SUPPORTING STATEMENT FOR THE INFORMATION COLLECTION REQUIREMENTS FOR THE PROPOSED STANDARD ON CRANES AND DERRICKS IN CONSTRUCTION (29 CFR PART 1926, SUBPART CC)¹ OFFICE OF MANAGEMENT AND BUDGET (OMB) CONTROL NUMBER 1218-XXXX (September 26, 2008)

JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The main objective of the Occupational Safety and Health Act of 1970 (i.e., "the Act") is to "assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources" (29 U.S.C. 651). To achieve this objective, the Act authorizes "the development and promulgation of occupational safety and health standards" (29 U.S.C. 651).

Section 6(b)(7) of the Act specifies that "[a]ny standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure." This provision goes on to state that "[t]he Secretary, in consultation with the Secretary of Health and Human Services, may by rule promulgated pursuant to section 553 of title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning . . . as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulgation of the relevant standard" (29 U.S.C. 655).

With regard to recordkeeping, the Act specifies that "[e]ach employer shall make, keep and preserve, and make available to the Secretary . . . such records . . . as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of this Act" (29 U.S.C. 657). The Act states further that "[t]he Secretary . . . shall prescribe such rules and regulations as [he/she] may deem necessary to carry out [his/her] responsibilities under this Act, including rules and regulations dealing with the inspection of an employer's establishment" (29 U.S.C. 657).

Under the authority granted by the Act, the Occupational Safety and Health Administration (i.e., "OSHA" or "the Agency") is proposing to publish at 29 CFR part 1926, subpart CC, a safety standard for the construction industry that regulates cranes and derricks (i.e., "the

¹The purpose of this Supporting Statement is to analyze and describe the burden hours and costs associated with provisions of the proposed Standard that contain paperwork requirements. Accordingly, this Supporting Statement does not provide information or guidance on how to comply with, or how to enforce, these provisions.

proposed standard"). Items 2 and 12 below describe in detail the specific information collection requirements of the proposed standard.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the Agency has made of the information received from the current collection.

The proposed standard specifies a number of collection of information requirements. Employers and employees would use these collections of information to help ensure the safe operation of equipment covered by the proposed standard. The following sections describe who would use the information collected under each requirement, as well as how they would use it. In addition, the paperwork provisions of the proposed standard specify requirements for developing and maintaining a number of records and other documents. Further, OSHA compliance safety and health officers would need the information to determine, during an inspection, whether employers are complying with the requirements. The following discussion identifies the sections of the proposed standard that have collection of information requirements, and describes the content and purpose of these requirements in detail.

The requirements are listed below by section. The specific paragraphs requiring the collections of information are listed in brackets directly below the title for each section. The full text of those paragraphs is included, along with additional headings and paragraphs where necessary for context. The text of the paragraphs requiring information collections are double underlined. The text of other provisions provided for context are not underlined.

A. Ground Conditions (§ 1926.1402)

[§ 1926.1402(c)(2)]

§ 1926.1402(c) -- The controlling entity shall:

* * *

<u>§ 1926.1402(c)(2) -- Inform the user of the equipment and the operator of the location of hazards beneath the equipment set-up area (such as voids, tanks, utilities) that are identified in documents (such as site drawings, as-built drawings, and soil analyses) if they are available to the controlling entity.</u>

Purpose: The purpose of this exchange of information is to ensure that the equipment operator is informed of hidden hazards beneath the equipment in set-up area so that the operator can avoid the hazards or take precautions to prevent the equipment from being set up unsafely.

B. Assembly/Disassembly -- Selection of Manufacturer or Employer Procedures (§ 1926.1403)
[§ 1926.1403(b)]

§ 1926.1403 -- When assembling and disassembling equipment (or attachments), the employer shall comply with either:

* * *

<u>§ 1926.1403(b) -- Employer procedures for assembly and disassembly</u>. Employer procedures may be used only where the employer can demonstrate that the procedures used meet the requirements in § 1926.1406.

Purpose: The purpose of requiring use of the proposed procedures is to help ensure that the employer and its employees use the correct information for safe assembly/disassembly of the equipment. OSHA considers this requirement to be a usual and customary practice of the industry as made evident by ANSI B.30.5-2000, section 5-3.1.3(k). However, OSHA also recognizes that there may be a small number of employers who operate older models of cranes that still would have to meet the proposed requirements as a new work practice. OSHA is taking burden under Item 12 below for this small number of employers.

C. Assembly/Disassembly - General Requirements (applies to all assembly and disassembly operations) (§ 1926.1404)

[§ 1926.1404(f)(2), (h)(4), (h)(6), (j), (k), and (m)(1)(i)]

<u>§ 1926.1404(f)(2) -- Exception.</u> Where the employer demonstrates that site constraints require one or more employees to be under the boom, jib or other components when pins (or similar devices) are being removed, the A/D supervisor must implement procedures that minimize the risk of unintended dangerous movement and minimize the duration and extent of exposure under the boom. (*See* Non-mandatory Appendix D of this subpart for an example.)

Purpose: This proposed requirement would prevent struck-by and crushed-by injuries and fatalities when pins are being removed during A/D operations. The use of these procedures is also an element in an effective training program as required by § 1926.21(b)(2). However, OSHA recognizes that there may be a small number of employers for whom developing an alternative A/D plan and exchanging this information with A/D employees would be done as a new work practice. OSHA is taking burden under Item 12 below for this small number of employers.

§ 1926.1404(h)(4) -- *Verifying assist crane loads*. When using an assist crane, the loads that will be imposed on the assist crane at each phase of assembly/disassembly must be verified in accordance with § 1926.1417(o)(3) before assembly/disassembly begins in order to prevent exceeding rated capacity limits for the assist crane.

Purpose: This proposed verification requirement would ensure that the operator of the assist crane avoids loading the equipment beyond its rated capacity and creating an unsafe condition. Existing § 1926.550(a)(1) requires similar verification for several types of cranes,

including assist cranes. Therefore, OSHA believes this requirement is a usual and customary work practice in the industry and is not taking burden for the requirement under Item 12 below.

§ 1926.1404(h)(6) -- Center of gravity.

(i) The center of gravity of the load must be identified if that is necessary for the method used for maintaining stability.

(ii) Where there is insufficient information to accurately identify the center of gravity, measures designed to prevent unintended dangerous movement resulting from an inaccurate identification of the center of gravity must be used. (See Non-mandatory Appendix D of this subpart for an example).

Purpose: These proposed provisions would be necessary for the equipment operator to make determinations that would ensure crane stability during operations and, therefore, prevent crane collapse and unplanned movement of the load. However, OSHA considers acquiring this information to be a usual and customary rigging practice in the industry and is not taking burden for the requirement under Item 12 below.

<u>§ 1926.1404(j) -- *Cantilevered boom sections*. Manufacturer limitations on the maximum amount of boom supported only by cantilevering shall not be exceeded. Where these are unavailable, a registered professional engineer familiar with the type of equipment involved shall, in writing, determine this limitation which shall not be exceeded.</u>

Purpose: Under this proposed requirement, OSHA requires that a registered professional engineer's calculated limitations be in writing so that these limits can be readily referenced when the boom is going to be supported by cantilevering alone. This proposed requirement would help ensure that the determination is made in accordance with professional engineering practices.

<u>§ 1926.1404(k) -- Weight of components.</u> The weight of the components must be readily available.

Purpose: This proposed information requirement is necessary for the operator to accurately calculate the weight of the loads, and would prevent the equipment from being overloaded, resulting in possible crane collapse. It also would allow riggers to select appropriate rigging equipment. OSHA believes that manufacturers already provide this information for components, and have it readily available during hoisting operations (i.e., it is a usual and customary practice of the industry). Therefore, OSHA is not taking burden for the requirement under Item 12 below.

<u>§ 1926.1404(m)(1)(i) -- Manufacturer instructions, limitations, and specifications. Where</u> these are unavailable, a registered professional engineer familiar with the type of equipment involved must approve, in writing, the selection and configuration of components;

Purpose: Improper selection or configuration of equipment can result in unplanned movement or collapse of the equipment. The proposed requirement would ensure that employees engaged in A/D operations can readily reference it to determine which components to select and how to configure them. The engineer's approval would also help to ensure that the selections of components are made in accordance with professional engineering practices.

D. Power line safety (up to 350 KV) – assembly and disassembly (§ 1926.1407) [§ 1926.1407(b)(3)(i)(D) and (g)]

§ 1926.1407(b)(3) -- At least one of the following additional measures must be in place :

(i) Use a dedicated spotter who is in continuous contact with the equipment operator. The dedicated spotter must:

* * *

(D) Give timely information to the operator so that the required clearance distance can be maintained.

Purpose: For the proposed measure to be effective, the operator must receive the spotter's information in a timely manner or the operator may breach the minimum clearance distance, which could result in injury or electrocution. OSHA considers this requirement to be a usual and customary practice in the industry because it is specified as an alternative to deenergizing the power line in § 1926.550(a)(15)(iv) and ASME B30.5-1968, section 5-3.4.5(a)(4). Therefore, OSHA is not taking burden for the requirement under Item 12 below.

<u>§1926.1407(g) -- Posting of electrocution warnings.</u> There must be at least one electrocution <u>hazard warning conspicuously posted in the cab so that it is in view of the operator and</u> (except for overhead gantry and tower cranes) at least two on the outside of the equipment.

Purpose: This proposed requirement would ensure that the operator and others who may be in the vicinity of the equipment are adequately warned of the potential for electrocution if any part of the machinery or load comes into contact with an energized power line.

E. Power line safety (up to 350 kV) - crane operations (§ 1926.1408) [§ 1926.1408(b)(1), (b)(4)(ii)(D), (g), and Table A]

<u>§ 1926.1408(b)(1) -- Conduct a planning meeting with the operator and the other workers</u> who will be in the area of the equipment or load to review the location of the power line(s), and the steps that will be implemented to prevent encroachment/electrocution. *Purpose:* This proposed information exchange would ensure that the operator and other employees who will be in the vicinity of the crane or load are informed and aware of protective methods that will be implemented to prevent equipment from contacting energized power lines at the worksite.

§ 1926.1408(b)(4)(ii) -- A dedicated spotter who is in continuous contact with the operator. Where this measure is selected, the dedicated spotter must:

* * *

(D) -- Give timely information to the operator so that the required clearance distance can be maintained.

Purpose: This proposed requirement would ensure the safe operation of the equipment in the vicinity of an energized power line. A dedicated spotter must give timely information to the operator so that the required clearance distance can be effectively maintained. OSHA considers this requirement to be a usual and customary practice in the industry because it is specified as an alternative to deenergizing the power line in § 1926.550(a)(15)(iv) and ASME B30.5-1968, section 5-3.4.5(a)(4). Therefore, OSHA is not taking burden for the requirement under Item 12 below.

§ 1926.1408(g) -- Training.

(1) Operators and crew assigned to work with the equipment shall be trained on the following:

(i) The procedures to be followed in the event of electrical contact with a power line. Such training shall include:

(A) Information regarding the danger of electrocution from the operator simultaneously touching the equipment and the ground.

(B) The importance to the operator's safety of remaining inside the cab except where there is an imminent danger of fire, explosion, or other emergency that necessitates leaving the cab.

(C) The safest means of evacuating from equipment that may be energized.

(D) The danger of the potentially energized zone around the equipment.

(E) The need for crew in the area to avoid approaching or touching the equipment.

(F) Safe clearance distance from power lines.

(ii) Power lines are presumed to be energized unless the utility owner/operator confirms that the power line has been and continues to be deenergized, and visibly grounded at the worksite.

(iii) Power lines are presumed to be uninsulated unless the utility owner/operator or a registered engineer who is a qualified person with respect to electrical power transmission and distribution confirms that a line is insulated.

(iv) The limitations of an insulating link/device, proximity alarm, and range control (and similar) device, if used.

(2) Employees working as dedicated spotters shall be trained to enable them to effectively perform their task, including training on the applicable requirements of this section.

Purpose: This proposed provision would require that employees be informed of potential electrocution hazards and protective methods that the employer will implement to prevent equipment from contacting energized power lines. OSHA considers this proposed training provision to be performance oriented as indicated by a generic training requirement specified by § 1926.21(b)(2) and, therefore, is not taking burden for the requirement under Item 12 below.

§1926.1408, Table A, minimum clearance distance that must be maintained for over 1,000 (nominal, kV, alternating current) -- <u>as established by the utility owner/operator or registered</u> <u>professional engineer who is a qualified person with respect to electrical power transmission</u> <u>and distribution</u>

Purpose: This proposed information requirement is necessary to ensure that minimum clearance distances for employees performing work in the vicinity of power lines of over 1000 kV are accurately determined only by qualified persons, thereby preventing employee electrocutions.

G. Power line safety (0ver 350 kV) (§ 1926.1409) [All of § 1926.1409]

<u>§ 1926.1409 -- The requirements of §§ 1926.1407 and 1408 apply to power lines over 350</u> <u>kV, except that wherever the distance "20 feet" is specified, the distance "50 feet" shall be</u> substituted.

Purpose: This proposed provision serves the same purpose identified above for proposed §§ 1926.1407 and 1408. Therefore, the paperwork burdens for this proposed section will be included the burdens calculated for proposed §§ 1926.1407 and 1408.

H. Power line safety (all voltages)- crane operations closer than Table A zone (§

1926.1410)

[§ 1926.1410(b), (c)(1), (d) introductory text, (d)(2)(iv), (e), (f), and (j)]

\$1926.1410 -- Equipment operations in which any part of the equipment, load line or load (including rigging and lifting accessories) is closer than the minimum approach distance under Table A to an energized power line is prohibited, except where the employer demonstrates that the following requirements are met:

* * *

<u>§ 1926.1410(b) -- The employer determines that, after consultation with the utility</u> <u>owner/operator, it is infeasible to deenergize and ground the power line or relocate the power</u> <u>line.</u>

Purpose: The methods of protection proposed in § 1926.1410 may substitute for methods proposed in § 1926.1408 only when the employer makes an infeasibility determination in accordance with proposed § 1926.1410(b). The information obtained from the utility owner/operator under § 1926.1410(b) citied information is necessary to make an infeasibility determination. OSHA considers this exchange of information a confirmation of information and is not taking burden for the requirement under Item 12 below.

<u>§ 1926.1410(c)(1) -- The power line owner/operator or registered professional engineer who</u> is a qualified person with respect to electrical power transmission and distribution determines the minimum clearance distance that must be maintained to prevent electrical contact in light of the on-site conditions. The factors that must be considered in making this determination include, but are not limited to: conditions affecting atmospheric conductivity; time necessary to bring the equipment, load line, and load (including rigging and lifting accessories) to a complete stop; wind conditions; degree of sway in the power line; lighting conditions, and other conditions affecting the ability to prevent electrical contact.

Purpose: The Agency believes the methods of protection specified in proposed § 1926.1410 are appropriate substitutes for the methods specified in proposed § 1926.1408 only when the employer makes the required infeasibility determination. Therefore, obtaining the specified information is necessary to make further determinations that could affect the safe operation of the equipment in the vicinity of energized power lines.

<u>§ 1926.1410(d) -- A planning meeting with the employer and utility owner/operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) is held to determine the procedures that will be followed to prevent electrical contact and electrocution. At a minimum these procedures shall include:</u>

* * *

(2) A dedicated spotter who is in continuous contact with the operator. The dedicated spotter must:

* * *

(iv) -- Give timely information to the operator so that the required clearance distance can be maintained.

Purpose: This proposed provision ensures that qualified persons contribute to planning procedures that address the safe operation of equipment in the vicinity of energized power lines (e.g., no closer than the minimum approach distances specified by Table A of this proposed subpart). OSHA recognizes that although pre-shift meetings are usual and customary practices in the industry, meetings with the utility owners/operators may not be usual and customary. Therefore, OSHA is taking burden for meetings with utility owners/operators under Item 12 below.

The requirement in proposed § 1926.1410(d)(iv) would ensure the safe operation of equipment being operated in the vicinity of an energized power line. A dedicated spotter must give timely information to the operator so that the required clearance distance can be effectively maintained. OSHA considers this required exchange of information to be a usual and customary practice in the industry because it is specified as an alternative to deenergizing the power line in § 1926.550(a)(15)(iv) and ASME B30.5-1968 section 5-3.4.5(a)(4).

<u>§ 1926.1410(e) -- The procedures developed to comply with paragraph (d) of this section are documented and immediately available on-site.</u>

Purpose: This proposed documentation requirement would ensure that these procedures are available to be used as a reference when hoisting operations are conducted.

<u>§ 1926.1410(f) -- The equipment user and utility owner/operator meet with the equipment</u> operator and the other workers who will be in the area of the equipment or load to review the procedures that will be implemented to prevent breaching the minimum approach distance established in paragraph (c) of this section and prevent electrocution.

Purpose: This proposed meeting requirement is necessary to help ensure that the operator and other employees understand this critical information. OSHA recognizes that although pre-shift meetings are usual and customary practices in the industry, meetings with utility owners/operators may not be usual and customary. Therefore, OSHA is taking burden for meetings with utility owners/operators under Item 12 below.

<u>§ 1926.1410(j) -- If a problem occurs implementing the procedures being used to comply</u> with paragraph (d) of this section, or indicating that those procedures are inadequate to prevent electrocution, the employer shall safely stop operations and either develop new procedures to comply with paragraph (d) of this section or have the utility owner/operator deenergize and visibly ground or relocate the power line before resuming work.

Purpose: This proposed requirement would ensure that the employer communicates any modifications to safety procedures to employees who must work in the vicinity of operating equipment and energized power lines. OSHA recognizes that some employers will conduct these meetings as a new work practice and, therefore, is taking burden for these employers in Item 12 below.

I. Power line safety - while traveling (§ 1926.1411)

[§ 1926.1411(b)(4)(iii) and Table T]

§ 1926.1411(b)(4) -- *Dedicated spotter*. If any part of the equipment while traveling will get closer than 20 feet to the power line, the employer shall ensure that a dedicated spotter who is in continuous contact with the operator is used. The dedicated spotter must:

* * *

<u>§ 1926.1411(b)(4)(iii) -- Give timely information to the operator so that the required clearance distance can be maintained.</u>

Purpose: For this proposed provision to be effective, the operator must receive the spotter's information in a timely manner or the operator may breach the minimum clearance distance, resulting in injury or electrocution. OSHA considers this requirement to be a usual and customary practice in the industry as it is specified as an alternative to deenergizing the power line in § 1926.550(a)(15)(iv) and ASME B30.5-1968 section 5-3.4.5(a)(4).

§ 1926.1411, Table T, minimum clearance distance that must be maintained for over 1,000 (nominal, kV, alternating current) -- <u>as established by the utility owner/operator or registered</u> <u>professional engineer who is a qualified person with respect to electrical power transmission</u> <u>and distribution</u>)

Purpose: This proposed information requirement is necessary to ensure that the minimum clearance distances for employees performing work in the vicinity of power lines of over 1000 kV are accurately determined only by qualified persons.

J. Inspections (§ 1926.1412)

[§ 1926.1412(a)(1)(i), (b)(1)(ii)(A), (c)(2)(i), (e)(3)(i) and (ii), (f)(6), (f)(7), (g), and (h)](i)]

§ 1926.1412(a)(1) -- Equipment that has had modifications or additions which affect the safe operation of the equipment (such as modifications or additions involving a safety device or operator aid, critical part of a control system, power plant, braking system, load-sustaining structural components, load hook, or in-use operating mechanism) or capacity shall be inspected by a qualified person after such modifications/additions have been completed, prior

to initial use. The inspection shall meet the following requirements:

<u>§ 1926.1412(a)(1)(i) -- The inspection shall assure that the modifications or additions have</u> been done in accordance with the approval obtained pursuant to § 1926.1434 (Equipment modifications).

Purpose: This proposed requirement ensures that the person performing the inspection of modified equipment gets the information provided in the approval documents required in proposed § 1926.1434. Having this information would help the inspector ensure that the equipment is in safe operating condition after the modification has been completed.

§ 1926.1412(b) -- Repaired/adjusted equipment.

(1) -- Equipment that has had a repair or adjustment that relates to safe operation (such as: a repair or adjustment to a safety device or operator aid, or to a critical part of a control system, power plant, braking system, load-sustaining structural components, load hook, or in-use operating mechanism), shall be inspected by a qualified person after such a repair or adjustment has been completed, prior to initial use. The inspection shall meet the following requirements:

* * *

(ii) -- Where manufacturer equipment criteria are unavailable or inapplicable, the qualified person shall:

(A) -- Determine if a registered professional engineer (RPE) is needed to develop criteria for the repair/adjustment. If an RPE is not needed, the employer shall ensure that the criteria are developed by the qualified person. If an RPE is needed, the employer shall ensure that they are developed by an RPE.

Purpose: This proposed provision would ensure that employers prevent unsafe repairs/adjustments of the equipment by using only the determinations made by an RPE.

§ 1926.1412(c)(2) -- Where manufacturer equipment criteria are unavailable, a qualified person shall:

(i) -- Determine if a registered professional engineer (RPE) familiar with the type of equipment involved is needed to develop criteria for the equipment configuration. If an RPE is not needed, the employer shall ensure that the criteria are developed by the qualified person. If an RPE is needed, the employer shall ensure that they are developed by an RPE.

Purpose: To prevent unsafe use of equipment, this proposed requirement would ensure that

employers use only equipment configurations determined to be safe by an RPE or a qualified person.

§ 1926.1412(e)(1) -- Each month the equipment is in service it shall be inspected in accordance with paragraph (d) (shift inspections) of this section.

* * *

§ 1926.1412(e)(3) -- Documentation.

(i) The following information shall be documented by the employer that conducts the inspection:

(A) The items checked and the results of the inspection.

(B) The name and signature of the person who conducted the inspection and the date.

(ii) This document shall be retained for a minimum of three months.

Purpose: This proposed documentation requirement would ensure that the employer has a reliable inspection system in place. In addition, it would notify and/or remind the individual conducting monthly inspections to check deficiencies identified in the annual/comprehensive inspection as needing follow-up monitoring (see proposed paragraph (f)(6) of this section). Finally, the documentation would be a reference for tracking changes in the condition of the equipment from month to month.

The three-month retention requirement in proposed §1926.1412(e)(3)(ii) would increase the likelihood that employers will implement systems for conducting and responding to inspections; failure to do so would be apparent if a record was not made. Requiring the signature of the inspector would induce the inspector to ensure that the inspection was conducted correctly. In addition, this proposed requirement would create a record that the employer could use to track developing problems so that they can be corrected in time to ensure continued safe operation of the equipment.

<u>§ 1926.1412(f)(6) -- If the qualified person determines that, though not presently a safety</u> <u>hazard, the deficiency needs to be monitored, the employer shall ensure that the deficiency is</u> <u>checked in the monthly inspections.</u>

Purpose: This proposed documentation requirement would help ensure that employers respond appropriately to deficiencies identified in annual/comprehensive inspections. This proposed requirement also would ensure that a deficiency that is not yet a safety hazard, but may develop into one, would be monitored on a monthly basis so that developing hazards would be communicated to appropriate personnel and corrected before endangering

employees.

<u>§ 1926.1412(f)(7) -- Documentation of annual/comprehensive inspection. The following information shall be documented and maintained by the employer that conducts the inspection:</u>

(i) The items checked and the results of the inspection.

(ii) The name and signature of the person who conducted the inspection and the date.

(iii) This document shall be retained for a minimum of 12 months.

Purpose: This proposed documentation requirement would ensure that the employer has a reliable inspection system in place. Safety would also be promoted by ensuring that a record of the items checked and the inspection results are maintained for at least 12 months so that the employer can track past deficiencies and potential hazards associated with the equipment. This information would help the qualified person assess the equipment in subsequent annual/comprehensive inspections.

§ 1926.1412(g) -- Severe service. Where the severity of use/conditions is such that there is a reasonable probability of damage or excessive wear (such as loading that may have exceeded rated capacity, shock loading that may have exceeded rated capacity, prolonged exposure to a corrosive atmosphere), the employer shall stop using the equipment and a qualified person shall:

(1) Inspect the equipment for structural damage.

(2) In light of the use/conditions determine whether any items/conditions listed in paragraph (f) of this section need to be inspected; if so, the qualified person shall inspect those items/conditions.

(3) If a deficiency is found, the employer shall follow the requirements in paragraphs (f)(4) through (6) of this section.

Purpose: These proposed inspection and documentation requirements are necessary to help ensure that critical items and components of equipment used in severe service are effectively monitored to prevent failures.

<u>§ 1926.1412(h) -- Equipment not in regular use. Equipment that has been idle for 3 months</u> or more shall be inspected by a qualified person in accordance with the requirements of paragraph (e) (Monthly) of this section before initial use.

Purpose: These proposed inspection and documentation requirements are necessary to help identify and facilitate monitoring of problems with equipment that has not been in regular use. OSHA believes this provision will help protect employees from hazards that may occur

when worn or damaged equipment is used without an effective inspection.

K. Wire Rope—Inspection (§ 1926.1413)

[§ 1926.1413(a)(4)(ii)(A), (a)(4)(iii)(F), (a)(4)(v), (b)(3), and (c)(4)]

§ 1926.1413(a)(2)(ii) -- Category II. Apparent deficiencies in this category are:

(A) Visible broken wires, as follows:

(1) In running wire ropes: six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay, where a rope lay is the length along the rope in which one strand makes a complete revolution around the rope.

(2) In rotation resistant ropes: two randomly distributed broken wires in six rope diameters or four randomly distributed broken wires in 30 rope diameters.

(3) In pendants or standing wire ropes: more than two broken wires in one rope lay located in rope beyond end connections and/or more than one broken wire in a rope lay located at an end connection.

(B) A diameter reduction of more than 5% from nominal diameter.

* * * * *

§ 1926.1413(a)(4)(ii) -- If a deficiency in Category II is identified, the employer shall comply with Option A or Option B, as follows:

(A) -- Option A. Consider the deficiency to constitute a safety hazard where it meets the wire rope manufacturer's established criterion for removal from service or meets a different criterion that the wire rope manufacturer has approved in writing for that specific wire rope. If the deficiency is considered a safety hazard, operations involving use of the wire rope in question shall be prohibited until the wire rope is replaced, or the damage is removed in accordance with all of the requirements and restrictions in paragraph (4)(i)(B) of this section.

Purpose: Option A of this proposed section was designed to recognize manufacturers' expertise in determining wire rope removal criteria. The proposed provision would help protect employees from hazards that may occur when worn or damaged wire ropes are used, including crushed-by and struck-by hazards resulting from equipment failure or falling loads.

§ 1926.1413(a)(4)(iii) -- Alternative measures for a Category II deficiency. The wire rope may continue to be used if the employer ensures that the following measures are

implemented:

* * *

<u>§ 1926.1413(a)(4)(iii)(F) -- The qualified person's findings and procedures in paragraphs (a)(4)(iii)(A) through (D) of this section are documented.</u>

Purpose: This proposed documentation requirement would ensure that the individual conducting shift inspections could refer to the written parameters set by the qualified person to confirm the safe operating condition of the equipment.

Purpose: This proposed tag-out requirement would ensure that individuals are notified that a wire rope is damaged. Tagging-out a damaged wire rope would prevent individuals from operating the equipment having a damaged wire rope.

§ 1926.1413(b)(1) -- Each month an inspection shall be conducted in accordance with paragraph (a) (wire rope shift inspection) of this section.

* * *

<u>§ 1926.1413(b)(3) -- The inspection shall be documented according to § 1926.1412(e)(3)</u> (monthly inspection documentation).

Purpose: This proposed documentation requirement would ensure that the employer has a reliable wire rope inspection system in place. In addition, it would serve to notify and/or remind the individual conducting the monthly wire rope inspection to check deficiencies that were identified in the annual/comprehensive wire rope inspection as needing follow-up monitoring (see proposed § 1926.1413(c)(3)(ii)). Finally, the documentation would allow employers to track changes in the condition of the damaged wire rope from month to month. OSHA believes that making this proposed requirement concurrent with the monthly inspection-documentation requirement for the equipment would lessen the overall paperwork burden for both requirements.

§ 1926.1413(c) -- Annual/comprehensive.

(1) At least every 12 months, wire ropes in use on equipment shall be inspected by a qualified person in accordance with § 1926.1413(a) (shift inspection) of this section.

* * *

(3) If a deficiency is identified, an immediate determination shall be made by the qualified person as to whether the deficiency constitutes a safety hazard.

* * *

(ii) If the qualified person determines that, though not presently a safety hazard, the deficiency needs to be monitored, the employer shall ensure that the deficiency is checked in the monthly inspections.

* * *

(4) -- The inspection shall be documented according to § 1926.1412(f)(7) (annual/comprehensive inspection documentation).

Purpose: The requirement in proposed 1926.1413(c)(3)(ii) would help ensure that employers respond appropriately to deficiencies identified in the annual/comprehensive inspection. In addition, this proposed requirement would create a record that the employer could use on a monthly basis to track developing problems so that they can be corrected in time to ensure continued safe operation of the equipment.

The provision in proposed 1926.1413(c)(4) is necessary to ensure that the crane operator can confirm that the required annual/comprehensive wire-rope inspection used with the equipment has been completed, including identification of wire-rope deficiencies and trends in wire-rope wear. The results of this annual inspection will be accessible for at least twelve months to help employers and wire-rope inspectors prevent potential equipment failures. Making these documentation requirements concurrent with the annual/comprehensive equipment inspection-documentation requirement would lessen the overall paperwork burden associated with both documentation requirements.

L. Wire Rope – Selection and installation criteria (§ 1926.1414)

[§ 1926.1414(c)(2)(iii), (c)(3)(i), and (c)(3)(iii)]

§ 1926.1414(c) -- Rotation resistant ropes.

§ 1926.1414(c)(2) -- Requirements.

* * *

(iii) -- Type I shall have an operating design factor of no less than 5, except where the wire rope manufacturer and the equipment manufacturer approves the design factor, in writing.

Purpose: This proposed requirement would ensure that the technical expertise of manufacturers is included in making determinations about minimum safety factors for wire rope. Employers would reference these safety factors to determine if a wire rope can be used

safely under different lift conditions.

<u>§1926.1414(c)(3)(i) -- A qualified person shall inspect the rope in accordance with paragraph 1413(a). The rope shall be used only if the qualified person determines that there are no deficiencies constituting a hazard. In making this determination, more than one broken wire in any one rope lay shall be considered a hazard.</u>

Purpose: Proposing to document the qualified person's determination regarding wire-rope safety following an inspection conducted under proposed paragraph 1413(a) would ensure that using a damaged wire rope will not result in a safety hazard

<u>§1926.1414(c)(3)(iii)</u> -- Each lift made under these provisions shall be recorded in the monthly and annual inspection documents. Such prior uses shall be considered by the qualified person in determining whether to use the rope again.

Purpose: Documenting each lift completed with a damaged wire rope as proposed by this provision allows the qualified person to assess deterioration of the wire rope over time based on how the rope is used. This assessment would enable the employer to identify lifts that may increase the rate of deterioration and, by avoiding these lifts, improve wire-rope safety.

M. Safety Devices (§ 1926.1415)

[§ 1926.1415(a)(1)(ii)]

<u>§1926.1415(a)(1)(ii) -- If a built-in crane level indicator is not working properly, it shall be tagged-out or removed.</u>

Purpose: Tagging-out a deficient crane-level indicator is essential to communicate the condition of the level to the operator, and to prevent the operation of the equipment under unsafe conditions. If a malfunctioning crane-level indicator is not tagged-out, the operator may rely on it and set up the equipment in an unsafe manner, causing the equipment to tip over. OSHA considers this tag-out requirement to be a usual and customary work practice in the industry because tagging-out malfunctioning construction equipment is specified by § 1926.20(b)(3). Therefore, OSHA is not taking burden for this proposed paperwork requirement in Item 12 below.

N. Operational Aids (§ 1926.1416)

[§ 1926.1416(d) introductory text, (e) introductory text, and (e)(4)]

<u>§ 1926.1416(d) -- Category I operational aids and alternative measures</u>. Operational aids listed in this paragraph that are not working properly shall be repaired no later than 7 days after the deficiency occurs. *Exception*: If the employer documents that it has ordered the necessary parts within 7 days of the occurrence of the deficiency, the repair shall be completed within 7 days of receipt of the parts.

Purpose: This proposed requirement is necessary as an administrative control to ensure that employers order replacements for, and replace in a timely manner, defective operational aids that remain in service. OSHA believes that employers in the industry, as a usual and customary practice, maintain for accounting purposes purchasing orders and receipts for parts, and that they will use these documents to meet this proposed requirement. Accordingly, OSHA is not taking a paperwork burden for this proposed requirement..

<u>§ 1926.1416(e) -- Category II operational aids and alternative measures</u>. Operational aids listed in this paragraph that are not working properly shall be repaired no later than 30 days after the deficiency occurs. *Exception*: If the employer documents that it has ordered the necessary parts within 7 days of the occurrence of the deficiency, and the part is not received in time to complete the repair in 30 days, the repair shall be completed within 7 days of receipt of the parts.

Purpose: This proposed provision serves as an administrative control to ensure that employers order replacements for, and replace in a timely manner, defective operational aids on equipment that remains in service. OSHA believes that employers in the industry, as a usual and customary practice, maintain for accounting purposes purchasing orders and receipts for parts, and that they will use these documents to meet this proposed requirement. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§ 1926.1416(e)(4) -- Load weighing and similar devices.</u> Equipment (other than derricks) manufactured after March 29, 2003 with a rated capacity over 6,000 pounds shall have at least one of the following: load weighing device, load moment (or rated capacity) indicator, or load moment (or rated capacity) limiter. Temporary alternative measures: The weight of the load shall be determined from a reliable source (such as the load's manufacturer), by a reliable calculation method (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information shall be provided to the operator prior to the lift.

Purpose: Providing the required information to the operator, prior to the lift, is essential to the safe handling of the load and operation of the equipment. OSHA is not taking a paperwork burden for this provision because the Agency considers it to be a usual and customary practice in the industry as indicated by a similar requirement specified by ASME B30.5- 2000, section 5-3.2.1.1(c).

O. Operation (§ 1926.1417)

[§ 1926.1417(b)(1), (b)(2), (b)(3), (c)(1), (e)(1)(iv), (f)(1), (j), and (o)(3)(i)]

<u>§ 1926.1417(b) -- Unavailable operation procedures.</u>

(1) Where the manufacturer procedures are unavailable, the employer shall develop and ensure compliance with all procedures necessary for the safe operation of the equipment and attachments.

(2) Procedures for the operational controls must be developed by a qualified person.

(3) Procedures related to the capacity of the equipment must be developed and signed by a registered professional engineer familiar with the equipment.

Purpose: When the manufacturer's procedures are unavailable, these proposed information requirements would ensure that: the employer develops procedures for equipment operation; a qualified person (with respect to the equipment involved) develops procedures for operational controls, and a RPE develops procedures related to the capacity of the equipment. The proposed documentation requirements would ensure that modifications/additions to the equipment do not adversely affect safety.

<u>§ 1926.1417(c)(1) -- The procedures applicable to the operation of the equipment, including</u> rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions, and operator's manual, shall be readily available in the cab at all times for use by the operator.

Purpose: The operator needs to have the information required by this proposed provision immediately available to operate the crane safely. For example, the equipment's capacity varies with factors such as boom length, radius, and boom angle. This proposed provision would decrease crane accidents by preventing crane operators from performing operations beyond a crane's capacity and operating the equipment beyond the recommended operating speed. It also would increase operator awareness of special hazards related to a specific piece of equipment. OSHA considers this proposed information requirement to be a usual and customary practice in the industry because a similar requirement is specified by § 1926.550(a)(2). Therefore, OSHA is not taking a paperwork burden for this proposed requirement in Item 12 below.

§ 1926.1417(e)(1) -- The operator shall not leave the controls while the load is suspended, except where the following are met:

* * *

(iv) -- Barricades or caution lines, and notices, are erected to prevent all employees from entering the fall zone. No employees, including those listed in § 1926.1425(b)(1) through (3), § 1926.1425(d) or § 1926.1425(e), shall be permitted in the fall zone.

Purpose: The proposed information-exchange requirement would ensure that employees are made aware (through the use of a barricade or caution lines, and notices) that the area under which the load will be suspended must be avoided to protect them from the hazard of a falling load. Although holding a load while equipment is unattended is not explicitly addressed in subpart N of 29 CFR part 1926, OSHA considers barricading hazardous areas

around the equipment a usual and customary practice in the industry, similar to barricades required under § 1926.550(a)(9) for pinch points. Also, using barricades under these specified conditions is allowed as an option under ASME B30.5- 2000 section 5-3.2.1.3 to a provision prohibiting employers from holding the load during a lift. Accordingly, OSHA is not taking a paperwork burden for this proposed requirement in Item 12 below.

<u>§ 1926.1417(f)(1) -- Tagging out of service equipment/functions. Where the employer has</u> taken the equipment out of service, a tag shall be placed in the cab stating that the equipment is out of service and is not to be used. Where the employer has taken a function(s) out of service, a tag shall be placed in a conspicuous position stating that the function is out of service and is not to be used.

Purpose: This proposed tagging-out requirement is needed to prevent operation of equipment under unsafe conditions. OSHA is not taking a paperwork burden for this proposed provision because it is required by § 1926.20(b)(3), thereby making it a usual and customary practice in the industry.

<u>§ 1926.1417(j) -- The operator shall be familiar with the equipment and its proper operation.</u> If adjustments or repairs are necessary, the operator shall promptly inform the person designated by the employer to receive such information and, where there are successive shifts, to the next operator.

Purpose: This proposed information-exchange requirement would ensure that the operator is familiar with the equipment and relays the need for necessary repairs/adjustments of the equipment to individuals designated to receive the information. This requirement would help the employer schedule necessary servicing of the equipment, thereby preventing accidents caused by equipment malfunctions. OSHA is not taking a paperwork burden for this proposed requirement because the Agency considers the requirement to be a usual and customary practice in the industry as indicated by a similar requirement specified by ASME B30.5-2000, section 5-3.1.3(i).

<u>§ 1926.1417(o)(3)(i) -- The weight of the load shall be determined from a reliable source</u> (such as the load's manufacturer), by a reliable calculation method (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. In addition, when requested by the operator, this information shall be provided to the operator prior to the lift

Purpose: This requirement is proposed to help prevent overloading the crane. In the absence of a load weighing device, load-moment indicator, rated-capacity indicator, or rated-capacity limiter, the employer must provide the operator with this information so that overloading of the equipment can be prevented. OSHA considers this proposed information-exchange requirement to be a usual and customary practice of the industry as indicated by a similar requirements specified by ASME B30.5-2000, section 5-3.2.1.1(c) and ASME B30.5-1968, section 5.3.2.1. Consequently, OSHA is not taking a paperwork burden for this

proposed requirement.

P. Signals, Voice – additional requirements (§ 1926.1421)

[§ 1926.1421(a)]

<u>§ 1926.1421(a) -- Prior to beginning operations, the operator, signal person and lift</u> supervisor (if there is one), shall contact each other and agree on the voice signals that will be used. Once the voice signals are agreed upon, these workers need not meet again to discuss voice signals unless another worker is substituted, there is confusion about the voice signals, or a voice signal is to be changed.

Purpose: The required pre-lift meeting to discuss voice signals would ensure that the individuals necessary for the lift understand the voice signals and avoid miscommunications. Any miscommunication related to the use of voice signals could lead to unsafe operation of the equipment. OSHA considers this proposed information-exchange requirement to be a usual and customary practice in the industry as indicated by a similar requirement in ASME B30.5-2000, section 5-3.3.3. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

Q. Signals – Hand Signal Chart (§ 1926.1422)

[Entire § 1926.1422]

<u>§ 1926.1422 -- Signals – hand signal chart. Hand signal charts must be either posted on the equipment or readily available at the site.</u>

Purpose: This proposed exchange-of-information requirement would enable employees to refer to an established reference for hand signals when a question arises about what hand signal is appropriate or when they are unsure of what a hand signal means. Therefore, the signal chart aides the employer in preventing hand-signal-related miscommunications and the resulting unsafe conditions that may occur during equipment operations. OSHA is not taking a paperwork burden for this proposed requirement because it considers it to be a usual and customary practice in the industry as indicated by a similar requirement in § 1926.550(a)(4) and section 5-3.3.2 of ASME B30.5-1968 and ASME B30.5-2000.

R. Fall Protection (§ 1926.1423)

[§ 1926.1423(h)(2)]

§ 1926.1423(h) -- Anchoring to the load line. A fall arrest system is permitted to be anchored to the crane/derrick's hook (or other part of the load line) where the following requirements are met:

* * *

(2) The equipment operator shall be at the work site and informed that the equipment

is being used for this purpose.

Purpose: This proposed information-exchange requirement would ensure that the operator is aware that an employee will be connected to the load line of the equipment and that the operator will be available to make any adjustments necessary for safety, such as moving the boom or load line to appropriately position the anchorage point.

S. Work Area Control (§ 1926.1424)

[§ 1926.1424(a)(2)(i), (a)(2)(ii)]

<u>§ 1926.1424(a)(2)(i) -- Instruct employees assigned to work on or near the equipment</u> ("authorized personnel") in how to recognize struck-by and pinch/crush hazard areas posed by the rotating superstructure.

Purpose: This proposed exchange of information would ensure that employees are made aware that they must avoid these hazardous areas. OSHA considers this proposed training provision to be performance oriented as indicated by a generic training requirement specified by § 1926.21(b)(2) and, therefore, is not taking a paperwork burden for it.

§ 1926.1424(a)(2)(ii) -- Erect and maintain control lines, warning lines, railings or similar barriers to mark the boundaries of the hazard areas. Exception: where it is neither feasible to erect such barriers on the ground nor on the equipment, the hazard areas shall be clearly marked by a combination of warning signs (such as "Danger – Swing/Crush Zone" or "Danger – This Thing's Gonna Swing and Crunch You – Zone") and high visibility markings on the equipment that identify the hazard areas. In addition, the employer shall train the employees to understand what these markings signify.

Purpose: Although OSHA considers barricading hazardous areas around the equipment a usual and customary practice in the industry, posting the required signs is not. The proposed posting requirement would notify employers in the vicinity of the equipment about the hazardous swing radius areas they must recognize and avoid. Accordingly, OSHA is not taking a paperwork burden for the proposed barricading requirement, but is taking a burden for the proposed sign-posting requirement.

T. Operator Qualification and Certification (§ 1926.1427)

[$\frac{1926.1427(a)}{(b)}$, (c)(1)(i), (c)(1)(ii), (c)(2)(i), (c)(5)(ii), (c)(5)(iii), (c)(5)(iv), (e)(1), and (h)(1)]

§ 1926.1427(a) -- The employer must ensure that, prior to operating any equipment covered under § 1926.1400, the operator is either qualified or certified to operate the equipment in accordance with one of the options in (b) through (e) of this section, or is operating the equipment during a training period in accordance with paragraph (f) of this section. Exceptions: Operator qualification or certification under this section is not required for operators of derricks (see § 1926.1436), sideboom cranes (see § 1926. 1440), and equipment

with a rated hoisting/lifting capacity of 2000 pounds or less (see § 1926.1441).

Purpose: Compliance with this proposed certification requirement would ensure that the equipment will be operated only by qualified persons, thereby reducing the likelihood of injuries from improperly operated equipment.

Note: OSHA believes that this proposed requirement would be a condition of employment, and, therefore, is not taking a paperwork burden for it. However, most employers would likely maintain file copies of the certifications for equipment operators, which OSHA considers to be a paperwork burden.

§ 1926.1427(c) -- *Option 2*: Qualification by an audited employer program. The employer's qualification of its employee shall meet the following requirements:

(1) The written and practical tests shall be either:

(i) Developed by an accredited crane/derrick operator testing organization (see paragraph (b) of this section), or

(ii) Approved by an auditor in accordance with the following requirements:

(A) The auditor is certified to evaluate such tests by an accredited crane/derrick operator testing organization (see paragraph (b) of this section).

(B) The auditor is not an employee of the employer.

(C) The approval shall be based on the auditor's determination that the written and practical tests meet nationally recognized test development criteria and are valid and reliable in assessing the operator applicants regarding, at a minimum, the knowledge and skills listed in paragraphs (j)(1) and (2) of this section.

(2) Administration of tests.

(i) The written and practical tests shall be administered under circumstances approved by the auditor as meeting nationally recognized test administration standards.

* * *

* * *

(5) Deficiencies. If the auditor determines that there is a significant deficiency

("deficiency") in the program, the employer shall ensure that:

* * *

(ii) The program is audited again within 180 days of the confirmation that the deficiency was corrected.

(iii) The auditor files a documented report of the deficiency to the appropriate Regional Office of the Occupational Safety and Health Administration within 15 days of the auditor's determination that there is a deficiency.

(iv) Records of the audits of the employer's program are maintained by the auditor for three years and are made available by the auditor to the Secretary of Labor or her designated representative upon request.

* * * * *

Purpose: The testing requirements proposed in paragraphs (c)(1)(ii) and (c)(2)(i) of this section would help ensure that operators are capable of operating the equipment safely. The proposed paragraphs require an auditor to determine that the tests and the administration of the employer's testing procedures meet nationally-recognized test administration standards. OSHA assumes that most auditors will document this determination.

The exchange of information required in proposed paragraph (c)(5)(ii) of this section would ensure that the minimum qualifications specified by § 1926.1427(j) are being adequately and consistently tested. OSHA assumes that most auditors will document the results of this reaudit.

The documentation required in proposed paragraphs (c)(5)(iii) and (c)(5)(iv) of this section would require the filing and maintenance of reports to facilitate enforcement of the Option 2 requirements.

<u>§ 1926.1427(e)(1) -- For purposes of this section, a government licensing department/office</u> that issues operator licenses for operating equipment covered by this standard is considered a government accredited crane/derrick operator testing organization if the criteria in paragraph (e)(2) of this section are met.

Purpose: The proposed documentation requirements for government licensing and auditing would be used by employers as an administrative control for ensuring that equipment operators meet the government licensing criteria. Similar to proposed paragraphs (b) and (d) of this section, OSHA believes that, as a practical matter, most employers would choose to maintain file copies of each operator's license as a matter of administrative expediency. Therefore, OSHA assumes that a copy of this license would be retained and maintained by the employer.

§ 1926.1427(h) -- Written tests under this section are permitted to be administered verbally, with answers given verbally, where the operator candidate:

(1) Passes a written demonstration of literacy relevant to the work.

Purpose: This proposed written-literacy requirement would be an essential administrative means for ensuring that operators have sufficient literacy to read and comprehend written materials that relate to critical aspects of operation, such as load charts and manufacturer's manuals.

U. Signal Person Qualifications (§ 1926.1428)

[§ 1926.1428(a)(2), (a)(3), and (b)]

§ 1926.1428(a)(2) -- Option (2) – Employer's qualified evaluator. The employer has its qualified evaluator assess the individual and determine that the individual meets the Qualification Requirements (see paragraph (c) of this section) and provides documentation of that determination. An assessment by an employer's qualified evaluator under this option is not portable – other employers are not permitted to use it to meet the requirements of this section.

Purpose: Compliance with this proposed documentation requirement would serve as an administrative tool for ensuring that the employee is adequately trained and evaluated.

<u>§ 1926.1428(a)(3) -- The documentation for whichever option is used shall be available</u> while the signal person is employed by the employer.

Purpose: OSHA expects that employers will maintain file copies of the training documentation required in proposed § 1926.1428(a)(1) and (2) to ensure that their employees have received the required training. The proposed document-availability requirement in proposed § 1926.1428(a)(3) ensures that the signal person is properly trained while employed by the employer.

<u>§ 1926.1428(b) -- If subsequent actions by the signal person indicate that the individual may</u> not meet the Qualification Requirements (see paragraph (c) of this section), the employer must not allow the individual to continue working as a signal person until re-training is provided and a re-assessment is made in accordance with paragraph (a) of this section that confirms that the individual meets the Qualification Requirements.

Purpose: OSHA believes that it is necessary to retrain a signal person who indicates that he or she does not possess the requisite qualifications for that job. The proposed requirement would prevent miscommunication and the potential for resulting injury.

V. Training (§ 1926.1430)

[§ 1926.1430(a), (b), and (c)(1)]

<u>§1926.1430(a) -- Overhead power lines</u>. Employees specified in § 1926.1408(g)(Power line safety; training) shall be trained in accordance with the requirements of that paragraph.

Purpose: These proposed training requirements for operators, crew, and dedicated spotters would ensure that these employees recognize the identified hazards and understand how to avoid them or protect themselves. OSHA considers these proposed training requirements to be performance oriented, as well as similar to the requirements in § 1926.21(b)(2) and, therefore, is not taking paperwork burden for them.

<u>§1926.1430(b) -- Signal persons</u>. Employees who will be assigned to work as signal persons who do not meet the requirements of § 1926.1428(c) shall be trained in the areas addressed in that paragraph.

Purpose: Under proposed § 1926.1428(c)(5), employees must demonstrate that they meet the requirements of proposed § 1926.1428(c)(1) through (c)(4) through a verbal or written test, and through a practical test. This proposed training requirement would ensure that signal persons understand how their duties affect the safe operation of the equipment, and that they can perform those duties safely.

<u>§1926.1430(c)(1) -- Operators who are not qualified or certified under § 1926.1427 shall be</u> trained in the areas addressed in § 1926.1427(j). Retraining shall be provided if necessary for re-qualification or re-certification or if the operator does not pass a qualification or certification test.

Purpose: Proposed paragraph 1427(j) of this section requires the employer to determine through written and practical tests² that the individual has the knowledge and skills needed to safely operate equipment. OSHA is not taking a paperwork burden for this proposed requirement because it considers the required training to be performance oriented, as well as similar to the requirements in § 1926.20(b)(4).

W. Hoisting Personnel (§ 1926.1431)

[\$1926.1431(e)(12), (o)(3), (p)(4), (r), and (s)]

<u>§1926.1431(e)(12) -- The weight of the platform and its rated capacity shall be</u> conspicuously posted on the platform with a plate or other permanent marking.

Purpose: This proposed information requirement would ensure that the employer will have adequate information regarding the capacity of the personnel platform to prevent equipment failures that could result from overloading the personnel platform. OSHA considers the proposed posting requirement to be a usual and customary practice in the industry as

² OSHA does not consider this an information collection burden as it is usual and customary to instruct employees on work area hazards, and is currently required under 1926.21(b)(2).

manufacturers post this information in accordance with 1926.550(g)(4)(ii)(I). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

§ 1926.1431(o) -- Hoisting personnel in drill shafts. When hoisting employees into and out of drill shafts that are up to and including 8 feet in diameter, the following requirements shall be met:

* * *

(3) If using a boatswain's chair:

(i) The following paragraphs of this section apply: (a), (c), (d)(1), (d)(3), (d)(4), (e)(1), (e)(2), (e)(3), (f)(1), (f)(2)(i), (f)(3)(i), (g), (h), (k)(1), (k)(6), (k)(8), (k)(9), (k)(11)(i), (m), (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "boatswains <u>chair."</u>

(ii) A signal person shall be stationed at the shaft opening.

(iii) The employee shall be hoisted in a slow, controlled descent and ascent.

(iv) The employee shall use personal fall protection equipment, including a full body harness, attached independent of the crane/derrick.

(v) The fall protection equipment shall meet the applicable requirements in <u>§ 1926.502.</u>

(vi) The boatswain's chair itself (excluding the personal fall arrest system anchorages), shall be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

(vii) No more than one person shall be hoisted at a time.

Purpose: OSHA recognizes that there is a heightened danger when hoisting personnel in drill shafts. The proposed pre-lift meeting requirement (required by referenced § 1926.1431(m)(1)) would facilitate communication among employees regarding the safe operation of the personnel-hoisting equipment during the performance of drilling operations.

§1926.1431(p)(4) -- If using a boatswain's chair:

(i) The following paragraphs of this section apply: (a), (c), (d)(1), (d)(3), (d)(4), (e)(1), (e)(2), (e)(3), (f)(1), (f)(2)(i), (f)(3)(i), (g), (h), (j), (k)(1), (k)(6), (k)(8), (k)(9), (k)(11)(i), (m), and (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "boatswains chair." (ii) The employee shall be hoisted in a slow, controlled descent and ascent.

(iii) The employee shall use personal fall protection equipment, including a full body harness, independently attached to the lower load block or overhaul ball.

(iv) The fall protection equipment shall meet the applicable requirements in <u>§ 1926.502.</u>

Purpose: The proposed pre-lift meeting requirement (required by referenced § 1926.1431(m)(1)) would facilitate communication among employees regarding the safe operation of the personnel-hoisting equipment when boatswain's chairs will be used.

<u>§ 1926.1431(r) -- Hoisting personnel for marine transfer. When hoisting employees solely</u> for transfer to or from a marine worksite, the following requirements shall be met:

(1) The employee shall be in either a personnel platform or a marine hoisted personnel transfer device.

(2) If using a personnel platform, paragraphs (a) through (n) of this section apply.

(3) If using a marine hoisted personnel transfer device:

(i) The following paragraphs of this section apply: (a), (c)(2), (d)(1), (d)(3), (d)(4), (e)(1) through (5), (e)(12), (f)(1), (g), (h), (j), (k)(1), (k)(8), (k)(9), (k)(10)(ii), (k)(11)(i), (k)(12), (m), and (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "marine hoisted personnel transfer device."

(ii) The transfer device shall be used only for transferring workers.

(iii) The number of workers occupying the transfer device shall not exceed the maximum number it was designed to hold.

(iv) Each employee shall wear a U.S. Coast Guard personal flotation device approved for industrial use.

Purpose: The proposed pre-lift meeting requirement (required by referenced § 1926.1431(m)(1)) would facilitate communication among employees regarding the safe operation of the personnel-hoisting equipment when marine-hoisting personnel-transfer devices will be used.

<u>§ 1926.1431(s) -- Hoisting personnel for storage tank (steel or concrete), shaft and chimney</u> operations. When hoisting an employee in storage tank (steel or concrete), shaft and chimney operations, the following requirements shall be met:

(1) The employee shall be in a personnel platform except where use of a personnel platform is infeasible; in such a case, a boatswain's chair shall be used.

(2) If using a personnel platform, paragraphs (a) through (n) of this section apply.

(3) If using a boatswain's chair:

(i) The following paragraphs of this section apply: (a), (c), (d)(1), (d)(3), (d)(4), (e)(1), (e)(2), (e)(3), (f)(1), (f)(2)(i), (f)(3)(i), (g), (h), (k)(1), (k)(6), (k)(8), (k)(9), (k)(11)(i), (m), (n). Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute them with "boatswains chair."

(ii) The employee shall be hoisted in a slow, controlled descent and ascent.

(iii) The employee shall use personal fall protection equipment, including a full body harness, attached independent of the crane/derrick.

(iv) The fall protection equipment shall meet the applicable requirements in <u>§ 1926.502.</u>

(v) The boatswain's chair itself (excluding the personal fall arrest system anchorages), shall be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

(vi) No more than one person shall be hoisted at a time.

Purpose: OSHA recognizes that there is a heightened danger when hoisting personnel in storage tanks, shafts, and chimneys. The proposed pre-lift meeting requirement (required by referenced § 1926.1431(m)(1)) would facilitate communication among employees regarding the safe operation of the personnel-hoisting equipment when boatswain's chairs will be used. OSHA believes it is a usual and customary practice in the industry to conduct the required meeting when boatswain's chairs are used. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

X. Multiple Lifts (§ 1926.1432)

[§ 1926.1432(a) and (b)(2)]

<u>§ 1926.1432(a) -- *Plan development*. Before beginning a crane/derrick operation in which more than one crane/derrick will be supporting the load, the operation must be planned. The planning must meet the following requirements:</u>

(1) The plan must be developed by a qualified person.

(2) The plan must be designed to ensure that the requirements of this subpart are met.

(3) Where the qualified person determines that engineering expertise is needed for the planning, the employer must ensure that it is provided.

Purpose: The proposed exchange of information would ensure that the hazards involved with a multiple lift are identified in, and eliminated according to, a plan developed by a qualified person. These hazards include, but are not limited to, load slipping and unintended load shifting. Such hazards can be minimized by a plan that addresses elements such as the capacity of the cranes/derricks relative to load distribution (throughout the lift), load rigging, load travel (from start to finish), and communication. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar provision in ASME B30.5-1968, section 5-3.2.3(l). Accordingly, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§ 1926.1432(b)(2) -- The supervisor must review the plan with all workers who will be involved with the operation.</u>

Purpose: This proposed exchange-of-information requirement would typically involve the signal person, rigging crew, crane operator, and sometimes laborers, who would meet to ensure that everyone understands the plan and how the operation will be conducted. This meeting is important for employees to understand how the plan will work, including their responsibilities and the responsibilities of others, which would help ensure that the diverse elements of the operation are coordinated. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by the training required under § 1926.21(b)(2), and a similar provision in ASME B30.5-1968, section 5-3.2.3(1). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

Y. Design, Construction and Testing (§ 1926.1433)

[§ 1926.1433(d)(1)(ii) and (d)(5)]

§ 1926.1433(d) -- All equipment covered by this subpart shall meet the following requirements:

(1) *Rated capacity and related information*. The information available in the cab (see § 1926.1417 (c)) regarding rated capacity and related information shall include, at a minimum, the following information:

* * *

(ii) A work area chart for which capacities are listed in the load chart. (Note: an example of this type of chart is in ASME B30.5–2004, section 5-1.1.3,

<u>Figure 11).</u>

Purpose: This proposed exchange of information is necessary to ensure that equipment operators have immediate access in the cab to information that they need to make determinations that could affect the safe operation of the equipment. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by similar provisions in § 1926.550(a)(2) and ASME B30.5-2000, section 5-1.1.3(a). Consequently, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§ 1926.1433(d)(5) -- Posted warnings</u>. Posted warnings required by this subpart as well as those originally supplied with the equipment by the manufacturer shall be maintained in legible condition.

Purpose: These proposed postings requirements require employers to warn employees that they must avoid or protect themselves from the specified hazardous conditions. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by similar provisions in § 1926.550(a)(2) and ASME B30.5-2000, section 5-1.1.3(a). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

Z. Equipment Modifications (§ 1926.1434)

[§ 1926.1434(a)(1)(i), (a)(1)(ii), (a)(2)(i), (a)(3), and (b)]

§ 1926.1434(a)(1) -- Manufacturer review and approval.

(i) The manufacturer approves the modifications/additions in writing.

(ii) The load charts, procedures, instruction manuals and instruction plates/tags/decals are modified as necessary to accord with the modification/addition.

* * *

Purpose: The approval requirement under proposed paragraph (a)(1)(i) of this section, which addresses modifications or additions that may affect the capacity or safe operation of the equipment, is necessary to ensure that proposed modifications/additions would not result in an unsafe condition. The approval must be in writing, and would be used as an administrative tool to ensure that an RPE approved the modifications/additions in accordance with professional engineering practices. Similarly, the proposed requirement to modify load charts and other crucial data to accord with the modification/addition would provide accurate information about the equipment to the operator so that the equipment can be operated within its lifting capacity.

§ 1926.1434(a)(2) -- *Manufacturer refusal to review request*. The manufacturer is provided a detailed description of the proposed modification/addition, is asked to approve the modification/ addition, but it declines to review the technical merits of the proposal or fails,

within 30 days, to acknowledge the request or initiate the review, and all of the following are met:

(i) -- A registered professional engineer who is a qualified person with respect to the equipment involved:

(A) Approves the modification/addition and specifies the equipment configurations to which that approval applies, and

(B) Modifies load charts, procedures, instruction manuals and instruction plates/tags/decals as necessary to accord with the modification/addition.

Purpose: This proposed approval requirement would ensure that, in the event that a manufacturer refuses to review a proposed modification/addition request, only an RPE will make determinations regarding proposed modifications/additions that may affect safe operation of the equipment. Similarly, the proposed requirement to modify load charts and other crucial data to accord with the modification/addition would provide the operator with accurate information about the equipment so that the equipment can be operated within its lifting capacity.

<u>§1926.1434(a)(3) -- Unavailable manufacturer</u>. The manufacturer is unavailable and the requirements of paragraphs (a)(2)(i) and (2)(ii) of this section are met.

Purpose: The proposed approval requirements are needed for the same reasons explained above for proposed § 1926.1434(a)(2).

§1926.1434(b) -- Modifications or additions which affect the capacity or safe operation of the equipment are prohibited where the manufacturer, after a review of the technical safety merits of the proposed modification/addition, rejects the proposal and explains the reasons for the rejection in a written response. If the manufacturer rejects the proposal but does not explain the reasons for the rejection in writing, the employer may treat this as a manufacturer refusal to review the request under paragraph (a)(2) of this section.

Purpose: The proposed approval requirements are needed for the same reasons explained above for proposed § 1926.1434(a)(2). Similarly, the manufacturer's explanation of why it rejected the employer's proposed modification/addition would provide the employer with an administrative tool to verify that the manufacturer reviewed the technical merits of the request. Requiring employers to obtain this information from the manufacturer would ensure that employers have this information available when making further determinations that affect the safe operation of the equipment. However, OSHA does not consider the retention of this rejection document to be a burden on the employer because the document likely would be generated and maintained on file by the manufacturer rather than the employer (i.e., the document would confirm the information provided to the employer by the manufacturer). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

AA. Tower Cranes (§ 1926.1435)

[§ 1926.1435(c), (e)(5) introductory text, (e)(5)(v), (e)(6) introductory text, (e)(6)(vi), (f)(2)(i), and (f)(2)(ii)]

<u>§1926.1435(c) -- Signs.</u> The size and location of signs installed on tower cranes must be in accordance with manufacturer specifications. Where these are unavailable, a registered professional engineer familiar with the type of equipment involved must approve in writing the size and location of any signs.

Purpose: OSHA proposed this provision because wind pushing against a sign can significantly increase the horizontal force exerted on a crane, thereby reducing the crane's capacity and/or compromising its stability. To operate cranes safely under windy conditions, employers must develop information about the affects of wind on a crane's lifting capacity in accordance with this proposed provision when this information is not available from the manufacturer. OSHA requires that the registered professional engineer's approval be in writing and in accordance with professional engineering practices so that the size and location criteria can be readily referenced when the crane is being erected, operated, and dismantled.

§1926.1435(e)(5) -- *Category I operational aids and alternative measures*. Operational aids listed in this paragraph that are not working properly shall be repaired no later than 7 days after the deficiency occurs. **Exception**: If the employer documents that it has ordered the necessary parts within 7 days of the occurrence of the deficiency, the repair shall be completed within 7 days of receipt of the parts.

Purpose: This proposed documentation requirement serves as an administrative control to ensure that a defective Category I operational aid on equipment that remains in service has been ordered and will be replaced in a timely manner. OSHA believes that employers maintain purchasing orders and receipts for parts as a usual and customary accounting practice in the industry and would use these documents to meet this proposed requirement. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§1926.1435(e)(5)(v) -- Load moment limiting device.</u> The tower crane shall have a device that prevents moment overloading. *Temporary alternative measures:* A radius indicating device shall be used (if the tower crane is not equipped with a radius indicating device, the radius shall be measured to ensure the load is within the rated capacity of the crane). In addition, the weight of the load shall be determined from a reliable source (such as the load's manufacturer), by a reliable calculation method (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information shall be provided to the operator prior to the lift.

* * *

§1926.1435(e)(6) -- Category II operational aids and alternative measures. Operational aids listed in this paragraph that are not working properly shall be repaired no later than 30 days after the deficiency occurs. **Exception:** If the employer documents that it has ordered the necessary parts within 7 days of the occurrence of the deficiency, and the part is not received in time to complete the repair in 30 days, the repair shall be completed within 7 days of receipt of the parts.

Purpose: This proposed documentation requirement is an administrative control to ensure that a defective Category II operational aid on equipment that remains in service has been ordered and will be replaced in a timely manner. OSHA believes that employers maintain purchasing orders and receipts for parts as a usual and customary accounting practice of the industry and would use these documents to meet this proposed requirement. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§1926.1435(e)(6)(vi) -- Load indicating device.</u> Cranes manufactured more than one year after the effective date of this standard, shall have a device that displays the magnitude of the load on the hook. Displays that are part of load moment limiting devices that display the load on the hook meet this requirement. *Temporary alternative measures:* The weight of the load shall be determined from a reliable source (such as the load's manufacturer), by a reliable calculation method (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information shall be provided to the operator prior to the lift.

Purpose: When chosen as a specified compliance alternative, obtaining the required information, prior to the lift, is essential to the safe handling of the load and operation of the equipment. OSHA is not taking a paperwork burden for this requirement because it considers the requirement to be a usual and customary practice in the industry as indicated by a similar requirement in ASME B30.5- 2000, section 5-3.2.1.1(c).

<u>§1926.1435(f)(2) -- Post-erection inspection.</u> In addition to the requirements in <u>§1926.1412(c)</u>, the following requirements shall be met:

(i) A load test using certified weights, or scaled weights using a certified scale with a current certificate of calibration, shall be conducted after each erection.

(ii) The load test shall be conducted in accordance with the manufacturer's instructions. Where these instructions are unavailable, a registered professional engineer familiar with the type of equipment involved shall develop written load test procedures.

Purpose: The proposed calibration requirement in proposed paragraph 1926.1435(f)(2)(i) would ensure that the employers provide the equipment necessary to conduct an accurate load test. OSHA believes that to meet this proposed calibration requirement, employers are most likely to test weights on the same calibrated scales that are used to verify loads that are

to be handled. Therefore, OSHA considers the proposed requirement to be a usual and customary practice in the industry and is not taking a paperwork burden for it.

Compliance with the documentation requirement in proposed paragraph 1926.1435(f)(2)(ii) would ensure that, in the absence of manufacturer's instructions, effective load testing procedures will be developed by an RPE. These instructions would help the employer discover, prior to placing the crane into operation, any significant equipment deficiencies or errors made during erection of the equipment. Having the required information available to the employer would prevent inaccurate testing of the equipment that could contribute to equipment failure. OSHA considers this load-testing requirement to be a usual and customary work practice in the industry as indicated by the a similar requirement in 1926.550(a)(1) and (c)(5), and because manufacturers provide load-testing instructions with the equipment. Accordingly, OSHA is not taking a paperwork burden for this proposed requirement.

BB. Derricks (§ 1926.1436)

[\$ 1926.1436(b)(3), (c)(2)(i), (c)(2)(ii), (c)(2)(iii), (d)(1), (f)(3), (g)(1)(ii), (g)(2), (g)(3), (g)(4), and (h)]

§ 1926.1436(b)(3) -- Load chart location.

(i) Permanent installations. For permanently installed derricks with fixed lengths of boom, guy, and mast, a load chart shall be posted where it is visible to personnel responsible for the operation of the equipment.

(ii) Non-permanent installations. For derricks that are not permanently installed, the load chart shall be readily available at the job site to personnel responsible for the operation of the equipment.

Purposes: This proposed load-chart information requirement is needed by the personnel responsible for the operation of the equipment to calculate the parameters of a safe lift. OSHA is not taking a paperwork burden for this proposed information requirement because it considers the requirement to be a usual and customary practice in the industry as indicated by similar provision in ANSI B30.6-1969, section 6-1.1.2(a).

§ 1926.1436(c)(2) -- Guy derricks.

(i) -- The minimum number of guys shall be 6, with equal spacing, except where a qualified person or derrick manufacturer approves variations from these requirements and revises the rated capacity to compensate for such variations.

(ii) Guy derricks shall not be used unless the employer has the following guy information:

(A) The number of guys.

*

(B) The spacing around the mast.

(C) The size, grade, and construction of rope to be used for each guy.

(iii) For guy derricks manufactured after December 18, 1970, in addition to the information required in paragraph (c)(2)(ii) of this section, the employer shall have the following guy information:

(A) The amount of initial sag or tension.	
(B) The amount of tension in guy line rope at anch	<u>10r.</u>
* *	

Purpose: These proposed information requirements would ensure that the employer has the necessary information to construct, maintain, and operate the guy derricks safely. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar provision in ASME B30.6-2003, section 6-1.2.2. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§ 1926.1436(d)(1) -- Load anchoring data developed by the manufacturer or a qualified</u> person shall be used.

Purpose: These proposed information requirements would ensure that the employer has the necessary information to anchor guy and stiffleg derricks safely. OSHA is not taking a paperwork burden for this proposed requirement because it considers the requirement to be a usual and customary practice in the industry as indicated by a similar provision in ASME B30.6-2003. section 6-1.4.3.

§ 1926.1436(f)(3) -- Load weight/capacity devices. Derricks manufactured more than one year after the effective date of this standard with a maximum rated capacity over 6000 pounds shall have at least one of the following: load weighing device, load moment indicator, rated capacity indicator, or rated capacity limiter. *Temporary alternative measures*: The weight of the load shall be determined from a reliable source (such as the load's manufacturer), by a reliable calculation method (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information shall be provided to the operator prior to the lift.

Purpose: When chosen as a specified compliance alternative, obtaining the required information, prior to the lift, is essential to the safe handling of the load and operation of the equipment. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar requirement in ASME B30.6-2003, section 6-

3.3.1(b). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

§ 1926.1436(g) -- Post-assembly approval and testing – new or reinstalled derricks.

(1) -- Anchorages.

* * *

<u>(ii) -- If using a rock or hairpin anchorage, the qualified person shall</u> <u>determine if any special testing of the anchorage is needed. If so, it shall be</u> <u>tested accordingly.</u>

Purpose: Compliance with this proposed information requirement would help the employer ensure that the derrick would not collapse due to insufficient anchoring, thereby endangering employees in the vicinity of the derrick. The provisions in proposed paragraph (g)(1) of this section are similar to the requirements specified by ANSI B30.6-1969, which is incorporated by reference in 29 CFR 1926, subpart N; the provisions also are similar to requirements in ASME B30.6-2003, section 6-2.2.1(b). For this reason, OSHA considers compliance with this proposed information requirement to be a usual and customary practice in the industry, and is not taking a paperwork burden for it.

<u>§ 1926.1436(g)(2) -- Functional test. Prior to initial use, new or reinstalled derricks shall be</u> tested by a competent person with no hook load to verify proper operation. This test shall include:

(i) Lifting and lowering the hook(s) through the full range of hook travel.

(ii) Raising and lowering the boom through the full range of boom travel.

(iii) Swinging in each direction through the full range of swing.

(iv) Actuating the anti two-block and boom hoist limit devices (if provided).

(v) Actuating locking, limiting and indicating devices (if provided).

Purpose: The functional test required by proposed paragraph (g)(2) of this section would identify potential equipment deficiencies or hazards prior to its use. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar provision in ANSI B30.6-1969, section 6-2.2.1(a), which is incorporated by reference in 29 CFR 1926, subpart N. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§1926.1436(g)(3) -- Load test</u>. Prior to initial use, new or reinstalled derricks shall be load tested by a competent person. The test load shall meet the following requirements:

(i) Test loads shall be at least 100% and no more than 110% of the rated capacity, unless otherwise recommended by the manufacturer or qualified person, but in no event shall the test load be less than the maximum anticipated load.

(ii) The test shall consist of:

(A) Hoisting the test load a few inches and holding to verify that the load is supported by the derrick and held by the hoist brake(s).

(B) Swinging the derrick, if applicable, the full range of its swing, at the maximum allowable working radius for the test load.

(C) Booming the derrick up and down within the allowable working radius for the test load.

(D) Lowering, stopping and holding the load with the brake(s).

(iii) The derrick shall not be used unless the competent person determines that the test has been passed.

Purpose: The load test required by proposed paragraph (g)(3) of this section would identify potential equipment deficiencies or hazards while hoisting a test load prior to the equipment's use. OSHA is not taking a paperwork burden for this proposed requirement because it considers the requirement to be a usual and customary practice in the industry as indicated by a similar requirement in ASME B30.6-2003 section 6-2.2.2.

<u>§ 1926.1436(g)(4) -- Documentation. Tests conducted under this paragraph shall be</u> documented. The document shall contain the date, test results and the name of the tester. The document shall be retained until the derrick is re-tested or dismantled, whichever occurs first.

Purpose: These proposed functional- and load-test documentation requirements would help the employer identify defects in the derrick prior to use, which would prevent failures of the equipment. Having a documented record of this testing information serves as an administrative tool to confirm that the testing has been conducted and provides a historical reference document for the equipment.

<u>§ 1926.1436(h) -- Load testing repaired or modified derricks</u>. Derricks that have had repairs, modifications or additions affecting the derrick's capacity or safe operation shall be evaluated by a qualified person to determine if a load test is necessary. If it is, load testing shall be conducted and documented in accordance with paragraph (g) of this section.

Purpose: The load test required by proposed paragraph (g)(4) of this section would identify

potential equipment deficiencies or hazards while hoisting a test load prior to use. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar requirement in ASME B30.6-2003, section 6-2.2.2(b). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

CC. Floating Cranes & Land Cranes on Barges (§ 1926.1437)

[\$ 1926.1437(c)(2)(ii), (g), (h)(6), (m)(4), (n)(1), (n)(2), (n)(3)(i), (n)(3)(ii), (n)(5)(v), and (n)(5)(vi)(A)]

<u>§1926.1437(c)(2)(ii) -- The hazard areas shall be clearly marked by a combination of</u> warning signs (such as "Danger – Swing/Crush Zone" or "Danger – This Thing's Gonna Swing and Crunch You – Zone") and high visibility markings on the equipment that identify the hazard areas. In addition, the employer shall train the employees to understand what these markings signify.

Purpose: Although OSHA considers barricading hazardous areas around the equipment to be a usual and customary practice in the industry, posting signs is not such a usual and customary practice. The proposed posting requirement would notify employers in the vicinity of the equipment about the hazardous swing radius areas they must recognize and avoid. OSHA is taking a paperwork burden for the proposed posting requirement, but not for the proposed barricading requirement.

<u>§ 1926.1437(g) -- Accessibility of procedures applicable to equipment operation. If the crane/derrick has a cab, the requirements of § 1926.1417(c) apply. If the crane/derrick does not have a cab:</u>

(1) Rated capacities (load charts) shall be posted at the operator's station. If the operator's station is moveable (such as with pendant-controlled equipment), the load charts shall be posted on the equipment.

(2) Procedures applicable to the operation of the equipment (other than load charts), recommended operating speeds, special hazard warnings, instructions and operators manual, shall be readily available on board.

Purpose: This proposed information requirement ensures that equipment operators have immediate access in the cab to information that is needed to make determinations that could affect the safe operation of the equipment. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar provision in § 1926.550(a)(2) and ASME B30.5-2000, section 5-1.1.3(a). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§1926.1437(h)(6) -- Documentation. The monthly and annual inspections required in</u> paragraphs (h)(2) and (h)(4) of this section shall be documented in accordance with <u>§§</u> 1926.1412 (e)(3) and 1926.1412(f)(7), respectively. The quadrennial inspection required in paragraph (h)(5) of this section shall be documented in accordance with § 1926.1412(f)(7), except that the documentation for that inspection shall be retained for a minimum of 4 years.

Purpose: Requiring the documentation specified in proposed paragraph (h)(6) of this section would provide employers with an administrative tool with which to monitor the condition of specified pieces of equipment during inspections. More specifically, employers would be able to track any deterioration of the equipment that could compromise the safety of equipment operations.

§ 1926.1437(m) -- *Floating cranes/derricks*. For equipment designed by the manufacturer (or employer) for marine use by permanent attachment to barges, pontoons, vessels or other means of flotation:

<u>§ 1926.1437(m)(4) --- If the equipment is employer-made, it shall not be used unless the</u> <u>employer has documents demonstrating that the load charts and applicable parameters for use</u> <u>meet the requirements of paragraphs (m)(1) through (3) of this section. Such documents</u> <u>shall be signed by a registered professional engineer who is a qualified person with respect to</u> <u>the design of this type of equipment (including the means of flotation).</u>

Purpose: When equipment is employer-made, this proposed documentation requirement would serve as an administrative tool for employers to confirm that an RPE has evaluated the equipment's design, thereby preventing the use of unsafe equipment.

§ 1926.1437(n) -- *Land cranes/derricks*. For land cranes/derricks used on barges, pontoons, vessels or other means of flotation:

(1) -- The rated capacity of the equipment (load charts) applicable for use on land shall be reduced to:

(i) Account for increased loading from list, trim, wave action, and wind.

(ii) Be applicable to a specified location(s) on the specific barge, pontoons, vessel or other means of flotation that will be used, under the expected environmental conditions.

(iii) Ensure that the conditions required in paragraphs (n)(3) and (n)(4) of this section are met.

(2) -- The rated capacity modification required in paragraph (n)(1) of this section shall be done by the equipment manufacturer, or a qualified person who has expertise with respect to both land crane/derrick capacity and the stability of vessels/flotation devices.

(3) -- List and trim.

(i) The maximum allowable list and the maximum allowable trim for the barge, pontoon, vessel or other means of flotation shall not exceed the amount necessary to ensure that the conditions in paragraph (n)(4) of this section are met. In addition, the maximum allowable list and the maximum allowable trim shall not exceed the least of the following: 5 degrees, the amount specified by the crane/derrick manufacturer, or where an amount is not so specified, the amount specified by the qualified person.

(ii) The maximum allowable list and the maximum allowable trim for the land crane/derrick shall not exceed the amount specified by the crane/derrick manufacturer, or where an amount is not so specified, the amount specified by the qualified person.

Purpose: The requirements in proposed § 1926.1437(n)(1) and (2) would provide the operator with information that will enable the operator to avoid maritime conditions that would adversely affect the safe operation of the equipment. OSHA considers this proposed requirement to be a usual and customary practice of the industry as indicated by a similar requirement in ASME B30.8-2004, sections 8-1.2 and 8-1.3. Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

The requirement in proposed § 1926.1437(n)(3) would provide employers with information that would accurately portrays the decreased capacity of land cranes and derricks when attached to flotation devices and barges. A qualified person is needed to make the required modifications of rated capacities to ensure that this complex, technical task accounts correctly for both the land crane/derrick capacity and the stability of vessels/flotation devices.

§ 1926.1437(n)(5) -- *Physical attachment, corralling, rails system and centerline cable system.* The employer shall meet the requirements in Option (1), Option (2), Option (3), or Option (4) of this section. Whichever option is used, the requirements of paragraph (v) must also be met.

(i) *Option* (1) – *Physical attachment.* The crane/derrick shall be physically attached to the barge, pontoons, vessel or other means of flotation. Methods of physical attachment include crossed-cable systems attached to the crane/derrick and vessel/flotation device (this type of system allows the crane/derrick to lift up slightly from the surface of the vessel/means of flotation), bolting or welding the crane/derrick to the vessel/flotation device, strapping the crane/derrick to the vessel/flotation device with chains, or other methods of physical attachment.

(ii) Option (2) - Corralling. The crane/derrick shall be prevented from shifting by installing barricade restraints (a corralling system). Corralling systems shall not allow any amount of shifting in any direction by the equipment.

(iii) Option(3) - Rails. The crane/derrick shall be prevented from shifting by being mounted on a rail system. Rail clamps and rail stops are required unless the system is

designed to prevent movement during operation by other means.

(iv) *Option* (4) – *Centerline cable system.* The crane/derrick shall be prevented from shifting by being mounted to a wire rope system. The wire rope system shall meet the following requirements:

(A) The wire rope and attachments shall be of sufficient size/strength to support the side load of crane/derrick.

(B) The wire rope shall be physically attached to the vessel/flotation device.

(C) The wire rope shall be attached to the crane/derrick by appropriate attachment methods (such as shackles or sheaves) on the undercarriage which will allow the crew to secure the crane/derrick from movement during operation and to move the crane/derrick longitudinally along the vessel/flotation device for repositioning.

(D) Means shall be installed to prevent the crane/derrick from passing the forward or aft end of the wire rope attachments.

(E) The crane/derrick shall be secured from movement during operation.

(v) The systems/means used to comply with Option (1), Option (2), Option (3), or Option (4) of this section shall be designed by a marine engineer, registered professional engineer familiar with floating crane/derrick design, or qualified person familiar with floating crane/derrick design.

(vi) *Exception*. For mobile auxiliary cranes used on the deck of a floating crane/derrick, the requirement to use Option (1), Option (2), Option (3), or Option (4) of this section does not apply where the employer demonstrates implementation of a plan and procedures that meet the following requirements:

(A) A marine engineer or registered professional engineer familiar with floating crane/derrick design develops and signs a written plan for the use of the mobile auxiliary crane.

(B) The plan shall be designed so that the applicable requirements of this section will be met despite the position, travel, operation, and lack of physical attachment (or corralling, use of rails or cable system) of the mobile auxiliary crane.

(C) The plan shall specify the areas of the deck where the mobile auxiliary crane is permitted to be positioned, travel, and operate and the parameters/ limitations of such movements and operation.

(D) The deck shall be marked to identify the permitted areas for positioning, travel, and operation.

(E) The plan shall specify the dynamic/environmental conditions that must be present for use of the plan.

(F) If the dynamic/environmental conditions in paragraph (n)(5)(vi)(E) of this section are exceeded, the mobile auxiliary crane shall be physically attached or corralled in accordance with Option (1), Option (2) or Option (4) of this section.

Purpose: The information required by proposed paragraph (n)(5)(v) of this section needs to be developed to ensure that the system is designed correctly. System failure could result in unplanned movement of the crane/derrick, with consequent injury to employees. This proposed documentation requirement also would serve as a reference for employees who must know and understand the parameters under which the mobile crane can be operated safely.

DD. Overhead and Gantry Cranes (§ 1926.1438)

[§ 1926.1438(b)(2)(ii)(A)]

§ 1926.1438(b) -- Overhead and gantry cranes that are not permanently installed in a facility.

* * *

(2) -- The following requirements apply to equipment identified in paragraph (b)(1) of this section:

* * *

(ii) -- The following portions of § 1910.179:

(A) Paragraphs (b)(5),(6),(7); (e)(1),(3),(5),(6); (f)(1)),(4); (g);
(h)(1),(3); (k); and (n) of § 1910.179.	

* * * * *

Purpose: One of these proposed provisions, § 1910.179(b)(5), requires that the rated load of the crane be plainly marked on each side of the crane, and if the crane has more than one hoisting unit, each hoist shall have its rated load marked on it or its load block, and this marking shall be clearly legible from the ground floor. These 29 CFR part 1910

requirements were selected because each requirement is a safety requirement that applies to this type of crane regardless of whether it is used in construction or general industry. Compliance with this proposed labeling requirement would provide the operator with information about load ratings of the equipment when determinations must be made that affect the safe operation of the overhead and gantry crane. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by a similar provision in AMSE B30.2-2001, section 2-1.1.1 and, therefore, is not taking a paperwork burden for it.

EE. Dedicated Pile Drivers (§ 1926.1439)

[§ 1926.1439(e)]

<u>§ 1926.1439(e) -- Section 1926.1427 (Operator qualification and certification) applies,</u> <u>except that the qualification or certification shall be for operation of either dedicated pile</u> <u>drivers or equipment that is the most similar to dedicated pile drivers.</u>

Purpose: This proposed qualification/certification requirement would ensure that the operator can recognize and avoid hazards related to the operation of the equipment he or she uses to perform hoisting jobs. OSHA believes that meeting this proposed requirement would be a condition of employment, and therefore is not taking a paperwork burden for it. In addition, OSHA expects that most employers would maintain file copies of operator certifications for administrative purposes, with the burden hours and costs for this practice being accounted for under § 1926.1427.

FF. Sideboom Cranes (§ 1926.1440)

[§ 1926.1440(a)]

<u>§ 1926.1440(a) -- The provisions of this standard apply, except § 1926.1402 (Ground conditions), § 1926.1415 (Safety devices), § 1926.1416 (Operational aids), and § 1926.1427 (Operator qualification and certification).</u>

Purpose: Sideboom cranes would be exempted from the proposed requirements specified in <u>§§ 1926.1402, 1926.1415, 1926.1416, and 1926.1427 because of the limited capacity and</u> relative simplicity involved in the operation of sideboom cranes.

GG. Requirements for equipment with a manufacturer-rated hoisting/lifting capacity of 2000 pounds or less (§ 1926.1441)

[$\frac{1926.1441(b)(2)(i)(A)}{(b)(2)(i)(B)}$, 1441(c)(2)(i), (c)(2)(ii), (c)(2)(iii), (c)(3)(i), (c)(3)(i), (e), and (f)]

<u>§ 1926.1441(b)(2)(i)(A) -- Manufacturer instructions, recommendations, limitations, and</u> specifications. Where these are unavailable, a registered professional engineer familiar with the type of equipment involved must approve, in writing, the selection and configuration of components; or **Purpose:** The written approval documentation required by this proposed paragraph serves as a reference for employees who must recognize and be protected from the hazards associated with the equipment's configuration. Obtaining an RPE's written approval would ensure that any developed instructions, recommendations, limitations, and specifications have been evaluated and confirmed to be safe for application for the equipment.

<u>§ 1926.1441(b)(2)(i)(B) -- Approved modifications that meet the requirements of section § 1926.1434 (Equipment modifications).</u>

Purpose: The written documentation required by proposed § 1926.1434, as referenced in proposed § 1926.1441(b)(2)(i)(B), serves as a reference for employees who must recognize and be protected from the hazards associated with the equipment's modified configuration as approved by a qualified person.

<u>§ 1926.1441(c)(2) -- Unavailable operation procedures.</u>

(i) Where the manufacturer procedures are unavailable, the employer shall develop and ensure compliance with all procedures necessary for the safe operation of the equipment and attachments.

(ii) Procedures for the operational controls must be developed by a qualified person.

(iii) Procedures related to the capacity of the equipment must be developed and signed by a registered professional engineer familiar with the equipment.

Purpose: When a manufacturer's procedures are unavailable, the proposed documentation requirement would ensure that an RPE has developed safe operation procedures related to the equipment's capacity.

§ 1926.1441(c)(3)(i) -- The load chart shall be available to the operator at the control station.

Purpose: This proposed information requirement would ensure that the operator of the equipment will have the information necessary to calculate the parameters of a safe lift. This proposed requirement becomes especially important on equipment with a hoisting/lifting capability of 2000 pounds or less because this capacity can be easily exceeded. OSHA considers this proposed requirement to be a usual and customary practice in the industry as indicated by similar provisions in § 1926.550(a)(2) and ASME B30.5-2000, section 5-1.1.3(a). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§ 1926.1441(c)(3)(ii) -- Procedures applicable to the operation of the equipment,</u> recommended operating speeds, special hazard warnings, instructions and operator's manual, shall be readily available for use by the operator. **Purpose:** The proposed information requirement would ensure that the information is immediately available to an operator so that he or she can use it to make determinations that would affect the safe operation of the equipment. OSHA is not taking a paperwork burden for this proposed requirement because it considers the requirement to be a usual and customary practice in the industry as indicated by similar requirements in § 1926.550(a)(2) and ASME B30.5-2000, section 5-1.1.3(a)..

<u>§ 1926.1441(e) -- Operator qualifications. The employer shall ensure that, prior to operating the equipment, the operator is trained on the safe operation of the type of equipment the operator will be using.</u>

Purpose: This proposed training requirement would ensure that operators receive training that would give them the ability to recognize and avoid unsafe conditions related to the operation of the equipment. OSHA considers this proposed training requirement to be performance-oriented, as well as covered by the generic training requirements specified by §§ 1926.20(b)(4) and 1926.21(b)(2). Therefore, OSHA is not taking a paperwork burden for this proposed requirement.

<u>§ 1926.1441(f) -- Signal person qualifications. The employer shall ensure that signal persons</u> are trained in the proper use of signals applicable to the use of the equipment.

Purpose: This proposed training requirement would ensure that the signal person recognizes and avoids hazards related to the operation of cranes, and understands how the performance of his or her duties affects the safety of equipment operations. This proposed requirement would also ensure that communication between the crane operator and the signal person is clear and effective, and will prevent crane accidents that could be caused by an inadequately trained signal persons. OSHA considers this proposed training provision to be performance oriented as indicated by a generic training requirement specified by § 1926.21(b)(2) and, therefore, is not taking burden for the requirement under Item 12 below.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

Employers would be able to use automated, electronic, mechanical, or other technological information-collection techniques, or other forms of information technology when establishing and retaining the required records. The Agency wrote the paperwork requirements of the proposed Standard in performance-oriented language (i.e., in terms of what data to collect, not how to document the data). However, several proposed paragraphs of this standard would require employers to prepare written documents to: establish safe configurations of equipment and operation procedures; verify critical calculations that affect the safe operation of the equipment; confirm the immediate ordering of operational aids, and

the completion of required inspections: The following paragraphs of this proposed standard have been identified for these purposes: 29 CFR 1926.1403(b), 29 CFR 1926.1404(h)(4), 29 CFR 1926.1404(j), 29 CFR 1926.1404(m)(1) and (m)(1)(ii), 29 CFR 1926.1406(a), 29 CFR 1926.1410(e), 29 CFR 1926.1410(j), 29 CFR 1926.1412(a)(1)(i), 29 CFR 1926.1412(b)(1)(i)(A), 29 CFR 1926.1412(e)(3), 29 CFR 1926.1412(f)(4),(f)(6), and (f)(7), 29 CFR 1926.1413(a)(4)(ii)(A), (a)(4)(iii)(F), (b)(3), and (c)(4), 29 CFR 1926.1414(c)(2)(iii), 29 CFR 1926.1416(d), and (e), 29 CFR 1926.1417(b)(1) and (b)(2), 29 CFR 1926.1432(a), 29 CFR 1926.1435(e)(5) and (e)(6), 29 CFR 1926.1436(c)(2)(i), 29 CFR 1926.1436(g)(4), 29 CFR 1926.1437(m)(4), (n)(5)(v), and (n)(5)(vi), 29 CFR 1926.1441(b)(2)(i)(A), (b)(2)(i)(B), (c)(2)(i), (c)(2)(ii), (c)(3)(i), and (c)(3)(ii). Employers may scan and electronically maintain copies of these documents.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

The proposed requirements to collect and retain information are specific to each piece of equipment and the conditions under which it is operated, and no other source or agency duplicates these proposed requirements or can make the proposed information available to OSHA (i.e., the proposed information is available only from employers).

5. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-I), describe any methods used to minimize the burden.

The information-collection requirements specified by the proposed Standard would not have a significant impact on a substantial number of small entities.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing the burden.

The Agency believes that the information-collection frequencies required by the proposed Standard are the minimum frequencies that would be necessary to effectively regulate the equipment covered by this proposed standard and, thereby, fulfill its mandate "to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources" as specified in the Act at 29 U.S.C. 651. Accordingly, if employers do not perform the proposed information collections, or delay in providing this information, employees may be subject to an increased risk of death and serious injury when working on or near cranes or derricks.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- requiring respondents to report information to the agency more often than quarterly;
- requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;
- requiring respondents to submit more than an original and two copies of any document;

- requiring respondents to retain records, other than health, medical, government contract, grantin- aid, or tax records, for more than three years;
- in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;
- requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- that includes a pledge of confidentially that is not supported by authority established in statue or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or
- requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can prove that it has instituted procedures to protect the information's confidentially to the extent permitted by law.

No special circumstances exist that would require employers to collect the proposed information using the procedures specified by this Item. The proposed requirements are within the guidelines set forth in 5 CFR 1320.5.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to those comments. Specifically address comments received on cost and hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years - even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

In 1998, OSHA's Advisory Committee for Construction Safety and Health (ACCSH) established a workgroup to develop recommended changes to the Subpart N requirements for cranes and derricks. The workgroup developed recommendations on some issues and submitted them to the full committee in a draft workgroup report. (OSHA-2007-0066-0020). In December 1999, ACCSH recommended to OSHA that the agency consider using a negotiated rulemaking process as the mechanism to update Subpart N (ACCSH 1999-4, Ex. 100x, p. 112).

A tentative list of issues for the Committee to address was published along with the final list of Committee members (68 FR at 39879-90). At its initial meeting, the Committee reviewed and revised the issue list, adding several issues. (OSHA-S030-2006-0663-0372). The Committee met 11 times between July 30, 2003 and July 9, 2004. As the meetings progressed, the Committee reached consensus agreement on various issues and, at the final

meeting, reached consensus agreement on all outstanding issues. The Committee's work product, which is the Committee's recommended regulatory text for the proposed rule, is referred to here as the C-DAC Consensus Document. (OSHA-S030-2006-0663-0639). On October 12, 2006, ACCSH adopted a resolution supporting the C-DAC Consensus Document and recommending that OSHA use it as the basis for a proposed standard. (ACCSH 2006-1, Ex. 101x, pp. 248-49). The collections of information identified in this preliminary information collections report were adopted through consensus of the negotiated-rulemaking committee, C-DAC.

In accordance with 5 CFR 1320.11, OSHA is submitting an information collection request (ICR) to the Office of Management and Budget (OMB) for the proposed Confined Spaces in Construction Standard (29 CFR part 1926, subpart AA). A copy of the proposed rule is attached to this Supporting Statement. Members of the public who wish to comment on the ICR must submit written comments to the Office of Information and Regulatory Affairs, New Executive Office Building, Office of Management and Budget, Room 10235, 725 17th Street, NW., Washington, DC 20503; Attn: OSHA Deck Officer (RIN 1218-AC-01). The Agency will summarize comments submitted by the public to OMB on the ICR, and will include the summary in its request to OMB for final approval for the ICR.

OSHA also encourages the public to submit copies of their comments on the ICR to the rulemaking docket (Docket No. OSHA-2007-0066). All comments received on the ICR will be made part of the record on the proposed Standard. For information on how to submit comments and access the rulemaking docket, see the "Public Participation" section in the Notice of Proposed Rulemaking at <u>http://www.regulations.gov</u> or contact the OSHA Docket Office, Room N-2625, 200 Constitution Avenue, NW., Washington, DC 20210; telephone (202) 693-2350 (OSHA's TTY number is (877) 889-5627).

9. Explain any decision to provide any payments or gift to respondents, other than reenumeration of contractors or grantees.

The Agency will <u>not</u> provide payments or gifts to the respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

The paperwork requirements specified by the proposed Standard do not involve confidential information.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

None of the paperwork provisions in the proposed Standard require sensitive information.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.
- If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I.
- Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 13.

Burden-Hour and Cost Determinations

Estimates of the burden hours and cost for each information collection requirement in the proposed Standard are shown below (with a summary of these estimates, as well as the estimated number of responses for each of these requirements, provided in Table 1). Information regarding the number of employers/establishments, total number of cranes and derricks, total number of hoisting jobs, total number of particular types of cranes and derricks, and total number of particular crane-related operations performed is from the Preliminary Economic And Regulatory Flexibility Analysis For The Proposed OSHA Standard For Cranes and Derricks In Construction; this analysis is available as Pre- RFA in the docket (Docket No. OSHA-2007-0066) established for the proposed standard.³ However, OSHA estimated most burden-hour determinations using the resources of the Directorate of Construction's staff who are familiar with the crane industry.

In determining the wage rates for the various occupations that perform the paperwork requirements, the Agency relied on the rates used in the PEA. OSHA Construction staff used data from the PEA to estimate the wage rate for each occupation used to calculate the burden hours and costs for the applicable provisions. OSHA solicits comment regarding the estimates used for these purposes. The estimated wage rates are listed as follows:

· Qualified person:	\$36.33
· Operator:	\$31.37
· A/D Supervisor:	\$36.22
· Registered Engineer:	\$63.59
• Shift supervisor:	\$36.22
. Auditor	\$36.22
 Signal Person: 	\$25.15

³The docket may be accessed at www.regulations.gov.

•	Qualified rigger:	\$18.59
•	Competent person:	\$20.15
•	Gen. constr. employee:	\$16.16
•	Clerical employee:	\$16.16

1) 29 CFR 1926.1402(c)(2)

OSHA estimated in the PEA that equipment covered by this subpart is used to perform 887,031 jobs per year and it is assumed that at least one set-up occurs for each of these jobs. In addition, OSHA estimates in the PEA that 85% of these jobs are performed using rental equipment. OSHA construction staff believes it is a usual and customary practice for employers, especially equipment rental employers, to get information from the controlling employer at the worksite regarding known hazards beneath equipment set up areas. Therefore, OSHA construction staff estimates that employers on 10% of these hoisting jobs would need this exchange of information as a work practice which is new to the controlling employer. OSHA construction staff estimate that it would take a controlling employer, most likely a shift supervisor, 5 minutes (.08 hour) to provide the required information regarding the location of known hazards beneath the equipment set-up area to equipment users and operators. The estimated annual burden hours and cost for this proposed paragraph is:

Burden hours: 887,031 equipment set-ups x .15 (non rental equip.) x .10 (new work practice) x .08 hour (time for exchange of info.) x = 1,064 hours per year

Cost: 1,064 hours x \$36.22 per hour (wage- shift supervisor) = \$38,538 per year

2) 29 CFR 1926.1403(b) and 1926.1406(b)

OSHA believes that for most equipment used to perform construction activities, it is a usual and customary practice for the owners and manufacturers to provide procedures for the A/D of their equipment. Therefore, OSHA construction staff estimates that 10 employers may own or use equipment that does not have the required documentation. Those employers, most likely using a qualified person, will take 1 hour to develop procedures for safely performing A/D operations. The yearly burden hours and cost of this proposed provision is estimated to be:

Burden hours: 10 (equip. without A/D procedures) x 1 hour (document/maintain procedures) = 10 hours per year

Cost: 10 hours per year x \$36.33 per hour (wage- qualified person) = \$363 per year

3) 29 CFR 1926.1404(f)(2)

OSHA construction staff estimates that 50 A/D jobsites per year will be configured such that it would be necessary for an employee to be under the boom, jib, or other components when pins (or similar devices) are being removed during A/D operations. It is estimated that it would take a qualified person (most likely an A/D supervisor) one half hour (.5 hour) to develop alternatives to the A/D plan that would minimize the duration and exposure of employees to the hazard of unintended, dangerous movements of the equipment. OSHA staff also believes that employers would most likely communicate information about this plan to its employees in a 10 minute (.17 hour) meeting before A/D operations are performed

Burden hours: 50 (jobs where employees under boom) x [.5 hour (time develop plan) + .17 hour (time for meeting)] = 34 hours

Cost: 34 hours x \$36.22 per hour (wage of A/D supervisor) = \$1,213 per year

4) 29 CFR 1926.1407(g) and 1926.1409

This provision also applies to power lines that are above 350 kV in accordance with proposed section 1926.1409. OSHA estimates in the PEA that 25% of the 887,031 construction hoisting jobs per year are performed in the proximity of power lines. This proposed paragraph requires that at least one electrocution hazard warning must be posted in the cab and two more must be posted outside of the equipment at these jobsites. OSHA construction staff estimates that 2% of the pieces of equipment on these jobs would not already have these postings. The Agency also assumes that signs would last five years (i.e., an average annual rate of 20%), and that it would take a general construction employee 5 minutes (.08 hours) to fabricate a sign. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 887,031 (A/D jobs) x .25 (near power lines) x .02 (equip. do not have signs) x 3 (no. of signs per piece of equipment) x .20 (annual replacement rate) x .08 hours (posting) = 213 hours per year

Cost: 213 hours per year x \$16.16 per hour (wage- construction employee) = \$3,442 per year

5) 29 CFR 1926.1408(b)(1) and 29 CFR 1926.1409

This provision also applies to power lines that are above 350 kV in accordance with proposed section 1926.1409. OSHA estimates in the PEA that on 25% of the estimated 887,031 hoisting jobs performed in construction, cranes and derricks will be operated near power lines. Subsequently, OSHA construction staff estimates that it will take a shift supervisor 20 minutes (.33 hour) to plan and conduct a meeting prior to equipment operations which would include the dissemination of information about the location of all power lines and the methods that are being used to prevent encroachment and electrocution. OSHA construction staff estimates that employers on 35% of these jobs would conduct this

meeting as a new work practice in accordance with this proposed provision. The estimated annual burden hours and cost of this proposed paragraph are:

Burden hours: 887,031 (hoisting jobs) x .25 (hoisting jobs near power lines) x .35 (new work practice) x .33 hour (plan and conduct meeting) = 25,613 hours

Cost: 25,613 hours per year x \$36.22 (wage- shift supervisor) = \$927,703 per year

6) 29 CFR 1926.1409

Burden hours/costs are accounted in proposed paragraphs 1926.1407(g), Table A to 1926.1407, and 1926.1408(b)(1).

7) 29 CFR 1926.1410(d)

OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that 15% of those jobs will require crane operations to be performed closer to power lines than is allowed for the voltages identified in Table A of this proposed section. Employers, most likely one A/D supervisor per job, on these jobs are required to have a planning meeting with the utility operator to discuss the procedures necessary to avoid contact with the power lines in the vicinity of the work area. The Agency believes it would take employers 1 hour to arrange and participate in these planning meetings for these jobs. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 887,031 (jobs per year) x .25 (A/D jobs near power lines) x .15 (closer than Table A) x 1 hour (A/D sup. plan/attend meeting) = 33,264 hours;

Cost: 33,264 hours per year x \$36.22 (wage-A/D supervisor) = 1,204,822 per year

8) 29 CFR 1926.1410(e)

OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that 15% of those jobs will require crane operations to be performed closer to power lines than is allowed for the voltages identified in Table A of this proposed section. Subsequently, OSHA construction staff estimates that it would take the employer, most likely the registered professional engineer required in paragraph (d) of this proposed section, 15 minutes (.25 hour) to document the procedures developed and make them available as required by this proposed provision. In addition, the Agency requires that employers make these documents available for reference while work is in progress. The burden-hour and cost estimates for developing and making the proposed documentation accessible are:

Burden hours: 887,031 (jobs per year) x .25 (jobs near power lines) x .15 (jobs closer than Table A) x .25 hour (develop and document procedures) = 8,316 hours per year

Cost: 8,316 hours per year x \$63.59 per hour (wage- registered professional engineer) = \$528,814 per year

9) 29 CFR 1926.1410(f)

OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that 15% of those jobs will require crane operations to be performed closer to power lines than is allowed for the voltages identified in Table A of this proposed section. Employers, most likely the shift supervisor, and the utility operator on these jobs are required by this proposed standard to conduct a meeting that will allow the equipment operator and other employees who will be in the area of the equipment or load to review the hoisting procedures documented in accordance with paragraph (e) of this proposed section. The Agency believes it would take the employer, most likely the shift supervisor, 20 minutes (.33 hour) to arrange and participate in these required meetings. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 887,031 (jobs per year) x .25 (jobs near power lines) x .15 (closer than Table A) x .33 hour (time per meeting) = 10,977 hours

Cost: 10,977 hours per year x \$36.22 per year (wage- shift supervisor) = \$397,587

10) 29 CFR 1926.1410(j)

OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that 15% of those jobs will require crane operations to be performed closer to power lines than is allowed for the voltages identified in Table A of this proposed section. OSHA construction staff estimates that 1% of the procedures developed for these scenarios in accordance with paragraph (e) of this proposed section will have deficiencies. After the development of new procedures, the employer is required to conduct a meeting that would allow the equipment operator and other affected employees to review the revised procedures. OSHA construction staff also estimates that it would take employers, most likely shift supervisors, 1 hour to arrange and participate in these meetings. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 887,031 (jobs per year) x .25 (jobs near power lines) x .15 (jobs closer than Table A) x .01 (plans needing revisions) x 1.0 hour (plan/conduct meeting) = 333 hours per year

Cost: 333 hours per year x \$36.22 per hour (shift supervisor) = \$12,061 per year

11) 29 CFR 1926.1412(a)(1)(i)

Of the 96,206 cranes in use per year as estimated in the PEA, OSHA construction staff estimates that 1% of this equipment will be modified. In these scenarios, a qualified person must inspect such modifications to ensure the modifications were completed in accordance with proposed section 29 CFR 1926.1434, Equipment Modifications. OSHA construction staff estimates that it would take a qualified person 15 min (.25 hour) to review the modification approval document and confirm through inspection that the equipment modification meets the conditions specified on the approval document. OSHA estimates that the annual burden hours and cost of this proposed provision are:

Burden hours: 96,206 (equip. per year) x .01 (modified equipment) x .25 hour (time per review) = 241 hours per year

Cost: 241 hours per year x \$36.33 per hour (wage of qualified person) = \$8,756 per year

12) 29 CFR 1926.1412(b)(1)(ii)(A)

OSHA estimates in the PEA that 887,031 hoisting jobs will be performed per year in the construction industry. OSHA construction staff estimates that on 10% of these jobs, pieces of equipment will be used on which repairs/adjustments have been made that will affect the safe operation of the equipment. OSHA construction staff also estimates that the manufacturer's equipment criteria will not be available for 1% of those jobs using repaired/adjusted pieces of equipment. Under these scenarios, a qualified person must determine if he or she must develop criteria or if an RPE is needed to do so. Although it is not explicitly required by this provision, the Agency assumes that 60% of the qualified persons will opt to develop and document the criteria and 40% will opt to utilize an RPE. OSHA estimates that it would take an average of 2 hours for a qualified person to develop, document, and maintain the required information. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (hoisting jobs) x .60 (done by qualified person) x .80 (will document) x .10 (repaired/adjusted equip.) x .01 (equip. w/o mfr criteria) x 2 hours (develop/document/maintain of criteria) = 852 hours per year

Cost: 852 hours per year x \$36.33 per hour (qualified person) = \$30,953 per year

13) 29 CFR 1926.1412(c)(2)(i)

OSHA construction staff estimates that 30% of the 887,031 hoisting jobs performed in construction will require A/D. OSHA construction staff estimates that on 1% of these A/D jobs, equipment will be used for which the manufacturer's recommended configurations will not be

available. Under these scenarios, a qualified person must determine if he or she must develop criteria that establishes safe configurations of the equipment or if there is a need for an RPE to make such determinations. Although it is not explicitly required by this provision, the Agency assumes that 60% of the qualified persons will opt to develop the criteria and the other 40% would utilize an RPE. Of the 60% of qualified persons that will develop their own criteria, OSHA estimates that 80% of those qualified persons will document the information. OSHA construction staff estimates that it would take a qualified person 2 hours to develop, document, and maintain the required information. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (equip. per year) x .30 (A/D jobs) x .60 (done by qualified person) x .80 (will document) x .01 (repaired/adjusted equip.) x .02 (equip. w/o mfr. criteria) x 2 hours (develop/document/maintain of criteria) = 2,555 hours per year

Cost: 2,555 hours per year x \$36.33 per hour (qualified person) = \$92,823 per year

14) 29 CFR 1926.1412(e)(3), (h), 1926.1413(b)), 1926.1414(c)(3)(iii), and 1926.1437(h)(2)

Paragraph (e)(3)(i) of this proposed section requires documentation of monthly inspections (12 per year) for the 96,206 pieces of hoisting equipment used in the construction per year as OSHA estimates in the PEA. The employer must then maintain these monthly inspections for 3 months in accordance with proposed paragraph (e)(3)(ii) of this section. The employer must also meet the requirements of this provision in accordance with proposed paragraph (h) of this section when the equipment has been idle for three months or more. Similarly, a documentation of monthly inspections of wire rope (1926.1413(b)(3)), precautions for damaged wire rope use (1926.1414(c)(3)(iii)), and floating vessels/devices (1926.1437(h)(2)) used with the equipment is required. Therefore all of these identified documentation and maintenance burdens will be taken under this proposed provision since it is assumed one document will be used for these purposes. Of the 96,206 cranes and derricks used in construction annually, OSHA believes that 85% of those cranes and derricks are owned by rental companies which establish and maintain written monthly inspection records as a usual and customary business practice. The remaining 15% are privately owned, requiring the employer to perform monthly inspections of the cranes and derricks.

Section 5-2.1.2 of ASME B30.5-2000 and 3-2.1.3 of ANSI B30.3-2004 require the employer to frequently (daily to monthly) inspect the equipment. OSHA believes these consensus standard requirements are evidence that the performance of monthly inspections is already a usual and customary business practice. Therefore, the only information collection burden will be taken for the signing of these documents. Subsequently, OSHA construction staff estimates that it would take 5 minutes (.08 hour) for a competent person to sign the documentation of the completion of each of the required monthly inspections and to maintain them for 3 months in accordance with proposed paragraph (e)(3)(ii) of this proposed section. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .15 (privately owned) x 12 (monthly inspections per year) x .08 hour (documentation/maintenance) = 13,854 hours per year

Cost: 13,854 hours per year x \$20.15 per hour (wage- competent person) = \$279,158 per year

15) 29 CFR 1926.1412(f)(6), (g)(3), 1926.1413(c)(3)(ii), and 1926.1414(c)(2)(iii)

Paragraph (f)(6) of this proposed section and proposed section and 1926.1412(g)(3) both require the documentation of monitored but "not yet a safety hazard" equipment deficiencies that are discovered during an annual/comprehensive inspection and when the equipment has been used under severe conditions. Similarly, even though the documentation burdens for paragraphs 1926.1413(c)(3)(ii) and 1926.1414(c)(2)(iii) are specific to the continued use of damaged or potentially inappropriate types wire rope for hoisting jobs under monitored conditions, these documentation and maintenance burdens will also be taken under this provision since it is assumed that all of these deficiencies would be monitored on the same monthly inspection documents. Of the 96,206 cranes and derricks that will be used in the construction industry annually, OSHA construction staff believes that 85% cranes and derricks are owned by rental companies which establish and maintain written records as a usual and customary business practice. The remaining 15% are privately owned, requiring the employer to perform an annual inspection on the cranes and derricks. Upon discovery of equipment deficiencies during the required annual/comprehensive inspections, OSHA construction staff estimates that on 5 % of these inspections, at least one identified deficiency will be determined "not yet a safety hazard" by a qualified person and need to be checked during monthly inspections. Although not explicitly required by the standard, OSHA believes it is usual and customary for 90% of the employers to track these identified "not yet a safety hazard" deficiencies along with other required documentation of monthly inspection information. OSHA construction staff estimates that it would take a competent person 30 minutes (.5 hour) to document these deficiencies monthly for an average of 3 months (.25 years). The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip per year) x .15 (privately owned equip.) x .05 (insp. w/ monitored deficiencies) x .10 (not customary) x .5 hour (documentation and monitoring of deficiencies) x .25 years (est. months deficiencies will be monitored) = 9 hours per year

Cost: 9 hours per year x \$20.15 per hour (wage- competent person) = \$181 per year

16) 29 CFR 1926.1412(f)(7), 1926.1413(c)(4), and 1926.1437(h)

Paragraph (f)(7) of this proposed section requires documentation of annual inspections for the 96,206 pieces of hoisting equipment used in the construction per year as OSHA estimates in the PEA. Addition information that must be included in this documentation for the annual inspections of wire rope (1926.1413(c)(4)), and annual (1926.1437(h)(4)) and quadrennial (1926.1437(h)(4)) inspections of external vessel/flotation devices used with the equipment.

All of these burdens will also be taken under this proposed provision. Of the 96,206 cranes and derricks in the construction industry, OSHA believes that 85% cranes and derricks are owned by rental companies which establish and maintain written records as a usual and customary business practice. The remaining 15% are privately owned, requiring the employer to perform an annual inspection of the cranes and derricks.

Paragraph 1926.550(a)(6) requires the employer to maintain records of annual inspections. In addition, sections 5-2.1.5 of ASME B30.5-2000 and 3-2.1.4 of ANSI B30.3-2004 require the employer to sign documentation of the periodic (monthly to annually) inspection of critical parts of the equipment. OSHA believes that these consensus standard requirements are further evidence that the documentation of inspections for most hoisting equipment is a standard industry practice. Therefore OSHA construction staff estimates that for 90% of the 14431 privately owned cranes and derricks, it is a usual and customary business practice to conduct annual inspections and maintain signed records of these inspections. Therefore, the information collection burden applies only to the remaining 10% of those cranes and derricks. Subsequently, OSHA construction staff estimates that it would take an average of 15 minutes (.25 hour) for a competent person to sign the documentation of the completion of each of the annual/comprehensive inspections and to maintain this document until the next annual inspection is completed. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .15 (privately owned equip.) x .10 (not usual and customary) x 1 (annual/comprehensive inspections per year) x .25 hour (signature and maintenance) = 361 hours per year

Cost: 361 hours x \$20.15 per hour (wage- competent person) = \$7,274 per year

17) 29 CFR 1926.1413(a)(4)(ii)(A)

OSHA believes that number of shifts per hoisting job in construction is too variable to try to estimate how many occur in the industry per year. However, OSHA estimates in the PEA that 887,031 hoisting jobs will be performed in the construction industry per year. OSHA construction staff estimates that during shift inspections on 1% of these jobs, Cat II wire rope deficiencies will be discovered that will require the employer to make an assessment of continued safe operations of equipment if the damaged wire rope continues to be used. Furthermore, OSHA construction staff estimates that during the inspection of 3% of these hoisting jobs, the employer will opt to obtain written approval from the manufacturer for different criteria which would allow the rope to remain in service. Subsequently, OSHA construction staff estimates that it would take the employer, most likely a competent person, 30 minutes (.5 hour) to generate such a request and obtain the required manufacturer's approval document for future reference. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (jobs per year) x .01 (insp. w/ Cat II damaged wire rope) x .03 (employers. who opt to get approval) x .5 hour (obtain/maintenance of manufacturer's approval documentation) = 133 hours per year

Cost: 133 hours per year x \$20.15 per hour (wage- competent person) = \$2,680 per year

18) 29 CFR 1926.1413(a)(4)(iii)(F) and 1926.1414(c)(3)(i)

OSHA believes that the number of shifts per hoisting job in construction is too variable to try to estimate how many occur in the industry per year. However, OSHA estimates in the PEA that 887,031 hoisting jobs will be performed in the construction industry per year. OSHA construction staff estimates that during shift inspections on 1% of these hoisting jobs, Cat. II wire rope deficiencies will be discovered that would require the employer to make an assessment of continued safe operations of equipment if the damaged wire rope continues to be used. In addition OSHA construction staff estimates that during the shift inspection on 10% of these hoisting jobs, the employer will opt to obtain documented determinations from a qualified person which specifies the criteria under which the wire rope could remain in service. Subsequently, OSHA construction staff estimates that it would take a qualified person, 1 hour to document criteria under which the damaged wire rope can continue to be used. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (jobs per year) x .01 (jobs w/ Cat II damaged wire rope) x .10 (approval obtained) x 1 hour (documentation of determinations) = 887 hours per year

Cost: 887 hours per year x \$36.33 per hour (wage- qualified person) = \$32,225 per year

19) 29 CFR 1926.1413(b)(3)

Burden hours/costs are accounted as part of monthly inspection documentation required by section 1926.1412(e)(3). (See section 1926.1412(e)(3) for accounting of burden hours)

20) 29 CFR 1926.1413(c)(3)(ii)

Burden hours/cost are accounted as part of annual/comprehensive inspection documentation required by section 1926.1412(f)(6). (See section 1926.1412(f)(6) for accounting of burden hours)

21) 29 CFR 1926.1413(c)(4)

Burden hours/cost are accounted as part of annual/comprehensive inspection documentation required by section 1926.1412(f)(7). (See section .1412(f)(7) for accounting of burden hours)

22) 29 CFR 1926.1414(c)(2)(iii)

OSHA construction staff estimates that on 500 hoisting jobs performed in construction, Type I rotation-resistant wire rope that has a design factor of less than 5 will be used. Of those hoisting jobs, OSHA construction staff estimates that employers on only 10 % of those jobs would request manufacturer's approval under this scenario. This estimate was made because it is assumed that 90% of the employers would merely opt to get a more appropriate grade of wire rope for the job. Subsequently, OSHA construction staff believes it would take employers, most likely a competent person, 30 minutes (.5 hour) to generate a request and obtain/maintain written approval (from both the equipment and wire rope manufacturers) to use the Type I rotation-resistant wire rope under prescribed worksite conditions. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 500 (job/Type I rope used) x .10 (jobs w/approval requests) x .5 hour (maintenance of approval documentation) = 25 hours per year

Cost: 25 hours per year x \$20.15 (wage- competent person) = \$504 per year

23) 29 CFR 1926.1414(c)(3)(i)

Burden hours/costs are accounted for documentation would be required by proposed section 1926.1413(a)(4)(iii)(F).

24) 29 CFR 1926.1414(c)(3)(iii)

Burden hours/costs are accounted for documentation would be required by proposed section 1926.1412(e)(3).

25) 29 CFR 1926.1417(b)(1)

Therefore, OSHA construction staff estimates that for 50 pieces of equipment used to perform construction activities, primarily older models, the manufacturer's operating procedures will not be available. Subsequently, OSHA construction staff estimates that, under this scenario, it will take an employer 1 hour to develop and ensure compliance with procedures that are necessary for the safe operation of the equipment and attachments.

Burden hours: 50 (equip. without mfrs. procedures) x 1 hour (document procedures) = 50 hours per year

Cost: 50 hours per year x \$36.33 per hour wage (employer/qualified person) = \$1,817 per year

26) 29 CFR 1926.1417(b)(2)

OSHA construction staff estimates that for 50 pieces of equipment used to perform construction activities, primarily older models, the manufacturer's operating procedures will

not be available. Subsequently, OSHA construction staff estimates that, under this scenario, it will take a qualified person 1 hour to develop procedures that are necessary for the safe operation of the equipment and attachments.

Burden hours: 50 (equip. without mfrs. procedures) x 1 hour (document procedures) = 50 hours per year

Cost: 50 hours per year x \$36.33 per hour wage (employer/qualified person) = \$1,817 per year

27) 29 CFR 1926.1417(b)(3)

OSHA construction staff estimates that for 50 pieces of equipment used to perform construction activities, primarily older models, the manufacturer's procedures related to the capacity of the equipment will not be available. Under this scenario, OSHA construction staff estimates that it would take 1 hour for a registered professional engineer (who is familiar with the equipment) to develop these procedures. Although it is not explicitly required by this provision, OSHA construction staff assumes that the registered professional engineers will document these procedures. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 50 (equip. without mfrs. procedures) x 1 hour (document procedures) = 50 hours per year

Cost: 50 hours per year x 63.59 per hour wage (RPE) = 3,180 per year

28) 29 CFR 1926.1423(h)(2)

OSHA estimated in the PEA that 887,031 hoisting jobs will be performed in the construction industry per year. OSHA construction staff estimates that the hoist lines of equipment on 2% of these jobs will be used to anchor fall protection systems. Subsequently, OSHA assumes that it would take the employer, most likely the shift supervisor, 1 minute (.02 hours) to inform the operator that a fall protection system has been anchored to the load line of the equipment. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (jobs per year) x .02 (equip. w/ fall protection anchored) x .02 hours (information exchange) = 355 hours per year

Cost: 355 hours per year x \$36.22 per hour (wage- shift supervisor) = \$12,858 per year

29) 29 CFR 1926.1424(a)(2)(ii)

OSHA estimated in the PEA that 887,031 hoisting jobs will be performed in the construction industry per year. OSHA construction staff estimates that hoisting equipment used on 60% of

these jobs will have rotating superstructures that must be barricaded in accordance with this proposed provision. Because this barricade is already required by section 1926.550(a)(9) of subpart N, OSHA believes the demarcation of hazardous areas within the swing radius of the equipment's superstructure is a usual and customary work practice of the industry. However, in addition to the requirement to barricade this hazardous area, proposed paragraph 1926.1424(a)(2)(ii) specifies that a sign must also be posted. OSHA construction staff estimates that employers on 40% of these hoisting jobs, as a new work practice, will post a sign to identify these hazardous areas around the equipment as required. In light of this assertion, it is further estimated that it would take a general construction employee 10 minutes (.17 hours) to fabricate and post the required sign for the barricaded area. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (hoisting jobs) x .60 (w/rotating superstructures) .40 (new employer practice) x .17 hours (sign fabrication/posting) = 36,191 hours per year

Cost: 36,191 hours per year x \$16.16 per hour (wage- construction employee) = \$584,847 per year

30) 29 CFR 1926.1427(a), (e)(1), and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). It is estimated in the PEA that a minimum of 96,206 operators per year will use equipment covered by this proposed standard to perform construction work per year. OSHA construction staff further estimates that 60% of those operators will operate equipment that is not exempted from the certification requirements. It is anticipated that upon the effective date of this rule, the required certification will become a condition of employment for most employers. Therefore, OSHA construction staff believes, although not explicitly required by this proposed provision, that most of the employers will only incur the cost of maintaining a copy of each operator's certification card for its own records. It is estimated that it would take a construction clerical employee 5 minutes (.08 hour) to file and maintain a copy of each operator's certification document. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (number of operator) x .60 (operators not exempted) x .08 hour (per operator to copy/file/maintain) = 4,618 hours per year

Cost: 4,618 hours per year x \$16.16 per hour (wage of clerical employee) = \$74,627 per year

31) 29 CFR 1926.1427(c)(5)(iii) and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). OSHA estimates that no more than 10 employers covered by this proposed standard would opt to establish an equipment operator certification/qualification

program and have it audited in accordance with proposed paragraph 1926.1427(c). It is also estimated that 1 of these employers would have deficiencies found in their programs as the result of an audit for which an auditor would have to submit a report to an OSHA Regional Office. OSHA construction staff assumes that the auditors would file and maintain a copy of this report for their records and it would take this auditor, most likely a clerical person, 10 minutes (.17 hour) to file and maintain this document. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 1 (Opt. 2 employers w/ program deficiencies) x .17 hour (file/maintenance of documents) = 1 hour per year (rounded to 1)

Cost: 1 hour per year x \$16.16 per hour (wage- construction employee) = \$16 per year

32) 29 CFR 1926.1427(h)(1) and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). If testing candidates opt to have the tests required under this proposed section administered to them verbally, this proposed provision requires the candidate to pass a written demonstration of literacy. It is estimated in the PEA that a minimum of 96,206 operators per year will use equipment covered by this proposed standard to perform construction work per year. OSHA construction staff further estimates that 60% of those operators will operate equipment that is not exempted from the certification requirements. It is further estimated that 20 % of these testing candidates will need to be certified per year and 10% of these will opt to take the test verbally. Therefore, OSHA construction staff assumes that it would take the testing entity, most likely a qualified person, 30 minutes (.5 hour) to determine the testing candidate is literate relevant to the work. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (no. of operators) x .20(% of operators testing per year) x .60 (% of operators not exempted) x .10 (% of operators who opt for verbal test) x .5 hour (determine literacy) = 577 hours per year

Cost: 577 hours per year x \$36.33 per hour (wage- qualified person) = 20,962 cost per year

33) 29 CFR 1926.1428(a)(2)

It is estimated in the PEA that at least one signal person would be needed to safely perform hoisting jobs for each crane used in construction. However, OSHA construction staff estimates that, due to the size and types of loads, size and types of hoisting equipment used, and configurations of job sites, 40% of the equipment covered by this proposed standard would not need a signal person when hoisting jobs are performed. Therefore it was estimated that at least one signal person would be needed for the remaining 60% of the equipment used to perform hoisting jobs under worksite conditions for which a signal person is needed.

Subsequently, it is estimated that it would take a qualified evaluator, most likely a qualified manager/evaluator, 30 minutes (.5 hour) to assess whether a signal person meets the requirements of this proposed section. Finally, it is estimated that only 40% of the employers will conduct the assessments themselves and the other 60% will have a third party do these required assessments. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equipment used per year) x .60 (equip need signal persons) x .5 hour (time for assessment/document) x .40 (employer does assessment) = 11,545 hours per year

Cost: 11,545 hours per year x \$36.22 per hour (wage- qualified evaluator) = \$418,160 per year

34) 29 CFR 1926.1428(a)(3) and (b)

It is estimated in the PEA that at least one signal person would be needed to safely perform hoisting jobs for each crane used in construction. However, OSHA construction staff estimates that, due to the size and types of loads, size and types of hoisting equipment used, and configurations of job sites, 40% of the equipment covered by this proposed standard would not need a signal person when hoisting jobs are performed. Therefore it was estimated that at least one signal person would be needed for the remaining 60% of the equipment used to perform hoisting jobs under worksite conditions for which a signal person is needed. With regard to the qualification of signal people, OSHA construction staff estimates that 20 % of the signal persons would need to be qualified each year whether initially or re-qualified. Subsequently, it is estimated that it would take a qualified evaluator, most likely a qualified manager/administrator, 15 minutes (.25 hour) to document that a signal person meets or has been re-qualified to meet the requirements of this proposed section. Furthermore, it is estimated that about 40% of the employers would have their own evaluator and the other 60% would use a third party to meet this proposed requirement. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equipment used per year) x .60 (equip need signal persons) x .20 (qualified per year) x .40 (employer evaluator) x .25 hour (time for assessment/document) = 1,154 hours per year

Cost: 1,154 hours per year x \$36.22 per hour (wage- qualified evaluator) = \$41,798 per year

35) 29 CFR 1926.1430(b)

Burden hours/costs for documentation that would be required by proposed section are accounted under 1926.1428(a)(3).

36) 29 CFR 1926.1431(o)(3)

Because a pre-lift meeting is required already required by section 1926.550(g)(8)(ii) of subpart N when personnel is hoisted using a platform, OSHA believes that meeting is a usual and customary work practice of the industry. Likewise, the pre-lift meeting that is required by paragraph 1926.1431(m)(1) is also considered by OSHA as a usual and customary work practice of the industry. However, the hoisting of personnel with a boatswain's chair as addressed by proposed paragraph (0)(3) of this section is not addressed in the 29CFR 1926 nor in the ANSI consensus standards referenced by OSHA for the application of this proposed standard. Therefore the pre-lift meeting referenced by this proposed provision and required by proposed provision 1926.1431(m)(1) may be new to employers who would choose this option for hoisting personnel in drill shafts. In light of these assumptions, OSHA estimates that on 1% of the 887,031 hoisting jobs that will be performed in the construction industry per year, the equipment will be used to hoist personnel. It is further estimated that on only 15% of those personnel hoisting jobs, equipment would be used to hoist personnel in a drilling shaft with a boatswain's chair. Subsequently, OSHA construction staff estimates that it will take an employer, most likely the shift supervisor, 30 minutes (.5 hour) to plan and conduct this meeting prior to each trial lift and any time employees are newly assigned to the hoisting operation. The estimated annual burden hours and cost of this proposed paragraph are:

Burden hours: 887,031 (jobs per year) x .01 (hoisting jobs) x .15 (drilling jobs) x .5 hour (plan and conduct meeting) = 665 hours per year

Cost: 665 hours per year x \$36.22 per hour (wage-lift supervisor) = \$24,086 per year

37) 29 CFR 1926.1431(p)(4)

Similar to the rationale described for paragraph (o)(3) of this proposed section, the hoisting of personnel with a boatswain's chair as addressed by proposed paragraph (p)(4) of this section is not addressed in the 29CFR 1926 nor in the ANSI consensus standards referenced by OSHA for the application of this proposed standard. Therefore the pre-lift meeting referenced by this proposed provision and required by proposed provision 1926.1431(m)(1) may be new to employers who would choose this option for hoisting personnel during the performance of pile driving operations. In light of these assumptions, OSHA estimates that on 1% of the 887,031 hoisting jobs that will be performed in the construction industry per year, the equipment will be used to hoist personnel. It is further estimated that on only 15% of those personnel hoisting jobs, equipment would be used to hoist personnel with a boatswain's chair for pile driving operations. Subsequently, OSHA construction staff estimates that it will take an employer, most likely the shift supervisor, 30 minutes (.5 hour) to plan and conduct this meeting prior to each trial lift and any time employees are newly assigned to the hoisting operation. The estimated annual burden hours and cost of this proposed paragraph are:

Burden hours: 887,031 (jobs per year) x .01 (hoisting jobs) x .15 (pile driving jobs) x .5 hour (plan and conduct meeting) = 665 hours per year

Cost: 665 hours per year x \$36.22 per hour (wage-lift supervisor) = \$24,086 per year

38) 29 CFR 1926.1431(r)

The hoisting of personnel with a marine hoisted personnel transfer device as addressed by proposed paragraph (r) of this section is not addressed in 29 CFR Part 1926. Therefore the pre-lift meeting referenced by this proposed provision and required by proposed provision 1926.1431(m)(1) may be new to employers who would choose this option for hoisting personnel for the purpose of marine transfer. OSHA estimates that on 5% of the 887,031 hoisting jobs that will be performed in the construction industry per year, the equipment will be used to hoist personnel. It is further estimated that on only 1% of those personnel hoisting jobs, equipment would be used to hoist personnel with a marine hoisted transfer device. Subsequently, OSHA construction staff estimates that it will take an employer, most likely the shift supervisor, 30 minutes (.5 hour) to plan and conduct this meeting prior to each trial lift and any time employees are newly assigned to the hoisting operation. The estimated annual burden hours and cost of this proposed paragraph are:

Burden hours: 887,031 (jobs per year) x .01 (hoisting jobs) x .05 (marine transfer jobs) x .5 hour (plan and conduct meeting) = 222 hours per year

Cost: 222 hours per year x \$36.22 per hour (wage-lift supervisor) = \$8,041 per year

39) 29 CFR 1926.1432(a)

OSHA construction staff estimates that 1,000 hoisting jobs per year would require the use of multiple cranes/derricks to lift a load. The development of a multiple-crane hoisting plan is required by an ANSI standard and therefore has been considered a usual and customary work practice in the industry. However, although it is not explicitly required by this provision, the Agency assumes that most qualified persons will document this plan. OSHA construction staff estimates that it would take a qualified person an average of 30 minutes (.5 hour) to document a hoisting plan which meets the requirements of this proposed standard. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 1,000 (multiple crane/derrick lifts) x .5 hours (document plan) = 500 hours

Cost: 500 hours per year x \$36.33 per hour (wage- qualified person) = \$18,165 per year

40) 29 CFR 1926.1432(b)(2)

OSHA construction staff estimates that 1,000 hoisting jobs per year would require the use of multiple cranes/derricks to lift a load. OSHA construction staff estimates it would take the

employer, most likely a shift supervisor, 15 minutes (.25 hour) to conduct a meeting to exchange the required information with at least the operator, signal person, and any other employees necessary to perform this type of hoisting operation. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 1,000 (multiple crane /derrick lifts) x .25 hour (shift supervisor) = 250 hours per year

Cost: 250 hours per year x \$36.22 per hour (shift supervisor) = \$9,055 per year

41) 29 CFR 1926.1434(a)(1)(i), (a)(1)(ii), (a)(3), and 1926.1441(b)(2)(i)(B)

This provision also applies to modifications made in accordance with proposed section 1926.1441(b)(2)(i)(B). Of the 96,206 cranes in use per year as estimated in the PEA, OSHA construction staff estimates that 1% of this equipment will be modified. In these scenarios, the manufacturer, most likely a qualified person, must approve such modifications submitted by the employer to ensure that the modifications will not compromise the safe operation of the equipment. OSHA construction staff estimates that it would take a qualified person 2 hours to review the modification request and document the modification approval. It is implied that the employer, most likely a qualified person, would have to submit a modification request to the manufacturer. OSHA construction staff estimates that it would take a qualified person 1.5 hours to document and submit the required request. It is also assumed that the employer would also submit proposed modifications of the load charts, procedures and other necessary information that are required in accordance with proposed paragraph (a)(ii) of this section. OSHA estimates that the annual burden hours and cost of this proposed provision are:

Burden hours: 96,206 (equip. per year) x .01 (modified equipment) x 1.5 hours (time to document and submit modifications of equipment/tags/charts/procedures) = 1,443 hours per year

Cost: 1,443 hours per year x \$36.33 per hour (wage of qualified person- employer) = \$52,424 per year

42) 29 CFR 1926.1434(a)(2)(i), (a)(3), and 1926.1441(b)(2)(i)(B)

This provision also applies to modifications made in accordance with proposed section 1926.1441(b)(2)(i)(B). Of the 96,206 cranes in use per year as estimated in the PEA, OSHA construction staff estimates that 1% of this equipment will be modified. In these scenarios, the employer, most likely a qualified person, must modify load charts, procedures, instruction manuals and instruction plates/tags/decals as necessary to accord with the modification/addition. OSHA construction staff estimates that it would take a qualified person 30 minutes (.5 hour) to complete this task. OSHA estimates that the annual burden hours and cost of this proposed provision are:

Burden hours: 96,206 (equip. per year) x .01 (modified equipment) x .5 hour (time to modify tags/charts/procedures) = 481 hours per year

Cost: 481 hours per year x \$36.33 per hour (wage of qualified person) = \$17,475 per year

43) 29 CFR 1926.1436(g)(4)

OSHA estimates in the PEA that 96,206 pieces of hoisting equipment will be used in the construction industry per year and that .5% of this equipment will be derricks which are not permanently installed. OSHA construction staff estimates that about 80% of these derricks per year will either be newly installed or need to be repositioned which both require testing as specified by paragraph (g) of this proposed section. Subsequently, OSHA construction staff estimates that it will take a competent person 10 minutes (.17 hour) to document the results of this testing and maintain this record. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 96,206 (equip per year) x .005 (not permanently installed) x .80 (new or relocated derricks) x .17 hour (doc/main. testing results) = 65 hours per year

Cost: 65 hours per year x \$20.15 (salary- competent person) = \$1,310 per year

44) 29 CFR 1926.1436(h)

OSHA estimates in the PEA that 96,206 pieces of hoisting equipment will be used per year in the construction industry and that 2% of this equipment will be derricks. In addition, OSHA construction staff estimates that 10% of these derricks will have repairs/adjustments made which affect the safe operation of the equipment. Under this scenario, load testing must be conducted and documented in accordance with proposed paragraph (g) of this section when a qualified person has determined that such testing is necessary. Subsequently, OSHA construction staff estimates that it would take the employer, most likely a competent person, 30 minutes to document the necessary load testing of a repaired/adjusted derrick. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .10 (repaired/adjusted equip.) x .02 (derricks) x .5 hour (documentation of testing) = 96 hours per year

Cost: 96 hours per year x \$20.15 per hour (salary- competent person) =1,934 per year

45) 29 CFR 1926.1437(c)(2)(ii)

OSHA estimates in the PEA that 96,206 pieces of hoisting equipment will be used in the construction industry per year. OSHA construction staff estimates that 5% of this equipment

will be floating cranes and land cranes/derricks on barges. OSHA believes it is usual and customary for the industry to mark by postings or barricade hazardous areas of a crane or derrick. For instance, such methods are already required by 29 CFR 1926.550(a)(9) regarding the swing radius of rotating superstructures of crawler, locomotive, and truck cranes. Therefore OSHA construction staff estimates that only 5% of the floating cranes or land cranes/derricks on barges will have hazardous areas that are not already marked by postings or the employer would barricaded in accordance with this proposed provision as a new work practice. Subsequently, OSHA estimates that it will take a general construction employee 10 minutes (.17 hour) to mark the boundaries of this hazardous area with warning lines, barricades, railings or similar control methods. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .05 (floating cranes/derricks) x .05 (floating cranes/derricks w/ hazardous areas not marked) x .17 hour (time to mark/post area) = 41 hours per year

Cost: 41 hours per year x \$16.16 per hour (wage- gen. const. employee) = \$663 per year

46) 29 CFR 1926.1437(h)(6)

Burden hours/costs for documentation of inspections that would be required by this proposed section are accounted under 1926.1412(e)(3) and (f)(7).

47) 29 CFR 1926.1437(n)(1) and (n)(2)

Proposed paragraph (n)(2) allows the option of getting the rated capacity of the equipment reduced by the equipment manufacturer or a qualified person to account for the maritime conditions listed in paragraph (n)(1) of this proposed section. Subsequently, OSHA construction staff estimates that on 2% of the 887,031 hoisting jobs that will be performed in the construction industry per year, land cranes/derricks on barges pontoons, vessels, or other means of floatation will be used. In addition, OSHA construction staff estimates that only .5% of these will be land cranes and derricks that will be removed from the flotation devices and reinstalled for particular hoisting jobs performed. Most will remain secured to the flotation device and be used throughout the year without a need to be rated by a qualified person again.

Since the employer has an option to use a qualified person (who is familiar with floating crane/derrick designs) to determine the required ratings, OSHA construction staff estimates that 30% of the employers would utilize this option and it would take this individual 1 hour to complete the necessary calculations. Furthermore, OSHA construction staff believes that most of these qualified people would document these calculations and take 30 minutes to do it. This scenario is most likely when older models of equipment are used and the manufacturer is no longer available. The other option allows the employer to rely on the manufacturer for these calculations and it is estimated the other 70% of the employers would

utilize this option. Therefore, OSHA construction staff estimates that the manufacturer, most likely an RPE, would also take 1.5 hours to make and document such determinations. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887, 031 (hoisting jobs) x .02 (floating cranes/derricks) x .005 (removed and reinstalled equip) x .30 (qualified person- employer) x 1.5 hours (document/develop) = 40 hours per year

Cost: 40 hours per year x \$36.33 per hour (wage- qualified person) = \$1,453 per year

48) 29 CFR 1926.1437(n)(5)(v)

The Agency estimates in the PEA that 887,031 of hoisting jobs will be performed in the construction industry per year. Furthermore, OSHA estimates that 2% of the hoisting equipment will be floating land cranes/derricks. Of these pieces of equipment, OSHA construction staff estimates that only .5% of these will be land cranes and derricks that will be removed from the flotation devices and reinstalled for particular hoisting jobs performed. Most will remain secured to the flotation device and be used throughout the year without a need to have its mounting mechanism assessed by a qualified person again. For the equipment that will need reassessment, OSHA estimates that it will take a marine engineer/registered professional engineer or a qualified person who is familiar with floating crane/derrick designs, 1 hour to develop and document information which confirms the safety of the equipment's mounting design. It is estimated that 30% of the employers would opt to use an existing employee who is a qualified person to make these determinations, while the other 70% would hire a marine engineer. The yearly burden hours and cost of this proposed paragraph for an existing employee who is a qualified person are estimated to be:

Burden hours: 887,031 (equip. per year) x .02 (floating cranes and derricks) x .005 (floating land cranes/derricks reinstalled) x 1 hours (document development) x .30 (employers with qualified person on staff) = 27 hours per year;

Cost: 27 hours per year x \$36.33 per hour (wage- qualified person-employer) = \$981 per year;

49) 29 CFR 1926.1439(e)

Burden hours/costs are accounted as part of the documentation of training required by section 1926.1427.

50) 29 CFR 1926.1440(a)

Burden hours/costs are accounted as part of the documentation required by all other sections of this proposed standard except: 1926.1402, 1926.1415, 1926.1416, and 1926.1427.

51) 29 CFR 1926.1441(b)(2)(i)(B)

Burden hours/costs are accounted as part of the documentation required for modifications under section 1926.1434(a)(1)(i) and (a)(2)(i).

52) 29 CFR 1926.1441(c)(2)(i)

OSHA estimates in the Per-RFA that 96,206 pieces of hoisting equipment that will be used in the construction industry per year and OSHA construction staff estimates that 40% of this equipment will be rated 2000 lbs or less in capacity. It is also estimated in the PEA that 85% of this equipment will be rented. OSHA believes it is reasonable to assume that for the majority of new and rented equipment, it is a usual and customary practice for the owners and manufacturers of the equipment to provide operation procedures with their equipment. Therefore, OSHA construction staff estimates that 1% of the equipment, generally older models, will not have the manufacturer's equipment operation procedures available. For this equipment, OSHA construction staff estimates that it will take an employer, most likely a shift supervisor or qualified person at a rental establishment, 10 minutes (.17 hour) to obtain operational procedures developed by the qualified person specified in paragraph 1926.1441(c)(2)(ii) of this proposed section and ensure compliance with these procedures. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .40 (equip- 2,000 lbs or less) x .15 (owned equip) .01 (equip w/o procedures available) x .17 hour (procedures) = 10 hours;

Cost: 10 hours x \$36.22 per hour (wage- shift supervisor) = \$362 per year;

53) 29 CFR 1926.1441(c)(2)(ii)

OSHA estimates in the Per-RFA that 96, 206 pieces of hoisting equipment that will be used in the construction industry per year and OSHA construction staff estimates that 40% of this equipment will be rated 2000 lbs or less in capacity. It is also estimated in the PEA that 85% of this equipment will be rented. OSHA believes it is reasonable to assume that for the majority of new and rented equipment, it is a usual and customary practice for the owners and manufacturers of the equipment to provide operational controls procedures with their equipment. Therefore, OSHA construction staff estimates that 1% of the equipment, generally older models, will not have the manufacturer's equipment operational controls procedures available for reference. For this equipment, OSHA estimates that it will take a qualified person 1 hour to develop procedures for the operational controls. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .40 (equip- 2,000 lbs or less) x .15 (owned equip) .01 (w/o operational controls procedures available) x 1 hour (procedures development) = 58 hours

Cost: 58 hours x \$36.33 per hour (wage- qualified person) = \$2,107 per year

54) 29 CFR 1926.1441(c)(2)(iii)

OSHA estimates in the Per-RFA that 96, 206 pieces of hoisting equipment that will be used in the construction industry per year and OSHA construction staff estimates that 40% of this equipment will be rated 2000 lbs or less in capacity. It is also estimated in the PEA that 85% of this equipment will be rented. OSHA believes it is reasonable to assume that for the majority of new and rented equipment, it is a usual and customary practice for the owners and manufacturers of the equipment to provide rated capacities with their equipment. Therefore, OSHA construction staff estimates that 1% of the equipment, generally older models, will not have the manufacturer's equipment rated capacities available for reference. For these jobs, OSHA estimates that it will take a registered professional engineer, who is familiar with the equipment, 1 hour to develop procedures related to the capacity of the equipment. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (jobs per year) x .40 (equip- 2,000 lbs or less) x .15 (owned equip) x .01 (w/o rated capacities available) x 1 hour (procedures development) = 58 hours per year

Cost: 58 hours per year x \$63.59 per hour (wage- registered professional engineer) = \$3,688 per year

55) 29 CFR 1926.1441(c)(3)(i)

OSHA estimates in the Per-RFA that 96, 206 pieces of hoisting equipment that will be used in the construction industry per year and OSHA construction staff estimates that 40% of this equipment will be rated 2,000 lbs or less in capacity. It is also estimated in the PEA that 85% of this equipment will be rented. OSHA believes it is reasonable to assume that for the majority of new and rented equipment, it is a usual and customary practice for the owners and manufacturers of the equipment to provide the rated capacities chart for their equipment. In addition, many equipment rental companies also provide equipment operators who will ensure that the rated capacities chart for the equipment will be available in the operator's control station. Therefore, OSHA construction staff estimates that 1% of the equipment, generally older models, will not have the manufacturer's equipment rated capacities chart available at the control station. Subsequently, OSHA construction staff assumes that it would take the employer, most likely a shift supervisor, about 15 minutes (.25 hours) to obtain and make this information available at the control station. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 96,206 (equip. per year) x .40 (equip- 2,000 lbs or less) x .15 (owned equip.) x .01 (equip w/o load charts) .25 hours (obtaining/making information available) = 14 hours

Cost: 14 hours x \$36.22 per hour (wage- shift supervisor) = \$507 per hour

56) 29 CFR 1926.1441(c)(3)(ii)

OSHA estimates in the Per-RFA that 96, 206 pieces of hoisting equipment that will be used in the construction industry per year and OSHA construction staff estimates that 40% of this equipment will be rated 2,000 lbs or less in capacity. It is also estimated in the PEA that 85% of this equipment will be rented. OSHA believes it is reasonable to assume that for the majority of new and rented equipment, it is a usual and customary practice for the owners and manufacturers of the equipment to provide procedures applicable to the operation of their equipment, such as special hazard warnings, operating speeds, instructions and operator's manual. In addition, many equipment rental companies also provide equipment operators who will ensure that these procedures will be available to him or her. Therefore OSHA construction staff estimates that 1% of this equipment will not have these procedures applicable to the operator. Subsequently, OSHA construction staff assumes that it would take the employer, most likely a shift supervisor, about 15 minutes (.25 hour) to obtain and make this information available to the operator. OSHA estimates the annual burden hours and cost for this proposed requirement are:

Burden hours: 96,206 (equip. per year) x .40 (equip- 2,000 lbs or less) x .15 (owned equip.) x .01 (equip w/o procedures available) x .25 hour (obtaining/making information available) = 14 hours per year

Cost: 14 hours x \$36.22 per hour (wage- shift supervisor) = \$507 per year

13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14).

• The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation and maintenance and purchase of service component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.

• If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collections services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondent (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.

• Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.

Item 12 above provides the total cost of the information collection requirements specified by the proposed Standard.

1) 29 CFR 1926.1404(j)

This proposed provision requires that written approval (from a registered engineer who is familiar with the equipment) must be obtained when information is not available for the employer to reference and ensure that the manufacturers' limitations have not been exceeded regarding the maximum length of boom that may be supported by only cantilevering during A/D operations. OSHA construction staff estimates that equipment, primarily older equipment models, on 1% of the 96,206 pieces of equipment that are in use annually as estimated in the PEA will not have information available from the manufacturer regarding cantilevered boom support. Subsequently, OSHA construction staff estimates that it would take an average of 30 minutes (.5 hour) for a registered engineer to generate and maintain the required information for employers who request this information. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: .01 (equipment w/o man. specs) x 96,206 (equipment in use) x .5 hours (maintenance and development of document) = 481.03 hours per year

Cost: 481.03 hours per year x \$63.59 per hour (wage-registered engineer) = 30,589 per year

2) 29 CFR 1926.1404(m)(1) and (m)(1)(ii)

This proposed provision requires that written approval (from a registered engineer who is familiar with the equipment) must be obtained when selection of components and configurations of the equipment that affect the capacity are not in accordance with the manufacturer's specifications. OSHA construction staff estimates that, primarily for older equipment, employers will exercise this option during 1% of the 887,031A/D hoisting jobs performed per year as estimated in the PEA. Subsequently, OSHA construction staff estimates that it would take an average of 30 minutes (.5 hour) for a registered engineer to develop and document the required information for employers who exercise this option. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: .01 (equip. w/o man. specs) x 887,031 A/D jobs x .5 hours (maintenance and development of document) = 4,435.16 hours

Cost: 4,435.16 hours x \$63.59 per hour (wage- registered engineer) = \$282,032 per year

3) 29 CFR 1926.1408 Table A and 1926.1409

This provision would also apply to section 1926.1409 for work around power lines that are above 350 kV. OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that on 5% of those jobs, cranes and derrick will be operated close to power lines that are over 1,000 KV. It is estimated that 90% of the employers would call the utility for the information required by this provision. The other 10% would opt to use an RPE to calculate the minimum clearance distance applicable to 1,000KV power lines. Subsequently, OSHA estimates it would take an RPE 30 minutes (.5 hour) to make the determination required by Table A and to communicate this information to the employer.

Burden hours: 887,031 (hoisting jobs) x .25 (near power lines) x .10 (employers who consult RPE) x .05 (jobs performed near 1,000KV lines) x .5 hour (calculate and communicate) = 554.39 hours per year

Cost: 554.39 hours per year x \$63.59 per hour (wage- RPE) = \$35,254 per year

4) 29 CFR 1926.1410(c)(1)

OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that on 5% of those jobs, cranes and derrick will be operated closer to power lines than Table A allows. It is estimated that 90% of the employers would call the utility for the information required by this provision. The other 10 % would opt to use an RPE to calculate the minimum clearance distance applicable to the power lines. Subsequently, OSHA construction staff estimates that it would take a shift supervisor 15 minutes (.25 hour) to get this information from the utility or it would take an RPE 30 minutes (.5 hour) to make the determination required by Table A and to communicate this information to the employer.

Burden hours: 887,031 (hoisting jobs) x .25 (near power lines) x .10 (employers who consult RPE) x .05 (jobs performed inside of Table A) x .5 hour (calculate and communicate) = 554.39 hours per year

Cost: 554.39 hours per year x \$63.59 per hour (wage- RPE) = \$35,254 per year

5) 29 CFR 1926.1411 Table T

OSHA estimates in the PEA that 25% of the estimated 887,031 hoisting jobs in construction will be performed near power lines. In addition, OSHA construction staff estimates that on 5% of those jobs, cranes and derrick will be operated close to power lines that are over 1000 KV and the equipment will have to travel without a load in proximity of the power lines on 35% of those jobs. It is estimated that 90% of the employers would call the utility for clearance distances while the other 10 % would opt to use an RPE to calculate the minimum clearance distance applicable to these power lines. Subsequently, OSHA construction staff estimates that it would take the employer 15 minutes to get the information from the utility or

it would take an RPE 30 minutes (.5 hour) to make the determination required by Table A and to communicate this information to the employer.

Burden hours: 887,031 (hoisting jobs) x .25 (near power lines) x .35 (must travel without load) x .10 (employers who consult RPE) x .05 (jobs performed near 1,000KV lines) x .5 hour (calculate and communicate) = 194.04 hours per year

Cost: 194.04 hours per year x \$63.59 per hour (wage- RPE) = \$12,339 per year

6) 29 CFR 1926.1412(b)(1)(ii)(A)

OSHA estimates in the PEA that 887,031 hoisting jobs will be performed per year in the construction industry. OSHA construction staff estimates that on 10% of these jobs, pieces of equipment will be used on which repairs/adjustments have been made that will affect the safe operation of the equipment. OSHA construction staff also estimates that the manufacturer's equipment criteria will not be available for 1% of those jobs using repaired/adjusted pieces of equipment. Under these scenarios, a qualified person must determine if he or she must develop criteria or if an RPE is needed to do so. Although it is not explicitly required by this provision, the Agency assumes that 60% of the qualified persons will opt to develop and document the criteria and 40% will opt to utilize an RPE. OSHA estimates that it would take an average of 2 hours for an RPE or qualified person to develop, document, and maintain the required information. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887, 031 (equip. per year) x .40 (done by RPE) x .10 (repaired/adjusted equip.) x .01 (equip. w/o mfr criteria) x 2 hours (develop/document/maintain of criteria) = 709.62 hours per year

Cost: 709.62 hours per year x \$63.59 per hour (wage- RPE person) = \$45,125 per year

7) 29 CFR 1926.1412(c)(2)(i)

OSHA construction staff estimates that 30% of the 887,031 hoisting jobs performed in construction will require A/D. OSHA construction staff estimates that on 1% of these A/D jobs, equipment will be used for which the manufacturer's recommended configurations will not be available. Under these scenarios, a qualified person must determine if he or she must develop criteria that establishes safe configurations of the equipment or if there is a need for an RPE to make such determinations. Although it is not explicitly required by this provision, the Agency assumes that 60% of the qualified persons will opt to develop the criteria themselves and the other 40% would hire an RPE. OSHA construction staff estimates that it would take an RPE or qualified person 2 hours to develop, document, and maintain the required information. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (equip. per year) x .30 (A/D jobs) x .40 (done by RPE) x .01 (equip. w/o mfr criteria) x 2 hours (develop/document/maintain of criteria) = 2,128.87 hours per year

Cost: 2,128.87 hours per year x \$63.59 per hour (wage- RPE person) = \$135,375 per year

8) 29 CFR 1926.1413(a)(4)(ii)(F)

OSHA believes that number of shifts per hoisting job in construction is too variable to try to estimate how many occur in the industry per year. However, OSHA estimates in the PEA that 887,031 hoisting jobs will be performed in the construction industry per year. OSHA construction staff estimates that during shift inspections on 1% of these jobs, Cat II wire rope deficiencies will be discovered that will require the employer to make an assessment of continued safe operations of equipment if the damaged wire rope continues to be used. Furthermore, OSHA construction staff estimates that during the inspection of 3% of these hoisting jobs, the employer will opt to obtain written approval from the manufacturer for different criteria which would allow the rope to remain in service. Subsequently, OSHA construction staff estimates that it would take the manufacturer, most likely a qualified person, 1 hour and 30 minutes (1.5 hours) to review the request from the employer and to document a response. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (jobs per year) x .01 (insp. w/ Cat II damaged wire rope) x .03 (employers. who opt to get approval) x 1.5 hour (review and documentation) = 399.16 hours per year

Cost: 399.16 hours per year x 36.22 per hour (wage-qualified person-mfr.) = 14,458 per year

9) 29 CFR 1926.1427(c)(1)(ii) and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). OSHA construction staff estimates that no more than 10 employers will opt to get accredited and certify its own employees in accordance with Option 2 of this proposed section. In addition, it is assumed that all of these employers will provide testing materials to an auditor for approval in accordance because it is believed that obtaining a test from accredited crane/derrick testing organizations would most likely not be cost effective for the employer or the accredited testing organization will not provide tests for employers. When employers choose to have their tests audited, it is estimated that it would take the auditor, most likely a qualified educator/manager, 2 hours to review and approve the test the employer would submit for approval. It is also very likely that the auditor will document this approval. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 10 (number of Option 2 employers) x 2 hours (time to review/approve/document) = 20 hours per year

Cost: 20 hours per year x 63.59 (wage of qualified person- auditor) = \$1,272 per year

10) 29 CFR 1926.1427(c)(2)(i), and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). OSHA construction staff estimates that 10 employers or less will opt to get accredited and certify its own employees in accordance with Option 2 of this proposed section. It is estimated that it would take an auditor, most likely a qualified educator/manager, 2 hours to review and approve the testing circumstances in accordance with this proposed paragraph. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 10 (Option 2 employers) x 1 hour (time to review/approve) = 10 hours per year

Cost: 10 hours per year x 63.59 (wage of qualified person- auditor) = \$636 per year

11) 29 CFR 1926.1427(c)(5)(ii), (c)(5)(iv), and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). OSHA construction staff estimates that no more than 10 employers will opt to get accredited and certify its own employees in accordance with Option 2 of this proposed section. It is estimated that it would take an auditor, most likely a qualified educator/manager, 30 minutes (.5 hour) to document the audit and maintain that record for three years. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 10 (Option 2 employers) x .5 hour (time to document/maintain) = 5 hours per year

Cost: 5 hours per year x 63.59 (wage of qualified person- auditor) = \$ 318 per year

12) 29 CFR 1926.1427(c)(5)(iii), (c)(5)(iv), and 1926.1439(e)

This provision also applies to training documentation required in accordance with proposed section 1926.1439(e). OSHA estimates that 1 of the 10 estimated Option 2 employers covered by this proposed standard would fail the audit of its test and test administration required by this proposed provision. Therefore it is estimated that it would take an auditor, most likely a clerical employee, 15 minutes (.25 hour) to file a report to an OSHA Regional Office regarding certification program deficiencies discovered during an audit. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 1 (employer who program fails) x .25 hour (time to file documents with OSHA) = .25 hours per year

Cost: .25 hours per year x \$16.16 per hour (wage- clerical employee) = \$4 per year

13) 29 CFR 1926.1428(a)(2)

It is estimated in the PEA that at least one signal person would be needed to safely perform hoisting jobs for each crane used in construction. However, OSHA construction staff estimates that, due to the size and types of loads, size and types of hoisting equipment used, and configurations of job sites, 40% of the equipment covered by this proposed standard would not need a signal person when hoisting jobs are performed. Therefore it was estimated that at least one signal person would be needed for the remaining 60% of the equipment used to perform hoisting jobs under worksite conditions for which a signal person is needed. Subsequently, it is estimated that it would take a qualified evaluator, most likely a qualified manager/evaluator, 30 minutes (.5 hour) to assess whether a signal person meets the requirements of this proposed section. Finally, it is estimated that only 40% of the employers will conduct the assessments themselves and the other 60% will have a third party do these required assessments. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equipment used per year) x .60 (equip need signal persons) x .5 hour (time for assessment) x .60 (third party does assessment) = 17,317.08 hours per year

Cost: 17,317.08 hours per year x \$ 36.22 per hour (wage- qualified evaluator) = \$627,225 per year

14) 29 CFR 1928(a)(3) and (b)

It is estimated in the PEA that at least one signal person would be needed to safely perform hoisting jobs for each crane used in construction. However, OSHA construction staff estimates that, due to the size and types of loads, size and types of hoisting equipment used, and configurations of job sites, 40% of the equipment covered by this proposed standard would not need a signal person when hoisting jobs are performed. Therefore it was estimated that at least one signal person would be needed for the remaining 60% of the equipment used to perform hoisting jobs under worksite conditions for which a signal person is needed. The other 30% of the smaller equipment is used to perform hoisting jobs under worksite conditions for which a signal person signal person is not needed. With regard to the qualification of signal people, OSHA construction staff estimates that 20 % of the signal persons would need to be qualified each year whether initially or re-qualified. Subsequently, it is estimated that it would take a qualified evaluator, most likely a qualified manager/administrator, 15 minutes (.25 hour) to document that a signal person meets or has been re-qualified to meet the requirements of this proposed section. Furthermore, it is estimated that about 30% of the employers would have their own evaluator and the other 60% would use a third party to meet

this proposed requirement. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equipment used per year) x .60 (equip need signal persons) x .20 (qualified per year) x .60 (third party evaluator) x .25 hour (time for assessment/document) = 1,731.71 hours per year

Cost: 1,731.71 hours per year x \$36.22 per hour (wage- qualified evaluator) = \$62,722 per year

15) 29 CFR 1926.1430(b)

Burden hours/costs are accounted as part of the documentation of training required by proposed section 1926.1428(a)(3).

16) 29 CFR 1926.1434(a)(1)(i), (a)(1)(ii), (a)(3), and 1926.1441(b)(2)(i)(B)

This provision also applies to modifications made in accordance with proposed section 1926.1441(b)(2)(i)(B). Of the 96,206 cranes in use per year as estimated in the PEA, OSHA construction staff estimates that 1% of this equipment will be modified. In these scenarios, the manufacturer, most likely a qualified person, must approve such modifications submitted by the employer to ensure that the modifications will not compromise the safe operation of the equipment. OSHA construction staff estimates that it would take a qualified person 2 hours to review the modification request and document the modification approval. OSHA estimates that the annual burden hours and cost of this proposed provision are:

Burden hours: 96,206 (equip. per year) x .01 (modified equipment) x 2 hours (time to do review and document approval) = 1,924.12 hours per year

Cost: 1,924.12 hours per year x \$36.22 per hour (wage of qualified person- mfr.) = \$69,692 per year

17) 29 CFR 1926.1434(a)(2)(i), (a)(3), and 1926.1441(b)(2)(i)(B)

This provision also applies to modifications made in accordance with proposed section 1926.1441(b)(2)(i)(B). Of the 96,206 cranes in use per year as estimated in the PEA, OSHA construction staff estimates that 1% of this equipment will be modified. In these scenarios, the employer, most likely a qualified person, must modify load charts, procedures, instruction manuals and instruction plates/tags/decals as necessary to accord with the modification/addition. OSHA construction staff estimates that it would take a qualified person 30 minutes (.5 hour) to complete this task. OSHA estimates that the annual burden hours and cost of this proposed provision are:

Burden hours: 96,206 (equip. per year) x .01 (modified equipment) x .5 hour (time to modify tags/charts/procedures) = 481.03 hours per year

Cost: 481.03 hours per year x \$36.22 per hour (wage of qualified person) = \$17,423 per year

18) 29 CFR 1926.1435(c)

Of the 96,206 cranes in use per year as estimated in the PEA, OSHA construction staff estimates that 2% of this equipment will be tower cranes. Furthermore it is estimated that 1% of the equipment, generally older models, will not have the manufacturer's recommendations and specifications available. Subsequently, when the manufacturer's recommendations and specifications are not available, OSHA construction staff estimates that it will take a registered professional engineer, who is familiar with that type of equipment, 1.5 hours to document and communicate an approval of the size and location of signs the employer may display on the equipment specified by the employer. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (hoisting equip) x .02 (tower cranes) x .01(w/o man. specs) x 1.5 hours (doc/com approval) = 28.86 hours per year

Cost: 28.86 hours per year x \$63.59 per hour (wage- registered professional engineer) = \$1,835

19) 29 CFR 1926.1437(m)(4)

The Agency estimates that 96,206 pieces of hoisting equipment will be used in the construction industry per year. Furthermore, OSHA estimates that 2% of the hoisting equipment will be floating cranes/derricks. OSHA estimates that 1% of these floating cranes/derricks will utilize employer-made equipment. Subsequently, OSHA estimates that it will take a registered professional engineer 2 hours to develop and document information that demonstrate that load charts and applicable parameters for equipment use meet requirements of paragraphs (m)(1)-(3) of this proposed section. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .02 (floating cranes/derricks) x .01 (w/ employermade equipment) x 2 hours (document development) = 38.48 hours per year

Cost: 96.206 hours per year x \$63.59 per hour (wage- registered professional engineer/qualified person) = \$6,118 per year

20) 29 CFR 1926.1437(n)(1) and (n)(2)

Proposed paragraph (n)(2) allows the option of getting the rated capacity of the equipment reduced by the equipment manufacturer or a qualified person to account for the maritime conditions listed in paragraph (n)(1) of this proposed section. Subsequently, OSHA construction staff estimates that on 2% of the 887,031 hoisting jobs that will be performed in the construction industry per year, land cranes/derricks on barges pontoons, vessels, or other means of floatation will be used. In addition, OSHA construction staff estimates that only .5% of these will be land cranes and derricks that will be removed from the flotation devices and reinstalled for particular hoisting jobs performed. Most will remain secured to the flotation device and be used throughout the year without a need to be rated by a qualified person again.

Since the employer has an option to use a qualified person (who is familiar with floating crane/derrick designs) to determine the required ratings, OSHA construction staff estimates that 30% of the employers would utilize this option. The other 70% of the employers would likely use the other option, which allows the employer to rely on the manufacturer for these calculations. OSHA construction staff estimates that the manufacturer, most likely an RPE, would take 1.5 hours to make and document such determinations. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 887,031 (hoisting jobs) x .02 (floating cranes/derricks) x .005 (removed and reinstalled equip) x .70 (qualified person- mfr./RPE) x 1.5 hours (document/develop) = 93.14 hours per year

Cost: 93.14 hours per year x \$63.17 per hour (wage- RPE) = \$5,884 per year

21) 29 CFR 1926.1437(n)(5)(v)

The Agency estimates in the PEA that 887,031 pieces of hoisting equipment will be used in the construction industry per year. Furthermore, OSHA estimates that 2% of the hoisting equipment will be floating cranes/derricks. Of these pieces of equipment, OSHA construction staff estimates that only .5% of these will be land cranes and derricks that will be removed from the flotation devices and reinstalled for particular hoisting job performed. Most will remain secured to the flotation device and be used throughout the year without a need to be rated by a qualified person again. For the jobs where the cranes and derricks are removed from the flotation devices, OSHA estimates that it will take a marine engineer/registered professional engineer or a qualified person who is familiar with floating crane/derrick designs, 1 hour to develop and document information which confirms the safety of the equipment's mounting design. It is estimated that 30% of the employers would opt to use an existing employee who is a qualified person to make these determinations, while the other 70% would contract for the services of a marine engineer. The yearly burden hours and cost of this proposed paragraph for a marine engineer are estimated to be:

Burden hours: 887,031 (equip. per year) x .02 (floating cranes and derricks) x .005 (floating land cranes/derricks reinstalled) x 1 hour (document development) x .70 (RPME) = 62.09 hours per year

Cost: 62.09 hours per year x \$63.59 per hour (wage- marine engineer/registered professional engineer) = \$3,948 per year

22) 29 CFR 1926.1437(n)(5)(vi)

OSHA estimates in the Per-RFA that 96, 206 pieces of hoisting equipment will be used in the construction industry per year. Furthermore, OSHA estimates that 2% of the hoisting equipment will be floating cranes/derricks. OSHA believes it is reasonable to anticipate that for 20% of the floating equipment used in the industry, land cranes/derricks will be mounted on a flotation device/vessel and used to hoist loads. Subsequently, OSHA construction staff estimates that for 3% of this equipment, mobile auxiliary cranes (two cranes/derricks on the flotation device/vessel) will need to be mounted to a floatation device/vessel to perform the construction hoisting job. For these jobs, OSHA estimates that it will take a marine engineer/registered professional engineer, who is familiar with floating crane/derrick designs, 2 hours to develop documents which confirm the safety of the equipment attachment design. The yearly burden hours and cost of this proposed paragraph are estimated to be:

Burden hours: 96,206 (equip. per year) x .02 (floating cranes/derrick) x .20 (land crane/derrick) x .03 (mobile auxiliary cranes jobs) x 2 hours (calculate/document) = 23.09 hours per year

Cost: 57.72 hours per year x \$63.59 per hour (wage- marine engineer/registered professional engineer) = \$3,671 per year

23) 29 CFR 1926.1439(e)

Burden hours/costs are accounted as part of the certification/qualification documentation required by proposed section 1926.1427(a), (c)(1), (c)(2)(i), (c)(5)(ii), and (c)(5)(iii).

14. Provide estimates of annualized cost to the Federal Government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), any other expense that would not have been incurred without this collection of information. Agencies may also aggregate cost estimates from Items 12, 13, and 14 in a single table.

1) OSHA estimates that a compliance officer (GS-12, step 5), with an hourly wage rate of \$31.34, would spend about 30 minutes (.5 hour) during an inspection reviewing the documents required by the proposed Standard. The Agency determines that its compliance officers would inspect about $1,242^4$ worksites each year on which pieces of equipment are

⁴OSHA estimated the number of inspections by determining the inspection rate (1.4%) for all worksites under the jurisdiction of the OSH Act (including both Federal OSHA and approved state-plan agencies), and

used that are regulated by the proposed Standard. OSHA considers other expenses, such as equipment, overhead, and support staff salaries, to be normal operating expenses that would occur without the paperwork requirements specified by the proposed Standard. Therefore, the total cost of these paperwork requirements to the Federal government is:

Cost: 1,242 inspections x .5 hour x \$31.34 = \$19,462

2) OSHA estimates that a administrative assistant (GS-7, step 5) with an hourly wage rate of \$17.67, would spend about 15 minutes (.25 hour) filing and maintaining the documented report submitted by an operator certification/qualification program auditor. This report identifies deficiencies in an employer's operator certification/qualification program as required by proposed paragraph 1926.1427(c)(5)(iii). The Agency estimates that OSHA Area Offices would receive about one of these reports each year. OSHA considers other expenses, such as equipment, overhead, and support staff salaries, to be normal operating expenses that would occur without the paperwork requirements specified by the proposed Standard. Therefore, the total cost of these paperwork requirements to the Federal government is:

Cost: 1 report x .25 hour x \$17.67 = \$4.00 per year

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-1.

The burden hours for the collection of information requirements contained in the proposed Standard would result in a total program change increase of 157,981 hours. The cost of the NPRM would result in a program increase of \$1,391,174.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection information, completion of report, publication dates, and other actions.

OSHA will not publish the information collected under the proposed Standard.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

This Supporting Statement was developed for the proposed Standard; therefore, no expiration date would be displayed.

18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submission," of OMB Form 83-I.

then multiplied the total number of worksites covered by the Standard (887,031) by this percentage (i.e., $.014 \times 887,031 = 1,242$ inspections).

OSHA is not seeking an exception to the certification statement specified by Item 19 of OMB 83-I.

Table 1

Proposed Burden Hours, Number of Responses, and Proposed Cost Each Year for the Proposed Information Collection Requirements

	Proposed	Proposed
Item 12 Information Collection Requirement	Burden Hours	Cost (\$)
29 CFR 1926.1402(c)(2)	1,064	\$38,538
29 CFR 1926.1403(b) and 1926.1406(b)	1,004	\$363
29 CFR 1926.1405(f) and 1920.1400(b)	34	\$1,213
29 CFR 1926.1407(g) and 1926.1409	213	\$3,442
29 CFR 1926.1408(b)(1) and 1926.1409	213	\$927,703
29 CFR 1926.1410(d) and (d)(2)(iv)	33,264	\$1,204,822
29 CFR 1926.1410(e)	8,316	\$528,814
29 CFR 1926.1410(f)	10,977	\$397,587
29 CFR 1926.1410(j)	333	\$12,061
29 CFR 1926.1412(a)(1)(i)	241	\$8,756
29 CFR 1926.1412(b) (1)(i)(A)	852	\$30,953
29 CFR 1926.1412(c)(2)(i)	2,555	\$92,823
29 CFR 1926.1412(e)(3)(i), (e)(3)(ii), (h), 1926.1413(b)(3), and	13,854	\$279,158
1926.1437(h)(2)	10,001	<i><i><i>q</i>=<i>1</i>,<i>y</i>=<i>v</i>,<i>v</i>=<i>v</i></i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i>,<i>v</i>=<i>v</i></i>
29 CFR 1926.1412(f)(6), (g)(3) and 1926.1413(c)(3)(ii)	9	\$181
29 CFR 1926.1412(f)(7), 1926.1413(c)(4), 1926.1437(h)(4), and (h)(6)	361	\$7,274
29 CFR 1926.1413(a)(4)(ii)(A)	133	\$2,680
29 CFR 1926.1413(a)(4)(iii)(F) and 1414(c)(3)(i)	887	\$32,225
29 CFR 1926.1414(c)(2)(iii)	25	\$504
29 CFR 1926.1417(b)(1)	50	\$1,817
29 CFR 1926.1417(b)(2)	50	\$1,817
29 CFR 1926.1417(b)(3)	50	\$3,180
29 CFR 1926.1423(h)(2)	355	\$12,858
29 CFR 1926.1424(a)(2)(ii)	36,191	\$584,847
29 CFR 1926.1427(a)	4,618	\$74,627
29 CFR 1926.1427(c)(5)(iii)	1	\$16
29 CFR 1926.1427(h)(1)	577	\$20,962
29 CFR 1926.1428(a)(2)	11,545	\$418,160
29CFR 1926.1428(a)(3) and (b)	1,154	\$41,798
29 CFR 1926.1431(0)(3)	665	\$24,086
29 CFR 1926.1431(p)(4)	665	\$24,086
29 CFR 1926.1431(r)	222	\$8,041
29 CFR 1926.1432(a)	500	\$18,165
29 CFR 1926.1432(b)(2)	250	\$9,055
29 CFR 1926.1434(a)(1)(i) and (a)(1)(ii)	1,443	\$52,424
29 CFR 1926.1434(a)(2)(i) and (a)(3)	481	\$17,475
29 CFR 1926.1436(g)(4)	65	\$1,310
29 CFR 1926.1436(h)	96	1,934
29 CFR 1926.1437(c)(2)	41	\$663
29 CFR 1926.1437(n)(1) and (n)(2)	40	\$1,453

Item 12 Information Collection Requirement	Proposed Burden Hours	Proposed Cost (\$)
29 CFR 1926.1437(n)(5)(v)	27	\$981
29 CFR 1926.1441(c)(2)(i)	10	\$362
29 CFR 1926.1441(c)(2)(ii)	58	\$2,107
29 CFR 1926.1441(c)(2)(iii)	58	\$3,688
29 CFR 1926.1441(c)(3)(i)	14	\$507
29 CFR 1926.1441(c)(3)(ii)	14	\$507
Totals	157,981	\$4,896,041