

Note to Reviewer
Combining Information Collection Requests

There are five Information Collection Requests (ICRs) covering the Construction Industry Cranes and Derricks Standard (29 CFR 1926.550). To better ensure consistency and account for total burden and costs being imposed by the Cranes and Derricks Standard, OSHA is combining these five ICRs into one ICR that will cover all of the collection of information requirements contained in the Standard. The ICR that will cover all of the Cranes and Derricks Standard, will be titled, “Cranes and Derricks (29 CFR 1926.550)” and will adopt the existing OMB Control Number 1218-0113. The following table, *Information Collection Requests covering the Construction Crane and Derricks Standard*, contains the OMB control number, the title of the ICR, current burden hours, responses, and costs.

Information Collection Requests
Covering the Construction Cranes and
Derricks Standard (29 CFR 1926.550)

OMB Control No.	Title	Respondents	Burden Hours	Responses	Capital Costs (Item 13)
1218-0054	Cranes and Derricks for Construction: Recording Tests for Toxic Gases and Oxygen-Deficient Atmospheres in Enclosed Spaces	50	728	2,950	18,000
1218-0113	Cranes and Derricks Standard for Construction (29 CFR 1926.550(a)(6))	2,073	227,031	138,737	0
1218-0115	Cranes and Derricks Standards for Construction, Notification of Operational Specifications and Hand Signals	69,090	5,640	70,544	478,000
1218-0151	Crane or Derricks Standard for Construction: Posting Weight and Load Capacity of Personnel Platforms	2,750	229	2,750	0
1218-0232	Crawler, Locomotive, and Truck Cranes (29 CFR 1926.550(b)(2))	16,581	99,486	198,972	0
TOTALS			333,114	413,953	\$496,000

As a result of combining five ICRs into one, the OMB inventory states the burden hours for the Crane and Derricks for Construction are 413,953 hours. OSHA will request a correction be made to reflect the 333,114 hours in the chart.

Note To Reviewer

Existing OMB Control Number: 1218-0113

Existing Title: Cranes and Derricks Standard for Construction (29 CFR 1926.550(a)(6))

The Office of Management and Budget's (OMB) December 13, 2004, Notice of Action, did not approve the 208,761 burden hour reduction, from 218,090 hours to 9,329 hours, requested in OSHA's September 28, 2004, Information Collection Request (ICR). OMB stated:

The burden reduction requested by DOL is not approved at this time. If OSHA believes that this is a usual and customary activity for employers it should revise its standards to delete the requirement.

Paragraph 1926.550(a)(6) requires that a thorough annual inspection of the hoisting machinery be made by a competent person, or by a government or private agency recognized by the U.S. Department of Labor. The employer must maintain a record of the dates and results of inspections for each hoisting machine and piece of equipment.

OSHA assumes for 90% of the privately owned cranes and derricks it is usual and customary business practice to conduct annual inspections and maintain records of the inspections. The ICR acknowledges that 10% of privately owned cranes and derricks may conduct annual inspections as a result of the OSHA regulation, though this percentage is likely an overestimate. Removing this provision would hinder enforcement in those instances where the employer did not conduct the annual inspection and maintain an inspection record.

Further, in the previous ICR, OSHA received public comment confirming the importance of establishing and maintaining a written record of annual inspection¹, and that it is standard and required practice in the crane rental and other industries to perform documented annual inspections². Documentation of annual inspections is considered usual and customary and was required by ANSI B30.5, 1968, which was the foundation for 1926.550(a)(6) requiring the documentation of an annual inspection.

Therefore, OSHA is not going to eliminate annual inspection records since these records demonstrate to interested parties that the annual inspection was completed by a competent person and that the crane or derrick is safe for the employees who work with or in proximity to the crane or derrick, and provides the only means by which an OSHA compliance officer can review the record and determine if the employer is ensuring that the crane or derrick is safe.

¹International Union of Operating Engineers (IUOE); Docket Number (ICR-1218-0113(2004))

² CL Consulting; Docket Number (ICR 1218-0113(2004))

**SUPPORTING STATEMENT FOR
THE INFORMATION COLLECTION REQUIREMENTS OF
THE CONSTRUCTION STANDARD ON CRANES AND DERRICKS (29 CFR 1926.550)
(Office of Management and Budget (OMB) Control No. 1218-0113 (2007))**

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 (OSH 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 OSH Act specifically authorizes “the development and promulgation of occupational safety and health standards” (29 U.S.C. 651). In addition, the OSH 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 the Act . . .” (29 U.S.C. 657).

Under the authority granted by the OSH Act, the Occupational Safety and Health Administration (“OSHA” or “the Agency”) published the Cranes and Derricks Standard (the “Standard”; 29 CFR 1926.550) to protect employees who operate or work near cranes or derricks.

- 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.**

A. General requirements (§1926.550(a))

§1926.550(a)(1) - The employer shall comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks. Where manufacturer's specifications are not available, the limitations assigned to the equipment shall be based on the determinations of a qualified engineer competent in this field and such determinations will be appropriately documented and recorded. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.

§1926.550(a)(2) - Rated load capacities, and recommended operating speeds, special hazard warnings, or instruction, shall be conspicuously posted on all equipment. Instructions or warnings shall be visible to the operator while he is at his control station.

§1926.550(a)(4) - Hand signals to crane and derrick operators shall be those prescribed by the applicable ANSI standard for the type of crane in use. An illustration of the signals shall be posted at the job site.

Purpose: Paragraphs (a)(1), (a)(2), and (a)(4) of the Cranes and Derricks Standard for Construction (§ 1926.550) contain notification requirements. These paperwork requirements ensure that employers operate a crane or derrick according to the limitations and specifications developed for that equipment, and that hand signals used to communicate with equipment operators are clear and correct. Therefore, these requirements prevent employers from exceeding the operating specifications and limitations of cranes and derricks, and ensure that they use accurate hand signals regarding equipment operation. By operating the equipment safely and within specified parameters, and communicating effectively with equipment operators, employers will prevent serious injury and death to the equipment operators and other employees who use or work near the equipment.

§1926.550(a)(6) - A thorough, annual inspection of the hoisting machinery shall be made by a competent person, or by a government or private agency recognized by the U.S. Department of Labor. The employer shall maintain a record of the dates and results of inspections for each hoisting machine and piece of equipment.

Purpose: The hoisting machinery covered by the Standard is subject to hostile environments, deterioration from worn components, flaws and defects that develop during use, and accelerated wear when a defective or normally worn component causes misalignments of connecting systems and components.

Employers use the annual inspections requirement in paragraph (a)(6) of the standard to demonstrate to interested parties (e.g., OSHA compliance officers, insurance agents) that the annual inspection was completed by a competent person and that the crane or derrick is safe for the employees who work with or in proximity to the crane or derrick. Additionally, the inspection record provides the only means by which an OSHA compliance officer can review the record and determine if the employer is ensuring that the crane or derrick is safe.

§1926.550(a)(11) - Whenever internal combustion engine powered equipment exhausts in enclosed spaces, tests shall be made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

Purpose: To ensure that oxygen and toxic gas levels are properly controlled and to ensure that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

Establishing and maintaining a written record of the tests employer will prevent severe injury and death to the equipment operators and other employees who work near the equipment. In addition, these records provide the most efficient mean for an OSHA compliance officer to determine that an employer performed the required testing and that the work area is well ventilated and the employee is working in a safe atmosphere.

§1926.550(a)(15)(vi) – Any overhead wire shall be considered to be an energized line unless and until the person owning such line or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded.

Purpose: Overhead lines are considered to be energized, unless the line is visibly grounded and the owner or operator has indicated that it is not an energized line. Failure to appropriately identify overhead wires would require those working with or in the vicinity of overhead lines to perform costly, time consuming activities, prior to performing their assigned duties.

§1926.550(a)(16) - No modifications or additions which affect the capacity or safe operation of the equipment shall be made by the employer without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals, shall be changed accordingly. In no case shall the original safety factor of the equipment be reduced.

Purpose: Obtaining the manufacturer's written approval of modifications made to the crane, and changing corresponding plates, tags, decals etc. ensures that employers operate a crane or derrick according to the modified limitations and specifications developed for that equipment; therefore, preventing employers from exceeding modified operating specifications and limitations of cranes and derricks

B. Crawler, locomotive, and truck cranes (§1926.550(b))

§1926.550(b)(2) - All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes. However, the written, dated, and signed inspection reports and records of the monthly inspection of critical items prescribed in section 5-2.1.5 of the ANSI B30.5-1968 standard are not required. Instead, the employer shall prepare a certification record which includes the date the crane items were inspected; the signature of the person who inspected the crane items; and a serial number, or other identifier, for the crane inspected. The most recent certification record shall be maintained on file until a new one is prepared.

Purpose: Establishing and maintaining written records of the monthly inspections informs employers and employees regarding serious, life-threatening equipment failure. In addition, the records provide the most efficient means for OSHA compliance officers to determine that an employer performed the required inspection and that the equipment is in safe operating condition.

C. Overhead and gantry cranes (§1926.550(d))

§1926.550(d)(1) – The rated load of the crane shall be plainly marked on each side of the cranes, 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 or floor.

Purpose: In order to perform any lift using a crane the operator must be able to verify the rated load of the crane and/or each hoisting unit. Identifying the rated load allows the operator to quickly verify the crane's lift limitations. These requirements prevent employers from exceeding the operating specifications and limitations of cranes and derricks, and ensure that they use accurate hand signals regarding equipment operation. By operating the equipment safely and

within specified parameters, and communicating effectively with equipment operators, employers will prevent serious injury and death to the equipment operators and other employees who use or work near the equipment.

D. Floating cranes and derricks (§1926.550(f))

§1926.550(f)(1)(ii) – A load rating chart, with clearly legible letters and figures, shall be provided with each crane, and securely fixed at a location easily visible to the operator.

Purpose: In order to perform any lift using a crane the operator must be able to verify the rated load of the crane and/or each hoisting unit. The availability of a load rating chart allows the operator to quickly verify the crane’s lift limitations and allowable configurations. These requirements prevent employers from exceeding the operating specifications and limitations of cranes and derricks, and ensure that they use accurate hand signals regarding equipment operation. By operating the equipment safely and within specified parameters, and communicating effectively with equipment operators, employers will prevent serious injury and death to the equipment operators and other employees who use or work near the equipment.

§1926.550(f)(1)(iii) – When load ratings are reduced to stay within limits for list of the barge with a crane mounted on it, a new load rating chart shall be provided.

Purpose: Listing is a common occurrence for barges. In order to perform any lift using a crane the operator must be able to verify the rated load of the crane and/or each hoisting unit. The availability of a load rating chart allows the operator to quickly verify the crane’s lift limitations and allowable configurations. These requirements prevent employers from exceeding the operating specifications and limitations of cranes and derricks, and ensure that they use accurate hand signals regarding equipment operation. By operating the equipment safely and within specified parameters, and communicating effectively with equipment operators, employers will prevent serious injury and death to the equipment operators and other employees who use or work near the equipment.

Permanently mounted floating cranes and derricks (§1926.550(f)(2)(ii)) - A load rating chart with clearly legible letters and figures shall be provided and securely fixed at a location easily visible to the operator.

Purpose: In order to perform any lift using a crane the operator must be able to verify the rated load of the crane and/or each hoisting unit. The availability of a load rating chart allows the operator to quickly verify the crane’s lift limitations and allowable configurations. These requirements prevent employers from exceeding the operating specifications and limitations of cranes and derricks, and ensure that they use accurate hand signals regarding equipment operation. By operating the equipment safely and within specified parameters, and communicating effectively with equipment operators, employers will prevent serious injury and death to the equipment operators and other employees who use or work near the equipment.

E. Crane or derrick suspended personnel platforms (§1926.550(g))

§1926.550(g)(4)(ii)(I) - The personnel platform shall be conspicuously posted with a plate or other permanent marking which indicates the weight of the platform, and its rated load capacity or maximum intended load.

Purpose: This requirement helps employers to avoid exceeding the lifting capacity of such platforms. Therefore, this requirement can prevent the platform, crane, or derrick from collapsing and causing serious injury or death to employees on or below the platform.

- 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 may use improved information technology whenever appropriate when establishing and maintaining the required records. OSHA wrote the paperwork requirements of the Standard in performance-oriented language (i.e., in terms of what data to maintain, not how to maintain the data). The employer may also contract the services of a healthcare professional located offsite to maintain and retain medical records.

- 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 information required to be collected and maintained is specific to each employer and employee involved and is not available or duplicated by another source. The information required by this Standard is available only from employers. At this time, there is no indication that any alternative source is available.

- 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 burden.**

The information collection requirements of the Standard do 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 burden.**

The information collection frequencies specified by the Cranes and Derrick Standard are the minimum frequencies necessary to ensure that employers and OSHA can protect employees who work near cranes and 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, grant-in-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 confidentiality that is not supported by authority established in statute 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 demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

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

8. **If applicable, provide a copy and identify the data 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 these 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.

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3506(c)(2)(A)), OSHA published a notice in the Federal Register on July 31, 2007 (72 FR 41775, Docket No. OSHA-2007-0060) requesting public comment on its proposed extension of the information collection requirements contained in the construction standard on Cranes and Derricks (29 CFR 1926.550). This notice was part of a preclearance consultation program intended to provide those interested parties the opportunity to comment on OSHA's request for an extension by the Office of Management and Budget (OMB) of a previous approval of the information collection requirements found in the above Standard. The Agency received no comments in response to its notice to comment on this request.

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

No payments or gifts will be provided 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 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 provisions in the Standard require the collection of 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.**

Table A

Summary of Burden Hour and Costs

	Existing Hours	Requested Hours	Item 12 Costs
A. General Requirements (§1926.550(a))			
§1926.550(a)(1) (OMB Control No. 1218-0115)	-	-	Cost under Item 13.
§1926.550(a)(2) (OMB Control No. 1218-0115)	111	920	\$25,972
§1926.550(a)(4) (OMB Control No. 1218-0115)	5,527	23,000	\$811,670
§1926.550(a)(6) (OMB Control No. 1218-0113)	227,031	6,210	\$329,875
§1926.550(a)(11) (OMB Control No. 1218-0054)	728	150	\$4,235
§1926.550(a)(15)(iv)	-	3,910	\$139,040
§1926.550(a)(16) (OMB Control No. 1218-0115)	2	11	\$311
B. Crawler, locomotive, and truck cranes (§1926.550(b))			
§1926.550(b)(2) (OMB Control No. 1218-0232)	99,486	66,240	\$1,869,955
C. Overhead and gantry cranes (§1926.550(d))			
§1926.550(d)(1)	-	Burden taken under (a)(2)	0
D. Floating cranes and derricks (§1926.550(f))			
§1926.550(f)(1)(ii)	-	460	\$12,986
§1926.550(f)(1)(iii)	-	230	\$6,493
§1926.550(f)(2)(ii)	-	1,725	\$48,697
E. Cranes or derrick suspended personnel platforms (§1926.550(g))			
Platform specifications §1926.550(g)(4)(ii)(I) (OMB Control No. 1218-0151)	229	220	\$6,211
TOTALS	333,114	103,076	\$3,255,445

Note: Provisions currently approved by existing ICRs are identified by their current OMB control numbers.

Burden Hour and Cost Estimates

To estimate the number of cranes, OSHA is relying on the Preliminary Initial Regulatory Flexibility Analysis (PIRFA) prepared for the 2006 Small Business Regulatory Enforcement and Fairness Act (SBREFA) Panel on cranes and derricks. The PIRFA estimates there are 91,997 cranes and derricks in construction.

For the relevant occupational categories, OSHA adjusted the mean hourly earnings from the *June 2005 National Compensation Survey by the Bureau of Labor Statistics* to allow for fringe benefits, which comprise about 29.4% of total compensation in the private sector. With wages comprising 70.6% of employee compensation, the Agency multiplied wages by 1.4 (1/0.706) to derive total hourly employee compensation.

Therefore, the costs of labor used in this analysis are estimates of total hourly compensation. These estimates are:

Construction employee:	\$28.23
Construction supervisor:	\$35.29

A. General requirements (§1926.550(a))

(§1926.550(a)(1)) - Before an employer can operate a crane or derrick, this provision requires that a qualified engineer competent to determine crane and derrick specifications must make and record such a determination if the equipment manufacturer's specifications are not available. Engineers typically provide this service under contract to 50 employers; therefore, OSHA treats this paperwork requirement as a capital cost under Item 13 below.

(§1926.550(a)(2)) - The Agency determined that manufacturers attach or include the required information on all new cranes and derricks as a usual and customary business practice. Therefore, employers need to post the required information only if they lose or damage the manufacturer's information. OSHA assumes that employers must re-post the original information on 1% of the existing cranes and derricks each year (i.e., 920 units), and that a construction employee (at a wage rate of \$28.23 per hour) would take 1 hour to perform this task. Accordingly, the annual burden hours and cost associated with this recordkeeping requirement are:

Burden hours: 920 units x 1 hour = 920 hours
Cost: 920 hours x \$28.23 = \$25,972

(§1926.550(a)(4)) - The Agency believes that it is a usual and customary business practice for manufacturers to attach a copy of the required hand-signal illustrations inside or outside the cab of each new crane or derrick or for employers to post a copy at the job site during the annual inspection of all cranes and derricks required by paragraph (a)(6) of the Standard. OSHA assumes that employers find this information missing or damaged for half (45,999) of the units. The Agency estimates that a construction supervisor, at a wage rate of \$35.29, requires 30 minutes (.50 hour) to replace the posted, damaged or missing information for hand signal information. Therefore, the total burden hours and cost associated with this requirement each year are:

Burden hours: 45,999 units x .50 hour = 23,000 hours
Cost: 23,000 hours x \$35.29 = \$811,670

(§1926.550(a)(6)) - This provision requires an annual inspection of cranes and derricks to be made by a competent person, or by a government or private agency recognized by the U.S. Department of Labor, and that the employer maintain a record of the dates and results of inspections.

Of the 91,997 cranes and derricks in the construction industry, OSHA believes that 85% (78,197) cranes and derricks are owned by rental companies which establish and maintain written records as a usual and customary business practice. The remaining 15% (13,800) are privately owned, requiring the employer to perform an annual inspection on the cranes and derricks.

Based on OSHA enforcement experience and the presence of tort liability concerns for these crane rental companies, OSHA estimates that for 90% of the 13,800 privately owned cranes and derricks, it is a usual and customary business practice to conduct annual inspections and maintain records of the inspections. Therefore, the information collection burden applies to the remaining 10% (1,380) of the cranes and derricks.

According to industry sources, the majority of construction cranes are the small types of cranes and derricks (up to 60 ton capacity). These sources indicate that, on average, it takes between 3 and 4 hours to inspect this size of crane, and that it takes 4 to 6 hours to inspect the larger cranes or derricks. OSHA therefore, estimates that the average inspection time for a smaller crane is 3.5 hours, and average time for the larger cranes is 5 hours.

Burden hours on respondents

Annual Inspection

OSHA estimates that 2/3 of the 1,380 privately-owned cranes and derricks (920) are 60 tons or less. The remaining 460 are over 60 tons. The inspection burden hours are:

Burden hours:

60 tons and under:	920 x 3.5 hours = 3,220 hours
Over 60 tons:	460 x 5.0 hours = <u>2,300</u> hours
Total inspection time:	5,520 hours

Record of Inspection

OSHA estimates that it takes approximately 30 minutes (.50 hour) to record the inspection dates and results for each annual inspection:

Burden hours: 1,380 inspections x .50 hour = 690 hours

Annual Inspections	5,520 hours
Record of Inspection	+ <u>690</u> hours
	6,210 Total Burden hours

Cost to the respondents

There are at least four different employees, with differing pay wages, who participate in the inspection activity for hoisting machinery. Usually there are at least two persons involved during an inspection; one is an operator, either a crane or shovel operator or medium equipment operator, the other person is a master mechanic or oiler, who assists in the inspection.

For purposes of calculating costs, the following four levels of pay rates were totaled, and then averaged. The average is \$26.56 an hour. Since two employees participate in the inspection, \$26.56 was multiplied by 2 yielding \$53.12.

The employers pay rates³ are as follows:

1. Crane or Shovel Operator – Under 100 ton rating	\$23.63
2. Medium Equipment Operator	\$24.13
3. Master Mechanic (Foreman or GF)	\$35.56
4. Oiler (usually an apprentice)	<u>\$22.90</u>
Total	\$106.22

Cost: 6,210 hours x \$53.12 = \$329,875

(§1926.550(a)(11)) - Paragraph (a)(11) of the Standard requires employers to test or monitor the atmosphere of an enclosed space where cranes or derricks exhaust may expose employees to a deficiency of oxygen and/or toxic gases.

Burden hours on respondents

Data from industry sources and OSHA staff familiar with the construction industry indicate only 50 projects per year are used where a crane or derrick would exhaust in an enclosed space. Typically, monitoring would be conducted to monitor for oxygen, carbon monoxide, and nitrogen dioxide. Since exhausting into an enclosed space is not desirable, other exhausting options will be employed and monitoring will generally taper off. OSHA estimates that approximately 10 tests would be conducted throughout the duration of each project.

50 projects x 10 tests = 500 tests

The monitoring equipment used to comply with this provision are hand-held monitors that display one substance reading at a time. The agency estimates that there is an average of three substances being monitored (usually oxygen, carbon monoxide, and nitrogen dioxide). For these monitors it takes an average of 15 minutes (.25 hour) to retrieve the monitoring equipment, check the calibration, take the sample, and record the monitoring results.

The Agency also estimates it will take 3 minutes (.05 hour) to maintain and disclose the test results for each of the 50 affected projects.

Altogether, the Agency calculates the total burden hours for monitoring to be:

Burden hours: 500 tests x .30 hour (to monitor) and (to maintain and record) = 150 hours

³Source: *June 2005 National Compensation Survey - Wages in the United States, Bureau of Labor Statistics*, table 2-2, pp. 16, which comprise about 29.4% of total compensation in the private sector. With wages comprising of employee compensation, the Agency multiplied wages by 1.4 (1/0.706) to derive total hourly employee compensation.

Cost to Respondents

The cost involved would be in the wages of those responsible for monitoring the enclosed air space. Using an hourly wage rate of \$ 28.23 for the average construction employee, the cost to comply with this standard is \$4,235.

$$\text{Cost: } 150 \text{ hours} \times \$28.23 = \$4,235$$

(§1926.550(a)(15)(vi)) - Any overhead wire shall be considered to be an energized line unless and until the person owning such line or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded. OSHA estimates that, on average, a foreman will take approximately 10 minutes (.17 hour) to obtain from the person owning an energized line or electrical authority confirmation that an overhead wire is not energized. According to the PIRFA, 25% of cranes and derricks operated on construction sites will be in the vicinity of overhead lines.

$$\text{Burden hours: } 22,999 \text{ cranes and derricks} \times .17 \text{ hour} = 3,910 \text{ hours}$$

$$\text{Cost: } 3,910 \text{ hours} \times \$35.56 = \$ 139,040$$

(§1926.550(a)(16)) - This provision requires employers to revise as appropriate the capacity, operation, and maintenance-instruction plates, tags, or decals if they make alterations that involve the capacity or safe operation of a crane or derrick. OSHA believes that 22 cranes and derricks undergo such alterations each year, and that a construction employee takes 30 minutes (.50 hour) to develop and post the required information. The annual burden hours and cost of this posting requirement are:

$$\text{Burden hours: } 22 \text{ units} \times .50 \text{ hour} = 11 \text{ hours}$$

$$\text{Cost: } 11 \text{ hours} \times \$28.23 = \$311$$

B. Crawler, locomotive, and truck cranes (§1926.550(b))

(§1926.550(b)(2)) - Employers must prepare a written certification of the monthly inspection of critical items prescribes in ANSI B30.5-1968.

Of the 91,997 cranes and derricks in the construction industry, 80% (73,598) of these cranes are crawler, truck, and locomotive cranes. OSHA now believes 85% of the 73,598 (62,558) cranes are owned by rental companies who establish and maintain written records as a usual and customary business practice. The remaining 15% (11,040) are privately owned, requiring the employer to perform a monthly inspection of the crane and to certify and maintain the record. The Agency estimates that it takes approximately 30 minutes (.50 hour) a month to conduct the inspection, and to prepare, maintain, and disclose the record. The Agency estimates that a construction employee, at a wage rate of \$28.23 per hour, will inspect the crawler, locomotive or truck crane, and prepare and maintain a written inspection certificate.

Burden hours: 11,040 cranes x 12 x .50 hour = 66,240 hours
Cost 66,240 hours x \$28.23 = \$1,869,955

C. Overhead and gantry cranes (§1926.550(d))

(§1926.550(d)(1)) - The rated load of the crane shall be plainly marked on each side of the cranes, 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 or floor. The burden hours and costs for posting rated loads on rated load blocks is accounted for under (a)(2).

D. Floating cranes and derricks (§1926.550(f))

(§1926.550(f)(1)(ii)) - A load rating chart, with clearly legible letters and figures, shall be provided with each crane, and securely fixed at a location easily visible to the operator. Of the 91,997 cranes and derricks in the construction industry, 5% (4,600) of these cranes are floating cranes and derricks. OSHA believes that these cranes and derricks are employer owned. Of that 5%, the Agency believes that 10% (460) require the employer to replace load ratings. The Agency estimates that it takes approximately 1 hour annually per crane to retrieve the appropriate load rating chart and appropriately affix it in a location easily visible to the operator. The Agency estimates that a construction employee, at a wage rate of \$28.23 will inspect the floating cranes or derrick, retrieve the appropriate load rating chart and appropriately affix the chart.

Burden hours: 460 cranes x 1 hour = 460 hours
Cost: 460 hours x \$28.23 = \$12,986

(§1926.550(f)(1)(iii)) - When load ratings are reduced to stay within limits for list of the barge with a crane mounted on it, a new load rating chart shall be provided.

Listing is a common occurrence for barges. The Agency finds that under most circumstances it is not necessary to adjust load ratings due to the fact that these concerns are factored into the loading. OSHA estimates that of the 4,600 floating cranes and derricks only 5% (230) would require a new load rating chart annually. The Agency estimates that it takes approximately 1 hour annually per crane to retrieve the appropriate load rating chart and appropriately affix it in a location easily visible to the operator. The Agency estimates that a construction employee, at a wage rate of \$28.23 per hour, will inspect the floating cranes or derrick, retrieve the appropriate load rating chart and appropriately affix the chart.

Burden hours: 230 cranes x 1 hour = 230 hours
Cost: 230 hours x \$28.23 = \$6,493

(§1926.550(f)(2)(ii)) - A load rating chart with clearly legible letters and figures shall be provided and securely fixed at a location easily visible to the operator.

OSHA estimates that of the 4,600 floating cranes and derricks 75% (3,450) are permanently

mounted. Exposure to inclement weather and general wear and tear may cause significant damage to load rating charts. The Agency estimates that 50% of these floating cranes and derricks (1,725) have a chart which must be replaced once annually and it takes 1 hour per crane to retrieve the appropriate load rating chart and appropriately affix it in a location easily visible to the operator. The Agency estimates that a construction employee, at a wage rate of \$28.23 per hour will inspect the floating cranes or derrick, retrieve the appropriate load rating chart and appropriately affix the chart.

Burden hours: 1,725 cranes x 1 hour = 1,725 hours

Cost: 1,725 hours x \$28.23 = \$48,697

E. Crane or derrick suspended personnel platforms (§1926.550(g))

(§1926.550(g)(4)(ii)(I))

Based on a review of OSHA inspection data and discussions with crane-operating companies and personnel-platform manufacturers, the Agency determined that construction establishments use 5,000 personnel platforms each year, and that half (2,500) of these platforms are factory built (i.e., manufactured) and the remaining half (2,500) are site built (i.e., fabricated by the employer at the construction site).

Factory-built platforms. As a usual and customary business practice, manufacturers establish the weight and rated-load capacity or maximum intended load of a platform, enter this information on a plate or marker, and attach the plate or marker to the platform prior to delivery. For these platforms, the only burden incurred by employers is to replace a damaged or worn plate or marker. OSHA estimated that employers replace 10% (250; i.e., 10% x 2,500) of these plates or markers each year.

Site-built platforms. For each platform built at a worksite, the employer must review the engineering plans typically used to build the platform to determine its weight and rated-load capacity or maximum intended load, and then use information in developing the necessary plate or marker. As noted above, each of the 2,500 site-built platforms fabricated annually requires a plate or marker providing the specified information.

Burden hours and cost. OSHA estimates that a construction employee with a wage rate of \$28.23 spends 5 minutes (.08 hour) obtaining information regarding the platform's weight and rated-load capacity or maximum intended load, preparing the plate or marker using existing materials and associated with this requirement each year are:

Burden hours: (250 factory-built platforms + 2,500 site-built platforms) x .08 hour = 220 hours

Cost: 220 hours x \$28.23 = \$6,211

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 services 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 collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (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.

Capital Cost Determinations

OSHA estimates that the total capital cost is \$570,074.

(§1926.550(a)(1)) - If an employer needs to operate a crane or derrick and the equipment manufacturer's specifications are not available, the employer is required to have a qualified engineer competent to determine crane and derrick specifications make and record such a determination. OSHA finds that each year employers contract with appropriate engineers to determine the specifications for 50 cranes and derricks. The Agency estimates that 2 qualified, competent engineers will take 65 hours apiece (for a total of 130 hours) to complete the task; each engineer would earn \$46.16 per hour. Therefore, the total cost of providing these specifications is:

Cost: 50 units x 130 hours x \$46.16 = \$300,040

(§1926.550(a)(11)) - The Agency estimates that the hand held exposure monitors cost \$1,800 each on average, and will be replaced approximately every 5 years. Thus, 5 of the 50 employers will replace the exposure monitoring equipment annually.

Cost: 50 employers/5 x \$1,800 = \$18,000

(§1926.550(a)(16)) - As indicated under Item 12 above, OSHA estimated that 22 cranes and derricks undergo alterations each year that involve the capacity or safe operation of the equipment. The Agency determined that employers contract with qualified engineers to alter 17 of these cranes and derricks, with a rated lifting capacity up to 350 tons, for special lifting applications; the engineers then test and evaluate the equipment's capacity to lift and place

different loads. OSHA also estimates that 2 engineers will each take 65 hours to complete this task (for a total of 130 hours). In addition, the Agency finds that employers make similar alterations to 5 cranes and derricks with a rated lifting capacity of 400 to 1,200 tons. To complete the alteration process for this equipment, OSHA determined that 10 qualified engineers require 65 hours apiece (for a total of 650 hours). Accordingly, the total cost of making these alterations is:

$$\text{Cost: } ((17 \text{ units} \times 130 \text{ hours}) + (5 \text{ units} \times 650 \text{ hours})) \times \$46.16 = \$252,034$$

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), and any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 in a single table.**

The Agency estimates that a compliance officer (GS-12, step 5), at an hourly wage rate of \$36.26 spends about 5 minutes (.08 hour) during an inspection reviewing the written records required by the Standard. OSHA determines that its compliance officers will conduct 987 such inspections during each year covered by this ICR.⁴ The Agency considers other expenses, such as equipment, overhead, and support staff salaries, as normal operating expenses that would occur without the collection-of-information requirements specified by the Standard. Therefore, the total cost of these paperwork requirements to the Federal government is:

$$\text{Cost: } 1,288 \text{ inspections} \times .08 \text{ hour} \times \$36.26 = \$3,736$$

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

Using data from OSHA's Preliminary Initial Flexibility Analysis (PIFA), OSHA reestimated the number of cranes and derricks. Table B, *Rational for Burden Hour Changes*, details the changes in the number of cranes as well as other changes in the ICRs.

As a result of combining five ICRs into one, the OMB inventory states the burden hours for the Crane and Derricks for Construction are 413,953 hours. OSHA will request a correction be made to reflect the 333,114 hours in the chart.

⁴OSHA estimated the number of inspections by calculating an overall inspection rate of 1.4% (0.014) for all employers under its jurisdiction, then applying this percentage to the number of establishments covered by these paperwork requirements. In determining the number of establishments, the Agency assumed a ratio of 1 crane or derrick per establishment. Accordingly, OSHA identified a total of 91,997 cranes and derricks, therefore, 1,288 inspections will be conducted.

Table B
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Table B

Rationale for Burden Hour Changes

	Existing Hours	Requested Hours	Number of Responses	Reason for Change in Burden Hours
A. General Requirements (§1926.550(a))				
§1926.550(a)(1) (OMB Control No. 1218-0115)	-	-	0	No change. Costs taken under Item 13.
§1926.550(a)(2) (OMB Control No. 1218-0115)	111	920	920	The number of cranes and derricks was reduced from 1,382 to 920. Also, the amount of time was increased from 5 minutes to 1 hour to better reflect time to obtain information when original information is missing.
§1926.550(a)(4) (OMB Control No. 1218-0115)	5,527	23,000	45,999	The number of units was decreased from 69,090 to 45,999. Time was increased from 5 minutes to 30 minutes to better reflect time to obtain and post information.
§1926.550(a)(6) (OMB Control No. 1218-0113)	227,031	6,210	1,380	OSHA maintains that it is usual and customary for employers of privately owned cranes and derricks to perform annual inspections and maintain inspection records. OSHA also reduced the number of cranes 60 tons and over from 1,382 to 920 and cranes less than 60 tons from 691 to 460.
§1926.550(a)(11) (OMB Control No. 1218-0054)	728	150	500	The existing package overstated the number of monitoring tests per project. The number of tests per project was changed from 50 to 10.
§1926.550(a)(15)(iv)	-	3,910	22,999	OSHA has determined this is a collection of information.
§1926.550(a)(16) (OMB Control No. 1218-0115)	2	11	22	Time was increased from 5 minutes to 30 minutes to better reflect time to obtain and post information.
B. Crawler, locomotive, and truck cranes (§1926.550(b))				
§1926.550(b)(2) (OMB Control No. 1218-0232)	99,486	66,240	11,040	The number of cranes as reduced from 16,581 to 11,040.
C. Overhead and gantry cranes (§1926.550(d))				
§1926.550(d)(1)	-	0	0	Burden taken under (a)(2).
D. Floating cranes and derricks				

	Existing Hours	Requested Hours	Number of Responses	Reason for Change in Burden Hours
(§1926.550(f))				
§1926.550(f)(1)(ii)	-	460	460	OSHA has determined this is a collection of information.
§1926.550(f)(1)(iii)	-	230	230	OSHA has determined this is a collection of information.
§1926.550(f)(2)(ii)	-	1,725	1,725	OSHA has determined this is a collection of information.
E. Cranes or derrick suspended personnel platforms (§1926.550(g))				
Platform specifications §1926.550(g)(4)(ii)(I) (OMB Control No. 1218-0151)	229	220	2,750	For consistency, 5 minutes is expressed as .08 hour.
TOTALS	333,114	103,076	88,025	

Changes in cost (Item 13)

§1926.550(a)(1) - There is an increase from \$259,675 to \$300,040 as a result of increasing the wage rate of the engineer from \$39.95 to \$46.16.

§1926.550(a)(16) – There is an increase from \$218,127 to \$252,034 as a result of increasing the wage rate of the engineer.

- 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 of information, completion of report, publication dates, and other actions.**

This collection of information will not have results that will be published for statistical use.

- 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.**

No forms are available for the Agency to display the expiration date.

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

The collection of information does not request any exemptions from the certification statement identified in Item 19 "Certification for Paperwork Reduction Act Submissions," OMB Form 83-I.

