DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND FAR EAST
PSC 473 BOX 13
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NAVFACFEINST 11260.1G
PW7
APR 26 2010

NAVFAC FAR EAST INSTRUCTION 11260.1G

Subj: WEIGHT HANDLING EQUIPMENT PROGRAM MANUAL

Ref: (a) NAVFAC P-307
(b) ASME B30 Series
(c) OPNAVINST 5100.23
(d) UFGS-01525
(e) EM 385-1-1
(f) WHE OEM Manuals
(g) Contract Specification Section 013529
(h) BMS Process B-8.1.29
(i) NAVFACFEINST 5100.1

Encl: (1) Duties and Responsibilities
(2) WHE Personnel Organizational Chart
(3) WHE Lockout Tagout Procedures
(4) Crane Accident Reporting, Investigation and Corrective Actions
(5) Crane Operator Qualification, Testing and Licensing
(6) Rigging
(7) Crane Operations Safety
(8) Complex Lift
(9) Operator's Daily Check List
(10) Contractor Cranes
(11) Lubrication Instructions

1. Purpose. Establish responsibilities, requirements and procedures for the management of Weight Handling Equipment (WHE) at Naval Facilities Engineering Command (NAVFAC) Far East, to ensure essential safety and reliability requirements are met.

2. Applicability. These requirements apply to all equipment listed in references (a) and (b). Examples include but are not limited to category 1, 2, 3 (cab operated), 3 (non-cab operated) and 4 cranes; equipment described as bridge, portal, hammerhead, gantry, jib, pillar jib, pillar, permanently mounted chain hoist, monorail, A-frame, mobile, floating, derrick, and truck-mounted cranes, portable chain hoists, crane structures (which are defined as jib cranes, bridge cranes, monorails, and davits

that do not have permanently mounted hoists), portable A-frames, portable floor cranes, portable gantries, and cranes & hoists procured with, integral to, and used solely in support of larger machine systems.

3. Cancellation. NAVFACFEINST 11260.1F. This instruction is a complete revision; therefore, changes are not annotated.

4. Procedures. Each respective area and/or Public Works Department (PWD) within NAVFAC Far East shall ensure all employees associated with the WHE program and applicable contracts, understand and comply with the requirements in references (a) through (i) and enclosures (1) through (11) of this instruction in its entirety.

C. J. LACARIA
By direction

Distribution:
NAVFACFEINST 5215.1
List 3

Duties and Responsibilities

1. Organization. Throughout this instruction the Base Support Vehicle and Equipment (BSV&E) Product Line Coordinator (PLC) (Code PW7) will be referred to as the BSV&E PLC. The BSV&E Directors will be referred to as Code PR_33 (A,B,C,D,M,P,R,S,W,Y). If a detachment is not set up in accordance with this instruction the Director responsible for the program shall draft Standard Operating Procedures detailing the pertinent duties and responsibilities to ensure compliance with reference (a) and this instruction.

a. The BSV&E Product Line Coordinator (PLC) is the senior manager responsible for all aspects of the NAVFAC Far East Weight Handling Equipment (WHE) program. All letters or correspondence in regards to NAVFAC Far East Navy Crane Center (NCC) Audits will be processed through Code PW7.4 via the appropriate detachment Code PR_33, then to the PLC. The PLC will review prior to sending correspondence to the NAVFAC Far East Commanding Officer for signature.

b. The Weight Handling Equipment Program Manager (Code PW7.4) is responsible for all aspects of NAVFAC Far East internal WHE program. This position reports directly to the BSV&E PLC and:

(1) Functions as the region's primary contact point for both internal and external customers, on all matters pertaining to the WHE program.

(2) Establish personnel resource requirements necessary to support the WHE program.

(3) Establish the proper WHE inventory to meet the region's current and future workload requirements.

(4) Establish budget planning to support the assigned mission.

(5) Establish crane accident prevention, investigation, and trend analysis programs that focus on safety, quality, performance and strategic planning.

(6) Provide oversight for NAVFAC Far East Regional WHE program.

(7) Provide standardized forms and procedures for all WHE related rigging, operations, licensing, maintenance, inspection and testing.

(8) Review all NAVFAC Far East WHE standard operating procedures for accuracy and compliance with reference (a).

(9) Responsible for reviewing crane inspection, repair and testing documentation for completeness and advising the certifying Official on the acceptability of crane condition for certification where appropriate.

(10) Throughout the region, the program manager provides technical support and oversight to the various detachments.

(11) Consults with and advises the various Code PR_33 BSV&E Managers on such aspects as priorities, contractors and personnel.

(12) Track responses/resolutions to internal and external audits to assure that corrective action is implemented. Collect and maintain objective quality evidence that supports conclusions that audit findings have been satisfied.

c. Certifying Official or PWD BSV&E Branch Head is the Manager responsible for the daily activities of the WHE program for cranes under the cognizance of NAVFAC Far East. He/she is also responsible to:

(1) The PWD BSV&E Branch Head will be designated as the Certifying Official in accordance with reference (a), section 3 and this instruction. The PWD BSV&E Branch Head assistant will be designated as the alternate Certifying Official.

(2) Function as WHE NAVFAC Far East Certifying Official as designated by the Commanding Officer(s) where appropriate to ensure the activity's WHE is inspected, tested and Certified per the requirements of reference (a) and that the WHE is safe to use for its intended purpose.

(3) To conduct a complete and thorough crane accident investigation and forward all accident reports to Code PW7.4 for review in accordance with enclosure (4).

(4) Ensure a personnel training and qualification program is in place and maintained in accordance with reference (a), section 13 and appendix N.

(5) Establish the proper rigging equipment inventory to meet the activities current and future workload requirements.

(6) Coordinate with U.S. Naval Hospital for required physical examinations for crane operators in accordance with enclosure (5).

d Crane engineering support will be conducted in accordance with reference (a) where applicable Certifying Officials, PR_33s and PW7.4 will ensure the proper level of engineering support is used where necessary.

e. Test Directors and Crane Inspection personnel are responsible for assuring the proper performance of crane inspection and testing to include the following:

(1) Scheduling regular periodic inspections/tests as well as post-maintenance/repair inspection and test and assure adherence to the schedule. Integrate inspection and testing schedules with crane maintenance and workload requirements.

(2) Independently audit the maintenance work, inspections and tests performed by repair personnel and contractors to ensure conformance to engineering approved specifications and reference (a), including in-process observation.

(3) Ensure noted deficiencies are documented. Request technical division assistance on items requiring engineering input or concurrence.

(4) Identify non-load bearing/load controlling/safety device deficiencies to the maintenance division for correction. Remove cranes with load bearing/load controlling/safety device deficiencies from service.

(5) Ensure inspection results, repairs and maintenance are documented and maintained in equipment history files.

(6) Prepare procedures for testing of WHE equipment in accordance with reference (a).

(7) Ensure proper crane operations or load testing is performed on assigned cranes. Ensure test results are properly documented.

(8) Prepare crane certification packages for review and signature by Certifying Official where appropriate.

(9) Track responses/resolutions to internal/external audits to assure that corrective action is implemented. Collect and maintain objective quality evidence that supports conclusions that audit findings have been satisfied.

(10) Ensure activity maintenance, inspection and testing personnel are properly trained and qualified to perform assigned maintenance, inspection and testing in accordance with reference (a), section 13 and appendix N.

(11) In order to qualify as a condition inspector or test director you must act under instruction of a qualified condition inspector or test director to include load tests for test directors. Once the under in instruction time has been completed to the Certifying Officials satisfaction, the Certifying Official may designate in writing the condition inspectors or test directors in accordance with reference (a), section 3.

f. The Crane Mechanic is responsible to establish and continually improve crane Preventative Maintenance (PM) to reduce the need for corrective maintenance. These personnel are trained and qualified in accordance with reference (a), section 13 and are responsible to:

(1) Ensure all crane work by NAVFAC Far East personnel or outside contractor is directed by written instructions. Refer items not meeting specifications to the proper personnel for resolution.

(2) Ensure PM and lubrication of cranes is in accordance with written procedures.

(3) Identify and report details of failures or deficiencies of cranes to inspection and testing personnel to allow for proper evaluation and follow-up action.

(4) Ensure material procurement is in accordance with specifications on the work-authorizing document.

g. The Rigging and Crane Operations Supervisors are responsible for the safe operation of WHE at the activity in accordance with enclosures (6), (7) and (8) as well as training requirements per reference (a) and enclosure (5). Additional responsibilities include:

(1) Monitoring rigging gear inventory and rigging operations. Ensuring that deficiencies are recorded, tracked, and analyzed so that trends are identified and reported in accordance with enclosure (6).

(2) Providing procedures including sketches where required for complex lifts in accordance with enclosure (8). Advising on general rigging practices where requested.

(3) Ensuring both activity contracted personnel if used in mixed crews are properly trained and qualified to perform assigned tasks in accordance with section 13 and appendix N in reference (a) and enclosures (5) and (10).

h. Crane Licensing Official Ensuring licensing of all qualified NAVFAC Far East operators is in accordance with reference (a) and enclosure (5).

(1) Maintaining a tickler file of operator licenses and ensures renewals are accomplished in a timely fashion.

i. Section Heads/Shop Foremen are responsible for the production performance of WHE operations. Other responsibilities include:

(1) Establishing crane teams, including operators, Riggers-in-charge, crane walkers and riggers as required ensuring lifts are accomplished safely.

(2) Ensuring pre-job briefings are conducted to discuss the details of the lift to include as a minimum the weight of the item to be lifted, and who has what specific responsibilities, the travel path and any obstructions.

(3) Ensuring each qualified operator performs a pre-use inspection of the crane in addition to any check list required in enclosure (9).

(4) Immediately removing cranes from service and notifying WHE Testing and Inspection Personnel when malfunctions occur on load bearing, load controlling or safety devices.

(5) Controlling the use of rigging equipment (gear).

(6) Developing, maintaining, and continuously improving shop and trade processes.

(7) Ensuring personnel assigned to perform operational and rigging tasks are properly trained and qualified in accordance with section 6 through 8, 13 and appendix N in reference (a).

(8) Maintaining a current and accurate list of all qualified crane operators. In the case of Category 1 (CAT 1), Category 2 (CAT 2), Category 3 cab operated (CAT 3 Cab Operated) and Category 4 (CAT 4) crane operators, coordinate with Code PR_33 or designated licensing official to issue and renew existing operator licenses in accordance with enclosure (5).

(9) Maintaining a program for indoctrination of new crane operators. Provide practical testing per reference (a) and enclosure (5).

(10) Nominating qualified members of the Rigging Shop to the Rigging Gear Test and Inspection Team.

(11) Ensuring complex lift plan written instructions are distributed to members of the crane team, including contracted crane operators, in advance of the lift to ensure all personnel are properly prepared in accordance with enclosure (8).

(12) Providing qualified crane operators, riggers and crane walkers to support load testing.

(13) Ensuring that Operator Daily Checklists (ODCL) are properly performed and documented in accordance with enclosure (9), and forwarded to the activity maintenance department. This applies to all category 1, category 2, and category 3 cab-operated and category 4 cranes.

(14) Ensure all non-cab operated category 3 bridge, wall and gantry cranes have an Operator's Pre-Use/Monthly Check List documented in accordance with enclosure (9) at least monthly. The supervisor must sign and forwarded to the activity maintenance department. For the daily pre-use inspection of all non-cab operated category 3 cranes a pre-use form must be posted near the crane.

(15) Identifying and ensuring the rigging gear coordinator receives training as Rigger, Rigging Gear Inspector, Category Three Crane Operator and Load Test Director.

(16) Ensuring the performance and documentation of rigging gear inventory and operation surveillance is in accordance with reference (b), reference (c) appendix (3-A), and enclosure (6).

j. PWD BSV&E Branch Rigging Gear Coordinators are responsible for the upkeep of rigging gear maintained in the individual departments in accordance with enclosure (6). Other duties include:

(1) Maintaining tickler file on rigging gear inventory, inspection and load test results.

(2) Providing rigging gear in a centralized location for re-certification as required.

(3) Informing Code PR_33/Branch Head of any changes in rigging gear requirements and forwarding them to Code PW7.4.

k. Crane Operators will:

(1) Notify supervisor when temporarily physically or mentally unfit for duty and ask to be relieved.

(2) Only operate cranes for which they are assigned, trained and/or licensed. Licensed operators will attend the mandatory two-year Navy Crane Center refresher training.

(3) Know the limitation and capabilities of their assigned crane.

(4) In addition to the above, the operator will comply with the safety rules described in references (a) through (c) and enclosure (7).

1. Contracting Officers will:

(1) Ensure the Contracting Officer's Representatives are trained per the lesson plan provided by Code PW7.4 for Contractor Crane Surveillance.

(2) Ensure that the minimum requirements discussed in enclosure (10) are promulgated to tenants and contracting officers.

(3) Ensure enclosure (10) and reference (g) are included in all contracts administered through NAVFAC Far East.

(4) Ensure that no personnel lifts are conducted without the written authorization of the activity Safety Office.

2. Equipment History Files. An individual equipment history file will be maintained for each crane covered by this instruction. NAVFAC BSV&E maintenance department will maintain these history files where appropriate. Specifications, contracts, acceptance tests, complete description of the unit, lubrication and servicing plans, records of alterations, maintenance, and repair, and latest test and inspection records will be filed in the equipment history file. History files will be maintained in accordance with section 5 in reference (a). Each history file will be reviewed by the Certifying Official prior to the crane's certification.

3. Internal Audits. An audit program will be established by Code PW7.4 to provide management added confidence that process or product requirements are being met, and to identify areas in need of improvement. These audits are in addition to external audits performed by the NCC or other oversight agencies. Audits will:

a. Evaluate samples of activity and contractor work to verify compliance with specified requirements.

b. Assess the effectiveness of the procedure, process, or program being audited.

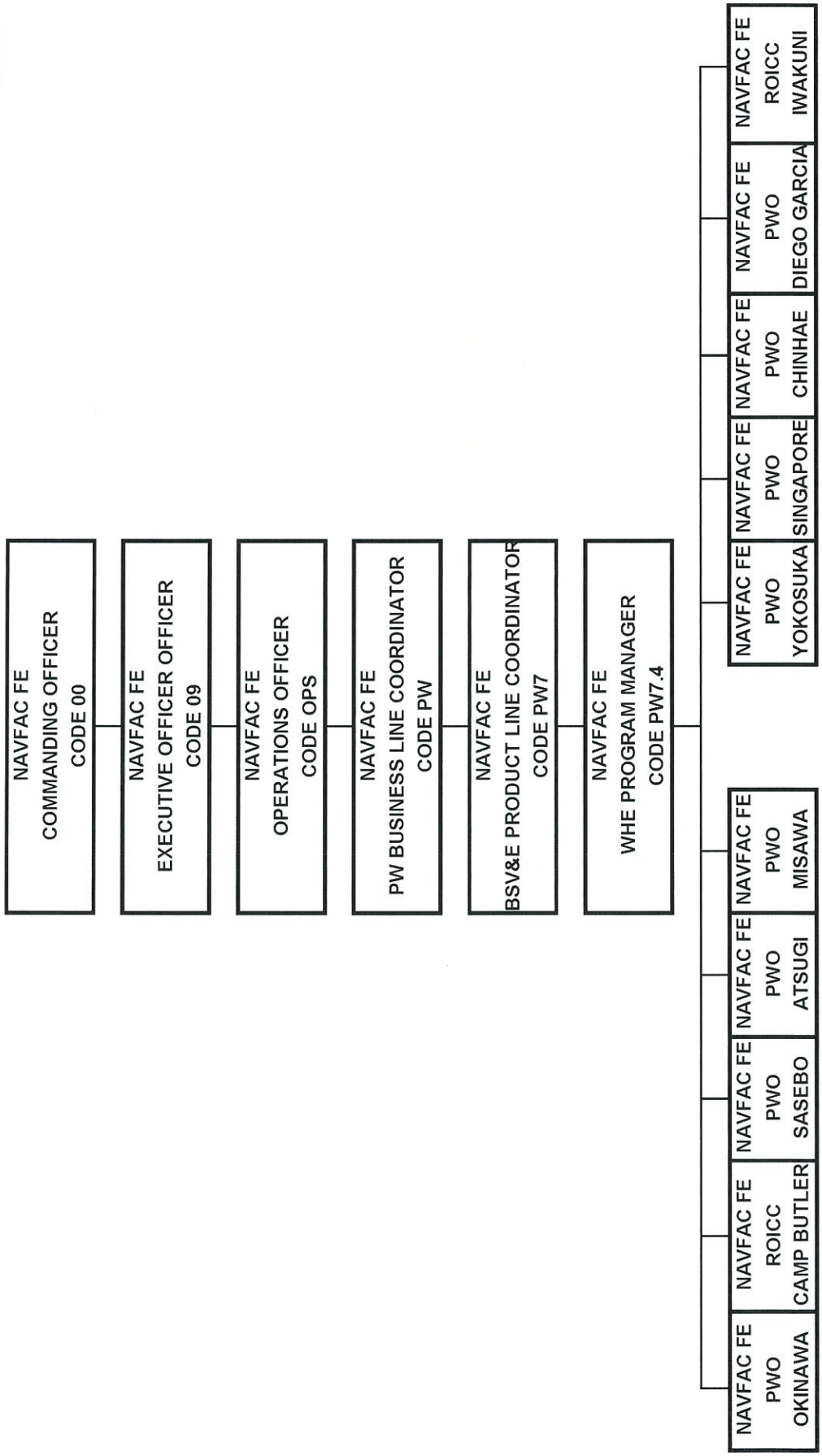
c. Look for and identify specific conditions requiring improvement.

d. Be conducted by personnel who are knowledgeable of auditing techniques and who are independent of, and not directly responsible for, the work being audited.

e. Follow up to ensure timely accomplishment of corrective and preventative actions.

f. Audits will be documented and reported promptly. Reports will include a summary that provides management with an overall assessment of the activity being audited, identify general areas examined, include a statement supporting the overall assessment, identify significant findings and responsible parties by organization, and describe significant improvements or adverse trends.

NAVFAC FE REGIONAL WHE SUPPORT STRUCTURE



WHE LOCKOUT/TAGOUT PROCEDURES

1. Lockout/Tagout requirements for energy isolating devices can be found in reference (i), section 24, which complies with reference (c). The purpose of that section is to prevent injury to personnel by requiring departments to establish a program and utilize procedures for affixing appropriate lockout and/or tagout devices to energy isolating devices, and to otherwise disable cranes/machines or equipment to prevent unexpected energization, start-up or release of stored energy.

2. Definitions used in this enclosure

a. Affected employee. An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under Lockout/Tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

b. Authorized employee. A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

c. Capable of being locked out. An energy-isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

d. Caution Tag. A tag with yellow background marked "CAUTION" on both sides, readable at a minimum distance of five feet, figure 3-1. Caution tags on WHE shall only be used as warnings, advisories, to describe operational restrictions or conditional usage.

e. Danger/Lockout Tag. A tag with red background marked "DANGER" on both sides and "DO NOT ENERGIZE OR OPERATE" on one side, readable at a minimum distance of five feet, figure 3-2. This tag shall be used when it is necessary to prevent operation or energizing of equipment. Equipment with a danger tag installed shall not be energized or operated under any circumstances while the tag is in effect.

f. Energized. Connected to an energy source or containing residual or stored energy.

g. Energy isolating device. A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

h. Energy source. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

i. Hot tap. A procedure used in the repair, maintenance and services that involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

j. Lockout. The placement of a lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

k. Lockout device. A device that utilizes a positive means such as a lock to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds. During the operation and utilization of a machine or equipment to perform its intended function. Must be accompanied by a completed Lockout/Tagout tag, figure 3-2.

l. Lockout/Tagout Coordinator. The individual(s) responsible for managing the Lockout/Tagout program. Maintains the tag log, figure 3-4, and issuance of all lockout devices and tags.

m. Maintenance. "A", "B", annual, "C" PM; 6-Month Condition Inspection, or general repair.

n. Minor Maintenance. Maintenance that is minor in nature and would not put the mechanic, machinery or other personnel in harms way at anytime.

o. Operational Tagging. When an abnormal condition exists that renders the WHE either unsafe to operate or special instructions are needed to safely operate the equipment, a tag is placed on the equipment which serves as a warning to restrict or limit the operation of the equipment.

p. Out of Service Tag. A tag with orange background marked "OUT OF SERVICE" on both sides, readable at a minimum distance of five feet, figure 3-3. Out of Service tags shall be used on WHE when it is necessary to prevent unauthorized operation of equipment by user shop personnel. See paragraph 3.b.(10) for exceptions.

q. Qualified Person. A person who has the training necessary to perform the verification of energy isolation.

r. Servicing and/or maintenance. Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

s. Tag Log. A record maintained by the crane program Lockout/Tagout Coordinator for each danger and caution tag installed and/or removed from the WHE.

t. Tagout. The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

u. Tagout device. A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

v. User Shops/Codes. User shops or codes are the end users of the WHE but are not involved with maintenance, testing, or certification of the equipment. They are required to notify the Lockout/Tagout Coordinator when an unsafe condition on the equipment is identified. User shall temporarily install a shop tag on the equipment to prevent further operation until the appropriate tag is installed.

3. WHE will be locked and/or tagged per the OPNAVINST 5100.23 CH24, 29 CFR 1910.333 and the following procedures:

a. Lockout/Tagout will be applied to WHE during inspection or service to safeguard against the accidental release of stored energy which could potentially harm personnel in the area, or damage equipment.

b. Tagging of WHE when locked or tagged out will be accomplished in accordance with the following procedure.

NOTE: These tagging procedures apply to all WHE personnel and equipment within the NAVFACFE Area of Responsibility (AOR). These requirements do not apply to energy isolation (Lockout/Tagout) for personnel protection. Energy isolation and associated tagging shall be accomplished in accordance with NAVFACFEINST 5100.1 and this enclosure.

(1) The following examples describe situations when operational tagging of WHE should be performed:

1. To warn, advise, or define specific restrictions for usage of the crane or component.

2. When WHE is out-of-service due to deficient conditions of a load bearing/load controlling or operational safety device.

3. When the crane/equipment certification period has expired.

4. When adjustments to load bearing/load controlling/safety devices are being made and the WHE or applicable system is not covered under an existing Lockout/Tagout.

5. During a crane or rigging gear accident investigation where the WHE may have been damaged.

(2) Each activity will maintain a tag log, figure 3-4, containing the following information:

1. WHE Number
2. Location
3. Components Affected
4. Person who affixed the Tag
5. Date Tagged
6. Person who removed the Tag
7. Date removed
8. Tag Number

(3) Prior to performing maintenance on WHE, personnel must evaluate the need or requirement for the use of tagging. When a determination can not be made by the employee, he/she must seek advice and guidance from their supervisor before proceeding with work on the WHE.

(4) When equipment is out of service for maintenance, service, repair, trouble call, potential crane accident, inspection and/or to prevent/limit equipment operation, tag the equipment, system or component as soon as possible to prevent its inadvertent use. Place appropriate tags on the equipment, system or component affected. When energy isolation is required to safely perform work on WHE, perform Lockout/Tagout per this enclosure.

(5) A tag (Caution, Out of Service, or Danger) does not have to be installed if the authorized personnel are on the crane assessing or correcting the condition and the operating controls are within his or her direct control.

(6) If the authorized personnel plan's to leave the crane without correcting or accepting the condition, they must install the appropriate tag before leaving the crane.

(7) The number of tags installed necessary shall be on a case by case basis. Normally one tag will be sufficient except for equipment with multiple control points (e.g., cab and pendant controls).

(8) It is not necessary to tagout the entire crane unless the condition affects its safe operation.

1. Individual components or systems of the crane may be tagged providing that safety of personnel, and operational integrity of the remaining equipment, can be maintained exclusive of the component or system tagged.

2. Tags may be installed to affect only the portions of the equipment affected by the condition.

(9) Caution Tags are used to provide a warning for operating restrictions or limitations of the equipment, system, or component. The restriction(s), limitation(s) or special condition(s) shall be clearly annotated on the Caution Tag.

1. Caution Tag(s) shall be attached to the appropriate location that would require personnel intending to use the equipment to view the tag prior to operation of the restricted equipment.

2. Caution Tag instructions shall state the specific reason the tag is installed.

3. Equipment or components shall not be operated until the amplifying instructions on the tag are complied with.

(10) Equipment which is tagged Out of Service shall only be operated by personnel authorized by the crane maintenance supervisor or the PR_33 or equivalent for the purpose of troubleshooting, evaluating, or moving WHE which is not in service.

(11) Danger/Lockout tags take precedence over Caution and Out of Service tags and shall be used when operation of the equipment poses an immediate hazard to employees and/or damage to equipment. A Danger/Lockout tag prohibits operation of equipment that could jeopardize the safety of personnel or endanger equipment systems or components. Under no circumstances shall equipment be operated or moved while Danger/Lockout tag is installed. The purpose of this tag is to prevent injury to personnel or damage to equipment. The

DANGER/Lockout Tag must not be used in lieu of the established Lockout/Tagout procedures, figure 3-2. Danger/Lockout tags will be used when:

1. The work under Lockout/Tagout goes beyond one shift and there is a need to protect/prevent the equipment from being operated.

2. There is any question as to the integrity of the equipment or safe operation and no other means of control are in place.

3. Danger/Lockout tag(s) shall be installed at the location that will prevent operation of the equipment. If additional measures are required to prevent inadvertent operation, a Danger tag shall also be installed at that location (e.g., on the equipment lock, on the fuse holder for the removed fuse).

(12) All tags will be securely attached via durable nylon cable ties or by an equivalent strength self-locking attachment means (minimum breaking strength of 50 pounds). The use of string or tape to attach tags is prohibited.

(13) WHE tags shall only be removed by authorized personnel and only after the condition requiring tagout has been corrected.

(14) The authorized employee shall return the removed tag(s) to the Tag Coordinator and complete the Tagging Log.

c. Each activity will maintain a Lockout/Tagout log containing all information in figure 3-4.

d. Personnel assigned by PR_33 will conduct internal audits to assure program compliance on an annual basis. This will be documented in the Lockout/Tagout log by the use of a memorandum and signed by the person assigned to review the logs.

e. Specific Lockout/Tagout procedures are as follows:

(1) A lockout device and tag will be affixed to each energy isolating device capable of being locked-out. For energy isolating devices for which lockout cannot be used, tagout devices will be used. All Lockout/Tagout devices will be affixed by authorized employees only. Use of group Lockout/Tagout methods are discussed in reference (c).

(2) Lockout devices must be accompanied by a Lockout/Tagout tag, figure 3-2, and will be affixed in a manner that will hold the energy isolating devices in the "safe" or "off" position.

(3) Tagout devices, where used, will clearly indicate the operation or movement of energy isolating devices from the "safe" or "off" position.

(4) Wherever possible, tagout devices will be affixed to the energy isolating device(s).

(5) Where a tag cannot be affixed directly to the energy isolating device, the tag will be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

(6) In addition to the above requirements verification of de-energized condition will be made. The requirements of this paragraph will be met before any circuits or equipment can be considered and worked on as "de-energized" or "no stored energy".

(7) A qualified person will operate the equipment operating controls or otherwise verify that the equipment cannot be restarted. This will include trying to utilize the switch to verify it can not be turned on with the lockout device attached.

(8) A qualified person will use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipments parts are de-energized. The test will also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back feed even though specific parts of the circuit have been de-energized and presumed safe. If the circuit to be tested is over 50 volts, nominal, the test equipment will be checked for proper operation before and immediately after this test.

(9) Before Lockout/Tagout devices are to be removed permanently and energy is restored to the machine or equipment, procedures will be followed and actions taken by the authorized employee(s) to ensure the following:

(a) Nonessential items have been removed from the work area and machine or equipment components are operationally intact.

(b) All affected employees have been notified and are either safely positioned or removed.

(10) Lockout/Tagout devices will be removed from any energy isolating device by the authorized employee who applied the device. When the authorized employee who applied the Lockout/Tagout device is not available to remove it, that device may be removed under the direction of the authorized employee's supervisor. Upon the return of the employee who affixed the Lockout/Tagout device, the supervisor will inform the employee that the Lockout/Tagout device has been removed.

(11) Lockout/Tagout devices will indicate the identity of the employee applying the device(s). Tagout device will indicate his/her shop or code, the telephone number where the employee can be reached during working hours, his/her supervisor and the phone number where he/she can be reached during working hours, date applied, the tag number, and the machine, equipment or system component that is effected or de-energized.

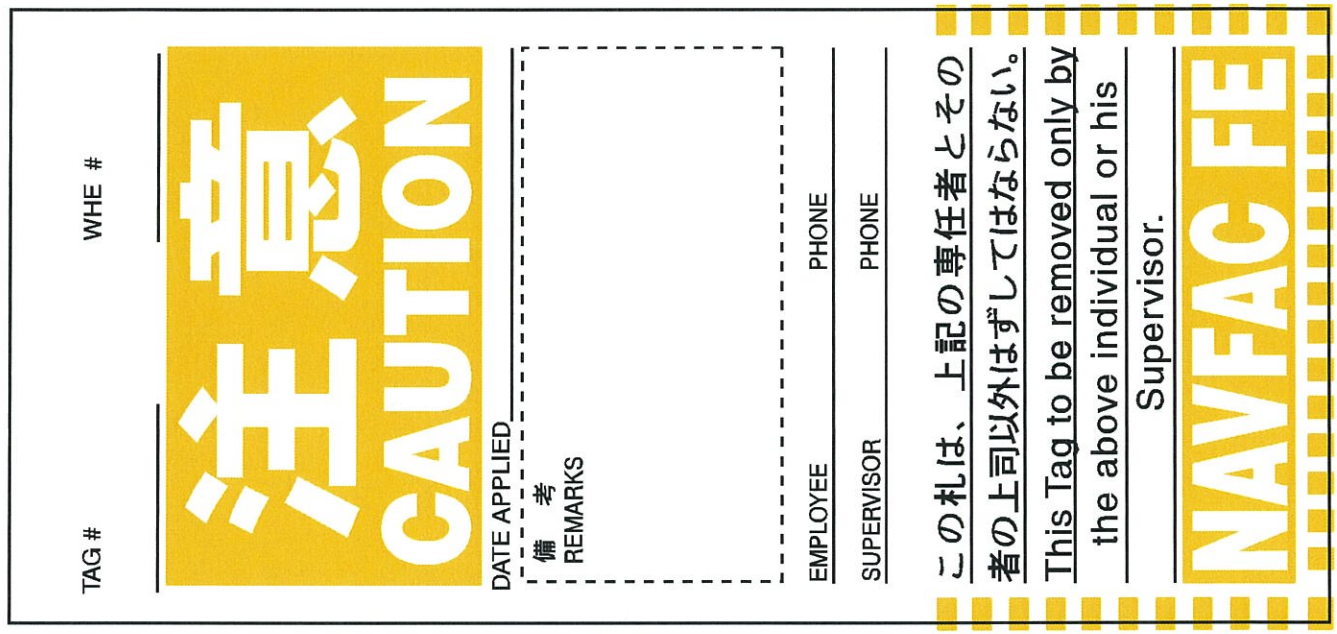
(12) Contract personnel involved in maintenance and operation of equipment must inform all contractor and government personnel of their Lockout/Tagout procedure and be knowledgeable of the government's procedure.

2. Supervision

a. Supervisors must ensure that affected employees are made aware of Lockout/Tagout operations in progress within their work center.

b. Supervisors must ensure that all authorized, affected and other employees will receive appropriate training applicable to their level of responsibility.

c. Authorized and qualified personnel will be designated in writing by the department head responsible for the personnel.


TAG #
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This Tag to be removed only by the above individual or his Supervisor.
NAVFAC FE

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TAG #
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CAUTION
FOLLOW THE INSTRUCTION
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FIGURE 3-1

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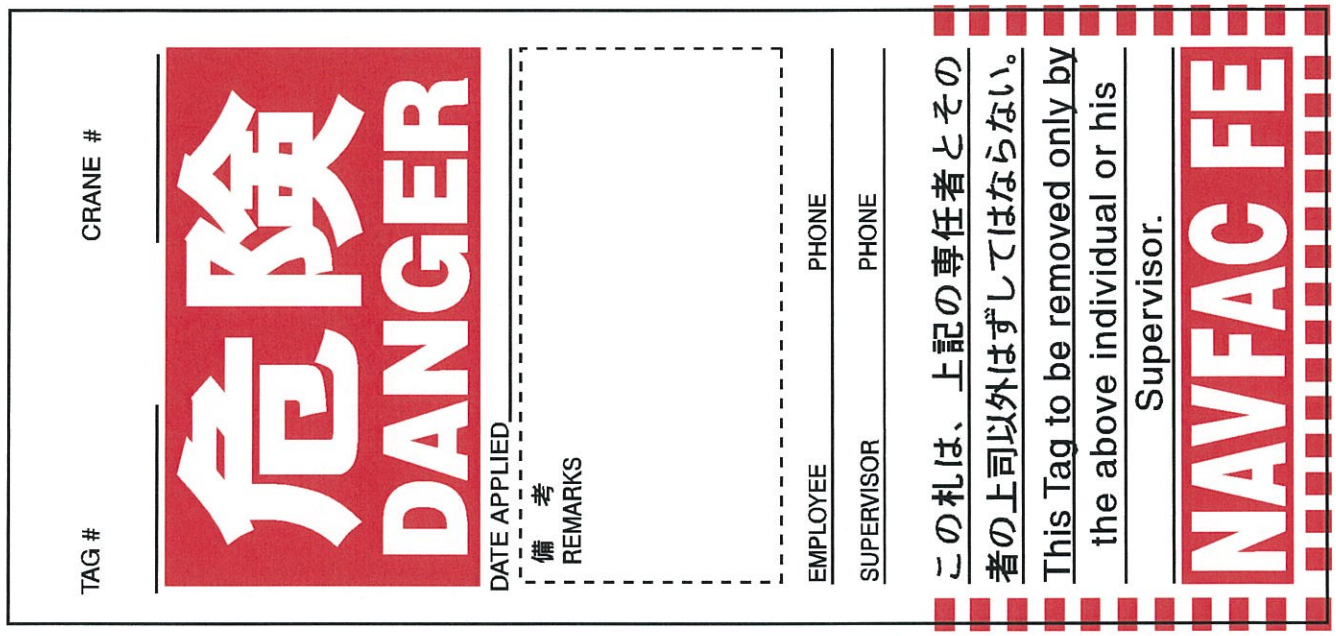


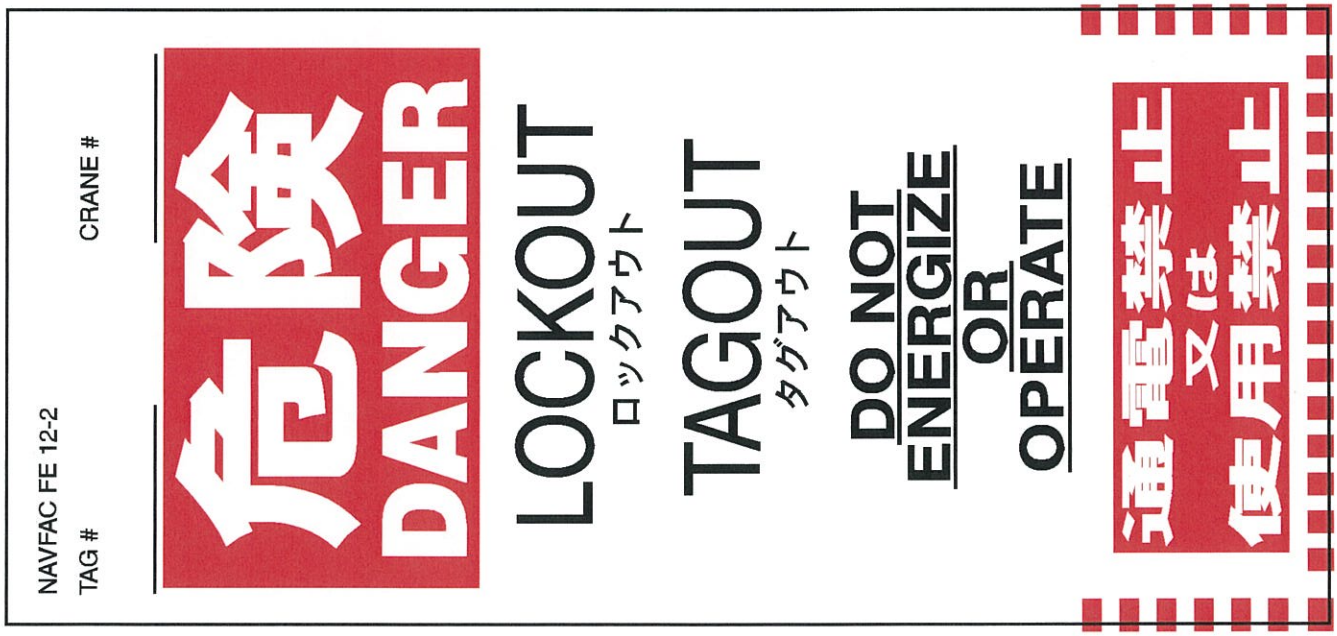
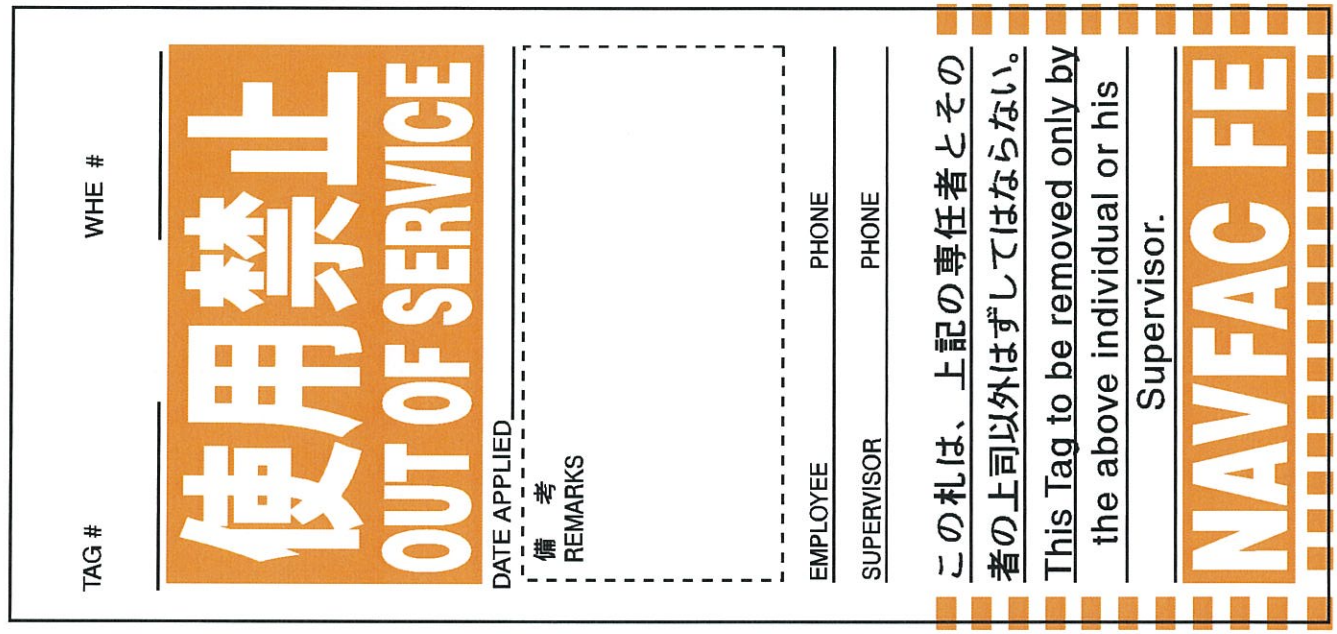


FIGURE 3-2


TAG #
WHE #
使用禁止
OUT OF SERVICE
DATE APPLIED
備　考
REMARKS
EMPLOYEE
PHONE
SUPERVISOR
PHONE
この札は、上記の専任者とその者の上司以外はずしてはならない。
This Tag to be removed only by the above individual or his Supervisor.
NAVFAC FE

NAVFAC FE 12-3
TAG #
WHE #
使用禁止
OUT OF SERVICE
TAGOUT
タグアウト

FIGURE 3-3

CRANE/WHE LOCKOUT/TAGOUT LOG

TAG SERIAL NUMBER	CRANE / WHE #	EQUIPMENT/SYSTEM/COMPONENT/LOCATION	LOGGED BY (PRINT / SIGNATURE/DATE)	ACTIONS REQUIRED BEFORE REMOVAL
PURPOSE OF TAGOUT / SPECIAL INSTRUCTIONS			WORK DOCUMENT #	
DATE/TIME TAGGED	TAGGED BY (PRINT / SIGNATURE)		TAG AUTH (PRINT / SIGNATURE/DATE)	
DATE/TIME REMOVED	TAG REMOVED BY (PRINT / SIGNATURE)		CLEARANCE AUTHORIZED BY (PRINT / SIGNATURE / DATE / TIME)	

TAG SERIAL NUMBER	CRANE / WHE #	EQUIPMENT/SYSTEM/COMPONENT/LOCATION	LOGGED BY (PRINT / SIGNATURE/DATE)	ACTIONS REQUIRED BEFORE REMOVAL
PURPOSE OF TAGOUT / SPECIAL INSTRUCTIONS			WORK DOCUMENT #	
DATE/TIME TAGGED	TAGGED BY (PRINT / SIGNATURE)		TAG AUTH (PRINT / SIGNATURE/DATE)	
DATE/TIME REMOVED	TAG REMOVED BY (PRINT / SIGNATURE)		CLEARANCE AUTHORIZED BY (PRINT / SIGNATURE / DATE / TIME)	

TAG SERIAL NUMBER	CRANE / WHE #	EQUIPMENT/SYSTEM/COMPONENT/LOCATION	LOGGED BY (PRINT / SIGNATURE/DATE)	ACTIONS REQUIRED BEFORE REMOVAL
PURPOSE OF TAGOUT / SPECIAL INSTRUCTIONS			WORK DOCUMENT #	
DATE/TIME TAGGED	TAGGED BY (PRINT / SIGNATURE)		TAG AUTH (PRINT / SIGNATURE/DATE)	
DATE/TIME REMOVED	TAG REMOVED BY (PRINT / SIGNATURE)		CLEARANCE AUTHORIZED BY (PRINT / SIGNATURE / DATE / TIME)	

Figure 3-4

Crane and Rigging Gear Accident Investigation, Reporting and Corrective Actions

1. This section is applicable to all cranes at the activities that are the property of the Navy and are either certified or intended to be certified for use. It also applies to contractor cranes that are operated in support of activity production efforts if they are operated by contractors or Navy licensed operators.

a. All accident investigation and reporting will be done in accordance with reference (h) and this enclosure. The activity Code PR_33 or contracting official is responsible for ensuring accident reports are completed and submitted as required.

(1) In the event of an accident involving a contractor crane, the contractor and the contracting officer will report the accident in accordance with enclosure (10) of this instruction.

(2) All accident reports will be forwarded to Code PW7.4 for concurrence and assignment of accident report number prior to being forwarded to the Navy Crane Center.

b. Accident Definition:

(1) A crane accident occurs when any of the elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in the following; Personnel injury or death. Minor injuries will be reported via your local safety office. Material or equipment damage, dropped loads, derailment, two-blocking, overload, collision including unplanned contact between load, crane, and/or other objects. The last five mentioned are accidents even though there was no material or injuries occurred.

(2) A rigging gear accident occurs when any of the elements in the operating envelope fails to perform correctly during weight handling operations resulting in the following: Personnel injury or death. Minor injuries are reported via the local NAVFAC safety office. Material or equipment damage that requires the damaged item to be repaired because it can no longer perform its intended function. This does not include superficial damage such as scratched paint, damaged lagging, or normal wear on rigging gear; Dropped load, two-blocking of cranes and powered hoists covered by reference (a), section 14 and overload. The last three mentioned items are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component

failure results in damage to other components (e.g., dropped load, damaged load, etc.).

c. The event of a suspected crane or rigging gear accident, the crane operator/rigger will immediately stop the operation and notify supervisor. If, for safety reasons, further action is required by the operator to move the load or stabilize equipment, that action will be performed. The supervisor will immediately notify the activity chain of command.

d. In case of any accident involving a fatality, overturned crane, collapsed boom, in-patient hospitalization or any other major damage to the crane, load or adjacent property PW7.4 must be notified within 8 hours. PW7.4 will provide initial notification to the Navy Crane Center within 24 hours.

e. All other accidents PW7.4 must be notified within 24 hours. PW7.4 will provide initial notification to the Navy Crane Center within 72 hours.

f. PW7.4 will track corrective actions identified in the accident report ensuring all actions to prevent recurrence are completed.

Crane Operator Qualification, Testing and Licensing

1. The activity Commanding Officer will designate the crane licensing official and organization responsible for the management and administration of the program for instructing, testing and licensing of crane operators.

2. All crane license examiners and will be designated in writing by the designated official responsible for the crane licensing program.

3. Crane operators will meet the criteria for licensing as detailed in reference (a), sections 6 through 8 and appendix N (for Category 3 non-cab operated cranes).

4. Category 1, 2, cab operated category 3, and category 4 cranes will be operated only by qualified and licensed personnel within the restrictions of their licenses. Licenses will indicate the specific category, type and capacity of crane that the operator is qualified to operate. The licensing of an individual on one category of crane does not permit the operation of any other category of crane except that for which the operator is licensed.

5. Category 3 non-cab operated cranes will be operated only by personnel who have completed NCC training. Prior to operating any Category 3 crane, the operator must become familiar with the equipment and demonstrate adequate knowledge and skill to their supervisor.

a. Department Heads or his/her designated representative will maintain written verification of NCC training certificates and On-The-Job (OJT) record.

6. Incidental crane operator licenses may be issued in support of maintenance, inspection, and engineering work. Personnel who operate cranes in these circumstances will be tested and licensed in accordance with reference (a), sections 6 through 8.

7. Code PR_33 will maintain a record of operator qualifications and ensure refresher training is conducted in accordance with reference (a), section 13.

8. Prior to being issued an operator's license, applicants requesting initial Category 1, 2, or Category 3 cab-operated, or Category 4 crane licenses must complete the license application process in accordance with reference (a), sections 6 through 8.

a. Applicants must successfully complete initial Crane Safety Training Course in accordance with reference (a), section 13.

b. Local national applicants must successfully complete Host Nation crane licensing requirements.

9. Upon completion of steps a. and b. above, the applicant (herein referred to as the "trainee") must receive hands-on performance training on the specific type(s) and capacity of crane(s) they will be licensed to operate. This training will be documented and retained in the operator's crane license record.

10. During hands-on performance training, the following restrictions will apply:

a. The trainee will only operate equipment under the direct guidance of a qualified, licensed operator.

b. The licensed operator assumes full responsibility for the safe operation of the crane during all training.

c. The trainee must demonstrate knowledge and ability to operate the crane without a load attached prior to operating with a load.

d. The crane operations supervisor (or other designated official) must approve the handling of loads.

e. Trainees shall not perform complex lifts.

11. Following successful hands-on training, the trainee must pass a performance test for the maximum capacity of each type of crane they will be licensed to operate. Performance tests will be conducted by a designated performance examiner and documented in the operator's crane license record.

12. Upon successful completion of all required documentation and performance testing, a crane operator license will be issued in accordance with reference (a), section 6 though 8.

13. Operator licenses will be renewed in accordance with reference (a), section 6 though 8.

14. PR_33 will maintain a crane license record for each operator licensed by his/her department in accordance with reference (a), section 6 though 8.

15. A crane operator's license will be automatically suspended if charged with an accident.

a. PW7.4, PR_33 or other designated personnel may suspend an operator license for justified cause at any time. Documentation of the suspension, justification, and renewal actions will be included in the operator's crane license record.

16. License revocation actions will be conducted in accordance with reference (a), section 8.

Rigging

1. This enclosure is to provide requirements for the procurement, test, inspection, certification, use, and maintenance of rigging gear and miscellaneous lifting equipment (hereafter referred to as lifting and handling gear) used in the performance of crane or rigging operations utilizing Navy owned or operated cranes.

a. All lifting and handling gear used in the performance of crane lifts with Navy owned or operated cranes will be procured, tested, inspected, certificated, used, and maintained in accordance with reference (a), section 14, reference (b) and the applicable portions of this instruction.

2. A history file will be established for each piece of certified lifting and handling gear. The history file will be maintained by PR_33 or designated representative for the entire service life of the gear. In accordance with reference (a), section 14.

a. Each piece of certified lifting and handling gear will be assigned a unique identification number that will allow the gear to be tracked to its specific history record.

b. All changes, updates, or modifications related to the condition or function of the gear (damage, repair, re-certification, capacity changes due to downgrade, etc.) must be approved by the original equipment manufacturer (OEM) or activity engineering and documented in the history file.

3. Personnel involved with procurement of lifting and handling gear will ensure that all new gear meets or exceeds the requirements as identified in reference (a), section 14.

a. Procurement documents must include, but are not limited to; minimum safety factors, working load limits (WLL), size and weight restrictions, breaking strength test certificates, and test load percentage in accordance with reference (a), table 14-1 with specified hold times in accordance with reference (a), section 14.

b. Documentation of satisfactory proof test (meeting the requirements identified in reference (a), section 14) will be obtained from manufacturer whenever possible to eliminate further proof testing.

c. All requests for the procurement of rigging gear will be reviewed by PR_33 or designated representative.

4. Identification and marking is required to ensure the lifting and handling gear being used is part of a certification program. Each piece of lifting and handling gear used in the performance of crane lifts with Navy owned or operated cranes will be tagged, engraved or otherwise marked with specific information in accordance with reference (a), section 14.

5. Prior to initial use, load testing and inspecting of lifting and handling gear will be accomplished in accordance with reference (a), section 14.

6. Prior to being re-certified, periodic inspections (and load tests as required) will be accomplished by a qualified Rigging Gear Inspector in accordance with reference (a), section 14.

a. These periodic inspections will be documented in the history file for the lifting and handling gear in accordance with reference (a), section 14.

7. Prior to and following each use, all lifting and handling gear will be visually inspected by the user to verify the rated load, marking, current inspection status, serial number and condition. This inspection is not intended to be as thorough as the periodic inspection but should be thorough enough to ensure obvious defects or damage is discovered. Any time lifting and handling gear fails the user's inspection, the gear must be removed from service and forwarded to a qualified Rigging Gear Inspector for further evaluation.

Note: Defective, damaged, and/or uncertified lifting and handling gear must be marked or tagged in a way that indicates it is not to be used for lifting. If marking or tagging is not practical, the gear must be clearly segregated from certified "ready to use" gear.

8. Equipment not specifically addressed by reference (a).

a. Integral lifting attachments (padeyes, threaded holes, lifting lugs, OEM installed lift points, etc.) and OEM provided rigging gear used for limited lifts (e.g. offload, initial storage, reloading and shipping)are not considered rigging gear but must be visually inspected prior to use. When determined to be defective (i.e., bent, twisted, stretched, cracked, etc.), the lifting attachment shall not be used, and must be tagged or

marked in a manner that identifies it is not to be used as an attachment for lifting.

b. Unique or custom fabricated lifting and handling gear (i.e., no OEM documentation, engineered drawings, calculations, procedures, etc.) must be certified to the requirements of reference (a) prior to use. Where load testing and certification of this type of gear is not practical, specific engineering guidance and direction must be obtained prior to the use of the gear.

9. Repairs and alteration must be in accordance with reference (a), section 14.

10. All lifting and handling work will be accomplished in accordance with reference (a), sections 10 and 14.

a. All personnel using lifting and handling gear must be qualified in accordance with reference (a), section 13.

b. Prior to assigning personnel to crane or rigging work supervisors will ensure assigned personnel are trained and qualified.

Crane Operations Safety

1. This enclosure is to provide specific direction on the safe use and operation of Navy owned or operated cranes.

a. All operations involving Navy owned or operated cranes will be conducted safely, in accordance with all references and applicable portions of this instruction.

b. It is the responsibility of the crane team to ensure all crane operations are conducted with the safety of personnel and equipment as their highest priority. Operational Risk Management (ORM) is applicable to all crane operations and should be utilize in the planning and preparation of crane work.

2. The minimum crane team for all categories 1, category 4, and cab operated category 2 and cab operated category 3 crane operations will consist of a crane operator and a rigger in charge.

a. The supervisor will determine if additional personnel such as crane riggers and/or crane walkers are needed and will assign them accordingly.

b. For non-cab operated category 2 and non-cab operated category 3 crane operations, the minimum crane team will consist of a crane operator and a rigger in charge. If the size and complexity of the work is limited and the operation can be safely conducted by one person, the operator may also function as the rigger in charge. The supervisor will determine if additional personnel such as crane riggers and/or crane walkers are needed and will assign them accordingly.

3. All crane team personnel are responsible to perform and support safe crane work in accordance with reference (a).

a. In addition to the responsibilities identified in reference (a), the following also apply.

(1) The rigger in charge will be the primary crane signaler and will be uniquely identified (reflective vest, arm band, stripe on hard-hat, etc.). As required to ensure safe crane operations, the rigger in charge will designate or assign other crane riggers to provide signals to the operator and will identify them to the operator prior to the lift.

(2) Crane operators will only operate cranes with a current certification, unless the crane is undergoing maintenance or load test in support of repair or certification.

(3) Crane operators will not operate crane systems which are tagged with DANGER or LOCKOUT/TAGOUT tag(s).

(4) Crane operators will not rely on limit switches to limit or stop crane operation. When approaching limits of crane all operators will reduced speed in order to prevent accidental damage of the crane due to potential failure of the limit switches.

(5) Crane operators will not attempt, be permitted, or be required to operate a crane in an unsafe manner or to operate a crane known to be in an unsafe condition. Operators will have the authority and are encouraged to stop and/or refuse to handle loads if they believe it is unsafe.

4. Supervisors shall control the use of all keys bypassing safety devices.

a. Bypass keys will be removed when not in use and will be controlled by the supervisor.

b. When operating in remote locations, the operator may retain the bypass key but must receive permission from the supervisor before bypassing/defeating safety devices during normal production use of the crane (not required for performance of the operator's pre-operation inspection).

c. On cranes where safety devices may be bypassed by other means, permission for bypassing/defeating safety devices (except for performance of the operator's pre-operation inspection) will be obtained from the supervisor.

d. Safety device bypass requirements will be posted in the operator's cab of all cranes equipped with safety device bypass capability.

e. Individual activities/detachments may establish more restrictive measures or crane specific safety device bypass procedures as needed to ensure safe operation of cranes. Such procedures will be in writing, approved by the department head responsible for crane operations, and posted in the cab of those crane(s) to which the procedure applies.

5. The effects of adverse weather or high winds on cranes and loads can affect the stability of the crane and these operations must follow the requirements of a complex lift. The following control points relate to suspension of crane operations based on adverse weather and wind:

a. Wind velocity from 0 to 5 meters per second (approximately 0 to 11 miles per hour); use caution. The use of tag line(s) is/are recommended. The use of Taglines is at the discretion of the Rigger in Charge (RIC) or management.

b. Wind velocity from 5 to 9 meters per second (approximately 11 to 20 miles per hour); no lifts will be made which exceed 50 percent of the crane's capacity based on manufacturer's load chart values or certified capacity. The use of tag line(s) is/are recommended. The use of Taglines is at the discretion of the (RIC) or management.

c. Wind velocity over 10 meters per second (approximately 22 miles per hour); all crane operations will be suspended.

d. In case of emergency, the Department Head responsible for crane operations may allow crane operations with restrictions based on the results of a risk assessment.

e. If reliable reports of wind gusts exceeding 10 meters per second are forecast, on-site crane operations will be conducted based on the restrictions identified in this enclosure.

f. Crane operations will be suspended at the first sign of lightning and will not resume until the threat of lighting strike has passed.

g. Supervisors will monitor local weather conditions to ensure the requirements of this enclosure are not violated.

6. All cranes will be properly shutdown and secured when not in operational use. At a minimum, all cranes will be shutdown and secured in accordance with section 10 of reference (a).

a. Specific procedures for shutdown and securing will vary by crane type and operators will follow crane OEM direction for crane shutdown and securing whenever it is available.

b. For those cranes without specific shutdown and securing procedures, and in addition to the requirements of section 10 of reference (a), the following will also be accomplished at the

end of each shift or whenever the crane will be un-manned for an extended period of time:

(1) All lifting and handling gear will be removed from the cranes hooks.

(2) All hooks will be raised near the upper hoist limit switch.

(3) The crane will be positioned in a safe location.

(4) Power to the cranes operating controls will be secured (at the pendant control or operational work station for non-cab operated cranes).

Complex Lifts

1. This enclosure is to provide specific direction for making complex lifts with Navy owned or operated cranes.

2. Complex Lifts have moderate to high level of risk for equipment damage or personnel injury. All complex lifting operations involving Navy owned and operated cranes will be conducted safely, in accordance with the requirements of section 10 of reference (a) and the applicable portions of this instruction.

3. In addition to the requirements found in section 10 of reference (a), the following direction also applies to all complex crane lifts:

a. To ensure that all critical elements associated with the lift are adequately identified and discussed by the crane team prior to performing complex lifts, locally developed written procedures (using the format identified in this enclosure or similar) will be used.

b. As a minimum, all written procedures for complex lifts will contain the following:

(1) A basic description of the item to be lifted.

(2) The total load that will be placed on the crane hook, including the weight of the rigging gear if it exceeds 100 lbs. (approx. 45.kg).

(3) As needed to clarify unusual or complex lifting and handling gear configurations, a lift sketch will be developed showing the gear configuration and listing all gear to be used for the lift.

Note: Complex lift rigging sketches do not necessarily need to be professionally developed (e.g. computer generated). If sufficient detail and clarity can be achieved, sketches can be hand drawn.

(4) In the case of personnel lifts, crane capacities and lift locations must also be identified on the lift procedure.

(5) For complex lifts that are repetitive in nature, a standardized written procedure may be used.

c. Written procedures and lift sketches used in support of complex lifts must be on-site during the lift and will be retained on file for future reference.

d. PR_33 is responsible for complex lift procedure preparation and use.

e. Engineering assistance will be obtained in those instances when difficult complex lift calculations are required to develop a comprehensive lift plan.

f. A rigging or operations supervisor will conduct a pre-lift brief with all involved personnel prior to all complex lifts.

g. A check sheet for the specific complex lift will be signed by the rigger-in-charge, crane operator, and either a rigger supervisor, operator supervisor, PR_33 or PW7.4 prior to conducting the lift.

h. A rigger supervisor, operator supervisor, PR_33 or PW7.4 will be on site to oversee complex lifts. For complex lifts that are repetitive in nature, supervisor oversight is only required for the first lift in the series.

4. Hazardous operations requiring additional precautions:

a. When planning to operate cranes in the vicinity of overhead transmission lines, supervisors will personally supervise the operation to ensure that the specific requirements, work practices, and clearances identified in reference (a), section 10 are followed.

b. Hoisting of personnel with a crane must be approved by the local NAVFAC safety office and only when no safer means is available for personnel to access points aloft.

(1) Supervisors will personally supervise personnel lifts to ensure that the specific requirements, work practices, and clearances identified in reference (a), section 10 are followed.

(2) All personnel lifts are complex lifts and require written procedures. Written procedures for personnel lifts will be approved by the local NAVFAC safety office prior to use.

c. Operations in adverse weather or high winds could be considered a complex lift depending on the situation and the procedures in enclosure (7), paragraph (5) must be followed.

d. Multiple crane or hook lifts (lifts that require the use of more than one crane, more than one hook on the same crane, or a crane and forklift together) often involve unique hazards, and are always considered complex lifts. The following special requirements apply:

(1) A safety factor of 1.5 will be used for each crane or hook.

(2) A planning meeting with all supervisors involved will be held prior to the lift to identify the specific details.

(3) A complex lift plan is required and must include, but is not limited to, the information in figure 8-1, Complex Lift Plan Sheet and figure 8-2, Complex Lift Checklist.

(4) All crane team members involved with the lift will be briefed by the rigging or operations supervisor.

(5) A Rigging or Crane Operator Supervisor must be on the job site throughout the entire lift.

(6) If a mobile crane is being used, the cranes must be level and adequate ground support verified.

(7) Hoisting and lowering speeds must be relatively equal to prevent transferring an unplanned shift of the load weight and to maintain a level load position.

All movements of the cranes and load will be as smooth as possible. Swinging, booming, and traveling must be minimized.

COMPLEX LIFT PLAN SHEET

Lift Requested By:		Shop/Code:	
Date Lift Will Be Performed:		Lift Location:	
Item to be lifted:			
Item Weight (Known):		Item Weight (Estimated):	
If Estimated Weight Exceeds 50% of Crane Capacity at Max. Radius Load Weight ***Must be Verified***			
Minimum Crane Capacity Required:			
Crane Team Members By Trade:			
Rigger in Charge:			
Crane Operator:			
Crane Riggers:			
Signalman:			
Describe Planned Load Travel Path (LIFTS OVER PERSONNEL ARE PROHIBITED)			
List All Rigging Gear To Be Used (Type, ID Number, Capacity, Inspection Due Date)			
Rigging Sketch Needed? (Yes/No)	Load Indicator Required? (Yes/No)	Chain Hoist Needed (Yes/No)	
Crane Maker/Model	Crane Number	Max.Capacity	
Maximum Hook Radius During Lift		Max. Boom Length During Lift	
Crane Capacity at Max. Radius and Max. Boom Length		Max. Hook Speed	*Slow*
On Hook Weight (including rigging)	Estimated percentage carried by each crane or hook.		
Factor of Safety (Crane Max. Capacity Divided By Load Weight)			
Must Be a Minimum of: 2.0 For Personnel Lifts, 1.5 For Multiple Crane Lifts			
Locations of Close Clearance To Crane:			
Locations of Close Clearance To Load:			
Seating or Binding Areas:			
Communication Means:			
Personnel Lift Data:			
Trial Lift Weight:		*(Must Equal Expected Lift Weight)*	
Proof Test Weight:		*(125% Of Rated Basket Capacity)*	

Concurrences	Signature	Date
Rigger in Charge		
Crane Operator		
Rigging/Operations Supv.		
Rigging Coordinator		
Safety (only for personnel lifts)		

Figure 8-1

Complex Lift Checklist
(To Be Completed At Each New Setup Location)

	✓ *Check When Verified*	
	Operator	**Rigger in Charge**
Lift Plan Complete and Concurrence Obtained	_____	_____
Pre-Lift Briefing Completed, All Lift Plan Items Discussed	_____	_____
Crane Is Level	_____	_____
Outriggers Properly Set On Mobile Cranes	_____	_____
Anti-Two Block Device Operational	_____	_____
Rigging Is Per Lift Plan	_____	_____
Crane ODCL Complete	_____	_____
Crane Team Briefing Complete	_____	_____
* Crane Does Not Have Freefall Capability	_____	_____
* Trial Lift Completed For Each Setup Location	_____	_____
* Proof Test Completed For Each Job Site	_____	_____
Rigger or Operator Supervisor On Site	_____	_____

** Personnel Lifts Only*

_____ _____
Rigger-In-Charge **Date**

_____ _____
Crane Operator **Date**

_____ _____
Crane Operator or Crane Operator Supervisor **Date**

(Note: Crane or Rigging Supervisor must be on site)

Figure 8-2

Operator Checks

1. To ensure that the crane is functioning properly and is in suitable condition to safely operate, crane operators will perform pre-use safety checks. These checks will be conducted and documented in accordance with reference (a), section 9 and as noted in this enclosure.

2. Cranes will not be put into service until all required pre-use checks have been completed and documented.

3. For Category 1, 2, 4, and cab operated category 2 and 3 cranes a pre-use check will be performed and documented prior to the first use of the crane each day on figure 9-1, Operator's Daily Checklist (ODCL).

a. At no time will ODCL forms be filled out prior to the check being made by the operator.

b. The supervisor will review, sign and forward the ODCL to the crane maintenance department.

c. As a minimum, the current and previous month's ODCLs will be retained in the cranes history file.

4. For Category 2 and 3 non-cab operated cranes a pre-use check will be performed prior to the first use of the crane each day using figure 9-2, Operator's Pre-use/Monthly Checklist (Pre-use/OMCL).

a. For Category 2 & 3 Bridge, wall, and gantry cranes, the pre-use check must be documented and filed at least once each calendar month that the crane is in service.

(1) When deficiencies are noted, report them to the supervisor as soon as possible. Equipment must not be operated until inspected and cleared by a qualified inspector.

b. For each certified crane in use, a completed checklist will be signed by the operator and submitted to the operator's supervisor at least once each calendar month.

c. The supervisor will review, sign and forward the Pre-use/OMCL to the crane maintenance department.

d. As a minimum, the current and previous month's Pre-use/OMCL will be retained in the cranes history file.

CATEGORY 1, 2, 4 AND CAB OPEATED CATEGORY 3 CRANE OPERATOR'S DAILY CHECKLIST
カテゴリー１，２，４と運転室付きカテゴリー＆３クレーン日常点検表

CRANE NO. クレーン番号	TYPE/CAPACITY 形式/容量	LOCATION 場所	CERTIFICATION EXPIRATION DATE 使用許可認証有効期限	SHIFT 勤務形態	HOUR METER アワーメーター		HRS OPERATED 運転時間	DATE 日付
				1 2 3	START	STOP		

OPERATORS 運転士

LEGEND 凡例
S = SATISFACTORY 良　U = UNSATISFACTORY 不良　NA = NOT APPLICABLE 適用外

1 WALK AROUND CHECK 見回り点検

		S	U	NA
a	Safety Guards and Plates 安全ガードとプレート			
b	Carrier Frame and Rotate Base * キャリアフレーム・旋回ベース			
c	General Hardware 締め付け具（ボルト・ナット等）			
d	Wire Rope * ワイヤロープ			
e	Reeving * ワイヤロープの巻きかけ状態			
f	Block * ブロック			
g	Hook * フック			
h	Sheaves * シーブ			
i	Boom and Jib * ブームとジブ			
j	Gantry, Pendants and Boom Stops * ガントリ・ペンダント・ブームストップ			
k	Walkways, Ladders and Handrails 通路・はしご・手すり			
l	Wind locks and Boom Stops 旋回ロック・ブームストップ			
m	Tires/Wheel /Tracks タイヤ・ホイール・走行台車			
n	Leaks 漏れ			
o	Outriggers/Stabilizers and Locking Devices * アウトリガー・安定装置・固定装置			
p	Area Safety * 周囲の安全性			

2 MACHINERY HOUSE 機械室点検

		S	U	NA
a	House Keeping 清掃状態			
b	Diesel Engine * ディーゼルエンジンと発電機			
c	Leaks 漏れ			
d	Lubrication 潤滑			
e	Battery バッテリー			
f	Lights 照明			
g	Glass ガラス			
h	Clutch and Brakes * クラッチとブレーキ			
i	Electric Motors * 電動機			
j	Compressor 補助エンジンとコンプレッサー			
k	Danger/Caution Tags * 危険/警告札			
l	Fire Extinguishers 消火器			
m	Hoist Drum Pawl/ratchet Locks * ホイストドラムの爪/ラチェットロック			

3 OPERATOR CAB CHECK 運転室点検

		S	U	NA
a	Gauges 計器類			
b	Indicator and Warning Lights/Bells 指示灯・警告灯・警鐘			
c	Visibility * 視界			
d	Load Rating Charts * 定格荷重表			
e	List/Trim Indicator (Floating Cranes) * リスト/トリム計（浮きクレーン）			
f	Boom Angle/Radius Indicator * ブーム角度/半径計			
g	Fire Extinguishers 消火器			
h	Level Indicator (Mobile Cranes) * 水準器（移動式クレーン）			
i	Danger/Caution Tags * 危険/警告札			

4 PRE LIFT OPERATIONAL TEST 操作点検

		S	U	NA
a	Area Safety * 周囲の安全性			
b	Outriggers and Stabilizers * アウトリガー・安定装置			
c	Unusual Noises 異常音			
d	Operation * 操作			
e	Wire rope/chain * ワイヤーロープ/チェーン			
f	Control Action * 制御動作			
g	Brakes * ブレーキ			
h	Boom Angle/Radius Indicator * ブーム角度/半径計			
i	Limit Switch * リミットスイッチ			
j	Emergency Stop * 緊急停止装置			
k	Other Operational Safety Devices * 運転安全操作装置類			
l	General Safety Devices 一般安全装置			
m	Fleeting Sheaves フリーディングシーブ (動滑車)			
n	Wind speed within the limit 運転規制値内を超える風速か			

INSTRUCTIONS（記入方法）– Check all applicable items indicated, each shift. Suspend all operations immediately when observing an unsatisfactory condition of any item indicated with an asterisk (*) unless the condition has been reviewed and continued operation has been authorized by the activity engineering organization. In addition, suspend operation when any unsafe condition is observed and immediately notify supervisor. For any unsatisfactory item, identify the specific component and describe the deficiency in the "REMARKS" block.
始業毎に上記に該当する項目について点検を行うこと。星印 (*) のついた項目に不具合を見つけた場合には、ただちにクレーンの使用を中止すること。所属部隊の技術部門が不具合状態を点検して使用継続が認められない限り、クレーンを使用してはならない。また、不安全状態を発見した場合にはクレーンの使用を中止して、ただちに監督者に報告すること。不良が見つかった個所の部品名を具体的に示し、不具合の状態を備考欄に記入すること。

SUPERVISOR'S SIGNATURE 監督者署名
DATE 日付

FIRST OPERATOR'S SIGNATUR 最初の運転士署名	OPERATOR'S SIGNATURE 運転士署名	OPERATOR'S SIGNATURE 運転士署名	OPERATOR'S SIGNATURE 運転士署名	Wind Velocity (m/s) /Time monitored 風速 (m/s)・計測時
DATE 日付	DATE 日付	DATE 日付	DATE 日付	

REMARKS 備考

Figure 9-1

CATEGORY 2 & 3 NON CAB OPERATED CRANE OPERATOR'S PRE-USE / MONTHLY CHECKLIST
カテゴリー ２＆３運転室無しクレーン 始業前／月例点検表

CRANE NO. クレーン番号	TYPE/CAPACITY 形式/容量	LOCATION 場所	CERTIFICATION EXPIRATION DATE 使用許可認証有効期限	SHOP / CODE ショップ／コード	DATE 日付

OPERATORS 運転士

LEGEND 凡例
S = SATISFACTORY 良　U = UNSATISFACTORY 不良　NA = NOT APPLICABLE 適用外

	1 WALK AROUND CHECK 見回り点検	S	U	NA		2 MACHINERY HOUSE 機械室点検	S	U	NA		3 OPERATIONAL TEST 操作点検	S	U	NA
a	Safety Guards and Plates 安全ガードとプレート				a	House Keeping 清掃状態				a	Area Safety 周囲の安全性 *			
b	General hardware 外観				b	Leaks 漏れ				b	I Unusual Noises 異常音			
c	Wire Rope ワイヤロープ *				c	Lubrication 潤滑				c	Control Action 制御動作 *			
d	Reeving ワイヤロープの巻きかけ状態 *				d	Clutch and Brakes クラッチとブレーキ *				d	Wire rope/ chain ワイヤーロープ/チェーン *			
e	Block/Blocks ブロック *				e	Electric Motors 電動機 *				e	Brakes ブレーキ *			
f	Hook /Hooks フック *				f	Danger/Caution Tags 危険/警告札 *				f	Limit Switch リミットスイッチ *			
g	Sheaves シーブ *				g	Hoist Drum Pawl/ratchet Locks ホイストドラムの爪/ラチェットロック				g	Emergency shut off 緊急停止装置 *			
h	Rail / Bumpers stop レール、バンパー止め				h	Certification tag 認証札 *				h	General Safety Devices 一般安全装置）			
i	Leaks 漏れ				i	Warning / Indicator lights 警告灯／表示灯 *								
j	Load chain on chain hoist チェーンホイストのロードチェーン *													
k	Area Safety 周囲の安全性 *													

INSTRUCTIONS（記入方法）– Check all applicable items indicated, each shift. Suspend all operations immediately when observing an unsatisfactory condition of any item indicated with an asterisk (*) unless the condition has been reviewed and continued operation has been authorized by the activity engineering organization. In addition, suspend operation when any unsafe condition is observed and immediately notify supervisor. For any unsatisfactory item, identify the specific component and describe the deficiency in the "REMARKS" block.
始業毎に上記の該当する項目をすべて点検すること。星印 (*) がついた項目に不具合を見つけた場合には、ただちにクレーンの使用を中止すること。所属部隊の技術部門が不具合状態を点検して使用継続が認められない限り、クレーンを使用してはならない。また、不安全状態を発見した場合にはクレーンの使用を中止して、ただちに監督者に報告すること。不良が見つかった個所の部品名を具体的に示し、不具合の状態を備考欄に記入すること。

OPERATOR'S SIGNATURE 運転士署名

DATE 日付

REMARKS 備考

SUPERVISOR'S SIGNATURE 監督者署名

DATE 日付

Figure 9-2

Contractor Cranes

1. Rented or Leased Cranes operated by Navy or Base Operating Service (BOS) Contractors and Crane and Rigging Equipment Owned and Operated by (BOS). Rented or leased cranes operated by Navy or (BOS) employees will be inspected; load tested and certified to the requirements of reference (a), section 3 prior to use. These requirements will be stipulated in the rental or lease contract.

a. Where the OEM does not permit overload testing, the capacity of the crane will be administratively down rated in accordance with reference (a), section 1.

b. For long term leases (over 4 months) and for BOS contractor owned cranes the maintenance and inspection requirements of reference (a), section 2 will also apply.

c. Crane operators will be licensed in accordance with reference (a), sections 6 through 8 (or equivalent for BOS contractor personnel).

d. Crane operations will be in accordance with reference (a), sections 9 thru 12 and this instruction.

e. Rigging equipment and usage practices will be in accordance with reference (a), section 14.

2. Non-Navy Owned Cranes. All contractor owned and operated cranes entering a naval activity under a NAVFAC Far East contract or area of responsibility (AOR) will comply with the contractor crane/WHE requirements stated in reference (a) and all established Host Nation regulations and requirements concerning safe WHE operating conditions and practices. In addition, the following shall also apply:

a. General Requirements

(1) This enclosure and reference (g) will be included in all written contracts administered by NAVFAC Far East whenever crane service is anticipated, including delivery of material utilizing any variation of cranes as seen in reference (a), appendix B.

(2) The crane contractor shall notify the contracting officer or his/her representative of the exact date and approximate time the crane is expected to enter the activity. Notification must take place no less than 7 days in advance of any cranes entering the activity for routine lifts, 14 days in advance

for complex lifts in order to coordinate necessary oversight and quality assurance spot checks.

(3) When entering the facility in support of a NAVFAC Far East contract, all variation of cranes, excavators, rigging equipment (including vehicles equipped with cranes) must present a completed copy of the "Certificate of Compliance" (figure 10-1) to security personnel responsible for activity access control.

a) All contractors must have a Certificate of Compliance (figure 10-1) for cranes, other equipment and rigging gear used to lift or suspend loads.

b) This certificate obligates the contractor to ensure that the crane, excavator, rigging gear to be used conform to Host Nation standards and the operator(s)/rigger(s) is/are fully trained and qualified to safely operate the crane or other equipment (including specific direction not to bypass safety devices during operations).

c) All applicable blocks of the Certificate of Compliance (figure 10-1) must be completed.

d) A copy of the completed Certificate of Compliance (figure 10-1) must be clearly posted in the crane/vehicle cab in the case of rigging operations it must be in the onsite field office.

(4) In instances where the vendors/contractors do not intend to perform lifting or suspension operations, the contractor must enter the words "NO CRANE USE" on the Certificate of Compliance (figure 10-1) in the box designated for the crane operator's name. The form must be posted in a conspicuous location on the vehicle or in the crane/vehicle cab in the case of rigging operations it must be in the onsite field office.

For mobile cranes with OEM rated capacities greater than 2,000 lbs, the crane operator must be designated as qualified by a source that qualifies crane operators (i.e., a union, a government agency, or an organization that tests and qualifies crane operators). Proof of qualifications shall be provided.

(5) For barge mounted mobile cranes, a load indicating device, a wind indicating device and a marine type list and trim indicator readable in one-half degree increments is required.

(6) Contractor personnel are not authorized to operate navy-owned WHE at any NAVFAC Far East activity unless specific

provisions for that practice are made in the contract and approved by PR_33 or PW7.4 in his absence.

b. Activity FEAD/ROICC Responsibilities

(1) Ensure that contracts which involve WHE work contain all applicable provisions/requirements as identified in references (a) and (g) and this enclosure.

(2) Ensure that all contract requirements related to WHE work are enforced, (including work performed by sub-contractors).

(3) Ensure that adequate oversight is provided during contractor WHE operations including contractor accident prevention, accident investigations and corrective actions.

a) The degree of oversight will be based on the risk involved to government personnel and property.

b) The Contractor Crane or Rigging Operations Checklist (figure 10-2(a), 10-2(b)) will be used to document oversight of contractor crane operations by a qualified NAVFACFE representative.

c) Copies of all completed Contractor Crane or Rigging Operations Checklist (figure 10-2(a), 10-2(b)) will be sent to the activity FEAD/ROICC. Copies will be retained by FEAD/ROICC or their representative for a minimum of 1 year (from the date of receipt).

d) Ensure that personnel conducting contractor crane surveillances complete NAVFAC Far East Contractor Crane Oversight training. Given by a NAVFAC Far East qualified trainer appointed by Code PW7.4. The only authorized training material will be provided by PW7.4.

(4) Each activity will designate a point of contact responsible for ensuring contractor crane surveillance/oversight is performed and documented as required. The point of contact will be either a FEAD/ROICC employee or a designated employee of the activity or command.

(5) Ensure that contractor crane entry notification is effectively communicated to the designated point of contact as identified above.

(6) Ensure that activity security branch personnel are aware of contractor crane entry requirements as identified in this enclosure.

(7) During Technical Evaluation Boards (TEB), each FEAD/ROICC will evaluate contractor WHE safety performance prior to awarding future work contracts.

(8) Twice annually, ensure that contractor crane surveillance metrics report is provided to PW7.4 for evaluation (using figure 10-3a and 10-3b) of this enclosure.

c. Critical Lifts - Not less than 14 days prior to making a critical lift, the contractor will submit a critical lift plan for each lift that will meet any of the following criteria:

(1) Lifts exceeding 75 percent of crane or hoist capacity (at any radius of lift).

(2) For mobile cranes mounted on barges, lifts exceeding 50 percent of hoist or crane capacity at any radius of the lift.

(3) Lifts involving more than one crane or hoist, or other machine.

(4) Lifts of personnel (lifts of personnel suspended by rigging equipment from multi-purpose machines, material handling equipment or construction equipment is not permitted).

(5) Lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks.

(6) Lifts involving the erection of cranes.

(7) Lifts in the vicinity of overhead power transmission lines.

d. Each critical lift plan will include the following as applicable:

(1) The size and total weight of the load to be lifted including (crane or other machine) deductions and rigging equipment that add to the total weight.

(2) The OEM's maximum load capacities for the entire range of the lift.

(3) The lift geometry, including crane position, boom length and angle, height of lift, and radius for the entire range of the lift. This applies to both single and dual crane lifts.

(4) A written rigging plan, showing lift points, rigging gear, and rigging procedure.

(5) The environmental conditions (maximum wind speed being the most critical) under which lift operations are to be stopped.

e. For lifts of personnel, the plan will demonstrate compliance with Host Nation requirements.

f. All critical lifts (in any configuration) will not be performed without prior review and concurrence by PR_33 or PW7.4. All approved critical lift plans must be forwarded to PW7.4 for tracking and filing.

g. For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.

h. When working in confined areas where crane counterweight swing (tail swing) could trap or injure a worker, barricades must be positioned to help prevent unauthorized personnel from entering the area.

i. When requested, the contractor will provide documentation of all crane certification, testing, and inspections as well as crane operator qualification records.

j. When requested, the contractor will provide crane specific data needed to ensure facility ground loading restrictions/conditions are not exceeded.

3. WHE Accident Reporting

(1) The contractor will notify the contracting officer of all known or suspected WHE related accidents as soon as practical after the accident has occurred (no longer than 4 hours). The accident scene will be secured and evidence protected until released by the contracting officer. Crane operations will not continue until a cause is determined and corrective actions are in place to the satisfaction of the contracting officer and the host facility.

(2) Within 15 days, the contractor will provide the contracting officer with a completed WHE Accident Report using the figure 10-4. The report will contain a summary of circumstances, an explanation of cause, photographs, and planned corrective actions to prevent a reoccurrence.

(3) Certifying officials and contracting officers will evaluate all contractor submitted WHE accident reports. PW7.4 must be notified as soon as practical but no later than 24 hours after an accident occurs. PW7.4 will provide the Navy Crane Center initial notification within 72 hours of any accident occurring. All finalized accident reports will be forwarded to PW7.4 within 20 calendar days from the date of the accident for review and serialization. PW7.4 will forward the finalized accident report to the Navy Crane Center within the required 30 days.

CERTIFICATE OF COMPLIANCE
コンプライアンス証書

This certificate shall be signed by an official of the company that provides cranes (or multi-purpose machines, material handling equipment, or construction equipment used to lift loads suspended by rigging gear) for any application under this contract. Post a completed certificate on each crane or alternate machine (or in the contractor's on-site office for rigging operations) brought onto Navy property.
本証明書は本契約の下、あらゆる目的のためにクレーン(又は玉掛け用具で荷物を吊上げる事に使用される多目的機器・フォークリフト・建設機器)を用意する会社の役員の署名を必要とする。記入済み証書を海軍施設内に持ち込む各クレーン又はクレーンに代わる機器(当該機器が関与しない玉掛けのみの作業については業者の現場事務所内)に掲示すること。

CONTRACTING OFFICER'S POINT OF CONTACT (Government Representative): 契約担当官の連絡先(アメリカ政府代表者):	PHONE : 電話番号:
PRIME CONTRACTOR / PHONE: 主契約業者/電話番号:	CONTRACT NUMBER : 契約番号:
LOCATION (To include building / pier number or specific information to identify work location. In case a contract involves multiple work locations, list all of them) 作業現場 (建物/岸壁番号、もしくは作業現場を特定できる具体的な情報を記入。複数の場所で作業を行う場合は全ての現場名を記入)	CRANE/RIGGING OPERATION PERIOD クレーン/玉掛け作業期間 START DATE 開始日 / END DATE 終了日
CRANE OR ALTERNATE MACHINE SUPPLIER/PHONE (if different from prime contractor): クレーン又はクレーンに代わる機器の供給業者/電話番号(主契約業者と異なる場合):	CRANE OR ALTERNATE MACHINE NUMBER (i.e., ID number) : クレーン又はクレーンに代わる機器の番号 (例 識別番号等):
CRANE OR ALTERNATE MACHINE MANUFACTURER/TYPE/CAPACITY : クレーン又はクレーンに代わる機器の製造者/形式/容量:	
CRANE OR ALTERNATE MACHINE OPERATOR'S NAME (S) / LICENSE NUMBER : クレーン又はクレーンに代わる機器の運転士名(複数可) / 免許証番号:	

I certify that
私は下記を証明します。
1. The above noted crane or alternate machine and associated rigging gear conform to applicable OSHA regulations (host country regulations for naval activities in foreign countries) and applicable ASME B30 standards. The following OSHA regulations and ASME standards apply:_____.
1.上記のクレーン又はクレーンに代わる機器および付属の玉掛け用具は該当するOSHA(アメリカ労働省労働安全保健局)の規則(アメリカ国外に駐留する海軍基地においては現地の法令および規則)および該当するASME B30規格に準拠している。
次のOSHA規則およびASME規格を適用する:_____.
2. The operators noted above have been trained and are qualified for the operation of the above noted crane(s) or alternate machine(s).
2.上記の運転士は本記載のクレーン又はクレーンに代わる機器を運転する訓練を受け運転資格を所持している。
3. The operators noted above have been trained not to bypass safety devices during lifting operations.
3.上記の運転士はクレーン作業中に安全装置を解除しないよう教育を受けている。
4. The operators, riggers and company officials are aware of the actions required in the event of an accident as specified in the contract.
4.上記の運転士・玉掛け作業員・会社役員は当該契約中に規定する事故発生時の処置を承知している。

COMPANY OFFICIAL SIGNATURE : 会社役員の署名:	DATE : 日付:
COMPANY OFFICIAL NAME/TITLE : 会社役員の氏名/役職名:	

POST ON CRANE (OR ALTERNATE MACHINE) (IN CAB OR VEHICLE)
クレーン(又はクレーンに代わる機器)に掲示 (運転室または車両)
(or in the contractor's on-site office for rigging operations)
(当該機器が関与しない玉掛けのみの作業については業者の現場事務所内に掲示)

Figure 10-1

CONTRACTOR CRANE OR RIGGING OPERATION CHECKLIST
契約業者クレーン及び玉掛け作業チェックリスト

		YES はい	NO いいえ
1	Is the Certificate of Compliance, P-1, in the operator's cab (or in the contractor's on-site office for rigging operations) with the current operator's name listed? 運転室内(玉掛け作業については業者の現場事務所内)に現在操作している運転士の名前が記載されたコンプライアンス証書 (P-1)があるか？		
2	Is the crane/machine transited to and from the job site correctly? Are the OEM instructions for travel being followed? クレーン/機器は作業現場へ(から)正しく搬送されているか？製造メーカーの走行手順が順守されているか？		
3	Does the operator know the weight of the load to be lifted? 運転士は吊り上げる荷物の重量を知っているか？		
4	Is the load to be lifted within the crane/machine manufacturer's rated capacity in its present configuration? 荷物の重量は現在のクレーン/機器のセッティングにおいて製造メーカーの定める定格容量以内にあるか？		
5	Are outriggers or stabilizers required? アウトリガー又はスタビライザーは必要か？		
6	If outriggers are required, are outriggers fully extended and down, and the crane load off the wheels? アウトリガーが必要な場合、完全に張り出されて接地しているか？クレーンの車輪が地面から離れているか？		
7	If the crane/machine level and on firm ground, if the ground is not firm is the crane/machine blocked? クレーン/機器は水平で堅固な地面にあるか？もし地面が堅固でないならば、クレーン/機器に敷板が使用されているか？		
8	If blocking is required, is the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad? 敷板が必要な場合、アウトリガーパッドの全面が敷板によって支持されているか？十分な強度を持つ敷板が荷重が掛かったアウトリガーパッドを安全に支持しているか？		
9	If outriggers are not used, is the crane/machine rated for on-rubber lifts by the manufacturer's load chart? If stabilizers are used and not outriggers and the wheels are not off the ground is this the correct setup in accordance with the OEM? アウトリガーが使用されない場合、クレーン/機器は製造メーカーの荷重表でタイヤ接地状態による吊り上げが定められているか？アウトリガーが装備されていない機器でスタビライザーが使用され車輪が地面から離れていない場合、それは製造メーカーの手順に従う正しいセットアップか？		
10	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage? クレーンのカウンターウエイト旋回範囲内に人や障害物がないか？旋回範囲内の立ち入り可能な区域はケガや損傷を防止するためにバリケードでふさがれているか？		
11	Has the hook been centered over the load in such a manner to minimize swing? フックは荷振れを最小限にするために荷物の中心の真上に置かれているか？		
12	Is the load well secured and balanced in the sling or lifting device before it is lifted more than a few inches? 荷物が数インチ以上吊り上げられる前にスリングや吊具で十分に締められてバランスを取られているか？		
13	Is the lift and swing path clear of obstructions? 吊り上げ及び旋回経路に障害物がないか？		
14	If rotation of the load being lifted is hazardous, is a tag or restraint line being used? 吊り上げられている荷物の回転が危険な場合、タグライン(介錯ロープ)、引き綱が使用されているか？		
15	Are personnel prevented from standing or passing under a suspended load? 人員が吊荷の下に立つことや通行するのを防止されているか？		
16	Is the operator's attention diverted? 運転士の注意がそれているか？		
17	Are proper signals being used at all times? Is the operator responding properly to the signals? Are radios used for blind lifts? 常に適切な合図が使われているか？運転士は適切に合図に反応しているか？運転士から荷物が見えない吊上げ(ブラインドリフト)には無線機が使用されているか？		
18	Is the load lifted a few inches to ensure it is secure and balanced? 荷物が適切に締結されてバランス状態を確実にする為に地切り時に数インチ吊り上げられて確認されているか？		
19	Are empty hooks lashed or otherwise secured during travel to prevent swinging? 走行時の振れを防止する為に空のフックは紐等で固定されるか、もしくは別の方法で固定されているか？		
20	Does the operator remain at the controls while the load is suspended? 荷物が吊られている間、運転士は操作場所(操縦席)に留まっているか？		
21	Do the operations ensure that side loading is prohibited? 荷物の横引きが禁止されていることを徹底しているか？		
22	Are personnel prevented from riding on a load? 人員が荷物の上に乗ることを防止されているか？		
23	Are start and stop motions in a smooth fluid motion (no sudden acceleration or deceleration)? クレーン操作において始動と停止の動きはスムーズであるか？(急加速又は急減速は禁止)		
24	If operating near electric power lines, are the rules and guidelines understood and adhered to? 送電線付近での作業の場合、規則や指針が理解され順守されているか？		
25	Is the lift a critical lift? 実施する吊り上げ作業は危険度が高い作業か？		

Figure 10-2a

CONTRACTOR CRANE OR RIGGING OPERATION CHECKLIST
契約業者クレーン及び玉掛け作業チェックリスト

		YES はい	NO いいえ
26	If so, are all regulations understood and check-off sheets initialed and signed off? 上記の場合、全ての規則が理解されチェックシート(コンプレックス/クリティカルリフトプラン)にイニシャルと署名が記入されてあるか？		
26.1	Are any overhead power lines in the vicinity? 周囲に頭上の送電線があるか？		
26.2	If so, are complex lift rules and 1926.550(a)(15) being followed? 上記の場合、コンプレックスリフトの規則と1926.550(a)(15)が順守されているか？		
27	If pick and carry operations are allowed and performed, are OEM directions followed? (e.g. rotation lock engaged, boom centered over front or rear, etc.)? もしクレーン/機器の走行吊り作業が許可されていて実行される場合、製造メーカーの手順が順守されているか？ (例えば旋回ブレーキロックが掛けられる、ブームが前方もしくは後方の中心に来る様に合わせる、等)		
28	When the crane / machine is left unattended, is it in a safe condition? クレーン/機器は運転士が離れている時、安全な状態にあるか？		
29	Is rigging gear undamaged and acceptable for the application? 玉掛け用具は損傷なく使用用途に適しているか？		
30	Does rigging gear meet applicable ASME or host country standards(e.g. ASME B30.9 for slings, B30.10 for hooks, B30.26 for hardware such as shackles, safety hoist rings, eyebolts, etc, B30.20 for below the hook lifting devices, etc.)? 玉掛け用具は適用可能なASME、又は現地の法令及び規則を満たしているか？(例えばASME B30.9 スリング、B30.10 フック、B30.26 シャックル、安全吊上リング、アイボルト等の様な金属製品、B30.20 フック下の吊上装置、等)		
31	Is the rigging gear inspected prior to use? 玉掛け用具は使用前に検査されているか？		
32	Is chafing gear used to protect slings (especially synthetic slings) and equipment from damage due to sharp corners and edges? スリング(特に繊維スリング)や器具を鋭い角や端部の損傷から保護するために当て物用具が使用されているか？		
33	Is the rigging gear used in accordance with its working load limit? Is the load limit visible? 玉掛け用具はその作業制限荷重に従って使用されているか？その制限荷重は明白に表示されているか？		
34	Are positive latching devices used on crane and rigging hooks, or are the hooks "moused"? クレーンと玉掛け用具のフックに確実な掛け金装置が使用されているか？又はフックの開口部が他の方法で閉じられているか？		

Contractor : 契約業者名 :	Subcontractor : 下請け業者名 :

Location (To include building / pier number or specific information to identify work location) :
作業現場 (建物/岸壁番号、もしくは作業現場を特定できる具体的な情報を記入)

Notes :
注記 :

Signature of Contracting Officer's Representative : 契約担当官の代表者の署名 :	Date : 日付:

Figure 10-2b

CONTRACTOR CRANE OR RIGGING OPERATION CHECKLIST
契約業者クレーン及び玉掛け作業チェックリスト

1.

2.

3.

Recommendations:

Signature of Contracting Officer's Representative : 契約担当官の代表者の署名 :	Date : 日付:

Figure 10-2c

NAVFAC FAR EAST CONTRATOR CRANE SURVEILLANCE METRICS REPORT

ACTIVITY NAME/ LOCATION:	DATE OF REPORT:

DATES OF SUPPLIED DATA:
MM/DD/YYYY - MM/DD/YYYY _____ THROUGH _____

		TOTAL OF EACH ANSWER	
		YES はい	NO いいえ
1	Is the Certificate of Compliance, P-1, in the operator's cab (or in the contractor's on-site office for rigging operations) with the current operator's name listed? 運転室内(玉掛け作業については業者の現場事務所内)に現在操作している運転士の名前が記載されたコンプライアンス証書 (P-1) があるか？		
2	Is the crane/machine transited to and from the job site correctly? Are the OEM instructions for travel being followed? クレーン/機器は作業現場へ(から)正しく搬送されているか？製造メーカーの走行手順が順守されているか？		
3	Does the operator know the weight of the load to be lifted? 運転士は吊り上げる荷物の重量を知っているか？		
4	Is the load to be lifted within the crane/machine manufacturer's rated capacity in its present configuration? 荷物の重量は現在のクレーン/機器のセッティングにおいて製造メーカーの定める定格容量以内にあるか？		
5	Are outriggers or stabilizers required? アウトリガー又はスタビライザーは必要か？		
6	If outriggers are required, are outriggers fully extended and down, and the crane load off the wheels? アウトリガーが必要な場合、完全に張り出されて接地しているか？クレーンの車輪が地面から離れているか？		
7	If the crane/machine level and on firm ground, if the ground is not firm is the crane/machine blocked? クレーン/機器は水平で堅固な地面にあるか？もし地面が堅固でないならば、クレーン/機器に敷板が使用されているか？		
8	If blocking is required, is the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad? 敷板が必要な場合、アウトリガーパッドの全面が敷板によって支持されているか？十分な強度を持つ敷板が荷重が掛かったアウトリガーパッドを安全に支持しているか？		
9	If outriggers are not used, is the crane/machine rated for on-rubber lifts by the manufacturer's load chart? If stabilizers are used and not outriggers and the wheels are not off the ground is this the correct setup in accordance with the OEM? アウトリガーが使用されない場合、クレーン/機器は製造メーカーの荷重表でタイヤ接地状態による吊り上げが定められているか？アウトリガーが装備されていない機器でスタビライザーが使用され車輪が地面から離れていない場合、それは製造メーカーの手順に従う正しいセットアップか？		
10	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage? クレーンのカウンターウエイト旋回範囲内に人や障害物がないか？旋回範囲内の立ち入り可能な区域はケガや損傷を防止するためにバリケードでふさがれているか？		
11	Has the hook been centered over the load in such a manner to minimize swing? フックは荷振れを最小限にするために荷物の中心の真上に置かれているか？		
12	Is the load well secured and balanced in the sling or lifting device before it is lifted more than a few inches? 荷物が数インチ以上吊り上げられる前にスリングや吊具で十分に締められてバランスを取られているか？		
13	Is the lift and swing path clear of obstructions? 吊り上げ及び旋回経路に障害物がないか？		
14	If rotation of the load being lifted is hazardous, is a tag or restraint line being used? 吊り上げられている荷物の回転が危険な場合、タグライン(介錯ロープ)、引き綱が使用されているか？		
15	Are personnel prevented from standing or passing under a suspended load? 人員が吊荷の下に立つことや通行するのを防止されているか？		
16	Is the operator's attention diverted? 運転士の注意がそれているか？		
17	Are proper signals being used at all times? Is the operator responding properly to the signals? Are radios used for blind lifts? 常に適切な合図が使われているか？運転士は適切に合図に反応しているか？運転士から荷物が見えない吊上げ(ブラインドリフト)には無線機が使用されているか？		
18	Is the load lifted a few inches to ensure it is secure and balanced? 荷物が適切に締結されてバランス状態を確実にする為に地切り時に数インチ吊り上げられて確認されているか？		
19	Are empty hooks lashed or otherwise secured during travel to prevent swinging? 走行時の振れを防止する為に空のフックは紐等で固定されるか、もしくは別の方法で固定されているか？		
20	Does the operator remain at the controls while the load is suspended? 荷物が吊られている間、運転士は操作場所(操縦席)に留まっているか？		
21	Do the operations ensure that side loading is prohibited? 荷物の横引きが禁止されていることを徹底しているか？		
22	Are personnel prevented from riding on a load? 人員が荷物の上に乗ることを防止されているか？		
23	Are start and stop motions in a smooth fluid motion (no sudden acceleration or deceleration)? クレーン操作において始動と停止の動きはスムーズであるか？(急加速又は急減速は禁止)		
24	If operating near electric power lines, are the rules and guidelines understood and adhered to? 送電線付近での作業の場合、規則や指針が理解され順守されているか？		
25	Is the lift a critical lift? 実施する吊り上げ作業は危険度が高い作業か？		

Figure 10-3a

NAVFAC FAR EAST CONTRATOR CRANE SURVEILLANCE METRICS REPORT

ACTIVITY NAME/ LOCATION:	DATE OF REPORT:

DATES OF SUPPLIED DATA: MM/DD/YYYY - MM/DD/YYYY _____ THROUGH _____		TOTAL OF EACH ANSWER	
		YES はい	NO いいえ
26	If so, are all regulations understood and check-off sheets initialed and signed off? 上記の場合、全ての規則が理解されチェックシート(コンプレックス/クリティカルリフトプラン)にイニシャルと署名が記入されてあるか？		
26.1	Are any overhead power lines in the vicinity? 周囲に頭上の送電線があるか？		
26.2	If so, are complex lift rules and 1926.550(a)(15) being followed? 上記の場合、コンプレックスリフトの規則と1926.550(a)(15)が順守されているか？		
27	If pick and carry operations are allowed and performed, are OEM directions followed? (e.g. rotation lock engaged, boom centered over front or rear, etc.)? もしクレーン/機器の走行吊り作業が許可されていて実行される場合、製造メーカーの手順が順守されているか？ (例えば旋回ブレーキロックが掛けられる、ブームが前方もしくは後方の中心に来る様に合わせる、等)		
28	When the crane / machine is left unattended, is it in a safe condition? クレーン/機器は運転士が離れている時、安全な状態にあるか？		
29	Is rigging gear undamaged and acceptable for the application? 玉掛け用具は損傷なく使用用途に適しているか？		
30	Does rigging gear meet applicable ASME or host country standards(e.g. ASME B30.9 for slings, B30.10 for hooks, B30.26 for hardware such as shackles, safety hoist rings, eyebolts, etc, B30.20 for below the hook lifting devices, etc.)? 玉掛け用具は適用可能なASME、又は現地の法令及び規則を満たしているか？(例えばASME B30.9 スリング、B30.10 フック、B30.26 シャックル、安全吊上リング、アイボルト等の様な金属製品、B30.20 フック下の吊上装置、等)		
31	Is the rigging gear inspected prior to use? 玉掛け用具は使用前に検査されているか？		
32	Is chafing gear used to protect slings (especially synthetic slings) and equipment from damage due to sharp corners and edges? スリング(特に繊維スリング)や器具を鋭い角や端部の損傷から保護するために当て物用具が使用されているか？		
33	Is the rigging gear used in accordance with its working load limit? Is the load limit visible? 玉掛け用具はその作業制限荷重に従って使用されているか？その制限荷重は明白に表示されているか？		
34	Are positive latching devices used on crane and rigging hooks, or are the hooks "moused"? クレーンと玉掛け用具のフックに確実な掛け金装置が使用されているか？又はフックの開口部が他の方法で閉じられているか？		

Contractor : 契約業者名 :		Subcontractor : 下請け業者名 :

Location (To include building / pier number or specific information to identify work location) :
作業現場(建物/岸壁番号、もしくは作業現場を特定できる具体的な情報を記入)

Notes :
注記 :

Signature of Contracting Officer's Representative : 契約担当官の代表者の署名 :	Date : 日付:

Figure 10-3b

CRANE AND RIGGING GEAR ACCIDENT REPORT

Accident Category: ☐ Crane Accident ☐ Rigging Gear Accident

From: UIC:	To: Navy Crane Center Bldg 491 NNSY Portsmouth, VA 23709 Fax (757) 967-3808
Activity:	Report No:
Crane No: / Category:	Accident Date: / Time: hrs
Category of Service: ☐ SPS ☐ GPS	Crane Type: / Crane Manufacturer:
Was Crane/Rigging Gear Being Used in SPS? Yes____ No____	Was Crane/Rigging Gear Being Used in a Complex Lift/Critical non-crane rigging operation? Yes____ No____
Location:	Weather:
Crane Capacity: / Hook Capacity:	Weight of Load on Hook:
Fatality or Permanent Disability? ☐ Yes ☐ No	Material/Property Cost Estimate:
Reported to NAVSAFECEN? ☐ Yes ☐ No	

Accident Type:

☐ Personal Injury ☐ Overload ☐ Derail ☐ Damaged Rigging Gear

☐ Load Collision ☐ Two Blocked ☐ Dropped Load ☐ Damaged Crane

☐ Crane Collision ☐ Damaged Load ☐ Other Specify _____

Cause of Accident:

☐ Improper Operation ☐ Equipment Failure ☐ Inadequate Visibility

☐ Improper Rigging ☐ Switch Alignment ☐ Inadequate Communication

☐ Track Condition ☐ Procedural Failure ☐ Other Specify _____

Chargeable to:

☐ Crane Walker ☐ Rigger ☐ Operator

☐ Maintenance ☐ Management/Supervision ☐ Other Specify _____

Crane Function:

☐ Travel ☐ Hoist ☐ Rotate ☐ Luffing ☐ Telescoping ☐ Other ☐ N/A

Is this accident indicative of a recurring problem? ☐ Yes ☐ No

If yes, list Accident Report Nos.: _____

ATTACH COMPLETE AND CONCISE SITUATION DESCRIPTION AND CORRECTIVE/PREVENTIVE ACTIONS TAKEN AS ENCLOSURE (1). Include probable cause and contributing factors. Assess damages and define responsibility. For equipment malfunction or failure, include specific description of the component and the resulting effect or problem caused by the malfunction or failure. List immediate and long term corrective/preventive actions assigned and respective codes.

Preparer:	Phone and email	Code	Date
Concurrences:			
		Code	Date
Contracting Official:		Code	Date
PW7.4:		Code	Date

FIGURE 10-4

CRANE AND RIGGING GEAR ACCIDENT REPORT INSTRUCTIONS

1. Accident Category: Indicate either crane accident or rigging gear accident.

2. From: The naval activity that is responsible for reporting the accident and UIC number.

3. Activity: The naval activity where the accident took place.

4. Report No.: PW7.4 will assigned accident number.

5. License Plate No.: Self-explanatory.

6. Category: Identify category of crane (i.e., 1, 2, 3, or 4), if applicable in accordance with reference (a).

7. Accident Date: The date the accident occurred.

8. Time: The time (24 hour clock) the accident occurred (e.g., 1300).

9. Category of Service: Enter GPS for contractor equipment.

10. Crane Type: The type of crane involved in the accident (e.g., mobile, bridge), if applicable.

11. Crane Manufacturer: The manufacturer of the crane (e.g., Kato, Tadano, Kobelko), if applicable.

12. SPS: Not applicable.

13. Complex lift: Was the crane or rigging gear being used in a complex lift?

14. Location: The detailed location where the accident took place (e.g., building 213, dry dock 5).

15. Weather: The weather conditions at time of accident (e.g., wind, rain, cold).

16. Crane Capacity: The certified capacity of the crane (e.g., 120 metric tons), if applicable.

17. Hook Capacity: The capacity of the hook involved in the accident at the max radius of the operation, if applicable.

18. Weight of Load on Hook: If applicable, the weight of the load on the hook.

19. Fatality or Permanent Disability?: Check yes or no.

20. Material/Property Cost Estimate: Estimate total cost of damage resulting from the accident.

21. Reported to NAVSAFECEN?: Self-explanatory.

22. Accident Type: Check all that apply.

23. Cause of Accident: Check all that apply.

24. Chargeable to: Check all that apply.

25. Crane Function: Check all functions in operation at time of accident. Check N/A if a rigging gear accident.

26. Is this a recurring problem?: Check yes or no. Identify any other similar accidents.

27. Situation Description/Corrective Actions: Self-explanatory.

28. Preparer: Self-explanatory.

29. Concurrences: Self-explanatory.

30. Contracting Official: Self-explanatory.

31. PW7.4: Self-explanatory.

LUBRICATION AND SERVICING PROGRAM FOR NAVFACFE WEIGHT HANDLING EQUIPMENT

1. Each installation shall develop a local lubrication instruction and schedule. These requirements must be developed using the OEM lubrication and maintenance manuals and in accordance with reference (a).

a. Modifications to OEM recommended lubrication and servicing programs require activity engineering approval.

2. Each local PR_33 shall develop lubrication Standard Operating Procedures (SOP's) specific to the individual crane or group of similar cranes utilizing the OEM lubrication chart and maintenance manual and in accordance with reference (a).

a. PR_33 will be responsible for ensuring SOP's are accurate to current OEM and in accordance with reference (a).

b. PR_33 will ensure all personnel involved in the lubrication of cranes are properly trained and that SOP's are followed, completed and filed in the equipment history jacket.