

**SUPPORTING STATEMENT FOR
THE STANDARD ON THE CONTROL OF HAZARDOUS ENERGY
(LOCKOUT/TAGOUT) (29 CFR 1910.147)¹
OFFICE OF MANAGEMENT AND BUDGET (OMB)
CONTROL NO. 1218-0150 (May 2011)**

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).

Under the authority granted by the Act, the Occupational Safety and Health Administration (i.e., “OSHA” or “the Agency”) published at 29 CFR 1910.147 a safety standard for general industry titled “Control of Hazardous Energy (Lockout/Tagout)” (i.e., “the LO/TO Standard” or “the Standard”). The Standard regulates control of hazardous-energy sources using lockout or tagout procedures while workers service, maintain, or repair machines or equipment when activation, start up, or release of energy from an energy source is possible. Items 2 and 12 below describe in detail the specific information collection requirements of the Standard.

¹ The purpose of this Supporting Statement is to analyze and describe burden hours and cost 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.

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 control the release of hazardous-energy sources while workers service, maintain, or repair machines or equipment when activation, start up, or release of energy from an energy source is possible; proper control of hazardous-energy sources prevent death or serious injury among these workers.

Energy-Control Procedure (paragraph (c)(4)(i)). With limited exception, employers must document the procedures used to isolate from its energy source and render inoperative, any machine or equipment prior to servicing, maintenance, or repair by workers. These procedures are necessary when activation, start up, or release of stored energy from the energy source is possible, and such release could cause injury to the workers.

Paragraph (c)(4)(ii) states that the required documentation must clearly and specifically outline the scope, purpose, authorization, rules, and techniques workers are to use to control hazardous energy, and the means to enforce compliance. The document must include at least the following elements:

- A) A specific statement regarding the use of the procedure;
- B) Detailed procedural steps for shutting down, isolating, blocking, and securing machines or equipment to control hazardous energy,
- C) Detailed procedural steps for placing, removing, and transferring lockout or tagout devices, including the responsibility for doing so; and,
- D) Requirements for testing a machine or equipment to determine and verify the effectiveness of lockout or tagout devices, as well as other energy-control measures.

The employer uses the information in this document as the basis for informing and training workers about the purpose and function of the energy-control procedures, and the safe application, use, and removal of energy controls. In addition, this information enables employers to effectively identify operations and processes in the workplace that require energy-control procedures.

Protective Materials and Hardware (paragraph (c)(5)(ii)(D) and paragraph (c)(5)(iii)).

Paragraph (C)(5)(ii)(D) requires that lockout and tagout devices indicate the identity of the employee applying it. Paragraph (c)(5)(iii) requires that tags warn against hazardous conditions if the machine or equipment is energized. In addition, the tag must include a legend such as one of the following: Do Not Start; Do Not Open; Do Not Close; Do Not Energize; Do Not Operate.

These provisions provide a safe work practice to authorized workers applying the lockout/tagout devices by giving the identity of the person applying it and warning against hazards that might exist.

Periodic Inspection (paragraph (c)(6)(ii)). Under paragraph (c)(6)(i), employers are to conduct inspections of energy-control procedures at least annually. An authorized worker other than an authorized worker using the energy-control procedure that is the subject of the inspection is to conduct the inspection and correct any deviations or inadequacies identified. For procedures involving either lockout or tagout, the inspection must include a review, between the inspector and each authorized worker, of that worker's responsibilities under the procedure; for procedures using tagout systems, the review also involves affected workers, and includes an assessment of the workers' knowledge of the training elements required for these systems. Paragraph (c)(6)(ii) requires employers to certify the inspection by documenting the date of the inspection and identifying the machine or equipment inspected, the workers included in the inspection, and the worker who performed the inspection.

Training and Communication (paragraph (c)(7)(iv)). Paragraph (c)(7)(i) specifies that employers must establish a training program that enables workers to understand the purpose and function of the energy-control procedures, and provides them with the knowledge and skills necessary for the safe application, use, and removal of energy controls. According to paragraph (c)(7)(i), employers are to ensure that: Authorized workers recognize the applicable hazardous-energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control; affected workers obtain instruction in the purpose and use of the energy-control procedure; and other workers who work, or may work, near operations using the energy-control procedure receive training about the procedure, as well as the prohibition regarding attempts to restart or reactivate machines or equipment having locks or tags to control energy release.

Under paragraph (c)(7)(ii), when the employer uses a tagout system, the training program must inform workers that: tags are warning labels affixed to energy-isolating devices, and therefore do not provide the physical restraint on those devices that locks do; they are not to remove tags attached to an energy-isolating device unless permitted to do so by the authorized worker responsible for the tag, and they are never to bypass, ignore, or in any manner defeat the tagout system; tags must be legible and understandable by authorized and affected workers, as well as other workers who work, or may work, near operations using the energy-control procedure; the materials used for tags, including the means of attaching them, must withstand the environmental conditions encountered in the workplace; tags may evoke a false sense of security, and workers must understand that tags are only part of the overall energy-control program; and they must attach tags securely to energy-isolating devices to prevent removal of the tags during use.

Paragraph (c)(7)(iii) states that employers must retrain authorized and affected workers when a change occurs in: Their job assignments, the machines, equipment, or processes such that a new hazard is present; and the energy-control procedures. Employers also must provide retraining when they have reason to believe, or periodic inspection required under paragraph (c)(6) indicates, that deviations and inadequacies exist in a worker's knowledge or use of energy-control procedures. The retraining must reestablish worker proficiency and, if necessary, introduce new or revised energy-control procedures.

Under paragraph (c)(7)(iv), employers are to certify that workers have completed the required training, and that this training is up-to-date. The certification is to contain each worker's name and the training date.

Training workers to recognize hazardous-energy sources and to understand the purpose and function of the energy-control procedures, and providing them with the knowledge and skills necessary to implement safe application, use, and removal of energy controls, enables them to prevent serious accidents by using appropriate control procedures in a safe manner to isolate these hazards. In addition, written certification of the training assures the employer that workers receive the training specified by the Standard.

Disclosure of Inspection and Training Certification Records (paragraphs (c)(6)(ii) and (c)(7)(iv)). The inspection records provide employers with assurance that workers can safely and effectively service, maintain, and repair machines and equipment covered by the Standard. These records also provide the most efficient means for an OSHA compliance officer to determine that an employer is complying with the Standard, and that the machines and equipment are safe for servicing, maintenance, and repair. The training records provide the most efficient means for an OSHA compliance officer to determine whether an employer has performed the required training.

Notification of Employees (paragraph (c)(9)). This provision requires the employer or authorized worker to notify affected workers prior to applying, and after removing, a lockout or tagout device from a machine or equipment. Such notification informs workers of the impending interruption of the normal production operation, and serves as a reminder of the restrictions imposed on them by the energy-control program. In addition, this requirement ensures that workers do not attempt to reactivate a machine or piece of equipment after an authorized worker isolates its energy source and renders it inoperative. Notifying workers after removing an energy-control device alerts them that the machines and equipment are no longer safe for servicing, maintenance, and repair.²

Offsite Personnel (Contractors, etc.) (paragraph (f)(2)(i)). When the onsite employer uses an offsite employer (e.g., a contractor) to perform the activities covered by the scope and application of the Standard, the two employers must inform each other regarding their respective lockout or tagout procedures. This provision ensures that each employer knows about the unique energy-control procedures used by the other employer; this knowledge prevents any misunderstanding regarding the implementation of lockout or tagout procedures, and the use of lockout or tagout devices for a particular application.

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 2 above.

²Paragraph (e)(2) requires similar notification; because of this similarity, the Agency is taking no burden hours or cost for this provision.

The requirements to collect and maintain information are 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. The Agency has published *OSHA Instruction, Directive Number CPL 02-00-147, The Control of Hazardous Energy – Enforcement Policy and Inspections Procedures, February 11, 2008*. Although this directive establishes OSHA’s enforcement policy for the standards addressing the control of hazardous energy, the Agency has made the directive available to the public to assist them in complying and understanding the requirements of the LO/TO Standard.

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

The Agency believes that the information collection frequencies required by the Standard are the minimum frequencies necessary to effectively regulate hazardous-energy sources, and thereby fulfill its mandate “to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources” as specified by the Act at 29 U.S.C. 651. Accordingly, when employers do not perform the required information collections, or delay in providing this information, workers may not use energy-control procedures effectively and safely, thereby increasing their probability of death and serious injury caused by uncontrolled release of hazardous energy.

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 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 before submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to those comments. Specifically address comments received on cost and hour burdens.

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 three years -- even if the collection of information activity is the same as in prior periods. There may be circumstances that mitigate against 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 February 15, 2011 (76 FR 8780, Docket No. OSHA-2011-0033) requesting public comment on its proposed extension of the information collection requirements contained in the Standard on the Control of Hazardous Energy (Lockout/Tagout) at 29 CFR 1910.147 ("LO/TO Standard" or "Standard"). 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.

In response to its notice to comment on this request, the Agency received one comment from Ms. Anne Price, HR Compliance Consultants. The commenter indicates that document collection under this standard is the foundation for saving lives. She also makes the following comments:

A. 1910.147 (c)(4)(i) and (ii)

- this exercise ensures the employer, or his qualified representative, pro-actively takes the time focus on equipment/machinery, thus laying the foundation for managing the Energy Control Procedure
- the time to perform this critical function depends on the number of and complexity of equipment/machinery, as well as, the knowledge of the individual(s) performing the task
- once performed and recorded it is a matter of using the information for life saving training, and more importantly, to have a document in hand that is the 1st of 6 required sequential steps for the authorized individual(s) to perform in the Control of Hazardous Energy
- most authorized individuals start with the 4th step (apply lock) and do not take the time to get into a mental thought process to safely control energy as they begin performing the work

B. 1910.147 (c)(6)(ii)

- the time for completion of a certification form can be reduced if the employer is organized and has a section on the audit form or a template ready for filling in the blanks
- there is no reason to consider this time consuming recordkeeping as part of the overall audit

C. 1901.147 (c)(7)(iv)

- certification of training is handled in a variety of ways (manually, electronically, etc); some can be more time consuming than others
- time spent on this function can be controlled by the employer

D. 1910.147(c)(9)

- if the Control of Hazardous Energy program is implemented properly this function to notify others is not necessary; machines and equipment will not be able to be energized and the appropriate locks/tags will be notification enough
- if properly trained affected employees will know not to try to reenergize equipment locked/tagged out

E. 1910.147 (f)(2)(i) and (ii)

- the amount of time spent on this critical function can be controlled by the employer
- if the contractor does not have a program that should be identified prior to the contracting agreement

OSHA Response

In Part A. of the comment, the commenter indicates that the time to perform functions under §1910.147(c)(4)(i) and (ii), provisions which require employers to document energy control procedures, depends on the number and complexity of equipment /machinery, and the knowledge of the individual(s) performing the task. In the ICR, the Agency estimates the time to perform this activity ranges from 2 to 80 hours annually to develop new procedures, and 30 minutes to 20 hours to update procedures. OSHA believes that these time ranges capture this variability, and the commenter did not disagree with these time estimates.

In addition, in Part A., the commenter indicates that once performed and recorded, it is a matter of using the information for life-saving training, and, more importantly, to have a document in hand that is the first of six required sequential steps for the authorized individual(s) to perform under the Standard. The commenter indicates that most authorized individuals start with the fourth step (applying the lock), and do not take the time to get into a mental thought process to safely control energy as they begin performing the work. It appears that the commenter is referring to the six steps required under §1910.147(d). OSHA notes that lockout and tagout (LO/TO) procedures are required to cover each of the six steps identified in paragraph (d) of the Standard, and must be done in sequence. Employers that skip steps are violating the standard and endangering workers.

Part B of the comment states that the time required for completion of the inspection certificate under §1910.147(c)(6)(ii) can be reduced if the employer is organized and has a section on the audit form or a template ready for filling in the blanks. Also in Part B, the commenter states that there is no reason to consider this recordkeeping as part of the overall audit. While it may be true that audit forms or templates would reduce the burden hours associated with the inspection certification, the Agency believes that the ICR includes an adequate estimate of the time it takes employers in the affected industries to: 1) conduct the annual inspection of an establishment's energy-control procedure, and 2) to prepare and maintain the inspection certificate. Therefore, in the ICR, OSHA assumes that a supervisor takes 20 minutes (.33 hour) to inspect an establishment's energy-control procedure once a year, and to prepare and maintain the inspection certificate. This time would include the activity necessary to organize the inspection and to obtain an audit form or a template.

With regard to Part C of the comment, the commenter indicates that 1) certification of training under §1910.147(c)(7)(iv) is handled in a variety of ways (manually, electronically, etc), some of which can be more time consuming than others, and 2) time spent on this function can be controlled by the employer. In the ICR, OSHA estimates that a secretary spends 3 minutes (.05 hour) preparing and maintaining the record for workers who are new or require retraining, and 1 minute (.02 hour) maintaining the already prepared record for the remaining workers. OSHA believes this estimate accounts for the various manners (manually, electronically, etc.) in which employers prepare and maintain training certificates in all affected industries.

In Part D. of the comment, the commenter states that if employers implement the LO/TO program properly, the function of notifying others under §1910.147(c)(9) is not necessary because machines and equipment will not be able to be energized and the appropriate locks/tags will provide sufficient notification. The commenter indicates that if properly trained, affected workers will know not to try to reenergize equipment that is locked/tagged out.

With regard to Part D of the comment, the Agency notes that, even if workers are properly trained, the standard requires the employer or authorized worker to notify affected workers prior to applying, and after removing, a lockout or tagout device from a machine or equipment. Such notification informs workers of the impending interruption of the normal production operation, and serves as a reminder of the restrictions imposed on them by the energy-control program. In addition, this requirement ensures that workers do not attempt to reactivate a machine or piece of equipment after an authorized worker isolates its energy source and renders it inoperative. Notifying workers after removing an energy-control device alerts them that the machines and equipment are no longer safe for servicing, maintenance, and repair. Notifying affected workers of the application of LO/TO provides the perfect opportunity for the employer or authorized worker to remind the affected workers, and reinforce the importance, of the restrictions imposed on them by the energy-control program. Notifying affected workers of the removal of LO/TO provides assurance that the affected workers will not mistakenly believe that a system is still deenergized and that it is safe to continue working on or around it.

Part E. of the comment indicates that the employer can control the amount of time spent on §1910.147(f)(2)(i) and (ii). Paragraph (f)(2) requires on-site and outside (contractor) employers to notify each other of their respective LO/TO procedures. In the ICR, OSHA estimates that notification of respective LO/TO procedures takes 5 minutes (.08 hour) for the on-site and outside contractor to meet and discuss these procedures. As both the on-site employer and outside contractor attend the 5-minute meeting, the Agency assumes a total of 10 minutes (.17 hour) for this requirement. While OSHA concurs that the amount of time needed to conduct notification under this provision can be controlled by the employer, the Agency believes that it adequately estimated the average time that it takes employers in the affected industries to conduct this type of notification. This estimate assumes that, in providing the requisite notification, employers control the time spent in performing the task and, therefore, perform the task efficiently.

Also in Part E., the commenter addresses the identification of LO/TO programs in contracting agreements. Although it may be beneficial to do so, the standard does not require identification of a LO/TO program prior to entering into a contractual agreement with an outside contractor. However, this does not obviate the need for the on-site employer and the contractor to meet the requirements of the standard. In this regard, on-site and outside employers often use different

LO/TO procedures, and it is important to worker safety to exchange this information, and for the respective employers to inform their workers of these differences to avoid having the actions of one group of workers endanger the other group of workers.

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

None of the provisions in the Standard require sensitive information.

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

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

Burden-Hour and Cost Determinations

For this Information Collection Request (ICR), OSHA used an industry-classification scheme from the Regulatory Impact Analysis (RIA) performed on the final Standard.³ This scheme classifies industries covered by the Standard into the following three groups: high-impact, low-impact, and zero- or negligible-impact. The high-impact group consists of all manufacturing industries (i.e., North American Industrial Classification System (NAICS) Codes 31-33 and others corresponding to 1987 SIC Codes 20-39), while the low-impact group includes industries in the following

³*Regulatory Impact and Regulatory Flexibility Analysis of 29 CFR 1910.147 (The Control of Hazardous Energy Sources—Lockout/Tagout)*, U.S. Department of Labor, OSHA, Office of Regulatory Analysis, August, 1989. The source of these data was a contract report titled, *Industry Profile Study of a Standard for Control of Hazardous Energy Sources Including Lockout/Tagout Procedures*, Eastern Research Group, May 1985.

sectors: transportation⁴, communications⁵, utilities (i.e., electrical-generation establishments, but not power-distribution establishments)⁶, wholesale-trade⁷, retail-food⁸, and several industries in the service sector (i.e., personal services, business services, automotive repair, miscellaneous repair, and amusement services.⁹ Included in the zero- or negligible-impact group are industries found to have little potential for an accident involving hazardous-energy release. These industries include retail trade, finance, insurance, real estate, service, and public-administration industries not classified as high- or low-impact groups.

In deriving establishment and employment figures for the three impact groups, the Agency updated the total number of establishments from the previous ICR using data from the 2008 County Business Patterns.¹⁰ The Agency applied percentages obtained from the RIA to these updated figures to estimate the number of high- and low-impact establishments having authorized workers, as well as the number of authorized and affected workers at these establishments (see Tables 1 and 2).

Regarding the time estimates for performing the wide variety of information collections required by the Standard, OSHA is using the estimates from the previous ICR. These estimates appear to be reasonable because the Agency based them on data from the RIA which was available for public review and comment when it was published in the final Standard. In addition, most of the establishments engaged in performing these information collections have many years of experiences in doing so; therefore, these times probably are upper-bound estimates.

In determining the wage rates for the various occupations that perform the paperwork requirements, OSHA used the most recent data from *Occupational Employment Statistics*, Bureau of Labor Statistics (BLS), U.S. Department of Labor (DOL), May 2009. The specific wage rate for each occupation, which includes a fringe-benefit rate of 33.3 percent of total compensation¹¹, is

⁴This sector is comprised of industries in the following NAICS codes: 481, 484, 485, 4861, 4869, 4871, 4879, 488, 492, 532411, 561510, 561520, 5621, 621910, and 713930.

⁵This sector is comprised of industries in NAICS code 517. Due to incongruence between SIC and NAICS codes, some industries in NAICS 485310 are included in both the transportation and communications sectors; these industries have been accounted for in the transportation sector and are excluded here to avoid double-counting of data.

⁶This sector is comprised of industries in the following NAICS codes: 221210, 221310, 221320, 221330, 486210, 562211, 562212, 562213, 562219, and 562920. Additionally, this sector excludes industries in NAICS codes 488119, 488490, 561710, 561790, 562910, and 562998; in translating between SIC and NAICS codes, small portions of these industries were included in the utilities sector. As only small portions of these industries are included, they are difficult to quantify and are excluded from this analysis.

⁷This sector is comprised of industries in the following NAICS codes: 423, 424, and 425.

⁸This sector is comprised of industries in the following NAICS codes: 311811, 4451, 4452, 446191, 447110, and 452910.

⁹This sector is comprised of industries in the following NAICS codes: 326212, 334611, 511199, 512110, 512240, 512290, 517919, 518210, 519110, 5321, 532220, 53229, 5323, 5324, 541213, 541340, 541350, 5414, 5415, 5418, 541921, 541922, 541930, 541990, 5613, 5614, 56159, 5616, 561710, 561720, 561740, 561790, 5619, 562991, 611511, 611620, 711, 713, 81111, 81112, 811198, 8112, 8113, 8114, 8121, 812210, 8123, 81292, 812990.

¹⁰2008 County Business Patterns, U.S. Census Bureau, 2010.

¹¹This fringe-benefit rate comes from the total benefits percentage for goods-producing industries from

provided as follows:

- Supervisory manufacturing worker (supervisor)¹²: \$39.75
- Non-supervisory manufacturing worker¹³: \$24.00
- Secretary¹⁴: \$22.38

The following sections summarize the methodology used to estimate the number of burden hours and the costs resulting from the information collection requirements of the Standard.

(A) Energy-Control Procedure (paragraph (c)(4)(i))

OSHA estimates that 28,142 high-impact establishments develop new procedures annually. The time to perform this activity ranges from 2 to 80 hours. In addition, 44,742 low-impact establishments will develop new procedures. The time for low-impact establishments to develop procedures is estimated at 2 hours. (See Table 3 for specific number of establishments in each size category for both high- and low-impact establishments; the burden hour for each size establishment; and details as to how OSHA arrived at the number of establishments.)

The Agency also estimates that, on a yearly basis, a supervisor takes from 30 minutes (.50 hour) to 20 hours to update procedures in the 281,429 high-impact establishments and 30 minutes to update procedures in the 447,416 low-impact establishments affected. (See Table 3 for specific number of establishments in each size category for both high- and low-impact establishments; the burden hour for each size establishment; and details as to how OSHA arrived at the number of establishments.)

Burden Hours: 28,142 high-impact establishments (new procedures) x range of 2 to 80 hours = **207,830 hours** (See Table 3 for specific number of establishments in each size category for both high- and low-impact establishments; the burden hour for each size establishment; and details as to how OSHA arrived at the number of establishments.)

44,742 low-impact establishments (new procedures) x 2 hours = **89,484 hours** (See Table 3 for specific number of establishments in each size category for both high- and low-impact establishments; the burden hour for each size establishment; and details as to how OSHA arrived at the

Employer Costs for Employee Compensation, June 2010, U.S. Department of Labor, Bureau of Labor Statistics, Table 6.

¹²This mean hourly wage rate corresponds to SOC code 51-1011 “First-Line Supervisors/Managers of Production and Operating Workers.” (Source: *May 2009 National Occupational Employment and Wage Estimates, United States*, U.S. Department of Labor, Bureau of Labor Statistics.)

¹³This mean hourly wage rate corresponds to SOC code 51-0000 “Production Occupations.” (Source: *May 2009 National Occupational Employment and Wage Estimates, United States*, U.S. Department of Labor, Bureau of Labor Statistics.)

¹⁴This mean hourly wage rate corresponds to SOC code 43-6014 “Secretaries, Except Legal, Medical, and Executive.” (Source: *May 2009 National Occupational Employment and Wage Estimates, United States*, U.S. Department of Labor, Bureau of Labor Statistics.)

number of establishments.)

281,429 high-impact establishments (updating) x range of 0.5 to 20 hours = **604,425 hours** (See Table 3 for specific number of establishments in each size category for both high- and low-impact establishments; the burden hour for each size establishment; and details as to how OSHA arrived at the number of establishments.)

447,416 low-impact establishments x 0.5 hour = **223,708 hours** (See Table 3 for specific number of establishments in each size category for both high- and low-impact establishments; the burden hour for each size establishment; and details as to how OSHA arrived at the number of establishments.)

Total Burden Hours for (A): 207,830 + 89,484 + 604,425 + 223,708 =
1,125,447

Cost: 1,125,447 burden hours x \$39.75 = **\$44,736,518**

(B) Periodic Inspection (Paragraph (c)(6)(ii))

OSHA assumes that a supervisor takes 20 minutes (.33 hour) to inspect an establishment's energy-control procedure once a year, and to prepare and maintain the inspection certificate. Therefore, the estimated total yearly burden hours and cost resulting from this paperwork requirement are:

Burden Hours: (326,216 high-impact establishments + 447,416 low-impact establishments) x .33 hour = **255,299 hours**

Cost: 255,299 burden hours x \$39.75 = **\$10,148,135**

(C) Training and Communication (Paragraph (c)(7))

The Agency estimates that 6.96 million workers (i.e., 6,960,677) covered by the Standard require training each year (i.e., the total number of authorized and affected workers in high- and low-impact establishments listed in Tables 1 and 2). However, OSHA is not accounting for the burden hours and cost of developing and administering the required training because these requirements are performance-based. Nevertheless, this provision specifies that employers must prepare, maintain and disclose training records. The Agency assumes that, each year, employers have to prepare and maintain training records for 23 percent (i.e., 1,600,956) of these workers (i.e., new workers and workers who require training), as well as maintain training records for the remaining 5,359,721 workers. In this regard, OSHA believes that a secretary spends 3 minutes (.05 hour) preparing and maintaining the record for the 23 percent of workers who are new or require retraining; and, another 1 minute (.02 hour) maintaining the already prepared record for the remaining workers (77 percent). Accordingly, the annual burden hour and cost estimates for the paperwork requirements associated with this training requirement are:

Burden Hours: (1,600,956 new/retrained workers x .05 hour) + (5,359,721 remaining workers x .02 hour) = **187,242 hours**

Cost: 187,242 burden hours x \$22.38 = **\$4,190,476**

(D) Notification of Employees (Paragraph (c)(9))

OSHA has determined that the average number of lockout or tagout events that occur annually vary by the size of the establishment and whether the establishment is in a high-impact or low-impact industry. OSHA estimates that there are approximately 104,211 authorized workers¹⁵ in very small, high-impact establishments who would have to notify affected workers of the application and removal of lockout/tagout devices (since this practice was not customary and normal in these facilities prior to the promulgation of the standard) (see Table 1). OSHA estimates that, on average, there are 75 maintenance or servicing operations conducted annually in each very small, high-impact establishment. For other high-impact establishments, it is estimated that there are approximately 335,626 authorized workers in establishments who would have to notify affected workers of the application and removal of lockout/tagout devices (see Table 1). It is estimated that, on average, there will be 150 such maintenance or services operations conducted annually in each of these establishments. Additionally, there are 790,523 authorized workers in low-impact establishments who would have to notify affected workers of the application and removal of lockout/tagout devices (see Table 2). These workers are estimated to perform, on average, 12 maintenance or servicing operations annually for each low-impact establishment.

OSHA estimates that a total of 67,646,001 lockout or tagout events occur annually where notification (not customarily performed) is needed. OSHA assumes that an authorized worker is a non-supervisory manufacturing worker who requires 15 seconds (.004 hour) to provide the required notification (i.e., 10 seconds for applying a lockout/tagout device, and five seconds for removing the device). Accordingly, the total annual burden hour and cost estimates for this notification are:

High-impact, very small establishments:

104,211 authorized workers x 75 operations/year = 7,815,825 events/year

High-impact, other than very small establishments:

335,626 authorized workers x 150 operations/year = 50,343,900 events/year

Low-impact establishments:

790,523 authorized workers x 12 operations/year = 9,486,276 events/year

Burden Hours: 67,646,001 notifications x .004 hour = **270,584 hours**

Cost: 270,584 burden hours x \$24.00 = **\$6,494,016**

(E) Outside Personnel (Contractors, etc.) (Paragraph (f)(2)(i))

Paragraph (f)(2)(i) requires onsite and outside (contractor) employers to notify each other of their respective LO/TO procedures. Notification of respective LO/TO procedures takes 5 minutes (.08 hour) for the onsite and outside contractor to meet and discuss respective LO/TO procedures. As both the onsite employer and outside contractor attend the five-minute meeting, the Agency assumes a total of 10 minutes (.17 hour) for this requirement.

¹⁵To calculate burden hours and cost, OSHA assumes that every authorized worker will notify the affected workers. The Standard requires only that one of the authorized workers (or an employer representative) notify the affected workers. Thus, OSHA likely overestimates the burden hours and cost associated with this requirement.

A supervisor/manager, at a wage rate of \$39.75 per hour will perform the notifications. Further, OSHA believes that contractors are involved in 10 percent of all lockout/tagout events. As determined above, there are **67,646,001** lockout/tagout events annually that require workers to be notified (**67,646,001** x 10% = 6,764,600 notifications)

Burden Hours: 6,764,600 LO/TO notifications x .17 hour = **1,149,982 hours**
Cost: **1,149,982** hours x \$39.75 = **\$45,711,785**

(F) Disclosure of Inspection and Training Certification Records (Paragraphs (c)(6)(ii) and (c)(7))

OSHA believes that approximately 10,831 establishments covered by the Standard¹⁶ will be subject to an OSHA inspection and required to disclose inspection and training certification records annually. OSHA estimates that it will take a supervisor 5 minutes (.08 hour) to gather and disclose the requested information.

Burden Hours: 10,831 inspections x .08 hour = **867 hours**
Cost: **867** burden hours x \$39.75 = **\$34,463**

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 on capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collections services should be 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.**

Paragraph (c)(5)(ii)(D) requires that each lock and tag indicate the identity of the authorized worker applying it. Paragraph (c)(5)(iii) requires that tags warn against hazardous conditions that could arise if the machine, equipment, or system is energized. In addition, the tag must include a legend such as one of the following: Do Not Start; Do Not Open; Do Not Close; Do Not Energize; Do Not Operate.

¹⁶ OSHA estimated the number of inspections by multiplying OSHA's inspection rate (1.4%) by the number of establishments covered by this ICR (i.e., 773,632 establishments x 1.4% = 10,831 inspections).

OSHA estimates that a total of 67,646,001 lockout or tagout events occur annually where notification is needed. The Agency is estimating the cost of a tag is \$1.00 at an average use of 7 times per tag. The cost for each tag and tie is 0.17 cents. Therefore, OSHA estimates that employers will incur a cost for tags of \$1,642,831.

Cost: 67,646,001 (notifications)/ 7 (average use of tag) x .17 cents = **\$1,642,831**

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), 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.

OSHA estimates that a compliance officer (GS-12, step 5), with an hourly wage rate of \$37.37¹⁷, spends about 30 minutes (.50 hour) during an inspection reviewing the documents required by the Standard. The Agency determines that its compliance officers will inspect about 10,831 employers (see footnote 14) who have lockout/tagout programs regulated by the Standard during each year covered by this ICR. OSHA considers other expenses, such as equipment, overhead, and support staff salaries, to be normal operating expenses that would occur without the paperwork requirements specified by the Standard. Therefore, the total cost of these paperwork requirements to the Federal government is:

Cost: 10,831 inspections x .50 hour x \$37.37 = \$202,377

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

OSHA is requesting a net adjustment decrease of 24,182 burden hours (from 3,013,603 hours to 2,989,421 hours). This decrease is a result of updated data showing a decrease in the number of affected high impact establishments.

In addition, OSHA has recently determined that there is an adjustment increase of \$1,642,831 associated with the purchase of tags and ties by employers.

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 appropriate.

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

18. Explain each exception to the certification statement.

OSHA is not seeking an exception to the certification statement.

¹⁷ Source: U.S. Office of Personnel Management, *General Schedule and Locality Tables, Salary Table 2010-RUS*, http://www.opm.gov/oca/10tables/pdf/rus_h.pdf.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

This Supporting Statement does not contain any collection of information requirements that employ statistical methods.

Table 1: Establishments and Employment in Manufacturing High-Impact Industries

| | | | | | Number of Authorized Workers | | | Number of Additional Workers Covered | | |
|---------------|-----------------|--------------------------------|---|-------------------------|------------------------------|--|---|--------------------------------------|--|---|
| Size Category | Employment Size | Total Number of Establishments | Number of Establishments Employing Authorized Workers | Total Number of Workers | Total | In Establishments with Compliant Lockout/Tagout Programs When Standard Published | In Establishments without Lockout/Tagout Programs When Standard Published | Total | In Establishments with Compliant Lockout/Tagout Programs When Standard Published | In Establishments without Lockout/Tagout Programs When Standard Published |
| Very Small | <20 | 224,476 | 224,476 | 1,302,635 | 130,264 | 26,053 | 104,211 | 130,264 | 26,053 | 104,211 |
| Small | 20-99 | 73,747 | 73,747 | 3,240,679 | 324,068 | 145,831 | 178,237 | 648,136 | 291,661 | 356,475 |
| Medium | 100-249 | 18,694 | 18,694 | 2,874,397 | 287,440 | 186,836 | 100,604 | 574,879 | 373,671 | 201,208 |
| Large | 250+ | 9,299 | 9,299 | 5,678,448 | 567,845 | 511,060 | 56,785 | 1,135,690 | 1,022,121 | 113,569 |
| Total | | 326,216 | 326,216 | 13,096,159 | 1,309,617 | 869,780 | 439,837 | 2,488,968 | 1,713,506 | 775,463 |

Source: 2008 County Business Patterns Survey. U.S. Census Bureau, 2010.

Table 2: Establishments and Employment in Low-Impact Industries

| | | | | Number of Authorized Workers | | | Number of Additional Workers Covered | | |
|-----------------|--------------------------------|---|-------------------------|------------------------------|--|---|--------------------------------------|--|---|
| Industry | Total Number of Establishments | Number of Establishments Employing Authorized Workers | Total Number of Workers | Total | In Establishments with Compliant Lockout / Tagout Programs When Standard Published | In Establishments without Lockout / Tagout Programs When Standard Published | Total | In Establishments with Compliant Lockout / Tagout Programs When Standard Published | In Establishments without Lockout / Tagout Programs When Standard Published |
| Transportation | 235,797 | 235,797 | 4,159,603 | 212,218 | 106,109 | 106,109 | 212,218 | 106,109 | 106,109 |
| Communications | 53,722 | 53,722 | 1,200,479 | 655,408 | 327,704 | 327,704 | 655,408 | 327,704 | 327,704 |
| Utilities | 12,625 | 12,625 | 219,207 | 61,862 | 30,931 | 30,931 | 61,862 | 30,931 | 30,931 |
| Wholesale Trade | 429,463 | 37,363 | 6,165,204 | 205,498 | 102,749 | 102,749 | 205,498 | 102,749 | 102,749 |
| Food Stores | 227,589 | 15,248 | 4,915,398 | 19,824 | 9,912 | 9,912 | 19,824 | 9,912 | 9,912 |
| Services | 1,077,444 | 92,660 | 16,191,219 | 426,236 | 213,118 | 213,118 | 426,236 | 213,118 | 213,118 |
| Total | 2,036,640 | 447,416 ¹⁸ | 32,851,110 | 1,581,046 | 790,523 | 790,523 | 1,581,046 | 790,523 | 790,523 |

Source: 2008 County Business Patterns Survey. U.S. Census Bureau, 2010.

¹⁸ As a result of viewing whole numbers in spreadsheets, small differences in totals may occur.

Table 3: Written Procedures Assuming Half of the Original "Percent of Establishments in Compliance When the Rule is Published"

| Establishment Calculations -- High Impact Establishments | | | | | | | | | |
|--|--------------------------|---|--|--|---|---|--|----------------------|---------------------------------------|
| Establishment Size | Number of Establishments | Percent of Establishments in Compliance when Rule Published | Existing Establishments Lacking LOTO Program | Existing Establishments with LOTO Procedures when Rule Published | Percent of Establishments with Procedures but without Written Plans | Existing Establishments with Procedures but without Written Plans | Total Existing Establishments Requiring Revision | Annual Firm Turnover | New Establishments Requiring Revision |
| Very Small | 224,476 | 10% | 202,028 | 22,448 | 10% | 2,245 | 204,273 | 10% | 20,427 |
| Small | 73,747 | 23% | 56,785 | 16,962 | 10% | 1,696 | 58,481 | 10% | 5,848 |
| Medium | 18,694 | 33% | 12,525 | 6,169 | 10% | 617 | 13,142 | 10% | 1,314 |
| Large | 9,299 | 45% | 5,114 | 4,185 | 10% | 419 | 5,533 | 10% | 553 |
| Total | 326,216 | | 276,452 | 49,764 | | 4,977 | 281,429 | | 28,142 |

| Calculation of Hours for New Establishments (No Existing Program) -- High-Impact Establishments | | | |
|---|--------------------------|------------------|------------------------|
| Establishment Size | Number of Establishments | First Year Hours | Total Hours First Year |
| Very Small | 20,427 | 2 | 40,854 |
| Small | 5,848 | 12 | 70,176 |
| Medium | 1,314 | 40 | 52,560 |
| Large | 553 | 80 | 44,240 |
| Total | 28,142 | | 207,830 |

| Calculation of Hours for Recurring Burden in Existing Establishments -- High-Impact Establishments | | | | |
|--|--------------------------|-------|------------------------------|-------------------------|
| Establishment Size | Number of Establishments | Hours | Existing Establishment Hours | Total Hours High Impact |
| Very Small | 204,273 | 0.5 | 102,137 | 142,991 |
| Small | 58,481 | 4 | 233,924 | 304,100 |
| Medium | 13,142 | 12 | 157,704 | 210,264 |
| Large | 5,533 | 20 | 110,660 | 154,900 |
| Total | 281,429 | | 604,425 | 812,255 |

Calculation of Hours for New Establishments (No Existing Program) -- Low-Impact Establishments

| | Number of Establishments | First Year Hours | Total Hours First Year |
|-----------------|--------------------------|------------------|------------------------|
| Transportation | 23,580 | 2 | 47,160 |
| Communications | 5,372 | 2 | 10,744 |
| Utilities | 1,263 | 2 | 2,526 |
| Wholesale Trade | 3,736 | 2 | 7,472 |
| Food Stores | 1,525 | 2 | 3,050 |
| Services | 9,266 | 2 | 18,532 |
| Total | 44,742 | | 89,484 |

Calculation of Hours for Recurring Burden in Existing Establishments -- Low-Impact Establishments

| | Number of Establishments | Hours | Existing Establishment Hours | Total Hours Low Impact |
|----------------------------|--------------------------|-------|------------------------------|------------------------|
| Transportation | 235,797 | 0.5 | 117,899 | 165,058 |
| Communications | 53,722 | 0.5 | 26,861 | 37,605 |
| Utilities | 12,625 | 0.5 | 6,313 | 8,838 |
| Wholesale Trade | 37,363 | 0.5 | 18,682 | 26,154 |
| Food Stores | 15,248 | 0.5 | 7,624 | 10,674 |
| Services | 92,660 | 0.5 | 46,330 | 64,862 |
| Total ¹⁹ | 447,416 | | 223,708 | 313,191 |

| Grand Totals | |
|----------------------------|------------------|
| | Total Hours |
| High-Impact Establishments | 812,255 |
| Low-Impact Establishments | 313,191 |
| Grand Total Hours: | 1,125,446 |

¹⁹ As a result of viewing whole numbers in spreadsheets, small differences in totals may occur.

Table 4: Requested Burden-Hour Adjustments

| Information Collection Requirement | Current Burden Hours | Requested Burden Hours | Adjustment to Hours | Cost Under Item 12 | Responses | Explanation of Adjustment |
|---|-----------------------------|-------------------------------|----------------------------|---------------------------|------------------|---|
| (A) Energy-Control Procedure (paragraph (c)(4)(i)) | | | | | | |
| High-impact establishments developing new procedures | 214,847 | 207,830 | -7,017 | \$8,261,243 | 28,142 | The estimated number of high-impact establishments developing new procedures decreased from 28,750 to 28,142 based on new data derived from the 2008 County Business Patterns. |
| Low-impact establishments developing new procedures | 87,258 | 89,484 | 2,226 | \$3,556,989 | 44,742 | The estimated number of low-impact establishments developing new procedures increased slightly from 43,629 to 44,742 based on new data derived from the 2008 County Business Patterns. |
| High-impact establishments updating procedures | 624,267 | 604,425 | -19,842 | \$24,025,893 | 281,429 | The estimated number of high-impact establishments updating existing procedures decreased from 287,497 to 281,429 based on new data derived from the 2008 County Business Patterns. |
| Low-impact establishments updating procedures | 218,144 | 223,708 | 5,564 | \$8,892,393 | 447,416 | The estimated number of low-impact establishments updating existing procedures increased slightly from 436,289 to 447,416 based on new data derived from the 2008 County Business Patterns. |

| Information Collection Requirement | Current Burden Hours | Requested Burden Hours | Adjustment to Hours | Cost Under Item 12 | Responses | Explanation of Adjustment |
|---|-----------------------------|-------------------------------|----------------------------|---------------------------|-------------------|--|
| (B) Periodic Inspection (paragraph (c)(6)(ii)) | 254,017 | 255,299 | 1,282 | \$10,148,135 | 773,632 | The estimated number of high-impact establishments being inspected annually decreased from 333,460 to 326,216 while the number of low-impact establishments being inspected annually rose slightly from 436,288 to 447,416 based on new data derived from the 2008 County Business Patterns. |
| (C) Training and Communication (paragraph (c)(7)) | 180,768 | 187,242 | 6,474 | \$4,190,476 | 6,960,677 | Based on new data, the number of workers covered by the Standard who require training annually increased from 6.72 million to 6.96 million. |
| (D) Notification of Workers (paragraph (c)(9)) | 273,036 | 270,584 | -2,452 | \$6,494,016 | 67,646,001 | There was a decrease in the number of worker notifications from 68,259,081 to 67,646,001. |
| (E) Offsite Personnel (Contractors, etc.) (paragraph (f)(2)(i)) | 1,160,404 | 1,149,982 | -10,422 | \$45,711,785 | 6,764,600 | Lockout/Tagout notifications decreased from 6,825,081 to 6,764,600. |
| (F) Disclosure of Inspection and Training Certification Records (under paragraphs (c)(6)(ii) and (c)(7)) | 862 | 867 | 5 | \$34,463 | 10,831 | Because the number of establishments increased from 769,748 to 773,632, there is an increased number of estimated inspections and disclosures by employers. |
| TOTALS | 3,013,603 | 2,989,421 | -24,182 | \$111,315,393 | 82,957,470 | |