PERSONNEL QUALIFICATION STANDARD FOR DAMAGE CONTROL (DC)

NAME (Rate/Rank)___________________________________________

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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.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>3</td>
</tr>
<tr>
<td>SUMMARY OF CHANGES</td>
<td>5</td>
</tr>
<tr>
<td>WATCHSTATION REQUALIFICATIONS</td>
<td>7</td>
</tr>
<tr>
<td>ACRONYMS</td>
<td>9</td>
</tr>
<tr>
<td>INTRODUCTION TO FUNDAMENTALS</td>
<td>11</td>
</tr>
<tr>
<td>100 INTRODUCTION TO FUNDAMENTALS</td>
<td>13</td>
</tr>
<tr>
<td>101 Damage Control (DC) Safety Precautions</td>
<td>15</td>
</tr>
<tr>
<td>102 Damage Control (DC) Communications/Symbology</td>
<td>20</td>
</tr>
<tr>
<td>103 Firefighting</td>
<td>26</td>
</tr>
<tr>
<td>104 Basic Damage Control (DC)</td>
<td>30</td>
</tr>
<tr>
<td>105 First-Aid and Rescue</td>
<td>34</td>
</tr>
<tr>
<td>106 Chemical, Biological, and Radiological (CBR) Defense</td>
<td>38</td>
</tr>
<tr>
<td>107 Damage Control (DC) Organization</td>
<td>43</td>
</tr>
<tr>
<td>108 Fire Watch</td>
<td>45</td>
</tr>
<tr>
<td>109 Conflagration</td>
<td>46</td>
</tr>
<tr>
<td>110 Battle Damage Repair</td>
<td>47</td>
</tr>
<tr>
<td>111 Hazardous Material Control and Management (HMC&amp;M) Program</td>
<td>50</td>
</tr>
<tr>
<td>112 Computer Based Damage Control (DC) Management System and Software</td>
<td>52</td>
</tr>
<tr>
<td>113 Investigation</td>
<td>53</td>
</tr>
<tr>
<td>114 Stability</td>
<td>55</td>
</tr>
<tr>
<td>INTRODUCTION TO SYSTEMS</td>
<td>65</td>
</tr>
<tr>
<td>200 INTRODUCTION TO SYSTEMS</td>
<td>67</td>
</tr>
<tr>
<td>201 Damage Control (DC) Communications</td>
<td>70</td>
</tr>
<tr>
<td>202 Emergency Escape Breathing Device (EEBD)</td>
<td>72</td>
</tr>
<tr>
<td>203 Self-Contained Breathing Apparatus (SCBA)</td>
<td>75</td>
</tr>
<tr>
<td>204 Personal Protective Clothing Equipment</td>
<td>77</td>
</tr>
<tr>
<td>205 Watertight Closures/Hull Fittings</td>
<td>79</td>
</tr>
<tr>
<td>206 Portable Firefighting Equipment</td>
<td>81</td>
</tr>
<tr>
<td>207 Portable Damage Control (DC) Equipment</td>
<td>83</td>
</tr>
<tr>
<td>208 Installed Fire Extinguishing</td>
<td>86</td>
</tr>
<tr>
<td>209 Aqueous Film Forming Foam (AFFF)</td>
<td>89</td>
</tr>
<tr>
<td>210 Firemain</td>
<td>91</td>
</tr>
<tr>
<td>211 Access/Overhaul Equipment</td>
<td>93</td>
</tr>
<tr>
<td>212 Ventilation</td>
<td>95</td>
</tr>
<tr>
<td>213 Installed Drainage</td>
<td>97</td>
</tr>
<tr>
<td>214 Chemical, Biological, and Radiological (CBR) Detection And Decontamination Equipment</td>
<td>100</td>
</tr>
<tr>
<td>215 Casualty Power Distribution</td>
<td>102</td>
</tr>
<tr>
<td>216 Dewatering Equipment/Pumps</td>
<td>105</td>
</tr>
<tr>
<td>217 Crash and Salvage Equipment</td>
<td>106</td>
</tr>
<tr>
<td>218 Conflagration Station</td>
<td></td>
</tr>
</tbody>
</table>
**TABLE OF CONTENTS (CONT’D)**

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>219</td>
<td>Pipe Repair/Patching</td>
</tr>
<tr>
<td>220</td>
<td>Plugging Kit Equipment</td>
</tr>
<tr>
<td>221</td>
<td>Shoring</td>
</tr>
<tr>
<td>222</td>
<td>Computer Based Damage Control (DC) Management</td>
</tr>
<tr>
<td>223</td>
<td>Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)</td>
</tr>
<tr>
<td>300</td>
<td>INTRODUCTION TO WATCHSTATIONS</td>
</tr>
<tr>
<td>301</td>
<td>Basic Damage Control (DC) Communications</td>
</tr>
<tr>
<td>302</td>
<td>Basic First-Aid</td>
</tr>
<tr>
<td>303</td>
<td>Basic Firefighting</td>
</tr>
<tr>
<td>304</td>
<td>Fire Watch Stander</td>
</tr>
<tr>
<td>305</td>
<td>Basic Chemical, Biological, and Radiological (CBR) Defense</td>
</tr>
<tr>
<td>306</td>
<td>Basic Damage Control (DC)</td>
</tr>
<tr>
<td>307</td>
<td>Advanced Damage Control (DC)</td>
</tr>
<tr>
<td>308</td>
<td>Team Leader</td>
</tr>
<tr>
<td>309</td>
<td>Advanced Chemical, Biological, and Radiological (CBR) Defense Person</td>
</tr>
<tr>
<td>310</td>
<td>Advanced First-Aid/Stretcher Bearer</td>
</tr>
<tr>
<td>311</td>
<td>Aqueous Film Forming Foam (AFFF)/Transfer Station Operator</td>
</tr>
<tr>
<td>312</td>
<td>Repair Party Investigator</td>
</tr>
<tr>
<td>313</td>
<td>Scene Leader</td>
</tr>
<tr>
<td>314</td>
<td>Conflagration Station Operator</td>
</tr>
<tr>
<td>315</td>
<td>Crash and Salvage Crewman/Rescueman</td>
</tr>
<tr>
<td>316</td>
<td>Crash and Salvage Scene Leader</td>
</tr>
<tr>
<td>317</td>
<td>Computer Based Damage Control (DC) Management System and Software Operator</td>
</tr>
<tr>
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<td>Repair Party Leader</td>
</tr>
<tr>
<td>319</td>
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</tr>
<tr>
<td>320</td>
<td>Damage Control Training Team (DCTT) Member</td>
</tr>
<tr>
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<td>QUALIFICATION PROGRESS SUMMARY</td>
</tr>
<tr>
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</tr>
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ACKNOWLEDGEMENTS

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The Model Manager for this PQS:

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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-J.

APPLICABILITY

This PQS is applicable to all naval ships.

MODEL MANAGER

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

TAILORING

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

QUALIFIER

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

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

REFERENCES

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

NOTES

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

TRAINEE

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

PQS FEEDBACK REPORTS

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

### CHANGES TO FUNDAMENTALS, SYSTEMS, AND WATCHSTATIONS:

<table>
<thead>
<tr>
<th>Fundamental Title</th>
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</tr>
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</tr>
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<td>Role</td>
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</tr>
<tr>
<td>---------------------------------------</td>
<td>----------</td>
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<td>Radiological (CBR) Defense Person</td>
<td></td>
<td></td>
</tr>
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<td>Aqueous Film Forming Foam (AFFF)/</td>
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<td>Updated to reflect current information</td>
</tr>
<tr>
<td>Transfer Station Operator</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Modified</td>
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</tr>
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</tr>
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</tr>
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</tr>
<tr>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
WATCHSTATION REQUALIFICATIONS

Due to changes in policies, systems, or procedures, personnel dealing with the subject matter of this PQS may be required to requalify IAW NAVEDTRA 43100-1K, 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.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
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<tr>
<td>ALO</td>
<td>Action Lightweight Overboot</td>
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<td>Basic Military Requirements</td>
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<td>CTA</td>
<td>Casualty Triage Area</td>
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ACRONYMS USED IN THIS PQS (CONT’D)

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</tr>
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<td>Selected Area Collective Protection System</td>
</tr>
<tr>
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<td>Self-Contained Breathing Apparatus</td>
</tr>
<tr>
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</tbody>
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100  INTRODUCTION TO FUNDAMENTALS

100.1  INTRODUCTION

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

100.2  HOW TO COMPLETE

The fundamentals you will have to complete are listed in the watchstation (300 section) for each watchstation. You should complete all required fundamentals before starting the systems and watchstation portions of this PQS, since knowledge gained from fundamentals will aid you in understanding the systems and your watchstation tasks. When you feel you have a complete understanding of one fundamental or more, contact your Qualifier. If you are attempting initial qualification, your Qualifier will expect you to satisfactorily answer all line items in the fundamentals. If you are requalifying or have completed the appropriate schools, your Qualifier may require you to answer representative line items to determine if you have retained the necessary knowledge for your watchstation. If your command requires an oral board or written examination for final qualification, you may be asked any questions from the fundamentals required for your watchstation.
101. 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] EE100-BU-GYD-010, Damage Control Wirefree Communications System, AN/SRC-53(V) MX300R Limited, AN/SRC-53A(V) MX300R Full, AN/SRC-53A(V)1 Saber R Full, AN/SRC-53(V)1 LHA-1
[e] Manufacturer’s Technical Manual for Portable Exothermic Cutting Unit
[f] Scott Field Level Maintenance Manual for the Air-Pak 4.5 and 2.2
[g] Instruction Manual, Jaws of Life Rescue Tools, JL32b, JL27
[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/HFP? [ref. c, sec. 10]

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

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

.10 Discuss safety requirements prior to passing through watertight closures. [ref. l, ch. D1]

___________________________________
(Signature and Date)

.11 Discuss safety requirements when opening accesses in bulkheads or decks that are normally closed. [ref. l, ch. D1]

___________________________________
(Signature and Date)

.12 State the precautions to be observed when handling and stowing all compressed gas cylinders. [ref. k, ch. C23]

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.16 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)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

- Long-sleeved shirt/fire retardant coverall/apron [ch. B12]
- 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 PHARS. [ref. g]

(Signature and Date)

.24 State the safety precautions involving operation of equipment without proper machine guards. [ref. k, ch. C1]

(Signature and Date)

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

(Signature and Date)

.26 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)
101.27 Discuss the proper procedure for opening a pressurized sounding tube. [ref. b, sec.4]

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

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

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

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

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

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

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

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

h. Debris:
   1. Debris reported
   2. Debris engaged
   3. No debris
102.1  **Hole (OVHD/BHD/DECK):**
1. Hole reported
2. Hole engaged
3. No hole

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

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

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

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

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

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

**Communication lost:**
1. Lost communication reported
2. Lost communication engaged
3. No lost communications

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

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

**Hazmat/toxic spill:**
1. ___ reported
2. ___ engaged
3. No ___
102  DAMAGE CONTROL (DC) COMMUNICATIONS/SYMBOLRY FUNDAMENTALS (CONT’D)

102.1  

  t. Chemical hazard:
         1. Chemical hazard reported
         2. Chemical hazard engaged
         3. No chemical hazard

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(Signature and Date)

Explain the basic operation of the following DC communication systems:

a. Sound-powered telephone [ref. a, sec. 4]
b. Wire free/HYDRA [ref. b, ch. 2]
c. IVCS [ref. a, ch. 4]
d. DCAMS [ref. d, sec. 39]
102.3  

e. Ship's general announcing [ref. c, ch. 2]
f. Intercom units [ref. c, ch. 2]
g. Ship's service telephones [ref. c, ch. 2]
h. Messenger [ref. d, sec. 37]

(Signature and Date)

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

(Signature and Date)

.5  What are the three parts of a message? [ref. b, ch. 2; ref. d, sec. 37]

(Signature and Date)

.6  Explain the proper way to acknowledge a message. [ref. b, ch. 2; ref. d, sec. 37]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.9  Explain the procedure for checking sound-powered phone operations when battle damage is sustained. [ref. b, ch. 2]

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

(Signature and Date)

.11 State the titles of the following sound-powered telephone circuits and discuss their uses: [ref. a, ch. 4; ref. d, 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. X4OJ  
p. X50J

(Signature and Date)

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

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

(Signature and Date)
103 FIREFIGHTING FUNDAMENTALS

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

(Signature and Date)

103.2 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)

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

a. Water
b. \( \text{CO}_2 \)
c. AFFF
d. PKP
e. HALON/HFP
f. APC
g. Watermist

(Signature and Date)

103.4 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  **FIREFIGHTING FUNDAMENTALS (CONT’D)**

c. Deep fat fryer [sec. 8]
d. Otto fuel II [sec. 1]

(Signature and Date)

.5  Explain the importance of isolating the following at the scene: [ref. a]
a. Electrical power [sec. 7]
b. Mechanical systems [sec. 10]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

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

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.13 Define the following: [ref. a, Glossary]
   a. Smoke control zone
   b. Buffer zone

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)
103.19 Discuss the procedures for desmoking by using ship's CPS. [ref. a, sec. 7]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)
References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] NTTP 3-20.31 (Rev. A), 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 Information Book (SIB)

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)
1046 Define the following material conditions of readiness/special classifications and the conditions under which watertight integrity may be broken: [ref. e, sec. 22]

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

______________________________
(Signature and Date)

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

______________________________
(Signature and Date)

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

______________________________
(Signature and Date)

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

______________________________
(Signature and Date)

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

______________________________
(Signature and Date)

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

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

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

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

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

References:

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

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

(Signature and Date)

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

(Signature and Date)

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

a. Chest  
b. Head  
c. Abdominal

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

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

(Signature and Date)

.14 Explain each of the following stretchers and their use: [ref. a, ch. 3]
a. Stokes
b. Miller body boards/extraction splints
c. Army litter

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.18 In terms of the rescuer’s safety, state the precautions to be taken for the following: [ref. a, ch. 3]
a. Removing a victim from an energized circuit
b. Rescuing victim overcome by toxic fumes

(Signature and Date)

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

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

(Signature and Date)

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

(Signature and Date)
Discuss the following terms associated with nuclear defense:

a. Initial nuclear radiation [ref. b, sec. 1]
b. Roentgen [ref. b, app. A]
c. Rad [ref. b, app. A]
d. Contamination [ref. b, app. A]
e. Radiac [ref. b, app. A]
f. Dosimeter [ref. b, app. A]
g. MPE [ref. b, app. A]
h. Casualty exposure [ref. b, app. A]
i. Ready and deep shelter [ref. b, sec. 5, app. A]
j. Casualty collection station [ref. c, sec. 7]
k. CCA [ref. c, sec. 7]
l. 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 [ref. c, sec. 6]
106.2 What markers are used to indicate nuclear contamination areas? [ref. b, sec. 3]

(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

(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

(Signature and Date)
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. Markers used to indicate biological contaminants [sec. 7]
f. Method used to decontaminate personnel and equipment [sec. 7]
g. Methods by which BW agents are dispersed/delivered [sec. 3]
Methods used to detect and provide defense against BW agents [sec. 4]
Methods used to collect biological samples [sec. 4]
Collective protection [sec. 6]

Discuss the use of the following biological detection equipment: [ref. c sec. 4]

- DFU
- HHA
- JBPDS

State the following as applied to chemical warfare: [ref. c]

- Definition of chemical agent [sec. 2]
- Means by which chemical agents may enter the body [sec. 2]
- MOPP levels [sec. 8]
- Markers used to indicate chemical contamination [sec. 7]
- Methods used to decontaminate personnel and equipment [sec. 7]
- Methods by which CW agents are dispersed/delivered [sec. 3]
- Collective protection system [sec. 6]

State the protective measures to be taken at each MOPP level. [ref. b, sec. 6; ref. c, sec. 8]

What are the physical symptoms of and treatment for:

- Blood agents [ref. c, sec. 2; ref. e, ch. 6]
- Blister agents [ref. c, sec. 2; ref. e, ch. 4]
- Nerve agents [ref. c, sec. 2; ref. e, ch. 2]
- Choking agents [ref. c, sec. 2; ref. e, ch. 5]
- Pathogens [ref. c, sec 3; ref. e, ch. 5]
- Toxins [ref. c, sec 3; ref. e, ch. 2]
Discuss the use of the following chemical monitoring equipment: [ref. c, sec. 4]

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

(Signature and Date)

Discuss the function of the following items:

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

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

References:

[a] NTTP 3-20.31 (Rev. A), 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]

(Signature and Date)

107.2 Explain the functions of the following team members:

a. Investigator [ref. e, ch. 2]
b. Plugman [ref. e, ch. 2]
c. Nozzleman/hoseman [ref. e, ch. 2]
d. Rapid response [ref. a, sec. 9]
e. Emergency hull repair [ref. d, ch. 8]
f. Dewatering [ref. c, sec. 29]
g. Desmoking [ref. b, sec. 5]
h. Material DECON [ref. c, sec. 7]
i. Monitoring [ref. c, sec. 4]
j. Personnel DECON [ref. c, sec. 7]
k. Asssessment 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. Repair 1 [ref. a, sec. 2]
b. Repair 2 [ref. a, sec. 2]
c. Repair 3 [ref. a, sec. 2]
d. Repair 4 [ref. a, sec. 2]
e. Repair 5 [ref. a, sec. 2]
f. Repair 6 [ref. a, sec. 2]
g. Repair 7 [ref. a, sec. 2]
h. Repair 8 [ref. a, sec. 2]
i. Aviation Fuel Repair Team [ref. a, sec. 2]
j. Crash and Salvage Team [ref. a, sec. 2]
k. Ordnance Disposal Team [ref. a, sec. 2]
l. In-Port Emergency Team [ref. a, sec. 9]
m. At Sea Fire Party [ref. a, sec. 9]
n. Rapid Response Team [ref. a, sec. 9]
o. R and A Detail (in-port/at sea) [ref. a, sec. 2]
p. Assessment Team [ref. b, sec. 10]

___________________________________
(Signature and Date)
108 FIRE WATCH FUNDAMENTALS

References:

[a] NSTM S9086-CH-STM-030/CH-074V3R5, Gas Free Engineering

108.1 Define hot-work. [sec. 22]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.4 Describe the function of sprinkler groups. [ref. c, ch. 7]

(Signature and Date)

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

a. Aircraft fueling stations
b. $O_2N_2$ plants
c. Boat fueling stations
d. Vehicle fueling stations
e. Hangar deck fire stations
f. HAZMAT stowage area

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

________________________________________________________________________

(Signature and Date)

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

________________________________________________________________________

(Signature and Date)

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

________________________________________________________________________

(Signature and Date)

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

________________________________________________________________________

(Signature and Date)

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

________________________________________________________________________

(Signature and Date)

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

________________________________________________________________________

(Signature and Date)

.7 Define the following:

a. Direct compression (I-type) [ref. a, sec. 43]
b. Preferred method of measuring shoring [ref. b, ch. 8]
c. Strain on shoring [ref. a, sec. 43]
d. Angle of shoring [ref. a, sec. 43]
e. Shore [ref. b, ch. 8]
Discuss the various types of patches that can be used to repair damaged piping. [ref. a, sec. 42, ref. c]

Describe 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:

- Soft [ref. b, ch. 8]
- Jubilee [ref. b, ch. 8]
- EWARP [ref. b, ch. 8]
- Banding [ref. a, sec. 42]

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

Describe the steps involved in erecting shoring by using a shoring batten. [ref. a, sec. 43]
110.14 Describe the steps involved in shoring a watertight door/hatch. [ref. a, sec. 43]

(Signature and Date)
111 Hazardous Material Control and Management (HMC&M) Program Fundamentals

References:

[b] Local Ship's Instructions

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)

111.2 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)

111.3 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. Individual crew member

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

(Signature and Date)

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

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

(Signature and Date)

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

a. DCAMS
b. CCOL
c. DCTMS

(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 (Rev. A), 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)
114  STABILITY FUNDAMENTALS

References:

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

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

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

(Signature and Date)

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

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

(Signature and Date)

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

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

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

(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 14150, Machinist's Mate 1 & C

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)

.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]
d. IC switchboard [ref. i, sec. 2]
e. Local IC switchboard [ref. i, sec. 2]

(Signature and Date)
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]

Define the following:

a. Action cutout [ref. i, sec. 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. I]
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]
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. I]
w. Selective tripping [ref. a, ch. 2]
115  ELECTRICIAN ELECTRICAL FUNDAMENTALS (CONT’D)

115.4  
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. GTG [ref. a, ch. 14]  
ah. PMA [ref. a, ch. 9]  
a_i. Fault current detector [ref. a, ch. 2]  
a_j. Over power [ref. a, ch. 2]  
ak. Load shed [ref. h, sec. 1]  
al. Current transformer [ref. h, sec. 1]  
am. Motor generator [ref. h, sec. 1]  
an. 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, magnetic) [ref. a, ch. 2]

(Signature and Date)

.6 Discuss the applications of the following circuit breakers: [ref. a, ch. 2]  
a. ACB  
b. AQB  
c. NQB  
d. ALB  
e. NLB

(Signature and Date)
115.7 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. [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)

.11 Discuss the applications of the following ac motors: [ref. e]

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

(Signature and Date)

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

(Signature and Date)
115.13 Discuss the procedures for rigging and unrigging:

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

___________________________________
(Signature and Date)

.14 Describe the operation of the following types of dc generators: [ref. e, ch. 1; ref. g, sec. 1]

a. Separately excited
b. Self-excited
c. Series
d. Shunt

___________________________________
(Signature and Date)

.15 Discuss the following types of dc motors and state applications for each: [ref. e, ch. 2; ref. g, sec. 1]

a. Shunt
b. Series
c. Compound

___________________________________
(Signature and Date)

.16 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]

___________________________________
(Signature and Date)
Define electrochemical action. [ref. b, ch. 2]

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

a. Audible signal devices
b. Visual indicators

(Signature and Date)

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
f. Clear

(Signature and Date)

Explain the function of the following devices:

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

(Signature and Date)

.23 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)

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

a. LVR
b. LVP
c. LVRE

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

a. ABT
b. MBT

(Signature and Date)
115 ELECTRICIAN ELECTRICAL FUNDAMENTALS (CONT’D)

115.28 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)

.29 State the requirements for working on energized equipment [ref: f, sec 2]

(Signature and Date)

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

(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  DAMAGE CONTROL (DC) COMMUNICATIONS SYSTEM

References:
[a]  Ship's Information Book (SIB)
[b]  NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[c]  NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[d]  NSTM S9086-PA-STM-000/CH-430R1, Interior Communications Installations
[e]  Ship’s Local Instruction

201.1  SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

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

Questions

201.1.6 PTT 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

201.3.1 What is the maximum operating time of the rechargeable battery? [ref. b, sec. 37]  
.2 What is the maximum charging time of the rechargeable battery? [ref. b, sec. 37]

(Signature and Date)

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)
201.5.1 What special safety precautions apply to wire free communications? [ref. b, sec. 44]

(Signature and Date)
## 202   EMERGENCY ESCAPE BREATHING DEVICE (EEBD) SYSTEM

References:

[a] NSTM S9086-CL-STM-010/CH-077R6, Personnel Protection Equipment
[b] NH22505 R-E, OCENCO Technical Manual

### 202.1   SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

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

#### 202.1.1   EEBD [ref. a, sec. 3]

<table>
<thead>
<tr>
<th>.2 OCENCO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Storage rack [ref. a, sec. 3]</td>
</tr>
<tr>
<td>b. Storage case [ref. a, sec. 3]</td>
</tr>
<tr>
<td>c. Carrying case [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>1. Tamper seal [ref. b]</td>
</tr>
<tr>
<td>2. Gauge window [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>d. Teflon hood [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>e. Mouth piece [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>f. Nose clip [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>g. Breathing bag [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>h. Relief valve [ref. b]</td>
</tr>
<tr>
<td>i. Oxygen cylinder [ref. a, sec. 3; ref. b]</td>
</tr>
<tr>
<td>1. Pressure gage [ref. b]</td>
</tr>
<tr>
<td>2. Oxygen regulator [ref. b]</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 using an EEBD? [ref. a, sec. 3]

(Signature and Date)

202.3  PARAMETERS/OPERATING LIMITS

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

A.  What are the normal operating parameters?

B.  What is the operational time limit?

202.3.1  EEBD (OCENCO) cylinder pressure

.2  EEBD

(Signature and Date)

202.4  SYSTEM INTERFACE

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

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

(Signature and Date)

202.5  SAFETY PRECAUTIONS

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

a.  Removal of the EEBD hood

b.  EEBD usage

(Signature and Date)
203  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-077R6, Personnel Protection Equipment

203.1  SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

203.1.1 Air cylinder and valve assembly:
   a. Air cylinder  A B C
   b. Cylinder valve  A B C
   c. Cylinder pressure gauge  A B C

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

203.1.3 Pressure reducing regulator:
   a. Pressure reducer hose coupling  A B C
   b. First stage regulator  A B C

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

203.1.5 Low pressure alarm  A B

203.1.6 Face piece:
   a. Face piece seal  A B C
   b. Lens  A B C
   c. Nose cup  A B C
Questions

203.1.6 d. Head harness A B C
e. Voicemitter A B C
  f. Voice amplifier A B C

(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]

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

Questions

203.3.1 Cylinder A B C

(Signature and Date)

203.4 SYSTEM INTERFACE

203.4.1 How does this system 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. b, sec. 3]

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

References:

[a] NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[b] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures
[c] NSTM S9086-CL-STM-010/CH-077R6, Personnel Protection Equipment

204.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

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

(Signature and Date)
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

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

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

(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. b, sec. 8]

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

(Signature and Date)

204.5 SAFETY PRECAUTIONS

204.5.1 What special safety precautions apply to using the following:

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

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

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[b] NA Ved TRA 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
[e] MAFO/Holtkamp Watertight Door Technical Manual

205.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watertight/airtight closures and fittings [ref. a, sec. 22; refs. d, e]</td>
</tr>
<tr>
<td>.2 Sounding tubes [ref. a, sec. 40]</td>
</tr>
<tr>
<td>.3 Ventilation closures [ref. a, sec. 22]</td>
</tr>
<tr>
<td>.4 Stuffing tubes [ref. a, secs. 22, 40]</td>
</tr>
<tr>
<td>.5 Armored/ballistic doors, hatches, and scuttles [ref. c, sec. 7; ref d]</td>
</tr>
<tr>
<td>.6 Overboard discharge [ref. a, sec. 29]</td>
</tr>
</tbody>
</table>

(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, e]

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

(Signature and Date)

205.3 PARAMETERS/OPERATING LIMITS – None to be discussed.
205 Watertight Closures/Hull Fittings System (Cont’d)

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]

(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]

(Signature and Date)
206 PORTABLE FIREFIGHTING EQUIPMENT SYSTEM

References:

[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] NAVEDTRA 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?

206.1.1 15-pound CO₂:

a. Squeeze grip release lever [ref. a, sec. 4] A
b. D-yoke ring [ref. a, sec. 4] A B

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

a. CO₂ cartridge A B
b. Cartridge guard assembly B

c. Pull pin/seal B
d. Puncture lever A B
e. Carry handle B
f. Squeeze grip nozzle A B
g. Fill cap B

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

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

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

a. Vari-nozzle C

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

a. Applicator A

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

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

PRINCIPLES OF OPERATION

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)

PARAMETERS/OPERATING LIMITS

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

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

Questions

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

___________________________________
(Signature and Date)

SYSTEM INTERFACE – None to be discussed.

SAFETY PRECAUTIONS

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

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

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

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] Instruction Manual and Technical Manual Naval Fire Fighter's Thermal Imager
   (THERMAL IMAGER) P4428

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:

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

207.1.1 Thermal Imager [ref. a, sec. 6]
   a. Battery condition indicator [ref. a, sec. 6] A
   b. Pan/chop mode button [ref. a, sec. 6] B
   c. Battery cartridge [ref. a sec. 6] A B E G
   d. Protective muff and visor [ref. b] A B F
   e. Voltage stabilizer [ref. b] A B G
   f. K90 [ref. b] A B C

Questions
A B C D E G H

(Signature and Date)

207.2 PRINCIPLES OF OPERATION

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

(Signature and Date)
 PARAMETERS/OPERATING LIMITS

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

__________________________________________
(Signature and Date)

SYSTEM INTERFACE – None to be discussed.

SAFETY PRECAUTIONS

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

__________________________________________
(Signature and Date)
208 Installed Fire Extinguishing System

References:

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

208.1 System Components and Component Parts

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

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

208.1.1 CO₂ hose reel system [ref. a; ref. b, sec. 2; ref. c; ref. e, fig. 8-7]  
   a. 50-pound CO₂ cylinder/discharge head  
   b. Hose reel

208.1.2 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

208.1.3 HALON/HFP 1301/HFP system [ref. a; ref. b, sec. 3]  
   a. Five-pound CO₂ actuation cylinder  
   b. Pressure switches  
   c. Alarm indicators  
   d. Ventilation pressure switch  
   e. Time delay device  
   f. Time delay bypass valve  
   g. Discharge pressure switch

208.1.4 Salt/fresh water sprinkling systems [ref. a; ref. b, sec. 3]  
   a. Magazine sprinkler system

208.1.5 Freshwater hose reels [ref. b, sec. 3]  
   a. Activation push button
### Questions

<table>
<thead>
<tr>
<th>208.1.5</th>
<th>a. Holding tank</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b. Hose reel nozzle</td>
<td>B</td>
</tr>
<tr>
<td>.6</td>
<td>APC extinguishing system (range guard) [ref. a; ref. b, sec. 3]</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>a. Remote manual control box</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>b. Pressure release control box</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>c. Fusible links</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>d. APC cylinder</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>e. Lever control head</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>f. Pressure switches</td>
<td>B</td>
</tr>
<tr>
<td>.7</td>
<td>Steam smothering [ref. b, sec. 1]</td>
<td>A</td>
</tr>
<tr>
<td>.8</td>
<td>Water mist pumping station components [refs. a, c]</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>a. Water mist supply tank</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>b. Water mist pump</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>c. Primary and secondary supply/isolation valves</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>d. Simplex strainer</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>e. Bulkhead isolation valves</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>f. Primary and secondary high pressure water supply valves</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>g. Water mist piping</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>h. Nozzles</td>
<td>E</td>
</tr>
<tr>
<td>.9</td>
<td>Engine room Sprinkler system [refs. a, c]</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>a. Remote manual control box</td>
<td>A</td>
</tr>
</tbody>
</table>

(Signature and Date)

### PRINCIPLES OF OPERATION

#### 208.2.1

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

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
</table>
|     | a. Fixed CO₂ systems  
|     | b. HALON/HFP  
|     | c. Saltwater  
|     | d. Range guard (APC)  
|     | e. Freshwater hose reel  
|     | f. Watermist  

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

208.3  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>
<th>208.3.1</th>
<th>208.3.2</th>
<th>208.3.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watermist system pressure</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Watermist FWD tank capacity</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Watermist AFT tank capacity</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

(Signature and Date)

208.4  SYSTEM INTERFACE

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

(Signature and Date)

208.5  SAFETY PRECAUTIONS

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

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

References:
[a] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting
[b] S9555-B9-MMA-010, Aqueous Film Forming Foam Equipment
[c] Ship’s Information Book (SIB)
[d] Ship’s Damage Control Book
[e] NSTM S9086-CH-STM-030/CH-074V3R6, Gas Free Engineering

209.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

209.1.1 AFFF systems:
a. Hose reel cutout valve [refs. c, d] B
b. Hose reel/stations [ref. a, sec. 3; refs. c, d] A B
c. Vari-nozzle [ref. a, sec. 4] A
d. AFFF concentrate service tank [ref. a, sec. 3; refs. c, d] A B
e. AFFF tank fill connection/valve [refs. c, d] A B
f. Tank level indicator [refs. c, d] A B
g. Hytrol/hycheck valve [ref. a, sec. 3; refs. c, d] A B C E
h. Powertrol/power check valve [ref. a, sec. 3; refs. c, d] A B C E
i. SOPV [ref. a, sec. 3, fig. 3-10; refs. c, d] A B C D
j. Remote operation control switch [ref. a, sec. 2; refs. c, d] A B E
K. AFFF concentrate transfer main cutout valves [ref. a, sec. 2; refs. c, d] A B E
l. AFFF concentrate supply cutout valves [ref. a, sec. 2; refs. c, d] A B E
m. Power panel/ABT [ref. a, sec. 3; refs. c, d] A B C D E
n. Firemain cutout valve [ref. a, sec. 2; refs. c, d] A B
o. Gages [ref. a, sec. 2; refs. c, d] A B
p. Tank vent [ref. a, sec. 3; refs. c, d] A B
q. Riser/system drain valves [ref. a, sec. 3; refs. c, d] A B
r. Riser cutout valves [ref. a, sec. 2; refs. c, d] A B E
s. Y-strainer [ref. a, sec. 2; refs. c, d] A B E
t. Barrel Cut-Out switch [ref. b] A B E
209 AQUEOUS FILM FORMING FOAM SYSTEM (CONT’D)

209.1.2 Installed FP-180 [ref. a, sec. 3; refs. c, d]  
A B C D E

a. Manual control valve [ref. a, sec. 2; refs. c, d]  
A C D E

.3 HCFF two-speed system:  
A B C D E

a. Two-speed pump with motor [ref. a, sec. 3; refs. c, d]  
A B C D E

b. Sprinkler group control valves/groups [ref. a, sec. 2; refs. c, d]  
A B C E

.4 Flight deck AFFF injection system:  
A B C D E

a. Injection pump/motor [ref. a, sec. 3; refs. c, d]  
A B

b. Gallery deck injection stations [refs. c, d]  
B

c. Hydraulically operated 2½-inch check valve [refs. c, d]  
B

d. Gallery deck bypass cutout valve [refs. c, d]  
B

e. Flush deck nozzle cutout [ref. a sec. 2; refs. c, d]  
A B

f. Deck edge nozzle cutout valve [ref. a, sec. 2; refs. c, d]  
A B

.5 Balanced pressure proportioner system: [ref. a, sec. 3; refs. c, d]  
A B C E

a. Concentrate pump  
A B C E

b. AFFF proportioner/venturi  
A B E

c. Balancing valve  
A B E

.6 Installed in-line eductor (MCM/MHC/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

.7 AFFF transfer main system:  
A B C E

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)

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 this system. [refs. c, d]

.3 Using a diagram of this system, show the path of: [refs. c, d]

A B C D E

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
209 AQUEOUS FILM-FORMING FOAM SYSTEM (CONT’D)

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

(Signature and Date)

209.3 PARAMETERS/OPERATING LIMITS

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

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

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

(Signature and Date)

209.4 SYSTEM INTERFACE

209.4.1 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

(Signature and Date)

209.5 SAFETY PRECAUTIONS

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

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

(Signature and Date)
210 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

210.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

210.1.1 Fire pumps [ref. a, sec. 2; refs. c, d] A C D
  .2 Firemain piping [ref. a, sec. 2; ref. c] A C
  .3 Firemain cutout valves [ref. a, sec. 2; ref. c] A B C D
      Firemain control valves/unloader [ref a. sec 2; ref c] A B C D
  .4 Fire station:
     a. Fireplug [ref. a, sec. 4; refs. c, d] A B
     b. Wye-gate [ref. a, sec. 4; ref. d] A B
     c. Spanner wrench [ref. a, sec. 4] A B
     d. 1 ½-inch fire hose [ref. a, sec. 4; ref. d] A B C
     e. 1 ¾-inch hose [ref. a, sec. 4; ref. d] A B C
     f. 2 ½-inch fire hose [ref. a, sec. 4; ref. d] A B C
     g. 1 ½-inch vari-nozzle [ref. a, sec. 4; ref. d] A B C E
     h. 2 ½-inch vari-nozzle [ref. a, sec. 4; ref. d] A C E
  .5 CMWD system [ref. b, sec. 7; refs. c, d] A C D
     a. Cutout valves [refs. c, d] A C D
     b. SOPVs [refs. c, d] A C D
     c. Nozzles [refs. c, d] A C
210 FIREMAIN SYSTEM (CONT’D)

210.1.6 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)

210.2 PRINCIPLES OF OPERATION

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

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

   (Signature and Date)

210.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions:

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

210.3.1 Firemain pressure [ref. a, sec. 2; refs. c, d]  
   .2 Fire hose length [ref. a, sec. 4]  

   (Signature and Date)

210.4 SYSTEM INTERFACE

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

   (Signature and Date)

210.5 SAFETY PRECAUTIONS – None to be discussed.
211 **ACCESS/OVERHAUL EQUIPMENT SYSTEM**

References:

[a] S6290-AQ-MMC-010/09687, The Arcair Slice (PECU) Portable Exothermic Cutting Unit  
[c] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting  
[d] Power Hawk Manufacturer's Technical Manual

### 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:

<table>
<thead>
<tr>
<th>Question</th>
<th>Access and overhaul hand tools [ref. c, sec. 7]</th>
<th>PHARS [ref. b]</th>
<th>PECU [ref. a, ch. 1]</th>
<th>Vari-nozzle [ref. c, sec. 7]</th>
<th>Power Hawk [ref. d]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A B</td>
<td>A B C D</td>
<td>A B C D</td>
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<td>A B C</td>
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<tr>
<td>B</td>
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<td>C</td>
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<tr>
<td>D</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Signature and Date)

### 211.2 PRINCIPLES OF OPERATION

None to be discussed.

### 211.3 PARAMETERS/OPERATING LIMITS

None to be discussed.

### 211.4 SYSTEM INTERFACE

None to be discussed.
211.5 SAFETY PRECAUTIONS

212.5.1 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 [ref d]

(Signature and Date)
212 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

212.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

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

(Signature and Date)

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

PARAMETERS/OPERATING LIMITS

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

_____________________
(Signature and Date)

SYSTEM INTERFACE

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]

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

_____________________
(Signature and Date)

SAFETY PRECAUTIONS

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)
213 INSTALLED DRAINAGE SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control Practical Damage
[b] Ship's Damage Control Diagrams
[c] NSTM S9086-T8-STM-010/CH-593R5, Pollution Control
[d] Engineering Operational Sequencing System (EOSS)
[e] NSTM S9086-RJ-STM-000/CH-504R5, Pressure, Temperature, and other Mechanical and Electromechanical Measuring Instruments
[f] NSTM S9086-S3-STM-010/CH-555V1R13, Surface Ship Firefighting

213.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

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

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

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

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

213.2 PRINCIPLES OF OPERATION

213.2.1 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)

213.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

213.4 SYSTEM INTERFACE

213.4.1 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)

213.5 SAFETY PRECAUTIONS

213.5.1 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)
214 CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DETECTION AND DECONTAMINATION EQUIPMENT SYSTEM

References:

[a] NTTP 3-20.31 (Rev. A), Surface Ship Survivability
[b] NSTM S9086-CD-STM-000/CH-070R4, Nuclear Defense At Sea and Radiological Recovery of Ships After Nuclear Weapons Explosion
[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

214.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

214.1.1 MFR [ref. e]  
.2 AN/PDQ-1 [ref. c, sec. 3]  
.3 IM-270 [ref. c, sec. 3]  
.4 M256 chemical agent detection kit [ref. c, sec. 4]  
.5 M8/M9 detector paper [ref. c, sec. 4]  
.6 IPDS/IPDS LR [ref. b, sec. 4; ref. d, ch. 9]  
.7 DFU/HHA [ref. c, sec 4]  
.8 JPBDS [ref. c, sec 4]  
.9 Calcium hypochlorite (HTH) [ref. c, sec. 7]  
.10 Trash cans with liners [ref. c, sec. 7]  
.11 DECON cabinet [ref. c, sec. 7]  
.12 Clean clothing [ref. c, sec. 7]  
.13 Clean towels [ref. c, sec. 7]

Questions

A B C D E F
### Questions

<p>| | | | | |</p>
<table>
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<tbody>
<tr>
<td>214.1.14</td>
<td>M291 skin DECON kit [ref. c, sec. 7]</td>
<td>A B</td>
<td></td>
<td></td>
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<tr>
<td>.15</td>
<td>Buckets/brushes/swabs [ref. c, sec. 7]</td>
<td>A B</td>
<td></td>
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<tr>
<td>.16</td>
<td>Fire hosing (fire hose with nozzle) [ref. c, sec. 7]</td>
<td>A B</td>
<td></td>
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<tr>
<td>.17</td>
<td>DECON/detergent solutions [ref. c, sec. 7]</td>
<td>A B</td>
<td></td>
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<tr>
<td>.18</td>
<td>Contamination markers [ref. c, sec. 7]</td>
<td>A B</td>
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<tr>
<td>.19</td>
<td>Unexploded munitions marker [ref. a, ch. 11]</td>
<td>A B</td>
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<tr>
<td>.20</td>
<td>Atropine, 2-PAM-chloride (CANA auto injectors) [ref. c, sec. 5; ref. f, ch. 2]</td>
<td>A B E</td>
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<tr>
<td>.21</td>
<td>Nerve agent pyridostigmine bromide pretreatment [ref. f, ch. 2]</td>
<td>A B</td>
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<tr>
<td>.22</td>
<td>Ready shelter station [ref. b, sec. 5]</td>
<td>A B</td>
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<tr>
<td>.23</td>
<td>Deep shelter station [ref. b, sec. 5]</td>
<td>A B</td>
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<tr>
<td>.24</td>
<td>Personnel DECON station [ref. c, sec. 7]</td>
<td>A B</td>
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<tr>
<td>.25</td>
<td>CCA [ref. c, sec. 7]</td>
<td>A B</td>
<td></td>
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<tr>
<td>.26</td>
<td>Casualty collection station(s) [ref. c, sec. 7]</td>
<td>A B</td>
<td></td>
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</tr>
<tr>
<td>.27</td>
<td>Battle dressing station(s) [ref. a, ch. 2]</td>
<td>A B</td>
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<tr>
<td>.28</td>
<td>CMWD [ref. c, sec. 7]</td>
<td>A B C D E F</td>
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<tr>
<td>.29</td>
<td>Casualty DECON station [ref. c, sec. 6]</td>
<td>A B D E F</td>
<td></td>
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<tr>
<td>.30</td>
<td>RSDL [ref. c, sec. 6]</td>
<td>A B E F</td>
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</table>

(Signature and Date)

#### 214.2 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]

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

(Signature and Date)

#### 214.3 PARAMETERS/OPERATING LIMITS – None to be discussed.
214 Chemical, Biological, and Radiological (CBR) Detection and Decontamination Equipment System (Cont’d)

214.4 System Interface

214.4.1 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 M256A-1 [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)

214.5 Safety Precautions

214.5.1 What special safety precautions apply to:

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

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

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

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

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

f. Performing interior 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. M-256A1 chemical detection kit [ref. c, sec. 4]

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

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

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

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

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

___________________________________
(Signature and Date)
215  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

215.1  SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

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

(Signature and Date)

215.2  PRINCIPLES OF OPERATION

215.2.1 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)
215  CASUALTY POWER DISTRIBUTION SYSTEM (CONT’D)

215.3  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?

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

Questions

A B

A

___________________________________
(Signature and Date)

215.4  SYSTEM INTERFACE – None to be discussed.

215.5  SAFETY PRECAUTIONS

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

___________________________________
(Signature and Date)
216 Dewatering Equipment/Pumps System

References:

[a] NADEVTRA 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

216.1 System Components and Component Parts

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

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

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>216.1.1 Eductors (S-type, Peri-jet, Derbyshire) [ref. a, ch. 5; ref. d]</td>
</tr>
<tr>
<td>a. Supply/discharge hoses [ref. a, ch. 5; ref. d]</td>
</tr>
<tr>
<td>b. Overboard discharge fittings [ref. c, sec. 29; ref. d]</td>
</tr>
<tr>
<td>.2 Electric submersible pump [ref. a, ch. 5; ref. d]</td>
</tr>
<tr>
<td>a. Motor [ref. a, secs. 5, 26]</td>
</tr>
<tr>
<td>b. Electrical cable and switch box [ref. a, ch. 5]</td>
</tr>
<tr>
<td>c. Handling line [ref. a, ch. 5]</td>
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<tr>
<td>d. Strainers [ref. a, ch. 5]</td>
</tr>
<tr>
<td>e. Hoses [ref. a, ch. 5; ref. d]</td>
</tr>
<tr>
<td>.3 P-100 pump [ref. b, sec. 4; ref. d]</td>
</tr>
<tr>
<td>a. Exhaust primer valve</td>
</tr>
<tr>
<td>b. Primer hose assembly</td>
</tr>
<tr>
<td>c. Discharge valve and head assembly</td>
</tr>
<tr>
<td>d. Primer shutoff valve</td>
</tr>
<tr>
<td>e. Suction connection</td>
</tr>
<tr>
<td>f. Pump drain valve</td>
</tr>
<tr>
<td>g. Exhaust muffler</td>
</tr>
<tr>
<td>h. Air cleaner assembly</td>
</tr>
<tr>
<td>i. Fuel tank</td>
</tr>
<tr>
<td>j. Starter assembly</td>
</tr>
<tr>
<td>k. Throttle</td>
</tr>
</tbody>
</table>
216.1.3 I. Oil dipstick
m. Packing adjustment plunger
n. Pressure gage

(Signature and Date)

216.2 PRINCIPLES OF OPERATION

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

a. Use electrical submersible pumps in tandem
b. Increase the suction lift of the P-100 with eductor
c. Increase dewatering capability using an eductor on discharge side of P-100

(Signature and Date)

216.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions:

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

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

(Signature and Date)

216.4 SYSTEM INTERFACE

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

(Signature and Date)
216.5 SAFETY PRECAUTIONS

216.5.1 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)
217 CRASH AND SALVAGE EQUIPMENT SYSTEM

References:

[a] 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:

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

Questions

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

217.2 PRINCIPLES OF OPERATION

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

217.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

217.4 SYSTEM INTERFACE – None to be discussed.

217.5 SAFETY PRECAUTIONS

217.5.1 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)
218 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

218.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

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

(Signature and Date)

218.2 PRINCIPLES OF OPERATION

218.2.1 Draw a block diagram showing the locations of sprinkler groups. [ref. b]
.2 During what conditions are the conflagration stations manned? [ref. d, ch. 8]

(Signature and Date)
218 CONFLAGRATION STATION SYSTEM (CONT’D)

218.3 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

218.3.1 Firemain pressure

(Signature and Date)

218.4 SYSTEM INTERFACE

218.4.1 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)

218.5 SAFETY PRECAUTIONS

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

(Signature and Date)
219 PIPE REPAIR/PATCHING SYSTEM

References:

[a] NSTM S9086-CN-STM-020/CH-079V2R3, Damage Control, Practical Damage Control
[b] SS-100-AG-MAN-010, Damage Control and Firefighting Equipment Layout Booklet
[c] Emergency Water Activated Repair Patch (EWARP) Operating Procedures
[d] NAVSEA S5090-CL-MMC-010, Pipe Jumper Hose System (PJHS) Kit No. 1 and No. 2

219.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
</tr>
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<tbody>
<tr>
<td>219.1.1</td>
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<tr>
<td>Pipe patching kit [ref. a, sec. 42]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Hacksaw with spare 12-inch blades</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>b. Canvas-duck cloth</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>c. Wood chisel</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>d. Diver’s gloves</td>
<td>A</td>
<td></td>
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<tr>
<td>e. 1/8-to-2-inch pipe cutter</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>f. 2½-to-4-inch pipe cutter</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>g. Ball peen hammer</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>h. Hatchet</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>i. Tarred marline</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>j. Spun tarred oakum</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>k. Wooden tapered plugs of various sizes</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>l. Rubber sheet</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>m. Metal cutting saw</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>n. Tailor shears</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>o. Wooden tapered wedges of various sizes</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>.2 Banding kit [ref. a, sec. 42]</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>a. Clamping tool strap</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>b. Steel strapping/band-it buckle</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>c. Container</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>d. Gloves</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>e. Strong back</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>f. Chain wrench</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>
219.1.3 Jubilee pipe patches [ref. a, sec. 42]
   .4 EWARP [ref. b, sec. 1]

(Signature and Date)

220.2 PRINCIPLES OF OPERATION

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

(Signature and Date)

220.3 PARAMETERS/OPERATING LIMITS

219.3.1 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]

(Signature and Date)

219.4 SYSTEM INTERFACE

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

(Signature and Date)

219.5 SAFETY PRECAUTIONS

219.5.1 What special safety precautions apply to using the:

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

(Signature and Date)
220  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)

220.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

220.1.1 Plugging kit [ref. b, sec. 1; ref. c]

A B
a. Bag, kit/tool box portable
B
b. Caulking iron
B
c. Cold chisel
B
d. Ball peen hammer
B
e. C-type hatchet
B
e. Lathing hatchet
B
f. 5-pound maul
B
g. Spun tarred oakum
B
h. Tapered wood plugs
B
i. Hand saw
B
j. Shears
B
k. Wood wedges
B

.2 Box patch [ref. a, sec. 42]
A B
.3 Bucket patch [ref. a, sec. 42]
A B
.4 Square plate patch [ref. a, sec. 42]
A B
.5 Hinged plate patch [ref. a, sec. 42]
A B
.6 Hook bolts (T, J, and L type) [ref. a, sec. 42]
A B

Questions

(Signature and Date)

220.2 PRINCIPLES OF OPERATION – None to be discussed.

220.3 PARAMETERS/OPERATING LIMITS – None to be discussed.
220 PLUGGING KIT EQUIPMENT SYSTEM (CONT’D)

220.4 SYSTEM INTERFACE

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

___________________________________
(Signature and Date)

220.5 SAFETY PRECAUTIONS

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

___________________________________
(Signature and Date)
221 SHORING SYSTEM

References:

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

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: [ref. a, sec. 43; ref b]

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

221.1.1 Shoring tool kit
.2 Shoring material kit:
   a. Shoring lumber (wood) A B
   b. Shoring steel A B
   c. Wood wedges A B
   d. Steel wedges A B
.3 Strongback A B
.4 Shole A B
.5 Shoring batten A B

_________________________
(Signature and Date)

221.2 PRINCIPLES OF OPERATION – None to be discussed.

221.3 PARAMETERS/OPERATING LIMITS

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

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

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

_________________________
(Signature and Date)
221.4 SYSTEM INTERFACE

221.4.1 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)

221.5 SAFETY PRECAUTIONS

221.5.1 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)
222 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM

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

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:

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

Questions

222.1.1 Computer based DC Management system? [ref. a, sec. 39]

______________________________
(Signature and Date)

222.2 PRINCIPLES OF OPERATION – None to be discussed.

222.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

222.4 SYSTEM INTERFACE

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

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

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

______________________________
(Signature and Date)
222 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM (CONT’D)

222.5 SAFETY PRECAUTIONS

222.5.1 What safety precautions must be observed when operating this system?
[ref. b, sec. 1]

___________________________________
(Signature and Date)
223.1 SYSTEM COMPONENTS AND COMPONENT PARTS

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

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

Questions

223.1.1 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
   14. Pilot switch
   15. In-line filter

References:

[a] S6226-PD-MMO-010/07070R2, Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)
[c] Electric High Pressure Air Compressor Manufacturer Technical Manual
[d] NSTM S9086-QH-STM-010/CH-470R4, Shipboard BW/CW Defense and Countermeasures/N-70CP-NTSP-S-30-0001A,
223  SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)

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

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

.3  Electric HP breathing air compressor [ref. c, ch, 1]
  a.  Electric compressor drive belt  AB  
  b.  LO  AB  
  c.  Relief valves  AB  
  d.  Low LO shut down switch  AB  
  e.  Final discharge air regulating pressure valve  AB  
  f.  HP flasks  AB  
  g.  Breathing air charging panel  AB
SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)

223.1.3 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

(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 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

(Signature and Date)

223.3 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?

223.3.1 Filtered air outlet pressure gage
  2 Filtered air inlet pressure gage
  3 Drive air bleed valve
  4 Regulated air pressure gage
  5 Drive air inlet pressure gage
  6 Filtered air inlet valve
  7 Drive air control valve
  8 Drive air regulator
  9 HPFA gauge

Questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
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<tbody>
<tr>
<td>Filtered air outlet pressure gage</td>
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<tr>
<td>Filtered air inlet pressure gage</td>
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<td>Drive air bleed valve</td>
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<td>Regulated air pressure gage</td>
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<td>Drive air inlet pressure gage</td>
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<tr>
<td>Filtered air inlet valve</td>
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<tr>
<td>Drive air control valve</td>
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<tr>
<td>Drive air regulator</td>
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<tr>
<td>HPFA gauge</td>
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</tbody>
</table>
223 **SELF-CONTAINED BREATHING APPARATUS (SCBA) BREATHING AIR CHARGING SYSTEM (BACS) (CONT’D)**

<table>
<thead>
<tr>
<th>Questions</th>
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<tbody>
<tr>
<td>223.3.10 Shut-off valve</td>
<td>A B</td>
</tr>
<tr>
<td>.11 Bleed valve</td>
<td>A B</td>
</tr>
<tr>
<td>.12 Drain valve</td>
<td>A B</td>
</tr>
<tr>
<td>.13 H₂O/CO indicator</td>
<td>A B</td>
</tr>
<tr>
<td>.14 Relief valve</td>
<td>A B</td>
</tr>
<tr>
<td>.15 Shut-off knob (hose isolation valve)</td>
<td>A B</td>
</tr>
<tr>
<td>.16 Bleed handle (hose isolation valve)</td>
<td>A B</td>
</tr>
<tr>
<td>.17 Back pressure regulator</td>
<td>A B</td>
</tr>
<tr>
<td>.18 Pressure regulator</td>
<td>A B</td>
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</tbody>
</table>

(Signature and Date)

223.4 **SYSTEM INTERFACE**

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

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

(Signature and Date)

223.4 **SAFETY PRECAUTIONS**

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

(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-K).

RECOMMENDED __________________________________________________________________________ DATE ______________
Supervisor

RECOMMENDED __________________________________________________________________________ DATE ______________
Division Officer

RECOMMENDED __________________________________________________________________________ DATE ______________
Department Head

QUALIFIED ______________________________________________________________________________ DATE ______________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY ______________________________________________________________________ DATE ______________
301 BASIC DAMAGE CONTROL (DC) COMMUNICATIONS

Estimated completion time: 2 weeks

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 ________________________________ 3% of Watchstation
(Qualifier and Date)
301 BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)

301.2 TASKS

For the tasks listed below:

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

301.2.1 Obtain and inspect DC communications equipment IAW EDROM (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 Transmit messages using standard phraseology IAW NSTM 079, Vol. 2 (2 times)

A B D

(Signature and Date)

(Signature and Date)

.4 Receive and record messages using standard DC symbology IAW NSTM 079, Vol. 2 (2 times)

A B D

(Signature and Date)

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

301.2.5 Secure and stow DC communications equipment IAW EDORM (2 times)  

Questions: A B D

________________________
(Signature and Date)

________________________
(Signature and Date)

.6 Deliver an oral and a written message IAW NSTM 079, Vol. 2 (2 times)  

Questions: A B C D

________________________
(Signature and Date)

________________________
(Signature and Date)

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

Questions: A C D

________________________
(Signature and Date)

________________________
(Signature and Date)

.8 Identify equipment in emergency communications kit IAW AEL (2 times)  

Questions: B D

________________________
(Signature and Date)

________________________
(Signature and Date)

.9 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)
301 BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)

301.2.10 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 42% OF WATCHSTATION.

301.3 INFREquent TASKS

For the infrequent tasks listed below:

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

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

Questions

A B D E

(Signature and Date)

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

Questions

A B D E

(Signature and Date)

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

Questions

A B C D E

(Signature and Date)

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

Questions

A B C D E

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 24% OF WATCHSTATION.
301 BASIC DAMAGE CONTROL (DC) COMMUNICATIONS (CONT’D)

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 IAW NSTM 079, Vol. 2

(Signature and Date)

COMPLETED .4 AREA COMPRISSES 9% OF WATCHSTATION.

301.5 EMERGENCIES – None to be discussed.

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.
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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 FIRST-AID (NAVEDTRA 43119-K).

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 this task.

302.2.1 Demonstrate patient evaluation procedures IAW BMR

___________________________________

(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)

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 BMR (3 times)

(Signature and Date)

(Signature and Date)

(Signature and Date)

302.3.2 Rescue victim from an energized circuit IAW BMR

(Signature and Date)

302.3.3 Control hemorrhage by direct pressure IAW BMR

(Signature and Date)
302.3.4 Control hemorrhage by tourniquet IAW BMR

(Signature and Date)

.5 Control hemorrhage by using pressure points IAW BMR

(Signature and Date)

.6 Treat for shock IAW BMR

(Signature and Date)

.7 Apply a splint to a simple fracture IAW BMR

(Signature and Date)

.8 Apply a splint to a compound fracture IAW BMR

(Signature and Date)

.9 Treat a heat exhaustion casualty IAW BMR

(Signature and Date)

.10 Treat a heat stroke casualty IAW BMR

(Signature and Date)

.11 Treat a heat cramps casualty IAW BMR

(Signature and Date)

.12 Treat a first degree burn IAW BMR

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

302.3.13  Treat a second degree burn IAW BMR

(Signature and Date)

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

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

302.6  **WATCHES** — None.

302.7  **EXAMINATIONS** — None.

**COMPLETED .3 AREA COMPRISES 80% OF WATCHSTATION.**
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-K).

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)

.2 WATCHSTATIONS FROM THIS PQS:

302 Basic First-Aid

Completed _____________________________________
(Qualifier and Date)

.3 FUNDAMENTALS FROM THIS PQS:

103 Firefighting

Completed _____________________________________ 1% of Watchstation
(Qualifier and Date)

.4 SYSTEMS FROM THIS PQS:

203 Self-Contained Breathing Apparatus (SCBA)

Completed _____________________________________ 1% of Watchstation
(Qualifier and Date)

204 Personal Protective Clothing Equipment

Completed _____________________________________ 1% of Watchstation
(Qualifier and Date)
303.1.4 206  Portable Firefighting Equipment
Completed_________________________________________ 1% of Watchstation
(Qualifier and Date)

207  Portable Damage Control (DC) Equipment
Completed_________________________________________ 1% of Watchstation
(Qualifier and Date)

208  Installed Fire Extinguishing
Completed_________________________________________ 1% of Watchstation
(Qualifier and Date)

209  Aqueous Film Forming Foam (AFFF)
Completed_________________________________________ 1% of Watchstation
(Qualifier and Date)

210  Firemain
Completed_________________________________________ 1% of Watchstation
(Qualifier and Date)

211  Access/Overhaul Equipment
Completed_________________________________________ 1% of Watchstation
(Qualifier and Date)

212  Ventilation
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 this task.

**Questions**

303.2.1  Don and doff FFE/FPG IAW NSTM 077  

___________________________________  

(Signature and Date)

.2  Relieve nozzle position on charged hose IAW NSTM 555  

___________________________________  

(Signature and Date)

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

___________________________________  

(Signature and Date)

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

___________________________________  

(Signature and Date)

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

___________________________________  

(Signature and Date)

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

___________________________________  

(Signature and Date)
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. Saltwater sprinkling system

(Signature and Date)

e. HALON/HFP system

(Signature and Date)

f. APC extinguishing system (range guard)

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

**Questions**

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**303.2.9 Questions**

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<td>g. Freshwater hose reel</td>
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<td>h. AFFF hose reel</td>
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<td>i. Water Mist system remotely/locally</td>
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.10 Locate the following items and demonstrate the ability to use them IAW NSTM 555:

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<tr>
<td>a. AFFF in-line eductor</td>
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<td>b. Smoke curtains</td>
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<td>c. Smoke blankets</td>
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<td>d. Thermal imager</td>
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<td>e. PECU</td>
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<td>f. Ramfan</td>
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(Framebuffer and Date)
303 BASIC FIREFIGHTING (CONT’D)

303.2.10  
g. Box fan

(Signature and Date)

h. Portable firefighting pump (P-100) and related equipment

(Signature and Date)

j. PHARS

(Signature and Date)

k. Power hawk

(Signature and Date)

l. Portable CO₂ extinguisher

(Signature and Date)

m. Portable AFFF extinguisher

(Signature and Date)

n. Portable PKP extinguishers

(Signature and Date)

o. Overhaul equipment

(Signature and Date)
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)

d. Flooding boundaries

(Signature and Date)

e. Toxic boundaries

(Signature and Date)

COMPLETED.2 AREA COMPRISES 30% OF WATCHSTATION.

303.3 INFREQUENT TASKS

For the infrequent tasks listed below:

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

303.3.1 Ventilate compartments IAW NSTM 555

(Signature and Date)

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

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

303.3.3  Perform indirect firefighting procedures IAW NSTM 555  

(Signature and Date)

.4  Perform fog firefighting procedures IAW NSTM 555  

(Signature and Date)

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

(Signature and Date)

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

303.4  **ABNORMAL CONDITIONS**

For the abnormal conditions listed below:

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

303.4.1  Loss of breathing air IAW NSTM 555  

(Signature and Date)

.2  SCBA quick charge IAW NSTM 555  

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

303.4.3 Loss of ship’s electrical power IAW NSTM 555

(Signature and Date)

.4 Improperly stowed hazardous/combustible materials
IAW NSTM 079, Vol. 2

(Signature and Date)

.5 Loss of HP air IAW EOSS

(Signature and Date)

.6 Ruptured hose IAW NSTM 555

(Signature and Date)

.7 Clogged vari-nozzle IAW NSTM 555

(Signature and Date)

.8 Compartment obstructed by debris IAW NSTM 555

(Signature and Date)

COMPLETED .4 AREA COMPRISSES 15% OF WATCHSTATION.
303 BASIC FIREFIGHTING (CONT’D)

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.

Questions

303.5.1 Fire in Ventilation system IAW NSTM 555

A B C D E F G H

(Signature and Date)

.2 Fire reflash IAW NSTM 555

A B C D E F G H

(Signature and Date)

.3 Wild hose IAW NSTM 555

A B C D E F G H

(Signature and Date)

.4 Loss of firemain pressure IAW NSTM 555

A B C D E F G H

(Signature and Date)

.5 Loss of fire boundaries IAW NSTM 555

A B C D E F G H

(Signature and Date)

.6 Class A fire IAW EOCC

A B C D E F G H

(Signature and Date)

.7 Class B fire IAW EOCC

A B C D E F G H

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

303.5.8  Class C fire IAW EOCC

(Signature and Date)

303.6  **WATCHES**

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

Plugman (during drills) (2 times)

(Signature and Date)

Boundaryman (during drills) (2 times)

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

303.6.1 Accessman/Overhaulman (during drills) (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISSES 20% OF WATCHSTATION.

303.7 EXAMINATIONS – None.
304  FIRE WATCH STANDER

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 FIRE WATCH STANDER (NAVEDTRA 43119-K).

RECOMMENDED__________________________ DATE______________
    Supervisor

RECOMMENDED__________________________ DATE______________
    Division Officer

RECOMMENDED__________________________ DATE______________
    Department Head

QUALIFIED__________________________ DATE______________
    Commanding Officer or Designated Representative

SERVICE RECORD ENTRY__________________________ DATE______________
304 FIRE WATCH STANDER

Estimated completion time: 2 weeks

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)

108 Fire Watch

Completed ________________________________ 7% of Watchstation
(Qualifier and Date)

304.2 TASKS

For the tasks listed below:

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

304.2.1 Obtain and inspect equipment/PPE IAW NSTM 555

Questions A B C E F

___________________________________
(Signature and Date)

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

Questions A B C D E F

___________________________________
(Signature and Date)
304 FIRE WATCH STANDER (CONT’D)

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 555

(Signature and Date)

COMPLETED .2 AREA COMPRISES 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 IAW NSTM 555

(Signature and Date)

.2 Excessive smoke/fumes from hot-work IAW NSTM 074, Vol. 1

(Signature and Date)

.3 Fuel spill IAW NSTM 555

(Signature and Date)

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

304.5 **EMERGENCIES**

For the emergencies listed below:

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

**Questions**

304.5.1 Fire IAW NSTM 555

A B C D E F G H

(Signature and Date)

.2 Loss of communications with hot-work operator IAW NSTM 074, Vol. 1

A B C D E F G H

(Signature and Date)

.3 Fire extinguishing equipment malfunctions IAW NSTM 555

A B C D E F G H

(Signature and Date)

**COMPLETED .5 AREA COMPRISES 22% OF WATCHSTATION.**

304.6 **WATCHES**

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

Fire Watch Stander (2 times)

(Signature and Date)

(Signature and Date)

**COMPLETED .6 AREA COMPRISES 14% OF WATCHSTATION.**

304.7 **EXAMINATIONS** – None.

155
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-K).

RECOMMENDED________________________DATE________________
Supervisor

RECOMMENDED________________________DATE________________
Division Officer

RECOMMENDED________________________DATE________________
Department Head

QUALIFIED________________________DATE________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________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 qualified BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE (NAVEDTRA 43119-K).

RECOMMENDED________________________DATE________________
Supervisor

RECOMMENDED________________________DATE________________
Division Officer

RECOMMENDED________________________DATE________________
Department Head

QUALIFIED________________________DATE________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________DATE________________

NAME________________________RATE/RANK____________________

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

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

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)

212 Ventilation

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

305.1.3 214 Chemical, Biological, and Radiological (CBR) Detection and Decontamination Equipment

Completed ___________________________________ 5% of Watchstation
(Qualifier and Date)

305.2 **TASKS**

For the tasks listed below:

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

305.2.1 Locate DECON/CCA stations IAW NSTM 470

___________________________________
(Signature and Date)

.2 Transit through a CCA and DECON station IAW NSTM 470

___________________________________
(Signature and Date)

.3 Locate casualty collection stations IAW NSTM 470

__________________
(Signature and Date)

.4 Locate deep shelter stations IAW NSTM 470

__________________
(Signature and Date)

.5 Don and doff chemical protective ensemble IAW NSTM 470

__________________
(Signature and Date)
305.2.6 Change protective mask canister IAW NSTM 470

(Signature and Date)

.7 Use the M-291/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)
305.2.14 Set up a sanitary space DECON station IAW NSTM 470

(Signature and Date)

Completed .2 Area comprises 45% 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 IAW NSTM 470

(Signature and Date)

.2 Chemical attack IAW NSTM 470

(Signature and Date)

.3 Biological attack IAW NSTM 470

(Signature and Date)

.4 Nuclear radiation exposure IAW NSTM 470

(Signature and Date)
Chemical agent exposure IAW NSTM 470:

- Nerve (A B C D E F G)
- Blister (A B C D E F G)
- Blood (A B C D E F G)

Biological agent exposure IAW NSTM 470:

- Toxins (A B C D E F G)
- Pathogens (A B C D E F G)

Completed .5 area comprises 30% of watchstation.

Watches – None.

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 qualified BASIC DAMAGE CONTROL (DC) (NAVEDTRA 43119-K).

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:

303 Basic Firefighting
Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

304 Fire Watch Stander
Completed ___________________________________ 1% of Watchstation
(Qualifier and Date)

305 Basic Chemical, Biological, and Radiological (CBR) Defense
Completed ___________________________________ 1% of Watchstation
(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)
306.1.2 113 Investigation
Completed ________________________________ 1% of Watchstation
(Qualifier and Date)

.3 SYSTEMS FROM THIS PQS:

202 Emergency Escape Breathing Device (EEBD)
Completed ________________________________ 1% of Watchstation
(Qualifier and Date)

213 Installed Drainage
Completed ________________________________ 1% of Watchstation
(Qualifier and Date)

215 Casualty Power Distribution
Completed ________________________________ 1% of Watchstation
(Qualifier and Date)

216 Dewatering Equipment/Pumps
Completed ________________________________ 1% of Watchstation
(Qualifier and Date)

223 Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System
(BACS)
Completed ________________________________ 1% of Watchstation
(Qualifier and Date)

306.2 TASKS

For the tasks listed below:

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

306.2.1 Dog and undog individually dogged watertight doors IAW
NSTM 079, Vol. 2

Questions

A B E F

(Signature and Date)
306.2.2 Dog and undog quick-acting watertight doors IAW NSTM 079, Vol. 2

(Signature and Date)

.3 Dog and undog a watertight hatch IAW NSTM 079, Vol. 2

(Signature and Date)

.4 Dog and undog a raised scuttle/flush deck scuttle IAW NSTM 079, Vol. 2

(Signature and Date)

.5 Dog and undog a ballistic hatch IAW NSTM 079, Vol. 2

(Signature and Date)

.6 Dog and undog a ballistic scuttle IAW NSTM 079, Vol. 2

(Signature and Date)

.7 Open and close deck drains IAW NSTM 079, Vol. 2

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

Log DC fittings open/closed in the closure log IAW NSTM 079, Vol. 2
(2 times)

(Signature and Date)

Set modified condition ZEBRA IAW NSTM 079, Vol. 2

(Signature and Date)

Demonstrate proper procedures for reporting emergencies IAW NSTM 555*

(Signature and Date)

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

(Signature and Date)

Demonstrate proper battle dress IAW NSTM 079, Vol. 2

(Signature and Date)
30620 Transit to assigned battle station using proper traffic routes IAW SOP

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.23 Isolate ventilation systems in assigned area IAW EOSS

(Signature and Date)

.24 Set and maintain flooding boundaries IAW NSTM 555

(Signature and Date)

.25 Transit through CPS air lock and maintain zone pressurization IAW NSTM 079, Vol. 2

(Signature and Date)

.26 Identify and report material conditions of readiness discrepancies IAW SOP

(Signature and Date)

COMPLETED .2 AREA COMPRISSE 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

Questions

A B C D F G

(Signature and Date)

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

A B C D F G

(Signature and Date)

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

A B C D E F G

(Signature and Date)

.4 Align/secure an installed eductor IAW NSTM 079, Vol. 2

A B C D E F G

(Signature and Date)

COMPLETED .3 AREA COMPRISES 10% OF WATCHSTATION.
306 BASIC DAMAGE CONTROL (DC) (CONT’D)

306.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

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

Questions

306.4.1 Violations of material conditions of readiness IAW NSTM 079, Vol. 2

(Signature and Date)

.2 Improperly stowed materials and equipment IAW NSTM 079, Vol. 2

(Signature and Date)

COMPLETED .4 AREA COMPRISES 10% OF WATCHSTATION.

306.5 EMERGENCIES

For the emergencies listed below:

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

Questions

306.5.1 Presence of unusual odors or vapors IAW NSTM 555

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

306.5.2 Ruptured pipes/flooding IAW NSTM 079, Vol. 2

(Signature and Date)

.3 Loss of flooding boundaries IAW NSTM 079, Vol. 2

(Signature and Date)

.4 Progressive flooding IAW NSTM 079, Vol. 2

(Signature and Date)

.5 Failed isolation valves IAW NSTM 079, Vol. 2

(Signature and Date)

.6 HAZMAT spill IAW NSTM 555

(Signature and Date)

COMPLETED .5 AREA COMPRISSES 10% OF WATCHSTATION.

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)
306 BASIC DAMAGE CONTROL (DC) (CONT’D)

306.6.1 Flooding Boundaryman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

Hoseman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

Nozzleman (during drills) (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA 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-K).

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:

219 Pipe Repair/Patching
Completed ___________________________________ 2% of Watchstation (Qualifier and Date)

220 Plugging Kit Equipment
Completed ___________________________________ 2% of Watchstation (Qualifier and Date)

221 Shoring
Completed ___________________________________ 2% of Watchstation (Qualifier and Date)
307 Advanced Damage Control (DC) (Cont’d)

307.2 Tasks

For the tasks listed below:

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

307.2.1 Take, record, and report soundings on all tanks/voids within
DC repair station areas/adjacent areas IAW NSTM 079, Vol. 2

Questions

A B C D E F G

(Signature and Date)

.2 Inventory and inspect a plugging kit IAW AEL

G

(Signature and Date)

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

A B C D E F G

(Signature and Date)

.4 Inventory and inspect a shoring tool kit IAW AEL

G

(Signature and Date)

.5 Locate shoring materials in assigned areas IAW AEL

G

(Signature and Date)

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

A B C D E F G

(Signature and Date)
307.2.7 Construct H-type shoring IAW NSTM 079, Vol. 2

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

.11 Describe the duties of a shoring watch IAW AEL

(Signature and Date)

.12 Inventory and inspect a pipe patching kit IAW AEL

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)

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

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

(Signature and Date)

.17 Perform pipe repair using a banding kit IAW AEL

(Signature and Date)

.18 Restore repaired piping systems IAW NSTM 555

(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 NWP 3-20.31

(Signature and Date)

.22 Rig, operate, secure, and stow an electric submersible pump IAW NWP 3-20.31

(Signature and Date)

COMPLETED .2 AREA COMPRISES 46% OF WATCHSTATION.
307  ADVANCED DAMAGE CONTROL (DC) (CONT’D)

307.3  INFREQUENT TASKS

For the infrequent tasks listed below:

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

307.3.1  Use submersible pumps in tandem IAW NSTM 555

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 NWP 3-20.31

Questions
A B C D E G H

(Signature and Date)

.4  Rig a submersible pump with a suction hose IAW NWP 3-20.31

Questions
A B C D E G H

(Signature and Date)

.5  Control/combat structural damage in a CBR contaminated environment IAW NSTM 470

Questions
A B C D E G H

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 24% OF WATCHSTATION.

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

307.5 **EMERGENCIES**

For the emergencies listed below:

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

307.5.1 Pressurized sounding tube IAW NWP 3-20.31

Questions

A B C D E F G

(Signature and Date)

.2 Progressive flooding IAW NWP 3-20.31

A B C D E F G

(Signature and Date)

.3 Ruptured fuel piping IAW NWP 3-20.31

A B C D E F G

(Signature and Date)

.4 Ruptured toxic liquid lines IAW NWP 3-20.31

A B C D E F G

(Signature and Date)

.5 Progressive crack/split seam IAW NWP 3-20.31

A B C D E F G

(Signature and Date)

.6 Shoring collapses IAW NWP 3-20.31

A B C D E F G

(Signature and Date)

.7 Loss of firemain IAW NWP 3-20.31

A B C D E F G

(Signature and Date)
307 ADVANCED DAMAGE CONTROL (DC) (CONT’D)

307.5.8 Loss of electrical power IAW NWP 3-20.31

(Signature and Date)

.9 OOC/inoperative fitting IAW NWP 3-20.31

(Signature and Date)

COMPLETED .5 AREA COMPRISES 16% OF WATCHSTATION.

307.6 WATCHES

307.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Plugging Team Member (during drills)

(Signature and Date)

Shoring Team Member (during drills)

(Signature and Date)

Pipe Patching Team Member (during drills)

(Signature and Date)

Dewatering Team Member (during drills)

(Signature and Date)

COMPLETED .6 AREA COMPRISES 8% 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-K).

RECOMMENDED__________________________________________ DATE_________________
 Supervisor

RECOMMENDED__________________________________________ DATE_________________
Division Officer

RECOMMENDED__________________________________________ DATE_________________
Department Head

QUALIFIED____________________________________________ DATE_________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY__________________________________ DATE_________________
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 this task.

308.2.1  Coordinate efforts of Attack Team using the thermal imager IAW NSTM 555

Questions

   A B C D E F

........................................
(Signature and Date)

.2  Lead efforts of Attack Team while accessing from above IAW NSTM 555

   A B C D E F

........................................
(Signature and Date)

.3  Lead efforts of Attack Team in an indirect attack IAW NSTM 555

   A B C D E F

........................................
(Signature and Date)
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)

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

(Signature and Date)

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

(Signature and Date)

.7 Direct evacuation of the Attack Team IAW NSTM 555

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

308.2.8 Assist in the employment of heat management techniques IAW NSTM 555

Questions
A B C D E F

(Signature and Date)

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

Questions
A B C D E F

(Signature and Date)

COMPLETED .2 AREA COMPRISES 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

Questions
A B C D E

(Signature and Date)

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

Questions
A B C D E

(Signature and Date)

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

Questions
A B C D E

(Signature and Date)

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

Questions
A B C D E

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

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

(A Signature and Date)

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

(A Signature and Date)

**COMPLETED .3 AREA COMPRISES 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 IAW NSTM 555

(A Signature and Date)

.2 Loss of one or more Attack Team members while combating the fire IAW NSTM 555

(A Signature and Date)

.3 Fire out of control IAW NSTM 555

(A Signature and Date)

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

192
308 TEAM LEADER (CONT’D)

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 COMPRISES 16% OF WATCHSTATION.

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

308.7.1 EXAMINATIONS Pass a written examination

___________________________________
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

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

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

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

RECOMMENDED________________________________DATE_________________
Supervisor

RECOMMENDED________________________________DATE_________________
Division Officer

RECOMMENDED________________________________DATE_________________
Department Head

QUALIFIED________________________________DATE_________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________DATE__________

195
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) and Navy Selected
Area Collective Protection System (SACPS) (NAVSEA-CPS-1.0) (REQUIRED)
(If applicable)
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 NSTM 470

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

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

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)
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 radiac IAW NSTM 470 (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 chemical detection training kit IAW AEL (2 times)  
___________________________________  
(Signature and Date)  
___________________________________  
(Signature and Date)  

.9 Post, read, and report results of M8 and M9 paper IAW NSTM 470  
___________________________________  
(Signature and Date)
309.2.10 Conduct on-station monitoring for chemical agents (M-256, IPDS) IAW NSTM 470 (2 times)  

(Signature and Date)  

(Signature and Date)  

.11 Conduct rapid and detailed internal and external detailed chemical surveys using M8/ M9 (simulated) paper and a M256A1 chemical detection training kit IAW AEL (2 times)  

(Signature and Date)  

(Signature and Date)  

.12 Conduct rapid and detailed radiological internal/external surveys (MFR) IAW NSTM 470 (2 times)  

(Signature and Date)  

(Signature and Date)  

.13 Collect biological sample using the DFU IAW NSTM 470 (2 times)  

(Signature and Date)  

(Signature and Date)  

.14 Collect biological sample using the JBPDS IAW NSTM 470 (2 times)  

(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 AEL

(Signature and Date)

Questions
A B C E F G

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

(Signature and Date)

(Signature and Date)

(Signature and Date)

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

(Signature and Date)

(Signature and Date)

.18 Setup a DECONDECONDECON station IAW CBR Bill (2 times)

(Signature and Date)

(Signature and Date)

.19 Test/operate DECON showers/hand held nozzles IAW CBR Bill

(Signature and Date)

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

(Signature and Date)
<table>
<thead>
<tr>
<th>309.2.21</th>
<th>Perform radiation background readings in DECON station IAW CBR Bill (2 times)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Signature and Date)</td>
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<tr>
<td></td>
<td>(Signature and Date)</td>
</tr>
<tr>
<td>.22</td>
<td>Read the IM-270 dosimeter and record the reading in the IM-270 Log IAW NSTM 470</td>
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<td>(Signature and Date)</td>
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<td>.23</td>
<td>Decontaminate and secure a DECON station and CCA/CTA during recovery phase IAW CBR Bill</td>
</tr>
<tr>
<td></td>
<td>(Signature and Date)</td>
</tr>
<tr>
<td>.24</td>
<td>Demonstrate gross DECON procedures prior to CCA/CTA entry IAW CBR Bill (2 times)</td>
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<td>(Signature and Date)</td>
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<td></td>
<td>(Signature and Date)</td>
</tr>
<tr>
<td>.25</td>
<td>Remove protective clothing from contaminated personnel IAW NSTM 470 (2 times)</td>
</tr>
<tr>
<td></td>
<td>(Signature and Date)</td>
</tr>
<tr>
<td></td>
<td>(Signature and Date)</td>
</tr>
</tbody>
</table>
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 CBR Bill (2 times)  

(Signature and Date)

(Signature and Date)

28 Control traffic through a DECON station IAW CBR Bill (2 times)  

(Signature and Date)

(Signature and Date)

29 Demonstrate proper procedures when detecting radiation on personnel using MFR IAW NSTM 470 (2 times)  

(Signature and Date)

(Signature and Date)

30 Test for phosgene gas using the Draeger and Drager tubes IAW EOSS (2 times)  

(Signature and Date)

(Signature and Date)

Completed .2 area comprises 70% of watchstation.
309.3 **INFREQUENT TASKS** – None to be discussed.

309.4 **ABNORMAL CONDITIONS**

For the abnormal conditions listed below:

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

**Questions**

309.4.1 Malfunctioning or contaminated radiac IAW NSTM 555 (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.2 Loss of CPS/SACPS zone pressure IAW NSTM 470 (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)

.3 Over-pressurization of CPS/SACPS zone IAW NSTM 470 (2 times)

___________________________________
(Signature and Date)

___________________________________
(Signature and Date)
Questions 309.3.4 Low CPS/SACPS zone pressure IAW NSTM 470 (2 times) A B C D E F G

(Signature and Date)

(Signature and Date)

COMPLETED .4 AREA COMPRICES 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.

Questions 309.5.1 Contaminated personnel casualty IAW NSTM 470 (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

.2 Contaminated DECON station IAW NSTM 470 (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

.3 Low CPS zone pressure IAW NSTM 470 (2 times) A B C D E F

(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 IAW NSTM 470 (2 times)

(Signature and Date)

(Signature and Date)

.5 Pressure boosting CPS/SACPS zone IAW NSTM 470

(Signature and Date)

COMPLETED .5 AREA COMPRIS 10% OF WATCHSTATION.

309.6 WATCHES

309.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Radiac Operator

(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)

COMPLETED .6 AREA COMPRISSES 10% 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)
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 FIRST-AID/STRETCHER BEARER (NAVEDTRA 43119-K).

RECOMMENDED_________________________________ DATE____________
Supervisor

RECOMMENDED_________________________________ DATE____________
Division Officer

RECOMMENDED_________________________________ DATE____________
Department Head

QUALIFIED_________________________________ DATE____________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_________________________________ DATE____________
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 this task.

310.2.1 Demonstrate triage procedures IAW NAVEDTRA 14295

Questions
A B C D E F

(Signature and Date)

.2 Demonstrate CPR IAW NAVEDTRA 14295

A B C D E F

(Signature and Date)

.3 Transport personnel casualties through a passageway IAW NSTM 555

A B C D E F

(Signature and Date)

.4 Transport personnel casualties up and down ladders IAW NSTM 555

A B C D E F

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

310.2.5 Transport personnel casualties through a scuttle IAW NSTM 555

(Signature and Date)

.6 Transport personnel casualties through a hatch IAW NSTM 555

(Signature and Date)

.7 Transport personnel casualties through a vertical trunk 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 kit/box IAW AEL

(Signature and Date)

COMPLETED .2 AREA COMPRISES 56% OF WATCHSTATION.

310.3 INFREQUENT TASKS

For the infrequent tasks listed below:

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

310.3.1 Constrain/assist with a panicked or irrational personnel IAW SOP

(Signature and Date)
310 Advanced First-Aid/Stretcher Bearer (Cont’d)

310.3.2 Demonstrate the use of the bag-valve-mask system IAW NAVEDTRA 14295

Questions

(A B C D E F)

(Signature and Date)

Completed .3 Area comprises 13% of watchstation.

310.4 Abnormal Conditions— None to be discussed.

310.5 Emergencies

For the emergencies listed below:

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

Questions

(A B C D E F G H)

(Signature and Date)

Completed .5 Area comprises 6% of watchstation.
310  ADVANCED FIRST-AID/STRETCHER BEARER (CONT’D)

310.6  WATCHES

310.6.1  STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

  Stretcher Bearer (during drills) (4 times)

  __________________________________________
  (Signature and Date)

  __________________________________________
  (Signature and Date)

  __________________________________________
  (Signature and Date)

  __________________________________________
  (Signature and Date)

COMPLETED .6 AREA COMPRISES 25% OF WATCHSTATION.

310.7  EXAMINATIONS (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)
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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 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (NAVEDTRA 43119-K).

RECOMMENDED________________________________________________ DATE________________
  Supervisor

RECOMMENDED________________________________________________ DATE________________
  Division Officer

RECOMMENDED________________________________________________ DATE________________
  Department Head

QUALIFIED________________________________________________ DATE________________
  Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________________ DATE________________
WATCHSTATION 311

311  AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR

Estimated completion time: 4 weeks

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 ________________________________ 5% of Watchstation
(Qualifier and Date)

.3 SYSTEMS FROM THIS PQS:

209  Aqueous Film Forming Foam (AFFF)

Completed ________________________________ 5% of Watchstation
(Qualifier and Date)

311.2 TASKS

For the tasks listed below:

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

311.2.1 Man an AFFF station and establish communications IAW SOP

___________________________________
(Signature and Date)

Questions
A B C D G
311 AQUEOUS FILM FORMING FOAM (AFFF)/TRANSFER STATION OPERATOR (CONT’D)

311.2.2 Verify system alignment using applicable documentation IAW SOP

(Signature and Date)

Questions

.3 Operate an AFFF system IAW SOP (2 times)

(Signature and Date)

(Signature and Date)

(Signature and Date)

.4 Identify on-station alarms and indicators IAW SOP

(Signature and Date)

.5 Replenish AFFF tanks manually IAW SOP

(Signature and Date)

.6 Operate the AFFF transfer system IAW SOP

(Signature and Date)

.7 Operate an AFFF mixing station IAW SOP

(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 Manually operate an AFFF system IAW SOP

(Signature and Date)

.2 Align system for operation using cross-connect IAW SOP

(Signature and Date)

COMPLETED .3 AREA COMPRISES 6% 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 AFFF transfer system is unusable or fails IAW SOP

(Signature and Date)

COMPLETED .4 AREA COMPRISES 6% OF WATCHSTATION.
311.5 **EMERGENCIES**

For the emergencies listed below:

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

**Questions**  
311.5.1 Loss of electrical power IAW EOSS  

__________________________  
(Signature and Date)  

.2 Loss of firemain pressure IAW EOSS  

__________________________  
(Signature and Date)  

.3 Loss of AFFF IAW EOSS  

__________________________  
(Signature and Date)  

.4 Failed valves/SOPV IAW EOSS  

__________________________  
(Signature and Date)  

.5 Loss of communications IAW EOSS  

__________________________  
(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 COMPRISSES 18% 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-K).

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 __________________________________________

(Qualifier and Date)

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

Completed __________________________________________

(Qualifier and Date)

310 Advanced First-aid/Stretcher Bearer

Completed __________________________________________

(Qualifier and Date)

311 Aqueous Film Forming Foam (AFFF)/Transfer Station Operator

Completed __________________________________________

(Qualifier and Date)

312.2 TASKS

For the tasks listed below:

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

312.2.1 Conduct a continuous investigation of the assigned area

IAW NSTM 555

Questions

A B C D E G

(Signature and Date)
312.2.2 Make reports to the Scene Leader and controlling station using standard phraseology and symbology IAW NSTM 555

(Signature and Date)

.3 Sound tanks and voids IAW NSTM 555

(Signature and Date)

.4 Investigate watertight closures IAW NSTM 555

(Signature and Date)

.5 Investigate bulkhead, deck, and overhead penetrations IAW NSTM 555

(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 555

(Signature and Date)

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

(Signature and Date)

COMPLETED .2 AREA COMPRISES 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 IAW SOP

(Signature and Date)

.2  Inability to locate other investigator IAW SOP

(Signature and Date)

.3  Smoke/fire/flooding/toxic boundaries compromised IAW NSTM 555

(Signature and Date)

COMPLETED .4 AREA COMPRISSES 15% OF WATCHSTATION.
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.

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<td>Magazine fire IAW EOCC</td>
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<td>Flooding IAW EOCC</td>
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<td>.7</td>
<td>Structural damage IAW EOCC</td>
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</table>
312  **REPAIR PARTY INVESTIGATOR (CONT’D)**

312.5.8  Toxic gas/HM spill (installed systems) IAW NSTM 555  

___________________________________  
(Signature and Date)

.9  Personnel casualties IAW SOP  

___________________________________  
(Signature and Date)

.10  Loss of electrical power IAW EOSS  

___________________________________  
(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)
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 SCENE LEADER (NAVEDTRA 43119-K).

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 this task.

313.2.1 Read and review ship’s RPM IAW SOP

Questions

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

313.2.2 Make required reports to the controlling station using standard phraseology and symbology for the following scenarios IAW NSTM 555:

a. Fire

(Signature and Date)

b. Flood

(Signature and Date)

c. Structural damage

(Signature and Date)

d. Toxic gas/HAZMAT spill

(Signature and Date)

e. CBR environment

(Signature and Date)

.3 Determine method of fire attack IAW NSTM 555

(Signature and Date)

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

(Signature and Date)

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

(Signature and Date)
313.2.6 Determine/direct the rotation of personnel IAW NSTM 555

(Signature and Date)

.7 Direct personnel in active desmoking operations IAW NSTM 555 (2 times)

(Signature and Date)

(Signature and Date)

.8 Determine method and direct personnel to desmoke IAW NSTM 555 (2 times)

(Signature and Date)

(Signature and Date)

.9 Direct atmospheric testing

(Signature and Date)

.10 Determine the method and direct personnel to control flooding IAW NSTM 555 (2 times)

(Signature and Date)

(Signature and Date)

.11 Determine the method and direct piping isolation and patching IAW NSTM 555 (2 times)

(Signature and Date)

(Signature and Date)
313.2.12 Determine the method and direct personnel in dewatering IAW NSTM 079, Vol. 2 (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

.13 Determine the method and direct personnel to repair structural damage IAW NSTM 079, Vol. 2 (2 times) A B C D E F

(Signature and Date)

(Signature and Date)

.14 Determine the method and direct rescue personnel IAW NSTM 079, Vol. 2 A B C D E F

(Signature and Date)

COMPLETED .2 AREA COMPRISES 45% OF WATCHSTATION.

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 079, Vol. 2 A B C D E F G

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

313.3.2 Direct personnel in a vertical trunk entry IAW NSTM 079, Vol. 2

A B C D E F G

(Signature and Date)

.3 Direct personnel in R and A response IAW NSTM 079, Vol. 2

A B C D E F G

(Signature and Date)

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

A B C D E F G

(Signature and Date)

COMPLETED .3 AREA COMPRISES 8% OF WATCHSTATION.

313.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

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

313.4.1 Failure of an installed firefighting system to activate IAW NSTM 079, Vol. 2

A B C D E F G H

(Signature and Date)

.2 Access blocked/locked IAW NSTM 079, Vol. 2

A B C D E F G H

(Signature and Date)

.3 Loss of communications IAW NSTM 079, Vol. 2

A B C D E F G H

(Signature and Date)

COMPLETED .4 AREA COMPRIMES 10% OF WATCHSTATION.
SCENE LEADER (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. Satisfactorily perform or simulate the immediate action for this emergency.

313.5.1 Major conflagration IAW NSTM 555

Questions

A B C D E F G

(Signature and Date)

.2 Reflash IAW NSTM 555

A B C D E F G

(Signature and Date)

.3 Boundaries compromised IAW NSTM 555

A B C D E F G

(Signature and Date)

.4 Loss of firemain IAW NSTM 555

A B C D E F G

(Signature and Date)

.5 Progressive flooding IAW NSTM 555

A B C D E F G

(Signature and Date)

.6 Explosion IAW NSTM 555

A B C D E F G

(Signature and Date)

.7 Personnel casualties

A B C D E F G

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

313.5.8  **Toxic gas/HAZMAT spill (installed systems) IAW NSTM 470**  

---  

(Signature and Date)  

313.6  **WATCHES**  

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

Scene Leader (2 times)  

---  

(Signature and Date)  

(Signature and Date)  

**COMPLETED .5 AREA COMPRISSES 15% OF WATCHSTATION.**

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

313.7.1  **EXAMINATIONS**  

Pass a written examination  

---  

(Signature and Date)  

313.7.2  **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-K).

RECOMMENDED________________________DATE____________
       Supervisor

RECOMMENDED________________________DATE____________
       Division Officer

RECOMMENDED________________________DATE____________
       Department Head

QUALIFIED____________________________DATE____________
       Commanding Officer or Designated Representative

SERVICE RECORD ENTRY____________________DATE____________
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:

218 Conflagration Station

Completed ___________________________ 5% of Watchstation
(Qualifier and Date)

314.2 TASKS

For the tasks listed below:

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

314.2.1 Maintain log IAW SOP

_______________________________
(Signature and Date)

.2 Monitor hangar deck security and make reports IAW SOP

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

314.2.3 Monitor vehicle/equipment stowage IAW SOP

(Signature and Date)

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

(Signature and Date)

**COMPLETED** .2 AREA COMPRISSES 20% OF WATCHSTATION.

314.3 **INFRÉQUENT 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)

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

(Signature and Date)

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

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

314.3.4 Operate a divisional door IAW EOSS

(Signature and Date)

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 IAW EOCC

(Signature and Date)

314.5.2 Fuel spill IAW EOCC

(Signature and Date)

314.5.3 Loss of electrical power IAW EOSS

(Signature and Date)

314.5.4 Fire IAW EOCC

(Signature and Date)
### Questions

<table>
<thead>
<tr>
<th>Section</th>
<th>Question</th>
<th>Answers</th>
</tr>
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<tr>
<td>314.5.5</td>
<td>Explosion IAW EOCC</td>
<td>A B C D E F G</td>
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<td>Smoke IAW EOCC</td>
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<td>Runaway aircraft or vehicle IAW NAVAIR 80R-14</td>
<td>A B C D E F G</td>
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<td>Loss of communications IAW EOSS</td>
<td>A B C D E F G</td>
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<td>.9</td>
<td>Inadvertent activation of divisional/deck edge doors IAW EOSS</td>
<td>A B C D E F G</td>
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<td>Inadvertent activation of sprinkler systems IAW NSTM 555</td>
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<td>.11</td>
<td>Loss of firemain IAW NSTM 555</td>
<td>A B C D E F G</td>
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**COMPLETED .5 AREA COMPRIS 45% OF WATCHSTATION.**
314  **CONFLAGRATION STATION OPERATOR (CONT’D)**

314.6  **WATCHES**

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

Conflagration Station Operator (during drills) (2 times)

______________________________
(Signature and Date)

______________________________
(Signature and Date)

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

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

314.7.1 **EXAMINATIONS**  
Pass a written examination  
______________________________
(Signature and Date)

.2 **EXAMINATIONS**  
Pass an oral examination board  
______________________________
(Signature and Date)
Name __________________________       Rate/Rank __________________________

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

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified CRASH AND SALVAGE CREWMAN/RESCUEMAN (NAVEDTRA 43119-K).

Recommended __________________________       Date __________
Supervisor

Recommended __________________________       Date __________
Division Officer

Recommended __________________________       Date __________
Department Head

Qualified __________________________       Date __________
Commanding Officer or Designated Representative

Service Record Entry __________________________       Date __________
315.1 PREREQUISITES

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

315.1.1 SYSTEMS FROM THIS PQS:
217 Crash and Salvage Equipment

Completed ________________________________ 2% of Watchstation (Qualifier and Date)

315.2 TASKS

For the tasks listed below:

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

315.2.1 Inspect and don proximity suits and SCBA IAW NSTM 077

(A B C D E)

(Signature and Date)

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

(A B C E)

(Signature and Date)

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

(E)

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

(Signature and Date)

COMPLETED .2 AREA COMPRISÉS 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 (2 times)

(Signature and Date)

(Signature and Date)

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

(Signature and Date)

(Signature and Date)

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

(Signature and Date)

(Signature and Date)
315.3.4 Activate and use an AFFF hose reel/in-line educator IAW SOP A B C D E F G H

(Signature and Date)

COMPLETED .3 AREA COMPRIS 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 IAW NAVAIR 80R-14 A B C D E F G

(Signature and Date)

.2 Aircraft crash IAW NAVAIR 80R-14 A B C D E F G

(Signature and Date)

.3 Reflash IAW NAVAIR 80R-14 A B C E G

(Signature and Date)

.4 Aircraft suspended over the side IAW NAVAIR 80R-14 A B C D E F G

(Signature and Date)
315.5.5 Ordnance on aircraft/deck IAW NAVAIR 80R-14

(Signature and Date)

.6 Fuel spill IAW NAVAIR 80R-14

(Signature and Date)

.7 Jammed door/canopy on aircraft IAW NAVAIR 80R-14

(Signature and Date)

.8 Thermal runaway IAW NAVAIR 80R-14

(Signature and Date)

.9 Jettisoned auxiliary tank IAW NAVAIR 80R-14

(Signature and Date)

COMPLETED .5 AREA COMPRIS ES 40% OF WATCHSTATION.

315.6 WATCHES

315.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Crash and Salvage Crewman (during drills)

(Signature and Date)

Rescueman (during drills)

(Signature and Date)

COMPLETED .6 AREA COMPRIS ES 8% OF WATCHSTATION.
315  **CRASH AND SALVAGE CREWMAN/RESCUEMAN (CONT’D)**

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

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified CRASH AND SALVAGE SCENE LEADER (NAVEDTRA 43119-K).

RECOMMENDED_________________________________________ DATE__________
Supervisor

RECOMMENDED_________________________________________ DATE__________
Division Officer

RECOMMENDED_________________________________________ DATE__________
Department Head

QUALIFIED_________________________________________ DATE__________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_________________________________________ DATE__________
316.1 PREREQUISITES

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

316.1.1 WATCHSTATIONS FROM THIS PQS:

313 Scene Leader

Completed ________________________________
(Qualifier and Date)

315 Crash and Salvage Crewman/Rescueman

Completed ________________________________
(Qualifier and Date)

316.2 TASKS

For the tasks listed below:

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

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

(Signature and Date)

Questions

A B C D E F

316.2.2 Establish communications IAW NAVAIR 80R-14

(Signature and Date)

A B 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 COMPRISSES 60% OF WATCHSTATION.

316.4 ABNORMAL CONDITIONS – None to be discussed.

316.5 EMERGENCIES – None to be discussed.
316  **CRASH AND SALVAGE SCENE LEADER (CONT’D)**

316.6  **WATCHES**

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

Crash and Salvage Scene Leader (during drills) (2 times)

_________________________________________________________________
(Signature and Date)

_________________________________________________________________
(Signature and Date)

**COMPLETED .6 AREA 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)
317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE 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 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR (NAVEDTRA 43119-K).

RECOMMENDED________________________________ DATE__________________
Supervisor

RECOMMENDED________________________________ DATE__________________
Division Officer

RECOMMENDED________________________________ DATE__________________
Department Head

QUALIFIED________________________________ DATE__________________
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY________________________________ DATE______________
WATCHESTATION 317

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

Estimated completion time: 2 weeks

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:

222 Computer Based Damage Control (DC) Management

Completed ___________________________________

5% of Watchstation

(Qualifier and Date)

317.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. Satisfactorily perform this task.

317.2.1 Log on system IAW SOP

___________________________________

(Signature and Date)

.2 Use the event function IAW SOP

___________________________________

(Signature and Date)

.3 Use the stability function IAW SOP

___________________________________

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

317.2.4 Use the readiness function IAW SOP

(Signature and Date)

.5 Use the CCOL function IAW SOP

(Signature and Date)

.6 Use the compartment KILL CARD function IAW SOP

(Signature and Date)

.7 Use the portable assets function IAW SOP

(Signature and Date)

.8 Access the DC plate function IAW SOP

(Signature and Date)

.9 Use the plot damage function IAW SOP

(Signature and Date)

.10 Use the view flooding effects function IAW SOP

(Signature and Date)

.11 Use the zoom function IAW SOP

(Signature and Date)

.12 Use the find function IAW SOP

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

317.2.13 Use the overlays function IAW SOP

(Signature and Date)

.14 Display various systems IAW SOP

(Signature and Date)

.15 Use the BA function IAW SOP

(Signature and Date)

.16 Use the configuration setting IAW SOP

(Signature and Date)

COMPLETED .2 AREA COMPRISES 80% OF WATCHSTATION.

317.3 INFREQUENT TASKS – None to be discussed.

317.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

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

317.4.1 Computer malfunction IAW SOP

(Signature and Date)

COMPLETED .4 AREA COMPRISES 5% OF WATCHSTATION.
317 COMPUTER BASED DAMAGE CONTROL (DC) MANAGEMENT SYSTEM AND SOFTWARE OPERATOR

317.5 EMERGENCIES

For the emergencies listed below:

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

Questions

317.5.1 Class C fire IAW EOCC

______________________________
(Signature and Date)

A B C D E F G H I

.2 Loss of power IAW EOSS

______________________________
(Signature and Date)

A B C D E F G H I

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-K).

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:

314 Conflagration Station Operator

Completed ______________________________ (Qualifier and Date)

316 Crash and Salvage Scene Leader (RECOMMENDED)

Completed ______________________________ (Qualifier and Date)

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

Completed ______________________________ (Qualifier and Date)

.3 FUNDAMENTALS FROM THIS PQS:

114 Stability

Completed ________________________________2% of Watchstation (Qualifier and Date)
For the tasks listed below:

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

318.2.1 Locate, identify, and demonstrate the ability to use the following IAW SOP:

a. RPM

(Signature and Date)

b. DC Book

(Signature and Date)

.2 Supervise the training of Repair Party personnel IAW SOP (2 times)

(Signature and Date)

(Signature and Date)

.3 Maintain PQS assignments/qualifications for assigned personnel IAW SOP

(Signature and Date)

.4 Coordinate the efforts of repair parties to combat/control IAW COMNAVSURWAR 3541-1:

a. Fire/smoke (2 times)

(Signature and Date)

(Signature and Date)
REPAIR PARTY LEADER (CONT’D)

318.2.4  b. Toxic gas/HAZMAT spill (2 times)  

(Signature and Date)  

(Signature and Date)

c. Flooding (2 times)  

(Signature and Date)

(Signature and Date)

d. Structural damage (2 times)  

(Signature and Date)

(Signature and Date)

e. Personnel casualties  

(Signature and Date)

.5 Coordinate efforts with other repair parties IAW COMNAVSURWAR 3541-1  

(Signature and Date)

COMPLETED .2 AREA COMPRIS ES 50% OF WATCHSTATION.
### 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.

<table>
<thead>
<tr>
<th>Questions</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<td>Assume duties as Secondary DC Central IAW SOP</td>
<td>(Signature and Date)</td>
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<tr>
<td>Coordinate efforts of repair party in CBR defense – chemical IAW COMNAVSURWAR 3541-1</td>
<td>(Signature and Date)</td>
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<td>B</td>
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<td>Coordinate efforts of repair party in CBR defense – biological IAW COMNAVSURWAR 3541-1</td>
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<td>C</td>
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<td>Coordinate efforts of repair party in CBR defense - radiological IAW COMNAVSURWAR 3541-1</td>
<td>(Signature and Date)</td>
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<td>Evacuate/relocate and reestablish a DC repair station IAW COMNAVSURWAR 3541-1</td>
<td>(Signature and Date)</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
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</table>

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.

318.5.1  Major conflagration IAW NSTM 079, Vol. 2

Questions  A B C D E F G H

__________________________
(Signature and Date)

.2  Mass casualties IAW NSTM 079, Vol. 2

__________________________
(Signature and Date)

.3  Loss of communications IAW NSTM 079, Vol. 2

__________________________
(Signature and Date)

COMPLETED .5 AREA COMPRISSES 10% OF WATCHSTATION.

318.6  WATCHES

318.6.1  STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Repair Party Leader (during drills) (2 times)

__________________________
(Signature and Date)

__________________________
(Signature and Date)

COMPLETED .6 AREA COMPRISSES 8% OF WATCHSTATION.
318 REPAIR PARTY LEADER (CONT’D)

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)
319 REPAIR PARTY ELECTRICIAN

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 REPAIR PARTY ELECTRICIAN (NAVEDTRA 43119-K).

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 ____________________________________
(Qualifier and Date)

319.2  TASKS

For the tasks listed below:

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

319.2.1  Inventory and inspect an electrical repair kit IAW AEL

______________________________
(Signature and Date)

Questions

G

.2  Don electrical safety equipment and demetalize IAW SOP

______________________________
(Signature and Date)

A B F G
319.2.3 Electrically isolate a space as directed IAW SOP (2 times)

(Signature and Date)

(Signature and Date)

.4 Locate electrical distribution systems and components in an assigned area IAW SOP

(Signature and Date)

.5 Conduct electrical damage survey of affected spaces, provide ETR, and submit a report IAW SOP (2 times)

(Signature and Date)

(Signature and Date)

.6 Check and assess installed ventilation systems prior to their use in desmoking operations IAW SOP (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .2 AREA COMPRISSES 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

(Signature and Date)

.2  Rig/unrig casualty power system IAW NSTM 300

(Signature and Date)

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

(Signature and Date)

(Signature and Date)

COMPLETED .3 AREA COMPRISSES 26% OF WATCHSTATION.
319 REPAIR PARTY ELECTRICIAN (CONT’D)

319.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

319.4.1 Casualty power terminal damaged IAW NSTM 300

(Signature and Date)

.2 Casualty power cables missing IAW NSTM 300

(Signature and Date)

COMPLETED .4 AREA COMPRISES 12% OF WATCHSTATION.

319.5 EMERGENCIES – None to be discussed.

319.6 WATCHES

319.6.1 STAND THE FOLLOWING WATCHES UNDER QUALIFIED SUPERVISION:

Repair Party Electrician (during drills) (2 times)

(Signature and Date)

(Signature and Date)

COMPLETED .6 AREA COMPRISES 12% OF WATCHSTATION.

319.7 EXAMINATIONS (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)
320 DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER

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 DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (NAVEDTRA 43119-K).

RECOMMENDED_________________________________DATE__________________
    Supervisor

RECOMMENDED_________________________________DATE__________________
    Division Officer

RECOMMENDED_________________________________DATE__________________
    Department Head

QUALIFIED_________________________________DATE__________________
    Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_________________________________DATE__________________
320  DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER

Estimated completion time: 16 weeks

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)
320.2 **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.

320.2.1 Check closure log for accuracy and completeness prior to checking condition YOKE IAW ASA Check Sheet (2 times)  

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

(Signature and Date)

(Signature and Date)

.2 Check material condition YOKE IAW ASA Check Sheet (2 times)  

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

(Signature and Date)

(Signature and Date)

.3 Check material condition ZEBRA IAW ASA Check Sheet (2 times)  

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

(Signature and Date)

(Signature and Date)

.4 Modified condition ZEBRA IAW ASA Check Sheet (2 times)  

<table>
<thead>
<tr>
<th>Questions</th>
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<td>A B C E G</td>
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(Signature and Date)

(Signature and Date)
DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (CONT’D)

320.2.5 Assist in developing a scenario including ORM for a class A fire IAW TRAC (2 times)  

(Signature and Date)  

(Signature and Date)  

.6 Assist in developing a scenario for a class B fire IAW TRAC (2 times)  

(Signature and Date)  

(Signature and Date)  

.7 Assist in developing a scenario for a class C fire IAW TRAC (2 times)  

(Signature and Date)  

(Signature and Date)  

.8 Assist in developing a scenario for a class D fire IAW TRAC  

(Signature and Date)  

.9 Conduct a safety walk-through prior to conducting a drill and report results IAW SOP (2 times)  

(Signature and Date)  

(Signature and Date)  

.10 Evaluate and critique a fire drill IAW SOP (2 times)  

(Signature and Date)  

(Signature and Date)
320.2.11 Assist in developing a scenario for rescue and assistance

(Signature and Date)

.12 Evaluate and critique a rescue and assistance drill

(Signature and Date)

.13 Assist in developing a scenario for ruptured piping

(Signature and Date)

.14 Evaluate and critique a ruptured piping drill IAW NSTM 079, Vol. 2

(Signature and Date)

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

(Signature and Date)

.16 Evaluate and critique a shoring drill IAW NSTM 079, Vol. 2

(Signature and Date)

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

(Signature and Date)

.18 Evaluate and critique a progressive flooding drill IAW NSTM 079, Vol. 2

(Signature and Date)

.19 Evaluate and critique toxic/HAZMAT IAW NSTM 079, Vol. 2

(Signature and Date)
320 | **DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (CONT’D)**

### 320.2.20
Assist in developing a scenario for a chemical attack IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.21
Develop a scenario for a biological attack IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.22
Develop a scenario for radiological contamination IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.23
Evaluate and critique a CBR defense drill IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.24
Assist in developing a scenario for a major conflagration IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.25
Evaluate and critique a major conflagration drill IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.26
Assist in developing integrated scenarios IAW NSTM 079, Vol. 2

(Signature and Date)

### 320.2.27
Observe actions of the controlling stations IAW NSTM 079, Vol. 2

(Signature and Date)
320.28 Locate, identify and demonstrate the use of the following IAW SOP:

a. RPM
b. DC Book
c. Closure Log

(Signature and Date)

COMPLETED.2 AREA COMPRIS 80% OF WATCHSTATION.

320.3 INFREQUENT TASKS – None to be discussed.

320.4 ABNORMAL CONDITIONS – None to be discussed.

320.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. Satisfactorily perform or simulate the immediate action for this emergency.

320.5.1 Actual casualty situations during a training exercise IAW TRAC

(Signature and Date)

COMPLETED.5 AREA COMPRIS 4% OF WATCHSTATION.
320  **DAMAGE CONTROL TRAINING TEAM (DCTT) MEMBER (CONT’D)**

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 COMPRIS ES 16% OF WATCHSTATION.**

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

320.7.1  **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)

<table>
<thead>
<tr>
<th>NAME ______________________________</th>
<th>RATE/RANK __________________________</th>
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</thead>
</table>

This qualification progress summary is used to track the progress of a trainee in the watchstations for this PQS and ensure awareness of remaining tasks. It should be kept by the individual or in the individual's training jacket and updated with an appropriate signature (Training Petty Officer, Division Officer, Senior Watch Officer, etc.) as watchstations are completed.

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<thead>
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<td>304</td>
<td>FIRE STANDER</td>
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## QUALIFICATION PROGRESS SUMMARY FOR DAMAGE CONTROL (DC) (CONT’D)

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<td>305</td>
<td>BASIC CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE</td>
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<td>306</td>
<td>BASIC DAMAGE CONTROL (DC)</td>
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<td>307</td>
<td>ADVANCED DAMAGE CONTROL (DC)</td>
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<td>308</td>
<td>TEAM LEADER</td>
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<td>309</td>
<td>ADVANCED CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL (CBR) DEFENSE PERSON</td>
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<td>310</td>
<td>ADVANCED FIRST-AID/STRETCHER BEARER</td>
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# Qualification Progress Summary for Damage Control (DC) (Cont'd)

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<tr>
<td>311</td>
<td>Aqueous Film Forming Foam (AFFF)/Transfer Station Operator</td>
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<td>312</td>
<td>Repair Party Investigator</td>
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<td>313</td>
<td>Scene Leader</td>
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<td>314</td>
<td>Conflagration Station Operator</td>
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<td>315</td>
<td>Crash and Salvage Crewman/Rescuer</td>
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<tr>
<td>316</td>
<td>Crash and Salvage Scene Leader</td>
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## Qualification Progress Summary for Damage Control (DC) (Cont'd)

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<tr>
<td>317</td>
<td>Computer Based Damage Control (DC) Management System and Software Operator</td>
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<td>318</td>
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<td>319</td>
<td>Repair Party Electrician</td>
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<td>320</td>
<td>Damage Control Training Team (DCTT) Member</td>
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</table>
LIST OF REFERENCES USED IN THIS PQS

Allowance Equipage List (AEL) 2-880044262, Kit, Investigator
EE100-BU-GYD-010, Damage Control Wirefree Communications System,
  AN/SRC-53(V) MX300R Limited, AN/SRC-53A(V) MX300R Full, AN/SRC-53A(V)1
  Saber R Full, AN/SRC-53(V)1 LHA-1
EE700-AD-LSS-010, User’s Logistic Support Summary (ULSS) for Multifunction Radiac (MFR)
  Sets, AN/PDQ-1 and AN/PDQ-2 and Ancillary Probes
Electric High Pressure Air Compressor Manufacturer Technical Manual
Emergency breathing air compressor (EBAC) Manufacturer Technical Manual
Emergency Water Activated Repair Patch (EWARP) Operating Procedures
Engineering Operational Sequencing System (EOSS)
Instruction Manual, Jaws of Life Rescue Tools, JL32b, JL27
Local Ship’s Instructions
MAFO/Holtkamp Watertight Door Technical Manual
Manufacturer’s Technical Manual for Portable Exothermic Cutting Unit
Manufacturer’s Technical Manual for Portable Hydraulic Access and Rescue System (PHARS)
NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual
NAVEDTRA 14057-PPR, Damage Controlman
NAVEDTRA 14109, Gunner’s Mate 3 & 2
NAVEDTRA 14150, Machinist’s Mate 1 & C
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 14232, Sound Powered Phone Talker’s Manual
NAVEDTRA 14295, Hospital Corpsman
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-MMCM-010, Pipe Jumper Hose System (PJHS) Kit No. 1 and No. 2
NAVSEA S6226-PD-EMC-010/07070, Self-Contained Breathing Apparatus Breathing Air Charging System (SCBA BACS)
NAVSEA S9169-AW-DCB-010, Damage Control Watertight Closures Inspection, Maintenance, and Repair Booklet
NAVSEA S9086-CD-STM-010/CH-070R3, Nuclear Defense at Sea and Radiological Recovery of Ships After Nuclear Weapons Explosion
NAVSEA S9086-CH-STM-030/CH-074V3R5, Gas Free Engineering
STM S9086-CL-STM-010/CH-077R6, Personnel Protection Equipment
LIST OF REFERENCES USED IN THIS PQS (CONT’D)

NSTM S9086-CN-STM-010/CH-079V1R1, Damage Control-Stability and Buoyancy
NSTM S9086-KC-STM-010/CH-300R7, Electric Plant-General
NSTM S9086-KE-STM-010/CH-310R3, Electric Power Generators and Conversion Equipment
NSTM S9086-KY-STM-010/CH-320R6, Electrical 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-RJ-STM-000/CH-504R5, 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-CD-STM-000/CH-070R4, Nuclear Defense At Sea and Radiological Recovery of Ships After Nuclear Weapons Explosion
NSTM S9086-CL-STM-010/CH-077R6, 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 3120.32C, Standard Organization and Regulations Manual of the U.S. Navy (SORM)
OPNAVINST 3500.39C, Operational Risk Management
Power Hawk Manufacturer’s Technical Manual
S6226-PD-MMO-010/07070R2, Self-Contained Breathing Apparatus (SCBA) Breathing Air Charging System (BACS)
S6290-AQ-MMC-010/09687, The Arcair Slice (PECU) Portable Exothermic Cutting Unit
S9512-CA-MMC-010/93457, Fan, Portable, Desmoking, Medium Capacity
S9555-B9-MMA-010, Aqueous Film Forming Foam Equipment
Scott Field Level Maintenance Manual for the Air-Pak 4.5 and 2.2
Ship’s Casualty Power Doctrine
Ship’s Damage Control Book
Ship’s Information Book (SIB)
Ship’s Local Instruction
Ship’s Damage Control Diagrams
Ships DC Book Part 1
Ship’s Information Book (SIB)
SS-100-AG-MAN-010, Damage Control and Firefighting Equipment Layout Booklet
Technical Manual, Model WF-20 RAMFAN/Model RAMFAN 2000
PERSONNEL QUALIFICATION STANDARD
Feedback Form for NAVEDTRA 43119-K

From____________________________________________________Date_______________
Via______________________________________________________Date_______________

Department Head

Activity ______________________________________________________________________

Mailing Address_______________________________________________________________

Email Address____________________________________________DSN_______________

PQS Title____________________________________________NAVEDTRA_______________

Section Affected_______________________________________________________________

Page Number(s)_______________________________________________________________

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