTEM

References:

[a] NSTM S9086-RQ-STM-010/CH-510R7, Heating, Ventilating, and Air Conditioning Systems for Surface Ships
[b] Ship’s Damage Control Book
[c] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[d] NSTM S9086-RS-STM-010/CH-512R2, Fans
[f] Ship’s Information Book (SIB)
[g] S9512-CA-MMC-010/93457, Fan, Portable, Desmoking, Medium Capacity

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 as applicable to ship class:

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?

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<tr>
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<tr>
<td>211.1.1 Supply ventilation [ref. a, sec. 1; ref. f]</td>
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<td>.2 Exhaust ventilation [ref. a, sec. 1; ref. f]</td>
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<td>.10 Portable electric desmoking fan (box fan) [ref. b, ch. 5]</td>
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<tr>
<td>.11 Portable ventilation duct (elephant trunk) [ref. b, ch. 3; ref. c, sec. 7]</td>
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<tr>
<td>.12 Smoke ejection system [ref. c, sec. 7]</td>
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(Signature and Date)

211.2 PRINCIPLES OF OPERATION – None to be discussed.
211  VENTILATION SYSTEM (CONT’D)

211.3  PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. e, sec. 7; ref. g, sec. 1]

A. What is the air moving capacity?

| 211.3.1  | Ramfan | Questions | A |
| 211.3.2  | Box fan | Questions | A |

(Signature and Date)

211.4  SYSTEM INTERFACE

211.4.1 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)

211.5  SAFETY PRECAUTIONS

211.5.1 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)
212 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-010/CH-504R7, Pressure, Temperature, and Other Mechanical and Electromechanical Measuring Instruments
[f] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting

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 modes of operation or controls?

Questions

212.1.1 Main drainage system [ref. a, sec. 29; ref. b] A B
a. Pumps/eductors [ref. a, sec. 29; ref. b] A B C
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 [ref. a, sec. 29] A
b. Deck drain valves and overboard discharge [ref. a, sec. 29] A

(Signature and Date)
212 **INSTALLED DRAINAGE SYSTEM (CONT’D)**

212.2 **PRINCIPLES OF OPERATION**

212.2.1 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)

212.3 **PARAMETERS/OPERATING LIMITS** – None to be discussed.

212.4 **SYSTEM INTERFACE**

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

a. Loss of firemain pressure [ref. f, sec. 2]
b. Loss of electrical power [ref. f, sec. 2]
c. Battle damage [ref. a, sec. 29]

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

(Signature and Date)

212.5 **SAFETY PRECAUTIONS**

212.5.1 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)
213 CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DETECTION AND DECONTAMINATION EQUIPMENT SYSTEM

References:

[a] NTTP 3-20.31, 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
[f] NAVEDTRA 14057-PPR, Damage Controlman
[g] Planned Maintenance System (PMS) 6642/200

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 as applicable to ship class:

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?

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<td>.2 BMMFR [ref. e]</td>
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<td>.3 AN/PDQ-1 [ref. c, sec. 3]</td>
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<td>.4 IM-270 [ref. c, sec. 3]</td>
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<td>.5 M256/A1/A2 chemical agent detection kit [ref. c, sec. 4]</td>
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<td>.11 Calcium hypochlorite (HTH) [ref. c, sec. 7]</td>
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<td>.12 Trash cans with liners [ref. c, sec. 7]</td>
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<td><strong>Fire hosing (fire hose with nozzle) [ref. c, sec. 7]</strong></td>
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<td><strong>.20</strong></td>
<td><strong>Unexploded munitions marker [ref. a, ch. 11]</strong></td>
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<td><strong>.21</strong></td>
<td><strong>Atropine, 2-PAM-chloride (CANA auto injectors) [ref. c, sec. 5; ref. f, ch. 2]</strong></td>
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<td><strong>.23</strong></td>
<td><strong>Ready shelter station [ref. b, sec. 5]</strong></td>
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<td><strong>Deep shelter station [ref. b, sec. 5]</strong></td>
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<td><strong>.25</strong></td>
<td><strong>Conventional DECON station [ref. c, sec. 7]</strong></td>
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<td><strong>.26</strong></td>
<td><strong>CCA [ref. c, sec. 7]</strong></td>
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<td><strong>.27</strong></td>
<td><strong>Casualty collection station(s) [ref. c, sec. 7]</strong></td>
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<td><strong>.28</strong></td>
<td><strong>Battle dressing station(s) [ref. a, ch. 2]</strong></td>
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<td><strong>.29</strong></td>
<td><strong>CMWD [ref. c, sec. 7]</strong></td>
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<td><strong>.30</strong></td>
<td><strong>CPS DECON station [ref. c, sec. 6]</strong></td>
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<td><strong>.31</strong></td>
<td><strong>RSDL [ref. c, sec. 6]</strong></td>
</tr>
</tbody>
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### 213.2 PRINCIPLES OF OPERATION

Describe the procedures for using the following:

**a.** Personnel DECON in the DECON station/CCA [ref. b, sec. 5]

**b.** Topside DECON of a weather deck [ref. c, sec. 7]

**c.** Interior DECON of a space [ref. b, sec. 5]

**d.** Reading an IM-270 pocket dosimeter [ref. c, sec. 3]

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

---

### 213.3 PARAMETERS/OPERATING LIMITS

None to be discussed.
213 CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DETECTION AND DECONTAMINATION EQUIPMENT SYSTEM (CONT’D)

213.4 SYSTEM INTERFACE

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

a. Loss of ship’s electrical power to:
   1. IPDS/IPDS LR [ref. c, sec. 4]
   2. JBPDS [ref. c, sec. 4]
   3. DFU [ref. c, sec. 4]
   4. CMWD [ref. c, sec. 7]
   5. CPS [ref. c, sec. 6]

b. Rain and sunlight exposure to M256/A-1/A2 [ref. c, sec. 4]

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

d. Material DECON 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]
   2. Casualty collection station [ref. c, sec. 7]

(Signature and Date)

213.5 SAFETY PRECAUTIONS

213.5.1 What special safety precautions apply to:

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

b. Chemical agent detection with M-256/A-1/A2 [ref. c, sec. 4]

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

d. RSDL [ref. c, sec. 6]

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

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

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

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

i. Mixing HTH with other DECON solutions [ref. c, sec. 7]

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

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

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

(Signature and Date)
214  CASUALTY POWER DISTRIBUTION SYSTEM

References:

[a] NSTM S9086-CN-STM-030/CH-079V3R2, Damage Control, Engineering Casualty Control
[b] NSTM S9086-KY-STM-010/CH-320R6, Electrical Power Distribution Systems
[c] Ship’s Information Book (SIB)
[d] Ship’s Casualty Power Doctrine

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 as applicable to ship class:

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

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
</tr>
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<td>214.1.1 Portable cables [ref. a, sec. 47; ref. b, sec. 1; ref. c]</td>
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<tr>
<td>a. Phase identification markings [ref. a, sec. 47; ref. b, sec. 1]</td>
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<td>B</td>
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<td>.2 Riser terminals [ref. b, sec. 1; ref. c]</td>
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<td>B</td>
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<td>.3 Bulkhead terminals [ref. b, sec. 1; ref. c]</td>
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<td>B</td>
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<td>.4 Switchboard terminals [ref. b, sec. 1; ref. c]</td>
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<td>.5 Casualty power circuit breaker [ref. b, sec. 1; ref. c]</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

(Signature and Date)

214.2 PRINCIPLES OF OPERATION

214.2.1 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)
214 CASUALTY POWER DISTRIBUTION SYSTEM (CONT’D)

214.3 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?

214.3.1 Portable cable amperage [ref. a, sec. 47]
214.3.2 Casualty power circuit breaker amperage [ref. c]

(Signature and Date)

214.4 SYSTEM INTERFACE – None to be discussed.

214.5 SAFETY PRECAUTIONS

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

(Signature and Date)


215  **DEWATERING EQUIPMENT/PUMPS SYSTEM**

References:

[a]  NAVEDTRA 14057-PPR, Damage Controlman  
[b]  NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting  
[c]  NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control  
[d]  Ship's Damage Control Book  
[e]  Allowance Equipage List (AEL) 2-880044240

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 as applicable to ship class:

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

#### 215.1.1  Eductors (S-type, Peri-jet, Derbyshire) [ref. a, ch. 5; ref. d]
- a.  Supply/discharge hoses [ref. a, ch. 5; ref. d]  
- b.  Overboard discharge fittings [ref. c, sec. 29; ref. d]

#### 215.2  Electric submersible pump [ref. a, ch. 5; ref. d]
- a.  Motor [ref. a, secs. 5, 26]  
- b.  Electrical cable and switch box [ref. a, ch. 5]  
- c.  Handling line [ref. a, ch. 5]  
- d.  Strainers [ref. a, ch. 5]  
- e.  Hoses [ref. a, ch. 5; ref. d]

#### 215.3  P-100 pump [ref. b, sec. 4; ref. d]
- a.  Exhaust primer valve  
- b.  Primer hose assembly  
- c.  Discharge valve and head assembly  
- d.  Primer shutoff valve  
- e.  Suction connection  
- f.  Pump drain valve  
- g.  Exhaust muffler  
- h.  Air cleaner assembly  
- i.  Fuel tank  
- j.  Starter assembly  
- k.  Throttle
215 DEWATERING EQUIPMENT/PUMPS SYSTEM (CONT’D)

215.1.3  
I. Oil dipstick  
m. Packing adjustment plunger  
n. Pressure gage

(Signature and Date)

215.2 PRINCIPLES OF OPERATION

215.2.1 What is the sequence of component involvement to: [ref. a, chs. 4, 6; ref. b]

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)

215.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions:

A. What is the normal operating parameter?  
B. What is the maximum self-priming lift?  
C. What is the rate of delivery (capacity)?

215.3.1 4" Peri-jet eductor [ref. a, ch. 5]  
.2 2 ½” S-type eductor [ref. a, ch. 5]  
.3 Electrical submersible pump [ref. a, ch. 5]  
.4 P-100 pump [ref. b, sec. 4]  
.5 2 ½" Jet ejector eductor [ref. e]

(Signature and Date)

215.4 SYSTEM INTERFACE

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

(Signature and Date)
215.5 SAFETY PRECAUTIONS

215.5.1 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)
216 CRASH AND SALVAGE EQUIPMENT SYSTEM

References:

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

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 as applicable to ship class:

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

Questions

216.1.1 Crash and salvage equipment:
   a. Crash and rescue tool kit/roll [chs. 8, 9]

216.1.2 Special tools/equipment:
   a. Firefighting clothing [ch. 3]
   b. CO₂ extinguisher with extension hose assembly [chs. 8, 9]

(Signature and Date)

216.2 PRINCIPLES OF OPERATION

216.2.1 How do the components work together to achieve the system’s function? [chs. 8, 9]

(Signature and Date)

216.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

216.4 SYSTEM INTERFACE – None to be discussed.

216.5 SAFETY PRECAUTIONS

216.5.1 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)
CONFLAGRATION STATION SYSTEM

References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] Ship’s Information Book (SIB)
[c] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[d] NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual

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 as applicable to ship class:

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

217.1.1 Sprinkler group system control switch [ref. a, sec. 3; ref. b; ref. d, chs. 7, 8] A B D E

.2 Divisional/deck edge doors control switch [ref. b] A B C D E

.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 D E

.5 Vehicle (upper/lower storage) ramp sprinkler control [ref. b; ref. d, ch. 8] A B C D E

.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 C E

.8 Hangar deck 3MC units [ref. b; ref. d, ch. 8] A B C

(Signature and Date)

217.2 PRINCIPLES OF OPERATION

217.2.1 Draw a block diagram showing the locations of sprinkler groups. [ref. b]
217 CONFLAGRATION STATION SYSTEM (CONT’D)

217.2.2 During what conditions are the conflagration stations manned? [ref. d, chs. 7,8]

(Signature and Date)

217.3 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
A B

217.3.1 Firemain pressure

(Signature and Date)

217.4 SYSTEM INTERFACE

217.4.1 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)

217.5 SAFETY PRECAUTIONS

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

(Signature and Date)
### PIPE REPAIR/PATCHING SYSTEM

**References:**

- [a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
- [b] SS100-AG-MAN-010, Damage Control and Firefighting Equipment Layout Booklet
- [c] Emergency Water Activated Repair Patch (EWARP) Operating Procedures
- [d] NAVSEA S5090-CL-MMC-010, Pipe Jumper Hose System (PJHS) Kit No. 1 and No. 2
- [e] Allowance Equipage List (AEL) 2-880044268
- [f] Allowance Equipage List (AEL) 2-880044226
- [g] Allowance Equipage List (AEL) 2-880044202

### 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 as applicable to ship class:

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

#### 218.1 Pipe patching kit [ref. a, sec. 42; ref e]

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Hacksaw with spare 12-inch blades</td>
<td>A</td>
</tr>
<tr>
<td>b.</td>
<td>Diver’s gloves</td>
<td>A</td>
</tr>
<tr>
<td>c.</td>
<td>Ball peen hammer</td>
<td>A</td>
</tr>
<tr>
<td>d.</td>
<td>Hatchet</td>
<td>A</td>
</tr>
<tr>
<td>e.</td>
<td>Tarred marline</td>
<td>A</td>
</tr>
<tr>
<td>f.</td>
<td>Spun tarred oakum</td>
<td>A</td>
</tr>
<tr>
<td>g.</td>
<td>Wooden tapered plugs of various sizes</td>
<td>A</td>
</tr>
<tr>
<td>h.</td>
<td>Rubber sheet</td>
<td>A</td>
</tr>
<tr>
<td>i.</td>
<td>Tailor shears</td>
<td>A</td>
</tr>
<tr>
<td>j.</td>
<td>Wooden tapered wedges of various sizes</td>
<td>A</td>
</tr>
<tr>
<td>k.</td>
<td>EWARP [ref. b, sec. 1]</td>
<td>A</td>
</tr>
</tbody>
</table>

#### 218.2 Banding kit [ref. a, sec. 42; ref. f]

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Clamping tool strap</td>
<td>A</td>
</tr>
<tr>
<td>b.</td>
<td>Steel strapping/band-it buckle</td>
<td>A</td>
</tr>
<tr>
<td>c.</td>
<td>Container</td>
<td>A</td>
</tr>
<tr>
<td>d.</td>
<td>Gloves</td>
<td>A</td>
</tr>
<tr>
<td>e.</td>
<td>Strong back</td>
<td>A</td>
</tr>
<tr>
<td>f.</td>
<td>Chain wrench</td>
<td>A</td>
</tr>
</tbody>
</table>
218 PIPE REPAIR/PATCHING SYSTEM (CONT’D)

218.1.3 Jubilee pipe patches [ref. g]  
.4 PJHS [ref. d]

(Signature and Date)

218.2 PRINCIPLES OF OPERATION

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

(Signature and Date)

218.3 PARAMETERS/OPERATING LIMITS

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

a. Jubilee pipe patch [ref. a, sec. 42]  
b. EWARP [ref. c]  
c. Soft patch [ref. a, sec. 42]  
d. Banding patch [ref. a, sec. 42]  
e. PJHS [ref. d]

(Signature and Date)

218.4 SYSTEM INTERFACE

218.4.1 What piping systems shall the EWARP not be used on? [ref. c]

(Signature and Date)

218.5 SAFETY PRECAUTIONS

218.5.1 What special safety precautions apply to using the:

a. Pipe Patching kit [ref. a, sec 42]  
b. Banding kit [ref. a, sec. 42]  
c. PJHS [ref. d]

(Signature and Date)
219 PLUGGING KIT EQUIPMENT SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, 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] Allowance Equipage List (AEL) 2-880044272/73

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 as applicable to ship class:

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

219.1.1 Plugging kit [ref. b, sec. 1; ref. d]

a. Bag, kit/tool box portable
b. Caulking iron
c. Cold chisel
d. Ball peen hammer
e. Hatchet Half
f. 5-pound maul
g. Spun tarred oakum
h. Tapered wood plugs
i. Hand saw
j. Wood wedges

Questions

A B

219.2 Box patch [ref. a, sec. 42]

A B

(Signature and Date)

219.2 PRINCIPLES OF OPERATION – None to be discussed.

219.3 PARAMETERS/OPERATING LIMITS – None to be discussed.
219  **PLUGGING KIT EQUIPMENT SYSTEM (CONT’D)**

219.4  **SYSTEM INTERFACE**

219.4.1 Discuss how the plugging kit interfaces with the shoring system. [ref. a, sec. 42]

____________________________________________
(Signature and Date)

219.5  **SAFETY PRECAUTIONS**

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

____________________________________________
(Signature and Date)
220 SHORING SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[b] Ship’s Damage Control Book Part 1

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 as applicable to ship class:

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

220.1.1 Shoring tool kit: [ref. a, sec. 43; ref b] A B C
220.1.2 Shoring material kit:
   a. Shoring lumber (wood) A B
   b. Shoring steel A B
   c. Wood wedges A B
220.1.3 Strongback A B
220.1.4 Shole A B
220.1.5 Shoring batten A B

(Signature and Date)

220.2 PRINCIPLES OF OPERATION – None to be discussed.

220.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. a, sec. 43]

A. What is the formula for determining the maximum length?
B. What is the maximum length?
C. What is the maximum weight?

220.3.1 Wood shore A
220.3.2 Wood wedge B
220 SHORING SYSTEM (CONT’D)

220.3.3 Metal shoring
   a. Collapsed
   b. Extended

(Signature and Date)

220.4 SYSTEM INTERFACE

220.4.1 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)

220.5 SAFETY PRECAUTIONS

220.5.1 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]

.3 What safety precautions must be observed when transporting steel shoring? [ref. a, sec. 43]

(Signature and Date)
221 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control

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 as applicable to ship class::

A. What is its function?
B. Where is it located?
C. What are the sources of power?

221.1.1 Computer Based DC Management system [ref. a, sec. 39]

Questions

A B C

(Signature and Date)

221.2 PRINCIPLES OF OPERATION – None to be discussed.

221.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

221.4 SYSTEM INTERFACE

221.4.1 How does the loss of power affect the operation of this system? [ref. a, sec. 39]

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

a. LAN databases
b. Communications
c. Remote monitoring stations

(Signature and Date)

221.5 SAFETY PRECAUTIONS - None to be discuss.
222 SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEMS

References:

[a] S6226-PD-MMO-010/07070R2, Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)
[d] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures
[e] S6220-EV-MMO-010, Oceanus-E3 Compressor
[f] S9551-BP-MMC-010, Self-Contained Breathing Apparatus High Pressure Air Charging System

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 as applicable to ship class:

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

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

a. Air booster pump assembly [ref. a, chs. 2, 3, 5, 7]
   1. Drive air inlet pressure gauge
   2. Drive air regulator
   3. Regulated air pressure gauge
   4. Drive air bleed valve
   5. Drive air control valve
   6. Filtered air inlet pressure gauge
   7. Filtered air inlet valve
   8. Filtered air outlet pressure gauge
   9. Drive air filter
   10. Drive air LP relief valve
   11. Booster pump
   12. Surge tank
   13. Filtered air HP relief valve

Questions

A B C
222 SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)

222.1.1 14. Pilot switch
15. In-line filter
b. HP filter assembly [ref. a, chs. 2, 3, 5, 7]
   1. Coalescer 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

.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

.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
   h. Gages
   i. Charging hoses
   j. Back pressure regulating valve
   k. HP air cut out valves
   l. Coalescer drain
   m. Moisture/humidity indicator
   n. Auto start/stop
   o. Pressure regulator

Questions
A B C
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222.1.4 Oceanus-E3 compressor: [ref. e, ch. 3]
a. Compressor block A B
b. Intake filter A B
c. 1st stage cylinder A B
d. 1st stage intercooler A B
e. 2nd stage cylinder A B
f. 2nd stage intercooler A B
g. Intermediate separator A B
h. 3rd stage cylinder A B
i. After cooler A B
j. P0 Filter system A B
k. P0 condensate drain valve A B
l. P0 bleed valve A B
m. Purification cartridge A B
n. Pressure maintaining valve A B
o. CO and moisture indicator A B C
p. Check valve A B
q. Fill hose assembly A B C
r. Electric motor A B C

.5 SCBA HP BACS: [ref. f, ch. 3]
a. Instrument and control panel A B
b. Electrical panel A B C
c. HPBAC drive motor/cable assembly A B
d. HPBAC compressor block assembly A B
e. HPBAC Air Purification system A B
f. SCBA filter panel assembly A B
g. SCBA charging panel assembly A B
h. Back pressure regulator A B C
i. Check valve A B
j. Stop valve A B
k. Pressure reducing regulator A B
l. Relief valve A B C
m. Gauge isolation valves A B
n. Gauges A B C
o. Ship’s air storage flasks A B
p. Flask relief valve A B C
q. Flask drain valve A B
r. Flask isolation valve A B
s. Filtered air supply hose assembly A B C
t. SCBA quick-charge hose assembly A B C

(Signature and Date)
222 **SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)**

222.2 **PRINCIPLES OF OPERATION**

222.2.1 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]

a. ABPA drive air path and filtered air path  
b. HPFA drive air path and filtered air path  
c. EBAC  
d. Electric HP breathing air compressor  
e. SCBA HP BACS (DDG-51 FLT IIA)  
f. SCBA HP BACS (LPD-4 Class)

___________________________________  
(Signature and Date)

222.3 **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?

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtered air outlet pressure gage</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Filtered air inlet pressure gage</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Drive air bleed valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Regulated air pressure gage</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Drive air inlet pressure gage</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Filtered air inlet valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Drive air control valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Drive air regulator</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HPFA gauge</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Shut-off valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Bleed valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Drain valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>H₂O/CO indicator</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Relief valve</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Shut-off knob (hose isolation valve)</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Bleed handle (hose isolation valve)</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Back pressure regulator</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Pressure regulator</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

___________________________________  
(Signature and Date)
SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)

SYSTEM INTERFACE

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

a. Low air
b. Loss of HP air
c. Air quality testing
d. Loss of electrical power

(Signature and Date)

SAFETY PRECAUTIONS

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

(Signature and Date)
223  FIREFIGHTER EXTRACTION SYSTEM (FES)

References:

[a] SS100-AJ-MMO-010, Rev.3, Firefighter Extraction System (FES)

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 as applicable to ship class:

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>
</tr>
</thead>
<tbody>
<tr>
<td>223.1.1 Fixed components: [ref a, ch 3]</td>
</tr>
<tr>
<td>a. Anchorage</td>
</tr>
<tr>
<td>b. Lifting beam (as applicable)</td>
</tr>
<tr>
<td>2. Portable components:</td>
</tr>
<tr>
<td>a. Block and tackle assembly</td>
</tr>
<tr>
<td>b. Rescue sling</td>
</tr>
<tr>
<td>c. Anchor loop</td>
</tr>
<tr>
<td>d. Leading block and tackle assembly</td>
</tr>
</tbody>
</table>

(Signature and Date)

223.2 PRINCIPLES OF OPERATION

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

.2 What is the correct position of the rescue sling? [ref a, ch. 2]

.3 What is the sequence for victim extraction? [ref a, ch. 2]

(Signature and Date)
223.3 **PARAMETERS/OPERATING LIMITS**

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

A. What are the allowable operating limits?

223.3.1 Block and tackle assembly [ref a, ch 2]

___________________________________
(Signature and Date)

223.4 **SYSTEM INTERFACE**

223.4.1 How does this system interface with the existing escape trunk? [ref a, ch. 2]

___________________________________
(Signature and Date)

223.5 **SAFETY PRECAUTIONS**

223.5.1 What safety precautions must be observed when operating this system? [ref a, ch. 2]

___________________________________
(Signature and Date)
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 as applicable to ship class:

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

224.1.1 Fixed components: [ref a, ch 3]
   a. Carrier rail
   b. Rung clamp assemblies
   c. Male extension (as applicable)

224.2 PRINCIPLES OF OPERATION

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

224.2.2 What are the waist belt donning procedures? [ref a, ch. 2]

224.2.3 What is the sequence for ladder ascent/descent? [ref a, ch. 2]

(Signature and Date)
224.3  PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref a, ch. 1]

A. What are the allowable operating limits?

224.3.1 Carrier sleeve

___________________________________  (Signature and Date)

224.4  SYSTEM INTERFACE

224.4.1 How does this system interface with the existing escape trunk? [ref a, ch. 2]

___________________________________  (Signature and Date)

224.5  SAFETY PRECAUTIONS

224.5.1 What safety precautions must be observed when operating this system? [ref a, ch. 2]

___________________________________  (Signature and Date)
300 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:

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

E. 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.

F. 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.
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-L).

RECOMMENDED ___________________________ DATE ____________
Supervisor

RECOMMENDED ___________________________ DATE ____________
Division Officer

RECOMMENDED ___________________________ DATE ____________
Department Head

QUALIFIED ______________________________ DATE ______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ___________________________ DATE ____________

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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)

.2 SYSTEMS FROM THIS PQS:

201 Damage Control (DC) Communications
Completed ........................................... 2% of Watchstation
(Qualifier and Date)

221 Computer Based Damage Control (DC) Management
Completed ........................................... 2% 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 or simulate this task.

301.2.1 Obtain and inspect DC communications equipment IAW NSTM 079, Vol. 2 (2 times) Questions

A D

(Signature and Date)

(Signature and Date)

.2 Establish and test communications IAW NSTM 079, Vol. 2 (2 times) A B D

(Signature and Date)

(Signature and Date)

.3 Log on to Computer Based DC Management system IAW NSTM 079, Vol. 2 (2 times) A D

(Signature and Date)

(Signature and Date)

.4 Transmit messages using standard phraseology IAW NSTM 079, Vol. 2 (2 times) A B D

(Signature and Date)

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

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<td>301.2.6 Secure and stow DC communications equipment</td>
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<td>301.2.7 Deliver an oral and a written message</td>
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<td>301.2.8 Plot a fire scenario using standard DC symbology</td>
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<td>301.2.9 Identify equipment in emergency communications kit</td>
<td>B D</td>
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</tbody>
</table>
301 **BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)**

301.2.10 Plot a flooding scenario using standard DC symbology IAW NSTM 079, Vol. 2 (2 times)

Questions

A C D

(Signature and Date)

(Signature and Date)

.11 Plot a CBR-D scenario using standard DC symbology IAW NSTM 079, Vol. 2 (2 times)

Questions

A C D

(Signature and Date)

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 40% 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.

Questions

A B D E

301.3.1 Transmit messages through a sound-powered telephone earpiece IAW NSTM 079, Vol. 2

(Signature and Date)

.2 Receive messages through a sound-powered telephone mouthpiece IAW NSTM 079, Vol. 2

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

301.3.3 Reestablish communications upon evacuation of the DC repair station IAW NSTM 079, Vol. 2

(Signature and Date)

.4 Reestablish communications using the emergency communication kit IAW NSTM 079, Vol. 2

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 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.

301.4.1 Loss/malfunctioning of communication

(Signature and Date)

COMPLETED .4 AREA COMPRISSES 10% 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:**

Phone Talker (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

Plotter (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

**COMPLETED .6 AREA COMPRISSES 10% OF WATCHSTATION.**

301.7  **EXAMINATIONS** - None.
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-L).

RECOMMENDED ___________________________________ DATE __________
Supervisor

RECOMMENDED ___________________________________ DATE __________
Division Officer

RECOMMENDED ___________________________________ DATE __________
Department Head

QUALIFIED _________________________________________ DATE __________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY _______________________________ DATE __________
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)

302.2  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 or simulate this task.

302.2.1  Demonstrate patient evaluation procedures IAW NAVEDTRA 14295B  

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

302.2.2 Locate designated first-aid boxes IAW Medical Department’s List

(Signature and Date)

.3 Locate battle dressing stations IAW Ships DC Book

(Signature and Date)

**COMPLETED .2 AREA COMPRIS ES 25% 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 designated stretcher IAW NAVEDTRA 14295B (3 times) A B C D E F G

(Signature and Date)

(Signature and Date)

(Signature and Date)

.2 Rescue victim from an energized circuit IAW NAVEDTRA 14295B A B C D E F G

(Signature and Date)

.3 Demonstrate the treatment for an open pneumothorax IAW NAVEDTRA 14295B A B C D E F G

(Signature and Date)
302 Basic First-aid (Cont’d)

302.3.4 Demonstrate the treatment for inhalation poisoning IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

.5 Demonstrate the treatment for burns IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

.6 Demonstrate the treatment for an abdominal evisceration IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

.7 Demonstrate the treatment for an extremity fracture IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

.8 Demonstrate the treatment for electric shock IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

.9 Demonstrate the treatment for an extremity amputation IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

.10 Demonstrate the treatment for a jaw fracture IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

Completed .3 area comprises 70% of watchstation.
302 **BASIC FIRST-AID (CONT’D)**

302.4 **ABNORMAL CONDITIONS** – None to be discussed.

302.5 **EMERGENCIES** – None to be discussed.

302.6 **WATCHES** – None.

302.7 **EXAMINATIONS** – None.
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 FIREFIGHTING (NAVEDTRA 43119-L).

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) (NSWC SCBA 4.5O-1.0) NKO (REQUIRED)

Completed ___________________________________  
(Qualifier and Date)

#### 303.2 WATCHSTATIONS FROM THIS PQS:

302  Basic First-Aid

Completed ___________________________________  
(Qualifier and Date)

#### 303.3 FUNDAMENTALS FROM THIS PQS:

103  Firefighting

Completed ___________________________________ 1% of Watchstation  
(Qualifier and Date)

#### 303.4 SYSTEMS FROM THIS PQS:

203  Self-Contained Breathing Apparatus (SCBA)

Completed ___________________________________ 1% of Watchstation  
(Qualifier and Date)

204  Personal Protective Clothing Equipment

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

303.1.4  206  Portable Firefighting Equipment

Completed ___________________________________ 1% of Watchstation (Qualifier and Date)

207  Installed Fire Extinguishing

Completed ___________________________________ 1% of Watchstation (Qualifier and Date)

208  Aqueous Film Forming Foam (AFFF)

Completed ___________________________________ 1% of Watchstation (Qualifier and Date)

209  Firemain

Completed ___________________________________ 1% of Watchstation (Qualifier and Date)

210  Access/Overhaul Equipment

Completed ___________________________________ 1% of Watchstation (Qualifier and Date)

211  Ventilation

Completed ___________________________________ 1% of Watchstation (Qualifier and Date)

224  Firefighter Ladder Safety System (LSS)

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. Locate, identify, and discuss general operation.
H. Satisfactorily perform or simulate this task.

303.2.1 Don and doff FFE/FPG IAW NSTM 077

Questions

A B E F G H

(Signature and Date)

.2 Relieve nozzle position on charged hose IAW NSTM 555

Questions

A B C D E F H

(Signature and Date)

.3 Inspect, don, and activate SCBA IAW NSTM 077

Questions

A B C D E F G H

(Signature and Date)

.4 Charge, clean, inspect, and restow the SCBA IAW NSTM 077

Questions

A B C D E F H

(Signature and Date)

.5 Inspect, layout, charge, and restow fire hose IAW NSTM 555

Questions

A B C E G H

(Signature and Date)

.6 Charge hose and operate firefighting nozzles through all patterns IAW NSTM 555

Questions

A B C D E G H

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

303.2.7 Demonstrate proper water management techniques IAW NSTM 555

____________________________
(Signature and Date)

.8 Maneuver charged hoses up and down ladders IAW NSTM 555

____________________________
(Signature and Date)

.9 Demonstrate the ability to activate the following installed equipment IAW NSTM 555:

a. CO₂ hose reel

____________________________
(Signature and Date)

b. CO₂ flooding system

____________________________
(Signature and Date)

c. AFFF sprinkling system

____________________________
(Signature and Date)

d. Miscellaneous sprinkling system

____________________________
(Signature and Date)

e. HALON/HFP system

____________________________
(Signature and Date)

f. APC extinguishing system (range guard)

____________________________
(Signature and Date)
Questions

303.2.9  
g. Freshwater hose reel  

(Signature and Date)

h. AFFF hose reel  

(Signature and Date)

i. Water Mist system  

(Signature and Date)

.10 Locate the following items and demonstrate the ability to use them IAW NSTM 555:

a. AFFF in-line eductor  

(Signature and Date)

b. Smoke curtains  

(Signature and Date)

c. Smoke blankets  

(Signature and Date)

d. Thermal imager  

(Signature and Date)

e. PECU  

(Signature and Date)

f. Ramfan  

(Signature and Date)
303.2.10

**Questions**

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<td>g.</td>
<td>Box fan</td>
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<td>Portable firefighting pump (P-100) and related equipment</td>
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<td>Power hawk/PEARS</td>
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<td>Portable CO₂ extinguisher</td>
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<td>Portable AFFF extinguisher</td>
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<td>Portable PKP extinguishers</td>
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</table>
303 BASIC FIREFIGHTING (CONT’D)

303.2.11 Demonstrate the ability to locate, identify, set and maintain the following IAW NSTM 555:

a. Fire boundaries
   
   (Signature and Date)

b. Smoke boundaries
   
   (Signature and Date)

c. Flooding boundaries
   
   (Signature and Date)

e. Casualty boundaries
   
   (Signature and Date)

.12 Don and doff the LSS waist belt IAW Tech Manual

   (Signature and Date)

.13 Ascend and descend the escape trunk utilizing the LSS IAW Tech Manual

   (Signature and Date)

COMPLETED .2 AREA COMPRISSES 30% OF WATCHSTATION.
303 **BASIC FIREFIGHTING (CONT’D)**

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 Ventilate compartments IAW NSTM 555

(Signature and Date)

.2 Maneuver charged hoses through a vertical trunk IAW NSTM 555

(Signature and Date)

.3 Maneuver charged hoses through a main/auxiliary escape trunk utilizing LSS IAW NSTM 555

(Signature and Date)

.4 Perform indirect firefighting procedures IAW NSTM 555

(Signature and Date)

.5 Perform fog firefighting procedures IAW NSTM 555

(Signature and Date)

.6 Rig portable desmoking equipment inside fire/smoke boundaries to achieve active desmoking IAW NSTM 555

(Signature and Date)

**Questions**

A B C D E F G

**COMPLETED .3 AREA COMPRISSES 10% OF WATCHSTATION.**
303 BASIC FIREFIGHTING (CONT’D)

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 Loss of breathing air

Questions: A B C D E F G H

(Signature and Date)

.2 SCBA quick charge

Questions: B D E G H

(Signature and Date)

.3 Loss of ship’s electrical power

Questions: A B C D E F G H

(Signature and Date)

.4 Improperly stowed hazardous/combustible materials

Questions: B C E F G H

(Signature and Date)

.5 Loss of HP air

Questions: A B C D E F G H

(Signature and Date)

.6 Ruptured hose

Questions: A B C D E F G H

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

303.4.7 Clogged vari-nozzle

(Signature and Date)

.8 Compartment obstructed by debris

(Signature and Date)

COMPLETED .4 AREA COMPRISES 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.

303.5.1 Fire in Ventilation system

(Signature and Date)

.2 Fire reflash

(Signature and Date)

.3 Wild hose

(Signature and Date)

.4 Loss of firemain pressure

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

303.5.5 Loss of fire boundaries

(Signature and Date)

Questions A B C D E F G H

.6 Class A fire

(Signature and Date)

Questions A B C D E F G H

.7 Class B fire

(Signature and Date)

Questions A B C D E F G H

.8 Class C fire

(Signature and Date)

Questions A B C D E F G H

.9 Class D fire

(Signature and Date)

Questions A B C D E F G H

.10 Fire in CBR environment

(Signature and Date)

Questions A B C D E F G H

COMPLETED .5 AREA COMPRISSES 15% OF WATCHSTATION.
303 BASIC FIREFIGHTING (CONT’D)

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)

Hoseman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

Nozzleman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

Accessman/Overhaulman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRIS ES 20% OF WATCHSTATION.

303.7 EXAMINATIONS – None.
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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 FIRE WATCH STANDER (NAVEDTRA 43119-L).

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 ________________________________ 5% 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 or simulate this task.

304.2.1 Obtain and inspect equipment/PPE IAW NSTM 074, Vol. 1

___________________________________
(Signature and Date)

Questions A B C E F

.2 Setup communications between hot-work operator and fire watch when on opposite sides of bulkhead/deck IAW NSTM 074, Vol. 1

___________________________________
(Signature and Date)
304.2.3 Maintain surveillance over hot-work area IAW NSTM 074, Vol. 1

(Signature and Date)

.4 Inspect area after hot-work is completed IAW NSTM 074, Vol. 1

(Signature and Date)

.5 Inspect and return fire watch equipment IAW NSTM 074, Vol. 1

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 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 COMPRISSES 20% OF WATCHSTATION.
FIRE WATCH STANDER (CONT’D)

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

304.5.1 Fire

(A B C D E F G H)

(Signature and Date)

.2 Loss of communications with hot-work operator

(A B C D E F G H)

(Signature and Date)

.3 Fire extinguishing equipment malfunctions

(A B C D E F G H)

(Signature and Date)

COMPLETED .5 AREA COMPRISES 20% OF WATCHSTATION.

WATCHES

304.6 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Fire Watch Stander (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.

EXAMINATIONS – None.
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 CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (NAVEDTRA 43119-L).

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:

203 Self-Contained Breathing Apparatus (SCBA)
Completed ____________________________ 5% of Watchstation
(Qualifier and Date)

204 Personal Protective Clothing Equipment
Completed ____________________________ 3% of Watchstation
(Qualifier and Date)

205 Watertight Closures/Hull Fittings
Completed ____________________________ 2% of Watchstation
(Qualifier and Date)

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

#### 305.1.3

**213** 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 or simulate this task.

<table>
<thead>
<tr>
<th>305.2.1</th>
<th>Locate DECON/CCA stations IAW RPM</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>.2</td>
<td>Transit through a CCA and DECON station IAW NSTM 470</td>
<td>A B C D E F</td>
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<td>.3</td>
<td>Locate casualty collection stations IAW RPM</td>
<td>F</td>
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<td>.4</td>
<td>Locate deep shelter stations IAW RPM</td>
<td>F</td>
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<tr>
<td>.5</td>
<td>Don and doff JSLIST IAW NSTM 470</td>
<td>A B D F</td>
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</table>

(Signature and Date)
305 BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (CONT’D)

305.2.6 Change protective mask canister IAW NSTM 470

___________________________________
(Signature and Date)

.7 Use the RSDL skin DECON kit IAW NSTM 470

___________________________________
(Signature and Date)

.8 Demonstrate self and buddy aid for nerve agent exposure using Atropine and 2-PAM Chloride/CANA training injectors IAW NSTM 470

___________________________________
(Signature and Date)

.9 Pass through CPS/SACPS air lock/pressure lock IAW NSTM 470

___________________________________
(Signature and Date)

.10 Decontaminate external and internal areas IAW NSTM 470

___________________________________
(Signature and Date)

.11 Transit through a CTA/CPS casualty DECON station IAW NSTM 470

___________________________________
(Signature and Date)

.12 Transit through a CPS DECON station IAW NSTM 470

___________________________________
(Signature and Date)

.13 Set up a three compartment conventional DECON station IAW NSTM 470

___________________________________
(Signature and Date)
305 BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (CONT’D)

305.2.14 Set up a sanitary space DECON station IAW NSTM 470

(Signature and Date)

COMPLETED .2 AREA COMPRISEx 40% OF WATCHSTATION.

305.3 INFREQUENT TASKS – None.

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)

.3 Biological attack

(Signature and Date)

.4 Radiological exposure

(Signature and Date)
305.5.5 Chemical agent exposure:
  a. Nerve
  b. Blister
  c. Blood
  d. Choking

(Signature and Date)

.6 Biological agent exposure:
  a. Toxins
  b. Pathogens

(Signature and Date)

.5 Radiation exposure
  a. Alpha
  b. Beta
  c. Gamma
  d. Neutron

(Signature and Date)

COMPLETED .5 AREA COMPRISIES 30% OF WATCHSTATION.

305.6 WATCHES – None.

305.7 EXAMINATIONS – None.
306  BASIC DAMAGE CONTROL (DC)

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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-L).

RECOMMENDED ___________________________ DATE ____________
Supervisor

RECOMMENDED ___________________________ DATE ____________
Division Officer

RECOMMENDED ___________________________ DATE ____________
Department Head

QUALIFIED _______________________________ DATE ____________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ___________________________ DATE ____________
306  BASIC DAMAGE CONTROL (DC)

Estimated completion time: 4 weeks

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:

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)
306.1.2 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)

212 Installed Drainage

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

214 Casualty Power Distribution

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

215 Dewatering Equipment/Pumps

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

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

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

223 Firefighter Extraction System (FES)

Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)
### 306 Basic Damage Control (DC) (Cont’d)

#### 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 or simulate this task.

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>306.2.1 Dog and undog individually dogged watertight doors IAW NSTM 079, Vol. 2</td>
<td>A B E F</td>
</tr>
<tr>
<td>.2 Dog and undog quick-acting watertight doors IAW NSTM 079, Vol. 2</td>
<td>A B E F</td>
</tr>
<tr>
<td>.3 Dog and undog a watertight hatch IAW NSTM 079, Vol. 2</td>
<td>A B E F</td>
</tr>
<tr>
<td>.4 Dog and undog a raised scuttle/flush deck scuttle IAW NSTM 079, Vol. 2</td>
<td>A B E F</td>
</tr>
<tr>
<td>.5 Dog and undog a ballistic hatch IAW NSTM 079, Vol. 2</td>
<td>A B C E F</td>
</tr>
<tr>
<td>.6 Dog and undog a ballistic scuttle IAW NSTM 079, Vol. 2</td>
<td>A B C E F</td>
</tr>
<tr>
<td>.7 Open and close deck drains IAW NSTM 079, Vol. 2</td>
<td>A B F</td>
</tr>
</tbody>
</table>
306.2.8 Open and close battle ports IAW NSTM 079, Vol. 2

(Signature and Date)

.9 Open and close a sounding tube IAW NSTM 079, Vol. 2

(Signature and Date)

.10 Open and close ventilation closures IAW NSTM 079, Vol. 2

(Signature and Date)

.11 Open and close air test fittings IAW NSTM 079, Vol. 2

(Signature and Date)

.12 Open and close overboard discharge fittings IAW NSTM 079, Vol. 2

(Signature and Date)

.13 Set and maintain material condition YOKE IAW NSTM 079, Vol. 2

(Signature and Date)

.14 Set and maintain material condition ZEBRA IAW NSTM 079, Vol. 2

(Signature and Date)

.15 Log DC fittings open/closed in the closure log IAW NTTP 3-20.31 (2 times)

(Signature and Date)

.16 Set modified condition ZEBRA IAW NSTM 079, Vol. 2

(Signature and Date)
306.2.17 Demonstrate proper procedures for reporting emergencies IAW NSTM 555

(Signature and Date)

.18 Demonstrate proper procedures for bracing for shock IAW NSTM 079, Vol. 2 (2 times)

(Signature and Date)

.19 Demonstrate proper battle dress IAW NTTP 3-20.31

(Signature and Date)

.20 Transit to assigned battle station using proper traffic routes IAW SORM

(Signature and Date)

.21 Locate piping system/isolation valves in assigned areas IAW EOSS/DC Plates

(Signature and Date)

.22 Locate and operate system valves equipped with remote operators IAW EOSS/DC Plates

(Signature and Date)

.23 Isolate ventilation systems in assigned area IAW EOSS/DC Plates

(Signature and Date)

.24 Set and maintain flooding boundaries IAW NSTM 079, Vol. 2

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

306.2.25 Transit through CPS air lock and maintain zone pressurization
IAW NSTM 470, Rev. 4

(Signature and Date)

.26 Identify and report material conditions of readiness
discrepancies IAW NTTP 3-20.31

(Signature and Date)

COMPLETED .2 AREA COMPRISES 40% 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 William fittings in assigned area IAW NSTM 079, Vol. 2

(Signature and Date)

.2 Set circle William fittings in assigned area IAW NSTM 079, Vol. 2

(Signature and Date)

.3 Rig jumper hoses around damaged firemain piping to
reestablish system IAW NSTM 079, Vol. 2

(Signature and Date)
306.3.4 Align/secure an installed eductor IAW NSTM 079, Vol. 2

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 10% OF WATCHSTATION.

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.

306.4.1 Violations of material conditions of readiness

(Signature and Date)

.2 Improperly stowed materials and equipment

(Signature and Date)

COMPLETED .4 AREA COMPRISSES 9% OF WATCHSTATION.
306 BASIC DAMAGE CONTROL (DC) (CONT’D)

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)

.2 Ruptured pipes/flooding

A B C D E F G H

(Signature and Date)

.3 Loss of flooding boundaries

A B C D E F G H

(Signature and Date)

.4 Progressive flooding

A B C D E F G H

(Signature and Date)

.5 Failed isolation valves

A B C D E F G H

(Signature and Date)

.6 HAZMAT spill

A B C D E F G H

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 10% OF WATCHSTATION.
306 BASIC DAMAGE CONTROL (DC) (CONT’D)

306.6 WATCHES

306.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Closure Detail (during drills) (2 times)

______________________________
(Signature and Date)

______________________________
(Signature and Date)

Isolation Detail (during drills) (2 times)

______________________________
(Signature and Date)

______________________________
(Signature and Date)

Flooding Boundaryman (during drills) (2 times)

______________________________
(Signature and Date)

______________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISSES 20% OF WATCHSTATION.

306.7 EXAMINATIONS (COVERS WATCHSTATIONS 301 THROUGH 306)

306.7.1 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 qualified ADVANCED DAMAGE CONTROL (DC) (NAVEDTRA 43119-L).

RECOMMENDED ___________________________ DATE ____________
Supervisor

RECOMMENDED ___________________________ DATE ____________
Division Officer

RECOMMENDED ___________________________ DATE ____________
Department Head

QUALIFIED ______________________________ DATE ______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ___________________________ DATE ____________
WATCHSTATION 307

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:

218 Pipe Repair/Patching

Completed ____________________________________ 2% of Watchstation
(Qualifier and Date)

219 Plugging Kit Equipment

Completed ____________________________________ 2% of Watchstation
(Qualifier and Date)

220 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 or simulate this task.

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

Questions

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

.2  Inventory and inspect a plugging kit IAW AEL

Questions

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(Signature and Date)

.3  Demonstrate plugging procedures to control a crack and a hole above and below the waterline IAW NSTM 079, Vol. 2

Questions

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(Signature and Date)

.4  Inventory and inspect a shoring tool kit IAW AEL

Questions

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(Signature and Date)

.5  Locate shoring materials in assigned areas IAW Ship’s DC Book

Questions

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(Signature and Date)

.6  Construct I-type shoring IAW NSTM 079, Vol. 2

Questions

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(Signature and Date)
307.2.7 Construct wood K-type shoring utilizing a carpenter square IAW NSTM 079, Vol. 2

(Signature and Date)

.8 Construct wood K-type shoring utilizing a shoring batten IAW NSTM 079, Vol. 2

(Signature and Date)

.9 Construct K-type shoring using steel shores IAW NSTM 079, Vol. 2

(Signature and Date)

.10 Describe the duties of a shoring watch IAW NSTM 079, Vol. 2

(Signature and Date)

.11 Inventory and inspect a pipe patching kit IAW AEL

(Signature and Date)

.12 Perform pipe repair using a soft patch IAW NSTM 079, Vol. 2

(Signature and Date)

.13 Perform pipe repair using jubilee patch IAW NSTM 079, Vol. 2

(Signature and Date)

.14 Perform pipe repair using a EWARP IAW NSTM 079, Vol. 2

(Signature and Date)
307.2.15 Inventory and inspect a banding kit IAW AEL

(Signature and Date)

.16 Perform pipe repair using a banding kit IAW NSTM 079, Vol. 2

(Signature and Date)

.17 Perform pipe repair using the PJHS IAW NAVSEA S5090-CL-MMC-010

(Signature and Date)

.18 Restore repaired piping systems IAW NSTM 079, Vol. 2

(Signature and Date)

.19 Rig, operate, and secure, and stow P-100 IAW NSTM 555

(Signature and Date)

.20 Rig and operate P-100 for deep suction IAW NSTM 555

(Signature and Date)

.21 Rig, operate, secure, and stow a portable eductor IAW NAVEDTRA 14057

(Signature and Date)

.22 Rig, operate, secure, and stow an electric submersible pump IAW NAVEDTRA 14057

(Signature and Date)

COMPLETED .2 AREA COMPRISES 40% 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 IAW NAVEDTRA 14057**  
Questions:  A B C D E G H  
___________________________________  
(Signature and Date)

.2  **Dewater using a P-100 pump with an eductor IAW NSTM 555**  
Questions:  A B C D E F G H  
___________________________________  
(Signature and Date)

.3  **Dewater contaminated water/fuel/hot water IAW NAVEDTRA 14057**  
Questions:  A B C D E G H  
___________________________________  
(Signature and Date)

.4  **Rig a submersible pump with a suction hose IAW NAVEDTRA 14057**  
Questions:  A B C D E G H  
___________________________________  
(Signature and Date)

.5  **Control/combat structural damage in a CBR contaminated environment IAW NSTM 079, Vol. 2/NSTM 470**  
Questions:  A B C D E G H  
___________________________________  
(Signature and Date)

**COMPLETED .3 AREA COMPRIS 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.

307.5.1 Pressurized sounding tube

Questions A B C D E F G

(Signature and Date)

.2 Progressive flooding

Questions A B C D E F G

(Signature and Date)

.3 Ruptured fuel piping

Questions A B C D E F G

(Signature and Date)

.4 Ruptured toxic liquid lines

Questions A B C D E F G

(Signature and Date)

.5 Progressive crack/split seam

Questions A B C D E F G

(Signature and Date)

.6 Shoring collapses

Questions A B C D E F G

(Signature and Date)

.7 Loss of firemain

Questions A B C D E F G

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

307.5.8 Loss of electrical power

(Signature and Date)

307.5.9 OOC/inoperative fitting

(Signature and Date)

Completed .5 area comprises 20% 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 comprises 10% of watchstation.
307  **ADVANCED DAMAGE CONTROL (DC) (CONT’D)**

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-L).

RECOMMENDED________________________________________DATE________________
Supervisor

RECOMMENDED________________________________________DATE________________
Division Officer

RECOMMENDED________________________________________DATE________________
Department Head

QUALIFIED____________________________________________DATE________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY____________________________________DATE________________

FINAL QUALIFICATION

NAVEDTRA 43119-L

308 TEAM LEADER

NAME________________________________________RATE/RANK_____________________
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:**

307  Advanced 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 or simulate this task.

308.2.1 Coordinate efforts of Attack Team using the thermal imager IAW NSTM 555
     
     (Signature and Date)

 Questions

 A B C D E F

.2 Lead efforts of Attack Team while accessing from above IAW NSTM 555
     
     (Signature and Date)

 Questions

 A B C D E F

.3 Lead efforts of Attack Team in an indirect attack IAW NSTM 555
     
     (Signature and Date)

 Questions

 A B C D E F
TEAM LEADER (CONT’D)

308.2.4 Coordinate efforts to overhaul the following IAW NSTM 555:

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)

e. Special scenario fire

(Signature and Date)

.5 Report status of Attack Team progress to Scene Leader IAW NSTM 555

(A B C D F)

(Signature and Date)

.6 Determine damage in affected space and make reports to Scene Leader IAW NSTM 555

(A B C D F)

(Signature and Date)
308.2.7 Direct evacuation of the Attack Team IAW NSTM 555

(Signature and Date)

.8 Assist in the employment of heat management techniques
IAW NSTM 555

(Signature and Date)

.9 Lead efforts of Attack Team in fog attack IAW NSTM 555

(Signature and Date)

COMPLETED.2 AREA COMPRIS 48% OF WATCHSTATION.

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 IAW NSTM 555

(Signature and Date)

.2 Lead efforts of the Attack Team in controlling/extinguishing
a fire involving a weapon IAW NSTM 555

(Signature and Date)

.3 Lead efforts of the Attack Team to combat a ventilation system fire
IAW NSTM 555

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

308.3.4 Demonstrate the ability to desmoke a space adjacent to the weather deck by using a vari-nozzle IAW NSTM 555

(Signature and Date)

.5 Lead efforts of Attack Team during vertical trunk access IAW NSTM 555

(Signature and Date)

.6 Assist in the employment of active desmoking procedures IAW NSTM 555

(Signature and Date)

.7 Lead efforts of Attack Team through a main/auxiliary escape trunk utilizing LSS IAW NSTM 555

(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)
308 TEAM LEADER (CONT’D)

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

___________________________________
(Signature and Date)

.3 Fire out of control

___________________________________
(Signature and Date)

.4 Reflash of fire

___________________________________
(Signature and Date)

COMPLETED .5 AREA COMPRISSES 12% OF WATCHSTATION.

308.6 WATCHES

308.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Team Leader (during drills) (4 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISSES 16% OF WATCHSTATION.
308  **TEAM LEADER (CONT’D)**

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-L).

RECOMMENDED________________________________________DATE________________

Supervisor

RECOMMENDED________________________________________DATE________________

Division Officer

RECOMMENDED________________________________________DATE________________

Department Head

QUALIFIED____________________________________________DATE________________

Commanding Officer or Designated Representative

SERVICE RECORD ENTRY____________________________________DATE________________
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON

Estimated completion time: 8 weeks

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 Dry Filter Unit (DFU) (CNE-DFU-1.0) (REQUIRED)
Completed ____________________________
(Qualifier and Date)

NKO ILE Improved (Chemical Agent) Point Detection System (IPDS) (CNE-IPDS-1.0) (REQUIRED)
Completed ____________________________
(Qualifier and Date)

NKO ILE Navy Shipboard Collective Protection System (CPS) (CNE-CPS-002) (REQUIRED)
Completed ____________________________
(Qualifier and Date)

NKO ILE Joint Biological Point Detection System (JBPDS) Familiarization (CNE-JBPDS-0001) (REQUIRED) (If applicable)
Completed ____________________________
(Qualifier and Date)

.2 WATCHSTATIONS FROM THIS PQS:

301-306 Basic Damage Control (DC)
Completed ____________________________
(Qualifier and Date)
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (CONT’D)

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.
H. Satisfactory simulate performance of this task.

309.2.1 Inventory DECON equipment IAW AEL

(Question)

.2 Decontaminate external area IAW NSTM 470 (2 times) A B C D E F G H

(Question)

.3 Decontaminate internal area IAW NSTM 470 (2 times) A B C D E F H

(Question)

.4 Process personnel casualties through a CCA/DECON station IAW NSTM 470 (2 times) A B C D E F H

(Question)
309.2.5 Process personnel casualties through a CTA/CPS casualty DECON station IAW NSTM 470 (2 times)

(Signature and Date)

(Signature and Date)

.6 Properly dispose and/or decontaminate DECON equipment IAW NSTM 470 (2 times)

(Signature and Date)

(Signature and Date)

.7 Test, operate, and conduct on-station monitoring and internal/external survey for radiological contamination using multi-function radic IAW NSTM 070 (2 times)

(Signature and Date)

(Signature and Date)

.8 Conduct on-station monitoring and internal survey for chemical agents and report results using the M/256 A-1/A2 chemical detection training kit IAW RPM (2 times)

(Signature and Date)

(Signature and Date)

.9 Post, read, and report results of M8 and M9 paper IAW RPM

(Signature and Date)
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (CONT’D)

309.2.10 Conduct on-station monitoring for chemical agents (M-256 A-1/A2, IPDS, IPDS-LR) IAW NSTM 470 (2 times) [Questions A B C D E F G]

(Signature and Date)

(Signature and Date)

.11 Conduct rapid and detailed internal and external chemical surveys using M8/ M9 (simulated) paper and a M256 A-1/A2 chemical detection training kit IAW RPM (2 times) [Questions A B C D E F G]

(Signature and Date)

(Signature and Date)

.12 Conduct rapid and detailed radiological internal/external surveys (MFR) IAW NSTM 070 (2 times) [Questions A B C D E F G]

(Signature and Date)

(Signature and Date)

.13 Collect biological sample using the DFU IAW NSTM 470 (2 times) [Questions A B C D E F H]

(Signature and Date)

(Signature and Date)

.14 Collect biological sample using the JBPDS IAW NSTM 470 (2 times) [Questions A B C D E F H]

(Signature and Date)

(Signature and Date)
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (CONT’D)

309.2.15 Collect suspected surface biological sample for presumptive test using biological response kit IAW NSTM 470

Questions

A B C E F H

(Signature and Date)

.16 Package presumptive positive biological sample for delivery/shipment to confirmatory lab IAW NSTM 470 (2 times)

Questions

A B C E F H

(Signature and Date)

(Signature and Date)

(Signature and Date)

.17 Isolate, mark, record, and report contaminated areas IAW NSTM 470 (2 times)

Questions

A B C D E F G

(Signature and Date)

(Signature and Date)

(Signature and Date)

.18 Setup a DECON station IAW RPM (2 times)

Questions

A B C D E F G

(Signature and Date)

(Signature and Date)

(Signature and Date)

.19 Test/operate DECON showers/hand held nozzles IAW RPM

Questions

A B C D E F G

(Signature and Date)

(Signature and Date)

.20 Demonstrate personnel routes to a DECON/casualty DECON station, casualty triage area, casualty collection station IAW RPM

Questions

A B C D E F G

(Signature and Date)
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR)
DEFENSE PERSON (CONT’D)

309.2.21 Perform radiation background readings in DECON
station IAW RPM (2 times)

(A Signature and Date)

(A Signature and Date)

.22 Read the IM-270 dosimeter and record the reading in the
IM-270 Log IAW NTTP 3-20.31

(A Signature and Date)

.23 Decontaminate and secure a DECON station
and CCA/CTA during recovery phase IAW RPM

(A Signature and Date)

.24 Demonstrate gross DECON procedures prior to
CCA/CTA entry IAW RPM (2 times)

(A Signature and Date)

(A Signature and Date)

.25 Remove protective clothing from contaminated personnel
IAW NSTM 470 (2 times)

(A Signature and Date)

(A Signature and Date)
309.2.26 Properly dispose of contaminated clothing/equipment IAW NSTM 470 (2 times)

(Signature and Date)

(Signature and Date)

.27 Maintain a disposition record of personnel exiting a DECON station IAW RPM (2 times)

(Signature and Date)

(Signature and Date)

.28 Control traffic through a DECON station IAW RPM (2 times)

(Signature and Date)

(Signature and Date)

.29 Demonstrate proper procedures when detecting radiation on personnel using MFR IAW NSTM 070 (2 times)

(Signature and Date)

(Signature and Date)

.30 Test for phosgene gas using the Draeger pump and Draeger detector tubes IAW NSTM 470 (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED.2 AREA COMPRISSES 60% OF WATCHSTATION.
309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (CONT’D)

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)

Questions

A B C D E F G

(Signature and Date)

(Signature and Date)

Loss of CPS/SACPS zone pressure (2 times)

A B C D E F G

(Signature and Date)

(Signature and Date)

Over-pressurization of CPS/SACPS zone (2 times)

A B C D E F G

(Signature and Date)

(Signature and Date)
309. ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON (CONT’D)

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 DECON station (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)

(Signature and Date)

(Signature and Date)

.5 Pressure boosting CPS/SACPS zone

(Signature and Date)

COMPLETED .5 AREA COMPRISES 10% OF WATCHSTATION.

309.6 WATCHES

309.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Radiac Operator

(Signature and Date)

Chemical Detector Operator

(Signature and Date)

Chemical Monitor

(Signature and Date)

Radiological Monitor

(Signature and Date)
309.6.1 Contamination Control Area (CCA) Operator

(Signature and Date)

Personnel DECON Station Operator (3 times)

(Signature and Date)

(Signature and Date)

(Signature and Date)

(Signature and Date)

Decontamination Team (3 times)

(Signature and Date)

(Signature and Date)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRIS 20% OF WATCHSTATION.

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

309.7.1 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 ADVANCED FIRST-AID/STRETCHER BEARER (NAVEDTRA 43119-L).

RECOMMENDED ___________________ DATE ______________
Supervisor

RECOMMENDED ___________________ DATE ______________
Division Officer

RECOMMENDED ___________________ DATE ______________
Department Head

QUALIFIED ___________________ DATE ______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ___________________ DATE ______________
WATCHSTATION 310

ADVANCED FIRST-AID/STRETCHER BEARER

Estimated completion time: 10 weeks

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 or simulate this task.

310.2.1 Demonstrate triage procedures IAW NAVEDTRA 14295B

___________________________________
(Signature and Date)

Questions
A B C D E F

.2 Transport personnel casualties through a passageway IAW NSTM 555

___________________________________
(Signature and Date)
310.2.3 Transport personnel casualties up and down ladders IAW NSTM 555

(Signature and Date)

.4 Transport personnel casualties through a scuttle IAW NSTM 555

(Signature and Date)

.5 Transport personnel casualties through a hatch IAW NSTM 555

(Signature and Date)

.6 Transport personnel casualties through a vertical trunk IAW NSTM 555

(Signature and Date)

.7 Transport personnel casualties through engineering space escape trunk utilizing FES IAW NSTM 555

(Signature and Date)

.8 Transport personnel casualties to the designated battle dressing station IAW NSTM 555

(Signature and Date)

.9 Locate, inventory, and inspect a first-aid box/gun bag IAW AEL

(Signature and Date)

.10 Transport personnel casualties through a vertical trunk utilizing the FES IAW NSTM 555

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 50% OF WATCHSTATION.
310 ADVANCED FIRST-AID/STRETCHER BEARER (CONT’D)

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 IAW SOP

(A) B (C) D (E) F

(Signature and Date)

.2 Demonstrate the use of the bag-valve-mask system IAW NAVEDTRA 14295B

(A) B (C) D (E) F

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 10% 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.

Questions

310.5.1 Treat an obstructed airway/insert an NPA

(A) B (C) D (E) F (G) H

(Signature and Date)
310  ADVANCED FIRST-AID/STRETCHER BEARER (CONT’D)

310.5.2  Certify BLS

___________________________________
(Signature and Date)

COMPLETED .5 AREA COMPRIS 5% OF WATCHSTATION.

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 COMPRIS 25% OF WATCHSTATION.

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

310.7.1  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 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (NAVEDTRA 43119-L).

RECOMMENDED____________________________________DATE________________
Supervisor

RECOMMENDED____________________________________DATE________________
Division Officer

RECOMMENDED____________________________________DATE________________
Department Head

QUALIFIED____________________________________DATE________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY____________________________________DATE________________
311.1  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.

311.1.1  Watchstations from this PQS:

306  Basic Damage Control (DC)

Completed ____________________________________________
(Qualifier and Date)

.2  Fundamentals from this PQS:

109  Conflagration

Completed ____________________________________________ 2% of Watchstation
(Qualifier and Date)

.3  Systems from this PQS:

208  Aqueous Film Forming Foam (AFFF)

Completed ____________________________________________ 2% 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 or simulate this task.

311.2.1  Man an AFFF station and establish communications IAW RPM

________________________________________
(Signature and Date)
311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)

311.2.2 Verify system alignment using applicable documentation IAW EOSS/PMS

(Signature and Date)

.3 Operate an AFFF system IAW Posted Local Operating Procedures (2 times)

(Signature and Date)

(Signature and Date)

.4 Identify on-station indicators IAW EOSS

(Signature and Date)

.5 Replenish AFFF tanks manually IAW EOSS

(Signature and Date)

.6 Operate the AFFF transfer system IAW EOSS

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 42% OF WATCHSTATION.
311  **AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)**

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.

311.3.1  **Questions**

Manually operate an AFFF system IAW EOSS

(Signature and Date)

.2  **Questions**

Align system for operation using cross-connect IAW EOSS

(Signature and Date)

**COMPLETED .3 AREA COMPRISES 10% OF WATCHSTATION.**

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. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

311.4.1  **Questions**

AFFF transfer system is unusable or fails

(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.

311.5.1 Loss of electrical power

(Signature and Date)

Q.2 Loss of firemain pressure

(Signature and Date)

311.5.3 Loss of AFFF concentrate

(Signature and Date)

311.5.4 Failed valves/SOPV/MOPV

(Signature and Date)

311.5.5 Loss of communications

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 18% OF WATCHSTATION.
311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)

311.6 WATCHES

311.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Aqueous Film Forming Foam (AFFF) Station Operator (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

Aqueous Film Forming Foam (AFFF) Transfer Station Operator

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.

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

311.7.1 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 REPAIR PARTY INVESTIGATOR (NAVEDTRA 43119-L).

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

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 ________________________________
(Q Qualifier and Date)

309 Advanced Chemical, Biological, and Radiological (CBR) Defense Person
Completed ________________________________
(Q Qualifier and Date)

310 Advanced First-aid/Stretcher Bearer
Completed ________________________________
(Q Qualifier and Date)

311 Aqueous Film Forming Foam (AFFF)/Transfer Station Operator
Completed ________________________________
(Q Qualifier and Date)

312.2 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 or simulate this task.

312.2.1 Conduct a continuous investigation of the assigned area
IAW NSTM 079, Vol. 2

(Signature and Date)

Questions

A B C D E G

231
312 REPAIR PARTY INVESTIGATOR (CONT’D)

312.2.2 Make reports to the Scene Leader and controlling station using standard phraseology and symbology IAW NSTM 079, Vol. 2

(Signature and Date)

.3 Sound tanks and voids IAW NSTM 079, Vol. 2

(Signature and Date)

.4 Investigate watertight closures IAW NSTM 079, Vol. 2

(Signature and Date)

.5 Investigate bulkhead, deck, and overhead penetrations IAW NSTM 079, Vol. 2

(Signature and Date)

.6 Inventory and inspect investigator kit IAW AEL

(Signature and Date)

.7 Monitor fire, flooding, and smoke/toxic gas boundaries IAW NSTM 079, Vol. 2

(Signature and Date)

.8 Determine the effectiveness of installed firefighting and desmoking systems IAW NSTM 555 (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 25% OF WATCHSTATION.

312.3 INFREQUENT TASKS – None.
312 REPAIR PARTY INVESTIGATOR (CONT’D)

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

___________________________________
(Signature and Date)

.2 Inability to locate other investigator

___________________________________
(Signature and Date)

.3 Smoke/fire/flooding/toxic boundaries compromised

___________________________________
(Signature and Date)

COMPLETED .4 AREA COMPRIS ES 15% OF WATCHSTATION.
312 REPAIR PARTY INVESTIGATOR (CONT’D)

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

Questions A B C D E F G H

(Signature and Date)

.2 Class B fire

Questions A B C D E F G H

(Signature and Date)

.3 Class C fire

Questions A B C D E F G H

(Signature and Date)

.4 Class D fire

Questions A B C D E F G H

(Signature and Date)

.5 Magazine fire

Questions A B C D E F G H

(Signature and Date)

.6 Special scenario fire I

Questions A B C D E F G H

(Signature and Date)

.7 Flooding

Questions A B C D E F G H

(Signature and Date)
312 REPAIR PARTY INVESTIGATOR (CONT’D)

312.5.8 Structural damage

(Signature and Date)

312.9 Toxic gas

(Signature and Date)

312.8 Hazardous material spill

(Signature and Date)

312.10 Loss of electrical power

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 35% 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 COMPRISSES 20% OF WATCHSTATION.

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

312.7.1 EXAMINATIONS Pass a written examination

(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

(Signature and Date)
The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified SCENE LEADER (NAVEDTRA 43119-L).

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)

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 or simulate this task.

313.2.1 Make required reports to the controlling station using standard phraseology and symbology for the following scenarios IAW NSTM 079, Vol. 2:

a. Fire

A B C D F

(Signature and Date)

b. Flood

A B C D F

(Signature and Date)
313 SCENE LEADER (CONT’D)

313.2.1 c. Structural damage

(Signature and Date)

d. Toxic gas/HAZMAT spill

(Signature and Date)
e. CBR environment

(Signature and Date)

.2 Determine method of fire attack IAW NSTM 555

(Signature and Date)

.3 Determine the need for multi-hose attack IAW NSTM 555

(Signature and Date)

.4 Determine the protective clothing required for Attack Team IAW NSTM 555

(Signature and Date)

.5 Determine/direct the rotation of personnel IAW NSTM 555

(Signature and Date)

.6 Direct personnel in active desmoking operations IAW NSTM 555

(Signature and Date)

.7 Determine method and direct personnel to desmoke IAW NSTM 555

(Signature and Date)
313 **SCENE LEADER (CONT’D)**

313.2.8 Direct atmospheric testing IAW NSTM 074, Vol. 3

(Signature and Date)

.9 Determine the method and direct personnel to control flooding IAW NSTM 079, Vol. 2

(Signature and Date)

.10 Determine the method and direct piping isolation and patching IAW NSTM 079, Vol. 2

(Signature and Date)

.11 Determine the method and direct personnel in dewatering IAW NSTM 079, Vol. 2

(Signature and Date)

.12 Determine the method and direct personnel to repair structural damage IAW NSTM 079, Vol. 2

(Signature and Date)

.13 Determine the method and direct rescue personnel IAW NSTM 074, Vol. 3

(Signature and Date)

**COMPLETED**

.2 Area comprises 40% of watchstation.
313  SCENE LEADER (CONT’D)

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 IAW NSTM 555

Questions

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(Signature and Date)

.2 Direct personnel in a vertical trunk entry IAW NSTM 555

Questions

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(Signature and Date)

.3 Direct personnel in rescue and assistance response IAW SORM

Questions

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(Signature and Date)

.4 Direct personnel in extraction of a casualty utilizing FES IAW NSTM 555

Questions

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(Signature and Date)

.5 Direct efforts of Attack Team through a main/auxiliary escape trunk utilizing LSS IAW NSTM 555

Questions

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(Signature and Date)

.6 Combat casualties in a CBR environment IAW NSTM 079, Vol. 2

Questions

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(Signature and Date)

COMPLETED .3 AREA COMPRISSES 10% OF WATCHSTATION.
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 IAW NSTM 555

Questions

.2 Access blocked/locked

.3 Loss of communications

**COMPLETED .4 AREA COMPRISRES 10% OF WATCHSTATION.**
313 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.

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<th>Questions</th>
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<td>Major conflagration</td>
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<td>.2 Reflash</td>
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<td>.3 Boundaries compromised</td>
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<td>.4 Loss of firemain</td>
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<td>.5 Progressive flooding</td>
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<td>.6 Explosion</td>
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<td>.7 Personnel casualties</td>
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</table>
313 **SCENE LEADER (CONT’D)**

313.5.8 Toxic gas

(A B C D E F G)

(Signature and Date)

.9 HAZMAT spill

(A B C D E F G)

(Signature and Date)

.10 Spread of CBR contamination

(A B C D E F G)

(Signature and Date)

COMPLETED .5 AREA COMPRISES 20% OF WATCHSTATION.

313.6 **WATCHES**

313.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Scene Leader (4 times)

(A B C D E F G)

(Signature and Date)

(Signature and Date)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.
313 **Scene Leader (Cont'd)**

313.7 EXAMINATIONS (Optional except as required by TYCOM/ISIC, etc.)

313.7.1 EXAMINATIONS

Pass a written examination

___________________________________

(Signature and Date)

.2 EXAMINATIONS

Pass an oral examination board

___________________________________

(Signature and Date)
314 CONFLAGRATION STATION OPERATOR

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 CONFLAGRATION STATION OPERATOR (NAVEDTRA 43119-L).

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:

217 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 or simulate this task.

Questions

A E

314.2.1 Maintain log

______________________________________
(Signature and Date)

A B C E

.2 Monitor hangar deck security and make reports

______________________________________
(Signature and Date)
314  **CONFLAGRATION STATION OPERATOR (CONT’D)**

314.2.3  Monitor vehicle/equipment stowage

(Signature and Date)

.A  Monitor fueling stations IAW NSTM 079, Vol. 2

(Signature and Date)

**COMPLETED .2 AREA COMPRISSE 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 IAW NSTM 079, Vol. 2

(Signature and Date)

.A  Monitor ordnance handling IAW NSTM 079, Vol. 2

(Signature and Date)

.A  Monitor fueling and defueling open fuel cells IAW NSTM 079, Vol. 2

(Signature and Date)
314 CONFLAGRATION STATION OPERATOR (CONT’D)

314.3.4 Operate a divisional door IAW EOSS

___________________________________
(Signature and Date)

.5 Operate a deck edge door IAW EOSS

___________________________________
(Signature and Date)

COMPLETED .3 AREA COMPRIES 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)
314.5.5 Explosion

(Signature and Date)

.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 35% OF WATCHSTATION.
CONFLAGRATION STATION OPERATOR (CONT’D)

Watches

Stand the following watches under qualified supervision:

Conflagration Station Operator (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

Completed .6 area comprises 20% of watchstation.

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

EXAMINATIONS
Pass a written examination

___________________________________
(Signature and Date)

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 CRASH AND SALVAGE CREWMAN/RESCUEMAN (NAVEDTRA 43119-L).

RECOMMENDED _______________________________ DATE ____________
Supervisor

RECOMMENDED _______________________________ DATE ____________
Division Officer

RECOMMENDED _______________________________ DATE ____________
Department Head

QUALIFIED ________________________________ DATE ____________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY _______________________________ DATE ____________
CRASH AND SALVAGE CREWMAN/RESCUEMAN

Estimated completion time: 2 weeks

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:

216 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 or simulate this task.

315.2.1 Inspect and don proximity suits and SCBA IAW NSTM 077

(Signature and Date)

.2 Inspect and operate aviation forcible entry equipment
IAW NAVAIR 80R-14

(Signature and Date)

.3 Inventory and inspect tool roll IAW NAVAIR 80R-14

(Signature and Date)
315.2.4 Inspect and don PPE IAW NSTM 077

(Signature and Date)

COMPLETED .2 AREA COMPRIS 15% OF WATCHSTATION.

315.3 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.

315.3.1 Electrically isolate a helicopter IAW NAVAIR 80R-14-1 (2 times)

(Signature and Date)

(Signature and Date)

.2 Operate aircraft seat restraint equipment IAW NAVAIR 80R-14-1 (2 times)

(Signature and Date)

(Signature and Date)

.3 Rescue personnel from a helicopter IAW NAVAIR 80R-14/80R-14-1 (2 times)

(Signature and Date)
315 CRASH AND SALVAGE CREWMAN/RESCUEMAN (CONT’D)

315.3.4 Activate and use an AFFF hose reel/in-line eductor
IAW SOP/NAVAIR 80R-14

A B C D E F G H

(Signature and Date)

COMPLETED .3 AREA COMPRISES 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

(A B C D E F G)

(Signature and Date)

.2 Aircraft crash A B C D E F G

(Signature and Date)

.3 Reflash A B C E G

(Signature and Date)

.4 Aircraft suspended over the side A B C D E F G

(Signature and Date)
315.5.5 Ordnance on aircraft/deck

(Signature and Date)

315.6 Fuel spill

(Signature and Date)

315.6.7 Jammed door/canopy on aircraft

(Signature and Date)

315.6.8 Thermal runaway

(Signature and Date)

315.6.9 Jettisoned auxiliary tank

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 40% OF WATCHSTATION.

315.6 WATCHES

315.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Crash and Salvage Crewman (during drills) (2 times)

(Signature and Date)
315 **CRASH AND SALVAGE CREWMAN/RESCUEMAN (CONT’D)**

315.6.1 Rescueman (during drills) (2 times)

________________________________________________________________________
(Signature and Date)

________________________________________________________________________
(Signature and Date)

**COMPLETED .6 AREA COMPRISSES 8% OF WATCHSTATION.**

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

315.7.1 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 CRASH AND SALVAGE SCENE LEADER (NAVEDTRA 43119-L).

RECOMMENDED ___________________________ DATE ___________
Supervisor

RECOMMENDED ___________________________ DATE ___________
Division Officer

RECOMMENDED ___________________________ DATE ___________
Department Head

QUALIFIED ___________________________ DATE ___________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ___________________________ DATE ___________
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 or simulate this task.

316.2.1 Supervise prepositioning and inspection of crash and salvage equipment IAW NAVAIR 80R-14

(Signature and Date)
A B C D E F

.2 Establish communications IAW NAVAIR 80R-14

(Signature and Date)
A B D F

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 Direct activities of a Crash and Salvage Fire Team
IAW NAVAIR 80R-14 (2 times) A B C D E F G

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.2 Direct activities of a Rescue Team IAW NAVAIR 80R-14
(2 times) A B C D E F G

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.3 Direct the jettisoning of an aircraft IAW NAVAIR 80R-14 A B C D E F G

___________________________________
(Signature and Date)

COMPLETED .3 AREA COMPRIS ES 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 COMPRISSES 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)
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 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR (NAVEDTRA 43119-L).

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:

221 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 or simulate this task.

Questions

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)
317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM
AND SOFTWARE OPERATOR

317.2.4 Use the readiness function

___________________________________
(Signature and Date)

.5 Use the compartment KILL CARD function

___________________________________
(Signature and Date)

.6 Use the portable assets function

___________________________________
(Signature and Date)

.7 Access the DC plate function

___________________________________
(Signature and Date)

.8 Use the plot damage function

___________________________________
(Signature and Date)

.9 Use the view flooding effects function

___________________________________
(Signature and Date)

.10 Use the zoom function

___________________________________
(Signature and Date)

.11 Use the find function

___________________________________
(Signature and Date)

Questions

   B
317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR

317.2.12 Use the overlays function

__________________________
(Signature and Date)

Questions
B

.13 Display various systems

__________________________
(Signature and Date)

Questions
B

.14 Use the configuration setting

__________________________
(Signature and Date)

COMPLETED .2 AREA COMPRIS ES 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)

Questions
A B C D E F G

COMPLETED .4 AREA COMPRIS ES 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

(Signature and Date)

.2 Loss of power

(Signature and Date)

COMPLETED .5 AREA COMPRISES 10% OF WATCHSTATION.

317.6 WATCHES – None to be discussed.

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

317.7.1 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 REPAIR PARTY LEADER (NAVEDTRA 43119-L).

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) (REQUIRED)

Completed ________________________________
(Qualifier and Date)

.2 WATCHSTATIONS FROM THIS PQS:

307 Advanced Damage Control

Completed ________________________________
(Qualifier and Date)

308 Team Leader

Completed ________________________________
(Qualifier and Date)

309 Advanced Chemical, Biological, and Radiological (CBR) Defense Person

Completed ________________________________
(Qualifier and Date)

314 Conflagration Station Operator (RECOMMENDED)

Completed ________________________________
(Qualifier and Date)

317 Computer Based Damage Control (DC) Management System and Software
Operator

Completed ________________________________
(Qualifier and Date)
318  REPAIR PARTY LEADER (CONT’D)

318.1.3  FUNDAMENTALS FROM THIS PQS:

114  Stability

Completed ____________________________ 2% of Watchstation  
(Qualifier and Date)

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 or simulate this task.

318.2.1  Locate, identify, and demonstrate the ability to use the following IAW NTTP 3-20.31:

a. RPM  
   (Signature and Date)

b. DC Book  
   (Signature and Date)

.2  Supervise the training of Repair Party personnel IAW NTTP 3-20.31 (2 times)  
   (Signature and Date)

.3  Maintain PQS assignments/qualifications for assigned personnel IAW SORM  
   (Signature and Date)
318.2.4 Coordinate the efforts of repair parties to combat/control IAW RPM:

a. Fire/smoke (2 times) \[ \text{Signature and Date} \]

b. Toxic gas/HAZMAT spill (2 times) \[ \text{Signature and Date} \]

c. Flooding (2 times) \[ \text{Signature and Date} \]

d. Structural damage (2 times) \[ \text{Signature and Date} \]

e. Personnel casualties \[ \text{Signature and Date} \]

.5 Coordinate efforts with other repair parties IAW RPM \[ \text{Signature and Date} \]

Completed .2 area comprises 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 IAW RPM

(Signature and Date)

.2 Coordinate efforts of repair party in CBR defense–chemical IAW RPM

(Signature and Date)

.3 Coordinate efforts of repair party in CBR defense – biological IAW RPM

(Signature and Date)

.4 Coordinate efforts of repair party in CBR defense - radiological IAW RPM

(Signature and Date)

.5 Evacuate/relocate and reestablish a DC repair station IAW RPM

(Signature and Date)

COMPLETED .3 AREA COMPRIS 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.

Questions

318.5.1 Major conflagration

___________________________________
(Signature and Date)

.2 Mass casualties

___________________________________
(Signature and Date)

.3 Loss of communications

___________________________________
(Signature and Date)

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) (4 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

**COMPLETED .6 AREA COMPRISSES 8% OF WATCHSTATION.**

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

318.7.1  **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 REPAIR PARTY ELECTRICIAN (NAVEDTRA 43119-L).

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 THIS PQS:**

115  Electrician Electrical

Completed ________________________________ 5% of Watchstation  
(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 or simulate this task.

319.2.1  Inventory and inspect an electrical repair kit IAW AEL

______________________________  
(Signature and Date)

Questions  
G

.2  Don electrical safety equipment and demetalize

______________________________  
(Signature and Date)

A B F G
REPAIR PARTY ELECTRICIAN (CONT’D)

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 SCBA/toxic gas and electrically investigate/repair circuits inside smoke/fire boundaries IAW NSTM 300

Questions

A B C D E F G H I

(Signature and Date)

.2 Rig/unrig casualty power system IAW NSTM 300

A B C D E F G H I

(Signature and Date)

.3 Conduct emergency repairs to vital circuits IAW NSTM 300 (2 times)

A B C D E F G I

(Signature and Date)

(Signature and Date)

COMPLETED .3 AREA COMPRISSENT 20% 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

___________________________________
(Signature and Date)

.2  Casualty power cables missing

___________________________________
(Signature and Date)

**COMPLETED .4 AREA COMPRISES 10% 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 15% OF WATCHSTATION.**

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

319.7.1  **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 DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (NAVEDTRA 43119-L).

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 UP TO 307, 308, 309 AT A MINIMUM AND 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)
320 DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (CONT’D)

320.2 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 or simulate this task.

320.2.1 Check closure log for accuracy and completeness prior to checking condition YOKE IAW NTTP 3-20.31 (2 times) Questions

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
</table>

(Signature and Date)

(Signature and Date)

320.2.2 Check material condition YOKE IAW NTTP 3-20.31 (2 times) Questions

<table>
<thead>
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(Signature and Date)

(Signature and Date)

320.2.3 Check material condition ZEBRA IAW NTTP 3-20.31 (2 times) Questions

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

(Signature and Date)

320.2.4 Modified condition ZEBRA IAW NTTP 3-20.31 (2 times) Questions

<table>
<thead>
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<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>G</th>
</tr>
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</table>

(Signature and Date)

(Signature and Date)
<table>
<thead>
<tr>
<th></th>
<th>320.2.5</th>
<th>Assist in developing a scenario including ORM for a class A fire IAW NSTM 555 (2 times)</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.6</td>
<td>Assist in developing a scenario for a class B fire IAW NSTM 555 (2 times)</td>
<td>A B C G</td>
</tr>
<tr>
<td></td>
<td>.7</td>
<td>Assist in developing a scenario for a class C fire IAW NSTM 555 (2 times)</td>
<td>A B C G</td>
</tr>
<tr>
<td></td>
<td>.8</td>
<td>Assist in developing a scenario for a class D fire IAW NSTM 555 (2 times)</td>
<td>A B C G</td>
</tr>
<tr>
<td></td>
<td>.9</td>
<td>Conduct a safety walk-through prior to conducting a drill and report results (2 times)</td>
<td>A B C D E F G</td>
</tr>
<tr>
<td></td>
<td>.10</td>
<td>Conduct a brief and debrief for a fire drill (2 times)</td>
<td>A B C D E F G</td>
</tr>
</tbody>
</table>

(Signature and Date)

(Signature and Date)

(Signature and Date)

(Signature and Date)

(Signature and Date)
320.2.11 Assist in developing a scenario for rescue and assistance IAW SORM A B C G

(Signature and Date)

.12 Conduct a brief and debrief for a rescue and assistance drill A B C D E F G

(Signature and Date)

.13 Assist in developing a scenario for ruptured piping IAW NSTM 079, Vol. 2 A B C G

(Signature and Date)

.14 Conduct a brief and debrief for a ruptured piping drill A B C D E F G

(Signature and Date)

.15 Assist in developing a scenario for structural damage IAW NSTM 079, Vol. 2 A B C G

(Signature and Date)

.16 Conduct a brief and debrief for a shoring drill A B C D E F G

(Signature and Date)

.17 Assist in developing a scenario for progressive flooding IAW NSTM 079, Vol. 2 A B C G

(Signature and Date)

.18 Conduct a brief and debrief for a progressive flooding drill A B C D E F G

(Signature and Date)

.19 Evaluate and critique Toxic IAW NSTM 079, Vol. 2 A B C D E F G

(Signature and Date)
320.2.20 Evaluate and critique HAZMAT IAW NSTM 079, Vol. 2

(Signature and Date)

.21 Assist in developing a scenario for a chemical attack IAW NSTM 470

(Signature and Date)

.22 Assist in developing a scenario for a biological attack IAW NSTM 470

(Signature and Date)

.23 Assist in developing a scenario for radiological contamination IAW NSTM 070

(Signature and Date)

.24 Evaluate and critique a CBR defense drill

(Signature and Date)

.25 Assist in developing a scenario for a major conflagration IAW NSTM 079, Vol. 2

(Signature and Date)

.26 Conduct a brief and debrief for a major conflagration drill (2 times)

(Signature and Date)

.27 Assist in developing integrated scenarios

(Signature and Date)
320.2.28 Observe actions of the controlling stations IAW NTTP 3-20.31

(Signature and Date)

.29 Locate, identify and demonstrate the use of the following

a. RPM A B
b. DC Book A B
c. Closure Log A B

(Signature and Date)

COMPLETED .2 AREA COMPRISES 70% 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. 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 COMPRISES 5% 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 25% OF WATCHSTATION.**

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

320.7.1 **EXAMINATIONS**

  - Pass a written examination

    ____________________________________
    (Signature and Date)

320.7.2 **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 BREATHING AIR CHARGING STATION OPERATOR (NAVEDTRA 43119-L).

RECOMMENDED________________________________________DATE__________
  Supervisor

RECOMMENDED________________________________________DATE__________
  Division Officer

RECOMMENDED________________________________________DATE__________
  Department Head

QUALIFIED________________________________________ DATE__________
  Commanding Officer or Designated Representative

SERVICE RECORD ENTRY____________________________________DATE__________
321 BREATHING AIR CHARGING STATION OPERATOR

Estimated completion time: 4 weeks

321.1 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:

SCBA Breathing Air Compressor Operation and Maintenance [NSWC-BACOM-1.0] (REQUIRED)

Completed ___________________________________ (Qualifier and Date)

Breathing Air Charging System Operation [NSWC-BACSO-1.0] (REQUIRED)

Completed ___________________________________ (Qualifier and Date)

LPD-4 SCBA HP Breathing Air Charging System Operation [NSWC-LPD4SO-1.0] (REQUIRED)

Completed ___________________________________ (Qualifier and Date)

Breathing Air Charging System Maintenance [NSWC-BACSM-1.0] (RECOMMENDED)

Completed ___________________________________ (Qualifier and Date)

LPD-4-SCBA HP Air Charging System Maintenance [NSWC-LPD4M-1.0] (RECOMMENDED)

Completed ___________________________________ (Qualifier and Date)

.2 WATCHSTATIONS FROM THIS PQS:

306 Basic Damage Control (DC)

Completed ________________________________ (Qualifier and Date)
321 Breathing Air Charging Station Operator (Cont'd)

321.1.3 Fundamentals from this PQS:

101 Damage Control (DC) Safety Precautions

Completed ____________________________________________________________ 5% of Watchstation
(Qualifier and Date)

.4 Systems from this PQS:

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

Completed ____________________________________________________________ 5% of Watchstation
(Qualifier and Date)

321.2 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 or simulate this task.

321.2.1 Man a SCBA recharging station IAW RPM

Questions
A B C D G

(Signature and Date)

.2 Verify system alignment IAW EOSS

Questions
A B C D E F G

(Signature and Date)

.3 Set up a Breathing Air Charging Station IAW Posted Operating Procedures (2 times)

Questions
A B C D E F G

(Signature and Date)

(Signature and Date)
321.2.4 Operate a Breathing Air Charging Station IAW Posted Operating Procedures (2 times)  

(Signature and Date)  

(Signature and Date)  

.5 Secure a Breathing Air Charging Station IAW Posted Operating Procedures (2 times)  

(Signature and Date)  

(Signature and Date)  

.6 Set up an EBAC IAW Posted Operating Procedures (2 times)  

(Signature and Date)  

(Signature and Date)  

.7 Operate an EBAC IAW Posted Operating Procedures (2 times)  

(Signature and Date)  

(Signature and Date)  

.8 Secure an EBAC IAW Posted Operating Procedures (2 times)  

(Signature and Date)  

(Signature and Date)  

.9 Identify on-station indicators IAW EOSS  

(Signature and Date)
321 BREATHING AIR CHARGING STATION OPERATOR (CONT’D)

321.2.10 Recharge a cylinder IAW Posted Operating Procedures

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 42% OF WATCHSTATION.

321.3 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.

321.3.1 Recharge a cylinder utilizing quick charge hose assembly
IAW Posted Operating Procedures

(Signature and Date)

.2 Recharge a cylinder utilizing an EBAC IAW Posted Operating
Procedures

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 6% OF WATCHSTATION.
321 BREATHING AIR CHARGING STATION OPERATOR (CONT’D)

321.4 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

321.4.1 Low HP air

(A B C D E F G H)

(Signature and Date)

COMPLETED .4 AREA COMPRIS 6% OF WATCHSTATION.

321.5 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

321.5.1 Loss of electrical power

(A B C D E F G)

(Signature and Date)

.2 Loss of HP air

(A B C D E F G)

(Signature and Date)
321 BREATHING AIR CHARGING STATION OPERATOR (CONT’D)

321.5.3 Failed air hose/O-ring

__________________________________________
(Signature and Date)

.4 Failed valves

__________________________________________
(Signature and Date)

COMPLETED .5 AREA COMPRISES 18% OF WATCHSTATION.

321.6 WATCHES

321.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Breathing Air Charging Station Operator (2 times)

__________________________________________
(Signature and Date)

__________________________________________
(Signature and Date)

Emergency Breathing Air Compressor Operator

__________________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISES 18% OF WATCHSTATION.

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

321.7.1 EXAMINATIONS Pass a written examination

__________________________________________
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

__________________________________________
(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.

301  BASIC DAMAGE CONTROL (DC) COMMUNICATIONS
Completed ______________________________ Date________________________
(Signature)

302  BASIC FIRST-AID
Completed ______________________________ Date________________________
(Signature)

303  BASIC FIREFIGHTING
Completed ______________________________ Date________________________
(Signature)

304  FIRE STANDER
Completed ______________________________ Date________________________
(Signature)
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Status</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>305 BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE</td>
<td>Completed</td>
<td>Signature</td>
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<tr>
<td>306 BASIC DAMAGE CONTROL (DC)</td>
<td>Completed</td>
<td>Signature</td>
<td></td>
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<tr>
<td>307 ADVANCED DAMAGE CONTROL (DC)</td>
<td>Completed</td>
<td>Signature</td>
<td></td>
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<tr>
<td>308 TEAM LEADER</td>
<td>Completed</td>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>309 ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON</td>
<td>Completed</td>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>310 ADVANCED FIRST-AID/STRETCHER BEARER</td>
<td>Completed</td>
<td>Signature</td>
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</table>
### Qualification Progress Summary for Damage Control (DC) (Cont'd)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Completed</th>
<th>Date</th>
<th>Signature</th>
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</thead>
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<tr>
<td>311</td>
<td>Aqueous Film Forming Foam (AFFF)/Transfer Station Operator</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>312</td>
<td>Repair Party Investigator</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
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<tr>
<td>313</td>
<td>Scene Leader</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
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<tr>
<td>314</td>
<td>Conflagration Station Operator</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>315</td>
<td>Crash and Salvage Crewman/Rescueman</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>316</td>
<td>Crash and Salvage Scene Leader</td>
<td>__________</td>
<td>__________</td>
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</table>
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)

321 BREATHING AIR CHARGING STATION OPERATOR
Completed ___________________________  Date________________
(Signature)
LIST OF REFERENCES USED IN THIS PQS

Allowance Equipage List (AEL) 2-880044202
Allowance Equipage List (AEL) 2-880044226
Allowance Equipage List (AEL) 2-880044240
Allowance Equipage List (AEL) 2-880044252-425
Allowance Equipage List (AEL) 2-880044262, Kit, Investigator
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
Emergency Water Activated Repair Patch (EWARP) Operating Procedures
Engineering Operational Sequencing System (EOSS)
Local Ship's Instructions
Manufacturer's Technical Manual for Portable Hydraulic Access and Rescue System (PHARS) MSGID 241800Z OCT 13
NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual
NAVEDTRA 14150A, Machinist's Mate (Surface)
NAVEDTRA 14173, NEETS Module 1--Introduction to Matter, Energy, and Direct Current
NAVEDTRA 14174, NEETS Module 2--Introduction to Alternating Current and Transformers
NAVEDTRA 14175, NEETS Module 3--Introduction to Circuit Protection, Control, and Measurement
NAVEDTRA 14177, NEETS Module 5--Introduction to Generators and Motors
NAVEDTRA 14295B, Hospital Corpsman
NAVEDTRA14324A, Gunner's Mate
NAVEDTRA 14325, Basic Military Requirements
NAVEDTRA 14344, Electrician's Mate
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-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 S6226-SG-MMO-010, Electric High Pressure Air Compressor Manufacturer Technical Manual
NAVSEA S9169-AW-DCB-010, Damage Control Watertight Closures Inspection, Maintenance, and Repair Booklet
NAVSEA S5090-B1-TAB-010, Training Aid Booklet for Damage Control Equipment
NH22505 R-E, OCENCO Technical Manual
NSTM S9056-CN-STM-030/CH-079V3R2, Damage Control Engineering Casualty Control
NSTM S9086-CD-STM-010/CH-070R3, Nuclear Defense at Sea and Radiological Recovery of Ships after Nuclear Weapons Explosion
LIST OF REFERENCES USED IN THIS PQS (CON’T)

NSTM S9086-CH-STM-010/CH-074V1R5, Welding and Allied Processes
NSTM S9086-CH-STM-030/CH-074V3R6, Gas Free Engineering
NSTM S9086-CL-STM-010/CH-077R7, Personnel Protection Equipment
NSTM S9086-CN-STM-010/CH-079V1R1, Damage Control-Stability and Buoyancy
NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
NSTM S9086-CN-STM-030/CH-079V3R2, Damage Control, Engineering Casualty Control
NSTM S9086-KC-STM-010/CH-300R7, Electric Plant-General
NSTM S9086-KN-STM-010/CH-310R3, Electric Power Generators and Conversion Equipment
NSTM S9086-KY-STM-010/CH-320R6, Electric Power Distribution Systems
NSTM S9086-PA-STM-010/CH-430R2, Interior Communication Installations
NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures
NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures/CBR
NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures/CBR-D NEC 4805
NSTM S9086-RJ-STM-010/CH-504R7, Pressure, Temperature, and Other Mechanical and Electromechanical Measuring Instruments
NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
NSTM S9086-UF-STM-010/CH-600V1R3, Structural Closures
NSTM S9086-CL-STM-010/CH-077R7, Personnel Protection Equipment
NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control Practical Damage
NSTM S9086-PA-STM-000/CH-430R1, Interior Communications Installations
NSTM S9086-RQ-STM-010/CH-510R7, Heating, Ventilating, and Air Conditioning Systems for Surface Ships
NSTM S9086-RS-STM-010/CH-512R2, Fans
NSTM S9086-T8-STM-010/CH-593R5, Pollution Control
NTTP 3-20.31 (Rev. A), Surface Ship Survivability
OPNAVINST 3120.32D, Standard Organization and Regulations Manual of the U.S. Navy (SORM)
OPNAVINST 3500.39C, Operational Risk Management
Planned Maintenance System (PMS) 5553/026
Planned Maintenance System (PMS) 6642/ 200
Planned Maintenance System (PMS) 6642/ 200
Power hawk Manufacturer’s Technical Manual
Power Hawk P-16 Rescue Systems Manufacturer’s Technical Manual
S6220-EN-MMO-010, Self-Contained Breathing Apparatus Scott Air Pak 4.5, Rev.4
S6220-EV-MMO-010, Oceanus-E3 Compressor
S6226-PD-MMO-010/07070R2, Self-Contained Breathing apparatus (SCBA) Breathing Air Charging System (BAC)
LIST OF REFERENCES USED IN THIS PQS (CON’T)

S6290-AQ-MMC-A10R1, The Arcair Slice (PECU) Portable Exothermic Cutting Unit
S9512-CA-MMC-010/93457, Fan, Portable, Desmoking, Medium Capacity
S9551-BP-MMC-010, Self-Contained Breathing Apparatus High Pressure Air Charging System
S9555-B9-MMA-010, Aqueous Film Forming Foam Equipment
S9623-AE-MMO-010, Rev. 3, Firefighter Ladder Safety System (LSS)
S9665-BG-MMC-010, Technical Manual, Model WF-20 RAMFAN/Model RAMFAN 2000
Ship’s Casualty Power Doctrine
Ship’s Damage Control Book
Ship’s Damage Control Book Part 1
Ship’s Information Book (SIB)
Ship’s Repair Party Manual
Ship’s Damage Control Diagrams
SS100-AG-MAN-010, Damage Control and Firefighting Equipment Layout Booklet
SS100-AJ-MMO-010, Rev. 3, Firefighter Extraction System (FES)
Technical Manual, Model WF-20 RAMFAN/Model RAMFAN 2000
PERSONNEL QUALIFICATION STANDARD
Feedback Form for NAVEDTRA 43119-L

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 SWOS PQS Development Group at:. Insert CNE_PQSProgramMgr@navy.mil. Please include the above information so that we may better serve you.

Remarks/Recommendations (Use additional sheets if necessary):