

**SUPPORTING STATEMENT FOR THE  
INFORMATION COLLECTION REQUIREMENTS OF THE  
FORGING MACHINES STANDARD (29 CFR 1910.218)<sup>1</sup>  
OFFICE OF MANAGEMENT AND BUDGET (OMB)  
Control No. 1218-0228 (April 2024)**

The agency is seeking an extension of a currently approved data collection.

**A. 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).

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

Under the authority granted by the Act, the Occupational Safety and Health Administration (i.e., “OSHA” or “the agency”) published at 29 CFR 1910.218 a safety standard for general industry regulating the use of forging machines (i.e., “the Standard”). The paperwork provisions of the Standard specify requirements for developing and maintaining inspection records, and identifying manually operated valves and switches. Items 2 and 12 below describe in detail the specific information collection requirements of the 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 Standard specifies several paperwork requirements. The following sections describe who uses the information collected under each requirement, as well as how they use it. The purpose of these requirements is to reduce workers’ risk of death or serious injury by ensuring that forging machines used by them are in safe operating condition, and that they are able to clearly and properly identify manually operated valves and switches.

**§ 1910.218 (a)(2)(i) & (ii) – Inspection and Maintenance.**

Inspection of Forging Machines, Guards, and Point-of-Operation Protection Devices (paragraphs (a)(2)(i) and (a)(2)(ii)).

Paragraph (a)(2)(i) requires employers to establish periodic and regular maintenance safety checks, and to develop and maintain a certification record of each inspection. The certification record must include the date of inspection, the signature of the person who performed the inspection, and the serial number (or other identifier) of the forging machine inspected.

Paragraph (a)(2)(ii), employers are to schedule regular and frequent inspections of guards and point-of-operation protection devices, and prepare a certification record of each inspection that contains the date of the inspection, the signature of the person who performed the inspection, and the serial number (or other identifier) of the equipment inspected. These inspection certification records provide assurance to employers, workers, and OSHA compliance officers that forging machines, guards, and point-of-operation protection devices have been inspected, assuring that they will operate properly and safely, thereby, preventing impact injury and death to workers during forging operations.

**§ 1910.218 (c), (h)(3), (i)(1) & (2) – Presses.**

Identification of Manually Controlled Valves and Switches (paragraphs (c), (h)(3), (i)(1) and (i)(2)). These paragraphs require proper and clear identification of manually operated valves and switches on presses, upsetters, bolthead equipment, and rivet-making machines, respectively. Marking valves and switches provide information to workers to ensure that they operate the forging machines correctly and safely.

NOTE: The agency has determined that it is usual and customary for manufacturers to mark<sup>2</sup> (for example, “On” and “Off,” “Open” and Close,” etc.) all manually controlled valves and switches to meet the requirements of the American National Standards Institute’s (ANSI) standards. Therefore, OSHA is taking no burden hours or cost for these paperwork requirements.

Disclosure of Records. OSHA determined that employers disclosing information to OSHA during an inspection is outside the scope of the PRA because OSHA would only review records in the context of an open investigation of a particular employer to determine compliance with the Standard. See 5 CFR 1320.4(a)(2).

**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 automated, electronic, mechanical, or other technological information collection techniques, or other forms of information technology (e.g., electronic submission of responses) when establishing and maintaining the required records. The agency wrote the paperwork requirements of the Standard in performance-oriented language (i.e., in terms of what data to collect, not how to record the data).

**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 A.2 above.**

The requirements to collect and maintain information is specific to each employer and worker involved, and no other source or agency duplicates these requirements or can make the required information available to OSHA (i.e., the required information is available only from employers).

**5. If the collection of information impacts small businesses or other small entities, describe the methods used to minimize burden.**

The information collection requirements specified by 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 agency believes that the information collection frequencies required by the Standard are the minimum frequencies necessary to effectively regulate forging machines, and thereby fulfill its

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<sup>2</sup>The Paperwork Reduction Act regulations at 5 CFR 1320.3(b)(2) exempts “normal and customary” practices from the definition of “burden.”

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 required information collections, or delay in providing this information, workers may inadvertently operate forging machines incorrectly and unsafely, thus increasing their risk of death and serious injury.

**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 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 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 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 (PRA) (44 U.S.C. 3506(c)(2)(A)), OSHA published a notice in the Federal Register (89 FR 25902) on April 12, 2024 soliciting comments on its proposal to extend the Office of Management and Budget's (OMB) approval of the information collection requirements specified in the Forging Machines Standard (29 CFR 1910.218) under Docket No. OSHA-2011-0064. This notice is part of a preclearance consultation program that provided interested parties the opportunity to comment on OSHA's request for an extension by the Office of Management and Budget of a previous approval of the information collection requirement found in the above Standard. The agency will respond to any public comments received in response to this notice.

**9. Explain any decision to provide any payments or gifts to respondents, other than remuneration of contractors or grantees.**

The agency will not 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 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.**

The provision does not involve 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.**
- **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.**

### **Respondent Burden-Hour and Cost Burden Determinations**

Based on previous information from industry experts, OSHA estimated that there were approximately 27,700 forging machines. The agency has been unable to obtain updated data on the number of forging machines currently in use; thus, the agency will continue to use the estimate of 27,700 forging machines.

### **Wage Rates**

The agency determined the wage rate from mean hourly wage earnings to represent the cost of employee time. For the relevant standard occupational classification category, OSHA used the wage rates reported in the Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Employment and Wage Statistics (OEWS)*, May 2022 [date accessed: January 24, 2024].<sup>3</sup>

To derive at the loaded hourly wage rate, the agency used data from the Bureau of Labor Statistics' (BLS) *Occupational Employment and Wage Statistics (OEWS)*, as described in the paragraph above. Then, the agency applied to the wage rate a fringe benefit markup based on Table 2 of the following BLS release: *Employer Costs from Compensation* news release text; released 10:00 AM (EDT), March 18, 2021 ([https://www.bls.gov/news.release/archives/ecec\\_03182021.pdf](https://www.bls.gov/news.release/archives/ecec_03182021.pdf)). BLS reported that for private industry, fringe benefits accounted for 29.4 percent of total compensation and wages accounted for the remaining 70.6 percent.<sup>4</sup> To calculate the loaded hourly wage for the occupation, the agency divided the mean hourly wage rate by 1 minus the fringe benefits as shown in Table 1.

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<sup>3</sup> OEWS data is available at: [www.bls.gov/oes/current/oes\\_nat.htm#51.000](http://www.bls.gov/oes/current/oes_nat.htm#51.000). To access a wage rate, select the year "Occupational Profiles," and the Standard Occupational Classification (SOC) Code.

<sup>4</sup> BLS fringe benefit data from Table 2 is available at: [https://www.bls.gov/news.release/archives/ecec\\_03182021.pdf](https://www.bls.gov/news.release/archives/ecec_03182021.pdf).

| Table 1: WAGE HOUR ESTIMATES                                       |          |                           |                     |                                   |
|--|----------|---------------------------|---------------------|-----------------------------------|
| Occupational Title   | SOC Code | Mean Hourly Wage Rate (A) | Fringe Benefits (B) | Loaded Hourly Wage Rate (C)=(A/B) |
| Forging Machine Setters, Operators, and Tenders, Metal and Plastic | 51-4022  | \$22.57                   | .294                | \$31.97                           |

**§ 1910.218 – Inspection of Forging Machines, Guards, and Point-of-Operation Protection Devices (paragraphs (a)(2)(i) and (a)(2)(ii))**

OSHA believes that employers conduct an inspection of each forging machine and guard or point-of-operation protection device bi-weekly (i.e., 26 times a year). Accordingly, a manufacturing worker takes 8 minutes (8/60 hour) to inspect each machine, and to generate and maintain the inspection certification record for the machine, and another 8 minutes (8/60 hour) to perform the same tasks on each guard or point-of-operation protection device.<sup>5</sup> Therefore, the total annual burden hour and cost estimates for these paperwork requirements are:

**Burden hours:** (27,700 machines x 26 inspections) + (27,700 guards/devices x 26 inspections) = 1,440,400 inspections

1,440,400 inspections x 16/60 hours = 384,107 hours

**Cost:** 384,107 hours x \$31.97 = \$12,279,901

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<sup>5</sup>The agency assumes that each forging machine has one guard or point-of-operation protection device, and that employers combine these inspections.

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| <b>Table 2: Estimated Annualized Respondent Cost and Hour Burden</b>  |                           |  |                               |                                      |                           |                           |                          |
|---|---------------------------|--|-------------------------------|--------------------------------------|---------------------------|---------------------------|--------------------------|
| <b>Collection of Information</b>  | <b>No. of Respondents</b> | <b>No. of Responses per Respondent</b> | <b>Total No. of Responses</b> | <b>Burden per Response (In Hrs.)</b> | <b>Total Burden Hours</b> | <b>Loaded Hourly Wage</b> | <b>Total Burden Cost</b> |
| Inspection of Forging Machines, Guards, and Point-of-Operation Protection Devices (paragraphs (a)(2)(i) and (a)(2)(ii)) | 27,700                    | 52                                     | 1,440,400                     | 16/60                                | 384,107                   | \$31.97                   | \$12,279,901             |
| <b>GRAND TOTAL</b>  | --                        | --                                     | <b>1,440,400</b>              | --                                   | <b>384,107</b>            | --                        | <b>\$12,279,901</b>      |

**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 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.**

The cost determined under Item 12 accounts for the total annual cost burden to respondents or recordkeepers resulting from these collections of information requirements. Therefore, there is no cost to the respondent other than their time.

**14. Provide estimates of the 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 into a single table.**

There is no cost to the Federal Government.

**15. Explain the reasons for any program changes or adjustments.**

OSHA is requesting that the burden hours of 384,107 hours remain the same. There are no program changes or adjustments.

| <b>Table 3: Requested Burden Hour Adjustments</b>   |                             |                               |                    |                           |                            |                                   |
|---|-----------------------------|-------------------------------|--------------------|---------------------------|----------------------------|-----------------------------------|
| <b>Information Collection Requirement</b>   | <b>Current Burden Hours</b> | <b>Requested Burden Hours</b> | <b>Adjustments</b> | <b>Cost under Item 12</b> | <b>Number of Responses</b> | <b>Explanation of Adjustments</b> |
| (A) Inspection of Forging Machines, Guards, and Point-of-Operation Protection Devices (paragraphs (a)(2)(i) and (a)(2)(ii)) | 384,107                     | 384,107                       | 0                  | \$12,279,901              | 1,440,400                  | No Change.                        |
| <b>TOTALS</b>   | <b>384,107</b>              | <b>384,107</b>                | <b>0</b>           | <b>\$12,279,901</b>       | <b>1,440,400</b>           |                                   |

**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 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.**

OSHA lists current valid control numbers in §§1910.8, 1915.8, 1917.4, 1918.4, and 1926.5 and publishes the expiration date in the Federal Register notice announcing OMB approval of the information collection requirement. (See 5 CFR 1320.3(f)(3)). OSHA believes that this is the most appropriate and accurate mechanism to inform interested parties of these expiration dates.

**18. Explain each exception to the certification statement.**

OSHA is not seeking an exception to the certification statement.

**B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS**

The supporting statement does not contain any collection of information requirements that employ statistical methods.

**SEC. 2. Congressional Findings and Purpose**

(a) The Congress finds that personal injuries and illnesses arising out of work situations impose a substantial burden upon, and are a hindrance to, interstate commerce in terms of lost production, wage loss, medical expenses, and disability compensation payments.

(b) The Congress declares it to be its purpose and policy, through the exercise of its powers to regulate commerce among the several States and with foreign nations and to provide for the general welfare, 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 USC 651

(1) by encouraging employers and employees in their efforts to reduce the number of occupational safety and health hazards at their places of employment, and to stimulate employers and employees to institute new and to perfect existing programs for providing safe and healthful working conditions; (2) by providing that employers and employees have separate but dependent responsibilities and rights with respect to achieving safe and healthful working conditions;

(3) by authorizing the Secretary of Labor to set mandatory occupational safety and health standards applicable to businesses affecting interstate commerce, and by creating an Occupational Safety and Health Review Commission for carrying out adjudicatory functions under the Act;

(4) by building upon advances already made through employer and employee initiative for providing safe and healthful working conditions;

(5) by providing for research in the field of occupational safety and health, including the psychological factors involved, and by developing innovative methods, techniques, and approaches for dealing with occupational safety and health problems;

(6) by exploring ways to discover latent diseases, establishing causal connections between diseases and work in environmental conditions, and conducting other research relating to health problems, in recognition of the fact that occupational health standards present problems often different from those involved in occupational safety;

(7) by providing medical criteria which will assure insofar as practicable that no

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employee will suffer diminished health, functional capacity, or life expectancy as a result of his work experience;

(8) by providing for training programs to increase the number and competence of personnel engaged in the field of occupational safety and health; affecting the OSH Act since its passage in 1970 through January 1, 2004.

(9) by providing for the development and promulgation of occupational safety and health standards;

(10) by providing an effective enforcement program which shall include a prohibition against giving advance notice of any inspection and sanctions for any individual violating this prohibition;

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(11) by encouraging the States to assume the fullest responsibility for the administration and enforcement of their occupational safety and health laws by providing grants to the States to assist in identifying their needs and responsibilities in the area of occupational safety and health, to develop plans in accordance with the provisions of this Act, to improve the administration and enforcement of State occupational safety and health laws, and to conduct experimental and demonstration projects in connection therewith;

(12) by providing for appropriate reporting procedures with respect to occupational safety and health which procedures will help achieve the objectives of this Act and accurately describe the nature of the occupational safety and health problem;

(13) by encouraging joint labor-management efforts to reduce injuries and disease arising out of employment.

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| <b>6. Occupational Safety and Health Standards</b> |
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| 29 USC 655: |
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| (a) Without regard to chapter 5 of title 5, United States Code, or to the other subsections of this section, the Secretary shall, as soon as practicable during the period beginning with the effective date of this Act and ending two years after such date, by rule promulgate as an occupational safety or health standard any national consensus standard, and any established Federal standard, unless he determines that the promulgation of such a standard would not result in improved safety or health for specifically designated employees. In the event of conflict among any such standards, the Secretary shall promulgate the standard which assures the greatest protection of the safety or health of the affected employees. (b) The Secretary may by rule promulgate, modify, or revoke any occupational safety or health standard in the following manner: |
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(1) Whenever the Secretary, upon the basis of information submitted to him in writing by an interested person, a representative of any organization of employers or employees, a nationally recognized standards-producing organization, the Secretary of Health and Human Services, the National Institute for Occupational Safety and Health, or a State or political subdivision, or on the basis of information developed by the Secretary or otherwise available to him, determines that a rule should be promulgated in order to serve the objectives of this Act, the Secretary may request the recommendations of an advisory committee appointed under section 7 of this Act. The Secretary shall provide such an advisory committee with any proposals of his own or of the Secretary of Health and Human Services, together with all pertinent factual information developed by the Secretary or the Secretary of Health and Human Services, or otherwise available, including the results of research, demonstrations, and experiments. An advisory committee shall submit to the Secretary its recommendations regarding the rule to be promulgated within ninety days from the date of its appointment or within such longer or shorter period as may be prescribed by the Secretary, but in no event for a period which is longer than two hundred and seventy days. (2) The Secretary shall publish a proposed rule promulgating, modifying, or revoking an occupational safety or health standard in the Federal Register and shall afford interested persons a period of thirty days after publication to submit written data or comments. Where an advisory committee is appointed and the Secretary determines that a rule should be issued, he shall publish the proposed rule within sixty days after the submission of the advisory committee's recommendations or the expiration of the period prescribed by the Secretary for such submission. (3) On or before the last day of the period provided for the submission of written data or comments under paragraph (2), any interested person may file with the Secretary written objections to the proposed rule, stating the grounds therefore and requesting a public hearing on such objections. Within thirty days after the last day for filing such objections, the Secretary shall publish in the Federal Register a notice specifying the occupational safety or health standard to which objections have been filed and a hearing requested, and specifying a time and place for such hearing.

**SEC. 8. Inspections, Investigations, and Recordkeeping**

(a) In order to carry out the purposes of this Act, the Secretary, upon presenting appropriate credentials to the owner, operator, or agent in charge, is authorized --

29 USC 657

(1) to enter without delay and at reasonable times any factory, plant, establishment, construction site, or other area, workplace or environment where work is performed by an employee of an employer; and (2) to inspect and investigate during regular working hours and at other reasonable times, and within reasonable limits and in a reasonable manner, any such place of employment and all pertinent conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such employer, owner, operator, agent or employee.

(b) In making his inspections and investigations under this Act the Secretary may require the attendance and testimony of witnesses and the production of evidence under oath. Witnesses shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of a contumacy, failure, or refusal of any person to obey such an order, any district court of the United States or the United States courts of any territory or possession, within the jurisdiction of which such person is found, or resides or transacts business, upon the application by the Secretary, shall have jurisdiction to issue to such person an order requiring such person to appear to produce evidence if, as, and when so ordered, and to give testimony relating to the matter under investigation or in question, and any failure to obey such order of the court may be punished by said court as a contempt thereof. (c) (1) Each employer shall make, keep and preserve, and make available to the Secretary or the Secretary of Health and Human Services, such records regarding his activities relating to this Act as the Secretary, in cooperation with the Secretary of Health and Human Services, may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the causes and prevention of occupational accidents and illnesses. In order to carry out the provisions of this paragraph such regulations may include provisions requiring employers to conduct periodic inspections. The Secretary shall also issue regulations requiring that employers, through posting of notices or other appropriate means, keep their employees informed of their protections and obligations under this Act, including the provisions of applicable standards.

(2) The Secretary, in cooperation with the Secretary of Health and Human Services, shall prescribe regulations requiring employers to maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.

# The Electronic Code of Federal Regulations

Displaying title 29, up to date as of 4/12/2024. Title 29 was last amended 4/12/2024.

## § 1910.218 Forging machines.

### (a) *General requirements* —

- (1) *Use of lead.* The safety requirements of this subparagraph apply to lead casts or other use of lead in the forge shop or die shop.
  - (i) Thermostatic control of heating elements shall be provided to maintain proper melting temperature and prevent overheating.
  - (ii) Fixed or permanent lead pot installations shall be exhausted.
  - (iii) Portable units shall be used only in areas where good, general room ventilation is provided.
  - (iv) Personal protective equipment (gloves, goggles, aprons, and other items) shall be worn.
  - (v) A covered container shall be provided to store dross skimmings.
  - (vi) Equipment shall be kept clean, particularly from accumulations of yellow lead oxide.
- (2) *Inspection and maintenance.* It shall be the responsibility of the employer to maintain all forge shop equipment in a condition which will insure continued safe operation. This responsibility includes:
  - (i) Establishing periodic and regular maintenance safety checks and keeping certification records of these inspections which include the date of inspection, the signature of the person who performed the inspection and the serial number, or other identifier, for the forging machine which was inspected.
  - (ii) Scheduling and recording the inspection of guards and point of operation protection devices at frequent and regular intervals. Recording of inspections shall be in the form of a certification record which includes the date the inspection was performed, the signature of the person who performed the inspection and the serial number, or other identifier, of the equipment inspected.
  - (iii) Training personnel for the proper inspection and maintenance of forging machinery and equipment.
  - (iv) All overhead parts shall be fastened or protected in such a manner that they will not fly off or fall in event of failure.

(3) *Hammers and presses.*

- (i) All hammers shall be positioned or installed in such a manner that they remain on or are anchored to foundations sufficient to support them according to applicable engineering standards.
- (ii) All presses shall be installed in such a manner that they remain where they are positioned or they are anchored to foundations sufficient to support them according to applicable engineering standards.

Expand Table

Table O-11—Strength and Dimensions for Wood Ram Props

| Size of timber, inches <sup>1</sup> | Square inches in cross section | Minimum allowable crushing strength parallel to grain, p.s.i. <sup>2</sup> | Maximum static load within short column range <sup>3</sup> | Safety factor | Maximum recommended weight of forging hammer for timber used | Maximum allowable length of timber, inches |
|-------------------------------------|--------------------------------|--|--|---------------|--|--|
| 4 × 4                               | 16                             | 5,000  | 80,000   | 10            | 8,000  | 44   |
| 6 × 6                               | 36                             | 5,000  | 180,000  | 10            | 18,000   | 66   |
| 8 × 8                               | 64                             | 5,000  | 320,000  | 10            | 32,000   | 88   |
| 10 × 10                             | 100                            | 5,000  | 500,000  | 10            | 50,000   | 100  |
| 12 × 12                             | 144                            | 5,000  | 720,000  | 10            | 72,000   | 132  |

<sup>1</sup> Actual dimension.

<sup>2</sup> Adapted from U.S. Department of Agriculture Technical Bulletin 479. Hardwoods recommended are those whose ultimate crushing strengths in compression parallel to grain are 5,000 p.s.i. (pounds per square inch) or greater.

<sup>3</sup> Slenderness ratio formula for short columns is  $L/d = 11$ , where  $L$  = length of timber in inches and  $d$  = least dimension in inches; this ratio should not exceed 11.

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- (iii) Means shall be provided for disconnecting the power to the machine and for locking out or rendering cycling controls inoperable.
- (iv) The ram shall be blocked when dies are being changed or other work is being done on the hammer. Blocks or wedges shall be made of material the strength and construction of which should meet or exceed the specifications and dimensions shown in Table O-11.
- (v) Tongs shall be of sufficient length to clear the body of the worker in case of kickback, and shall not have sharp handle ends.
- (vi) Oil swabs, or scale removers, or other devices to remove scale shall be provided. These devices shall be long enough to enable a man to reach the full length of the die without placing his hand or arm between the dies.
- (vii) Material handling equipment shall be of adequate strength, size, and dimension to handle diesetting operations safely.
- (viii) A scale guard of substantial construction shall be provided at the back of every hammer, so arranged as to stop flying scale.
- (ix) A scale guard of substantial construction shall be provided at the back of every press, so arranged as to stop flying scale.
- (b) *Hammers, general* –
  - (1) *Keys.* Die keys and shims shall be made from a grade of material that will not unduly crack or splinter.
  - (2) *Foot operated devices.* All foot operated devices (i.e., treadles, pedals, bars, valves, and switches) shall be substantially and effectively protected from unintended operation.
- (c) *Presses.* All manually operated valves and switches shall be clearly identified and readily accessible.
- (d) *Power-driven hammers* –
  - (1) *Safety cylinder head.* Every steam or airhammer shall have a safety cylinder head to act as a cushion if the rod should break or pullout of the ram.
  - (2) *Shutoff valve.* Steam hammers shall be provided with a quick closing emergency valve in the admission pipeline at a convenient location. This valve shall be closed and locked in the off position while the hammer is being adjusted, repaired, or serviced, or when the dies are being changed.
  - (3) *Cylinder draining.* Steam hammers shall be provided with a means of cylinder draining, such as a self-draining arrangement or a quick-acting drain cock.
  - (4) *Pressure pipes.* Steam or air piping shall conform to the specifications of American National Standard ANSI B31.1.0-1967, Power Piping with Addenda issued before April



28, 1971, which is incorporated by reference as specified in [§ 1910.6](#).

(e) *Gravity hammers* –

(1) *Air-lift hammers.*

- (i) Air-lift hammers shall have a safety cylinder head as required in [paragraph \(d\)\(1\)](#) of this section.
- (ii) Air-lift hammers shall have an air shutoff valve as required in [paragraph \(d\)\(2\)](#) of this section.
- (iii) Air-lift hammers shall be provided with two drain cocks: one on main head cylinder, and one on clamp cylinder.
- (iv) Air piping shall conform to the specifications of the ANSI B31.1.0-1967, Power Piping with Addenda issued before April 28, 1971, which is incorporated by reference as specified in [§ 1910.6](#).

(2) *Board drop hammers.*

- (i) A suitable enclosure shall be provided to prevent damaged or detached boards from falling. The board enclosure shall be securely fastened to the hammer.
- (ii) All major assemblies and fittings which can loosen and fall shall be properly secured in place.

(f) *Forging presses* –

(1) *Mechanical forging presses.* When dies are being changed or maintenance is being performed on the press, the following shall be accomplished:

- (i) The power to the press shall be locked out.
- (ii) The flywheel shall be at rest.
- (iii) The ram shall be blocked with a material the strength of which shall meet or exceed the specifications or dimensions shown in Table O-11.

(2) *Hydraulic forging presses.* When dies are being changed or maintenance is being performed on the press, the following shall be accomplished:

- (i) The hydraulic pumps and power apparatus shall be locked out.
- (ii) The ram shall be blocked with a material the strength of which shall meet or exceed the specifications or dimensions shown in Table O-11.

(g) *Trimming presses* –

- (1) *Hot trimming presses.* The requirements of [paragraph \(f\)\(1\)](#) of this section shall also apply

to hot trimming presses.

- (2) *Cold trimming presses.* Cold trimming presses shall be safeguarded in accordance with [§ 1910.217\(c\)](#).

(h) *Upsetters* —

- (1) *General requirements.* All upsetters shall be installed so that they remain on their supporting foundations.
- (2) *Lockouts.* Upsetters shall be provided with a means for locking out the power at its entry point to the machine and rendering its cycling controls inoperable.
- (3) *Manually operated controls.* All manually operated valves and switches shall be clearly identified and readily accessible.
- (4) *Tongs.* Tongs shall be of sufficient length to clear the body of the worker in case of kickback, and shall not have sharp handle ends.
- (5) *Changing dies.* When dies are being changed, maintenance performed, or any work done on the machine, the power to the upsetter shall be locked out, and the flywheel shall be at rest.

(i) *Other forging equipment* —

- (1) *Boltheading.* The provisions of [paragraph \(h\)](#) of this section shall apply to boltheading.
- (2) *Rivet making.* The provisions of [paragraph \(h\)](#) of this section shall apply to rivet making.

(j) *Other forge facility equipment* —

- (1) *Billet shears.* A positive-type lockout device for disconnecting the power to the shear shall be provided.
- (2) *Saws.* Every saw shall be provided with a guard of not less than one-eighth inch sheet metal positioned to stop flying sparks.
- (3) *Conveyors.* Conveyor power transmission equipment shall be guarded in accordance with ANSI B20.1-1957, Safety Code for Conveyors, Cableways, and Related Equipment, which is incorporated by reference as specified in [§ 1910.6](#).
- (4) *Shot blast.* The cleaning chamber shall have doors or guards to protect operators.
- (5) *Grinding.* Personal protective equipment shall be used in grinding operations, and equipment shall be used and maintained in accordance with ANSI B7.1-1970, Safety Code for the Use, Care, and Protection of Abrasive Wheels, which is incorporated by reference as specified in [§ 1910.6](#), and with [§ 1910.215](#).

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