

U.S. Department of Labor

Office of Inspector General—Office of Audit

**REPORT TO THE OCCUPATIONAL
SAFETY AND HEALTH
ADMINISTRATION**



COVID-19: OSHA NEEDS TO DO MORE TO ADDRESS HIGH INJURY RATES OF WAREHOUSE WORKERS

**DATE ISSUED: SEPTEMBER 27, 2023
REPORT NUMBER: 19-23-013-10-105**



BRIEFLY...

COVID-19: OSHA NEEDS TO DO MORE TO ADDRESS HIGH INJURY RATES OF WAREHOUSE WORKERS

September 27, 2023

WHY OIG CONDUCTED THE AUDIT

OSHA's mission is to ensure safe and healthful working conditions for workers nationwide, including the about 1.6 million at the nation's nearly 20,000 warehouses. Warehouse workers face hazards that can result in serious injury due to powered industrial trucks, loaded pallets, and the repetitive movements involved. These dangers can be compounded when time-based delivery quotas are used to drive production goals.

With high-speed fulfillment of online orders becoming the industry standard, some warehouse workers must work even faster. Consistently high rates of injury and illness before and during the COVID-19 pandemic indicated that warehouses were and continued to be dangerous places to work.

WHAT OIG DID

We conducted this performance audit to determine:

To what extent has OSHA addressed high injury and illness rates at warehouses (before and during the COVID-19 pandemic)?

To answer this question, for October 1, 2016, through December 31, 2021, we analyzed relevant data, interviewed OSHA officials, and reviewed guidance and regulatory standards.

WHAT OIG FOUND

We found OSHA's actions had not effectively addressed the high injury and illness rates occurring in warehouses. Injury and illness rates among establishments classified as warehouses have been consistently high: in 2021, the rate was 5.5 per 100 employees, more than double the rate across all industries.

Despite consistently high injury and illness rates at 5.1 percent over the audit period, OSHA conducted a limited number of warehouse inspections: a total of 3,762, which amounts to an annual average of 4.1 percent of the establishments self-classifying as warehouses. Also, 82 percent of these inspections were unprogrammed, primarily driven by complaints and referrals.

OSHA also did not target nor inspect enough warehouses through its site-specific targeting programs, designed to reach establishments with high rates of injuries and illnesses. The number of establishments targeted versus inspected indicate workers remain vulnerable to high rates of injury and illness.

Further, OSHA had limited visibility into the numbers and types of injuries and illnesses occurring in warehouses, including those classified as online retailers. This occurred because OSHA collected minimal injury data from employers and did not effectively enforce mandatory employer reporting, leaving warehouse workers at risk to hazards that can result in serious injury and illness.

WHAT OIG RECOMMENDED

We made seven recommendations to OSHA to improve its efforts to ensure warehouse workers' safety and health. OSHA provided comments but did not directly address the recommendations.

READ THE FULL REPORT

<https://www.oig.dol.gov/public/reports/oa/2023/19-23-013-10-105.pdf>

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INSPECTOR GENERAL'S REPORT

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This report presents the results of the U.S. Department of Labor's (DOL) Office of Inspector General's (OIG) audit of the Occupational Safety and Health Administration's (OSHA) actions to address high injury and illness rates at warehouses.

OSHA's mission is to ensure safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance—including for the about 1.6 million workers at the nation's roughly 20,000 warehouses. In 2021, 19,709 establishments classified themselves¹ as warehouses; however, 38,785 additional establishments classified themselves as electronic shopping and mail-order houses (collectively referred to herein as "online retailers"), some of which also operate warehouses. These online retailers employed 447,059 workers in 2021.

Warehouse workers face hazards that can result in serious injury due to powered industrial trucks, loaded pallets, and the repetitive movements involved. These dangers can be compounded when time-based delivery quotas are used to drive

¹ The North American Industry Classification System is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. Notably, establishments self-report their classifications. The Warehousing and Storage classification is made up of establishments primarily engaged in operating warehousing and storage facilities for general merchandise, refrigerated goods, and other warehouse products. These establishments provide facilities to store goods. They do not sell the goods they handle.

production goals. During the first year of the COVID-19 pandemic, the U.S. Census Bureau reported a 43 percent increase in e-commerce sales, with sales rising from \$571.2 billion in 2019 to \$815.4 billion in 2020.

With this surge, high-speed fulfillment of online orders has become the industry standard, with large online retailers promising free 2-day, next-day, and even same-day deliveries. Various media outlets have reported² that, to accomplish such fast deliveries, warehouse workers must work even faster, with some under increased pressure to meet production quotas. Additionally, in 2021, the DOL's Bureau of Labor Statistics' (BLS) industry ranking of injury and illness per 100 workers ranked warehouses 10th out of 92 industries.³ In 2021, the rate of injuries and illnesses in warehousing was 5.5 incidences per 100 workers, more than double the national rate of 2.7 workers across all industries.

Given the high rate of injury and illness in warehouses, we conducted this performance audit to determine:

To what extent has OSHA addressed high injury and illness rates at warehouses (before and during the COVID-19 pandemic)?

To answer this question, we interviewed OSHA national and regional office officials; reviewed OSHA guidance and applicable regulatory standards; and analyzed injury, illness, complaint, and inspection data from the OSHA Information System, OSHA Injury Tracking Application, U.S. Census Bureau, and BLS. Our audit scope was October 1, 2016, through December 31, 2021.

² For examples, see: (1) Seattle Times, "Amazon drivers injured far more often than the company's warehouse workers; see the charts," June 1, 2021, last accessed June 01, 2021 <https://www.seattletimes.com/business/amazon/amazon-delivery-drivers-are-injured-more-often-than-the-companys-warehouse-workers/>; and (2) Strategic Organizing Center, "Primed for Pain: Amazon's Epidemic of Workplace Injuries," May 2021, last accessed June 01, 2021, <https://thesoc.org/amazon-primed-for-pain/>.

³ The Survey of Occupational Injuries and Illnesses is a federal-state cooperative program that publishes estimates from approximately 200,000 employers on nonfatal occupational injuries and illnesses. The survey data is organized by North American Industry Classification System codes and can be sorted by sector or sub-sector. We obtained BLS nonfatal injury/illness rates for the entire North American Industry Classification System universe for the audit period. For each year, we then filtered the data to isolate the sub-sector (3-digit code or 4-digit code) data and sorted the codes by the Incidence Rate, thus ranking the sectors in order of incident prevalence. The full data is available at: <https://www.bls.gov/web/osh/table-1-industry-rates-national.htm>. Last accessed, December 07, 2021

RESULTS

We found OSHA's actions had not effectively addressed the high injury and illness rates occurring in warehouses. Despite consistently high injury and illness rates, OSHA conducted a limited number of warehouse inspections during the more than 5-year audit period: a total of 3,762 warehouse inspections and 196 inspections of online retailers. Average inspections on an annual basis over the scope covered approximately 4.1 percent (or 752 inspections) of the nation's average 18,493 known warehouses and 0.1 percent (or 39 inspections) of the nation's average 31,509 online retailers. Further, 82 percent of the total 3,958 inspections were unprogrammed, primarily driven by complaints and referrals.⁴

Regarding online retailers, OSHA was unable to determine how many of these establishments were warehouses. Additionally, these establishments were in an industry that was not required to submit injury and illness data unless the establishment had 250 or more employees at any time during the prior year. However, the reporting non-compliance rate in this industry for those that were required to report was 46 percent, limiting OSHA's view of injuries and potentially impacting the effectiveness of OSHA's enforcement program.

OSHA also did not target nor inspect enough warehouses through its site-specific targeting (SST) programs, which were specifically designed to reach establishments with high rates of injury and illness. OSHA had limited controls in place to ensure an adequate number of targeted SST inspections occurred and did not timely monitor program activity to determine how many of the proposed inspections actually occurred until after the programs ended. The number of establishments targeted versus establishments inspected indicate the programs resulted in very few inspections of the targeted establishments, meaning workers remain vulnerable to high rates of injury and illness.

Further, OSHA had limited visibility into the number and type of injuries occurring in warehouses, including those classified as online retailers. This occurred because OSHA collected minimal injury data from employers and did not effectively enforce employer compliance of mandatory reporting for workplace injury and illness data. Further, OSHA had not completed the necessary analysis of the data available to determine if and how it will address the high rates of injury and illness in warehouses.

⁴ See Exhibit 1, Table 4, for a detailed breakdown of programmed and unprogrammed inspections by North American Industry Classification System code and state plan versus federal plan.

As a result of these issues, warehouse workers were at increased risk. The consistently high rates of injuries and illnesses before and during the COVID-19 pandemic indicated that warehouse workers were facing and continued to face hazards that can result in serious injuries and illnesses.

OSHA CONDUCTED A LIMITED NUMBER OF WAREHOUSE INSPECTIONS WHILE INJURY AND ILLNESS RATES REMAINED HIGH

Despite consistently high injury and illness rates, OSHA conducted only a limited number of warehouse inspections during the more than 5-year audit period. Based on our review of OSHA's Information System inspection data, we found OSHA conducted a total of 3,762 inspections of establishments classified as warehouses, which covered an annual average of 4.1 percent of the universe of warehouses. These inspections were, on average, 1.06 percent of OSHA's total inspection activity (see Table 1). While warehouses and online retailers were about 1 percent of the nation's worksites in 2021, they had twice the national average in workplace injury and illness rates.

Table 1: Percent of OSHA Inspection Activity Devoted to Warehouses, 2017–2021 and Average (AVG)

ALL INDUSTRIES		WAREHOUSES				
Year/ AVG	Universe of Inspections*	Injury and Illness Rates **	Universe **	Inspections *	Percent Inspected	Percent of Inspections Devoted to Warehouses
2017	81,925	5.1	17,268	767	4.4	0.94
2018	78,422	5.1	18,005	835	4.6	1.06
2019	80,686	4.8	18,481	848	4.6	1.05
2020	57,557	4.8	19,002	624	3.3	1.08
2021	58,882	5.5	19,709	688	3.5	1.17
AVG	71,494	5.1	18,493	752	4.1	1.06

*Fiscal Year **Calendar Year

Please see Exhibit 1, Table 4, for a breakdown of federal and state inspection totals.

Source: BLS and OSHA Information System data

Although online retailers maintained a low rate of injury and illness compared to the national average in all industries, 46 percent of establishments in this industry

did not comply with injury and illness reporting. Further, a review of injury and illness data for this industry found establishments such as HD Supply and Facilities, owned by Home Depot, with 9 locations and 2,195 employees, had a high injury and illness rate almost double the 2021 national average of 2.7 percent.

The U.S. Department of Labor’s 2022–2026 Strategic Plan states that OSHA aims to strategically schedule inspections and outreach in high-risk areas. However, we determined that OSHA’s ability to fully identify high-risk areas is limited by their incomplete view of the extent of injury and illness occurring in warehouses. OSHA is further impacted by its inability to access establishment-level data to determine how many warehouses are included within online retailers, along with the high level of non-compliance in reporting for online retailers. Moreover, OSHA has stated that inspection resources are an ongoing concern. The limited number of inspections OSHA has performed leaves warehouse workers vulnerable to the high injury and illness rates in the industry. Lastly, online retailers that may have associated warehouses also exacerbate this problem.

DESPITE INDUSTRY GROWTH, WAREHOUSE INSPECTIONS HAVE DECREASED

As of 2021, warehouses made up less than 1 percent of the 8 million worksites that OSHA oversees nationwide. However, the 2021 injury and illness rate in warehouses—5.5 incidences per 100 workers—is more than double the rate of 2.7 incidences per 100 for workers across all industries. Moreover, while the number of warehouses increased by 14 percent over the audit period, the number of warehouse inspections OSHA conducted decreased by 10 percent. Although inspections decreased for all industries during the COVID-19 pandemic, the surge in high-speed fulfillment of online orders during the same period left more workers in this industry at risk to injury and illness.

WAREHOUSES VERSUS WAREHOUSE INSPECTIONS

2017–2021:

Industry Growth
Increased by
14 Percent

OSHA
Inspections
Decreased
by 10 Percent

CONSISTENTLY HIGH RATES OF SERIOUS INJURY AND ILLNESS

During the audit period, the overall injury and illness rates for warehouse workers were consistently high. The rates reported by BLS before and during the COVID-19 pandemic indicated that warehouse workers were facing and continued to face hazards that can result in serious injury, due to moving powered industrial trucks, loaded pallets, and the repetitive movements involved.

BLS accounts for industry growth in the rates; however, the number of reported cases of injury and illness in warehouses nearly doubled from 42,500 in 2016, to 80,500 (or 89 percent) in 2021, an increase that well exceeds the growth rate of warehouses (14 percent) during that period. This increase indicates an increased exposure to industry hazards for warehouse workers. Furthermore, within BLS's industry rankings of the rates (highest to lowest), Warehousing and Storage moved from 19th of 94 industries in 2016, to 10th of 92 industries in 2021.

In addition, when comparing warehouse workers to all workers in the nation's other industries, warehouse workers had more than double the number of days away from work for their injuries or illnesses (see Figure 1). Per BLS data in 2020, 39 percent of the injuries occurring in warehouses resulted in workers being away from work for 31 days or more per incident compared to 23 percent for all industries. Days away from work and days of job transfer or restricted duty are measures of severity, in that the injury or illness is serious enough to cause a worker not to be able to continue their normal job function.

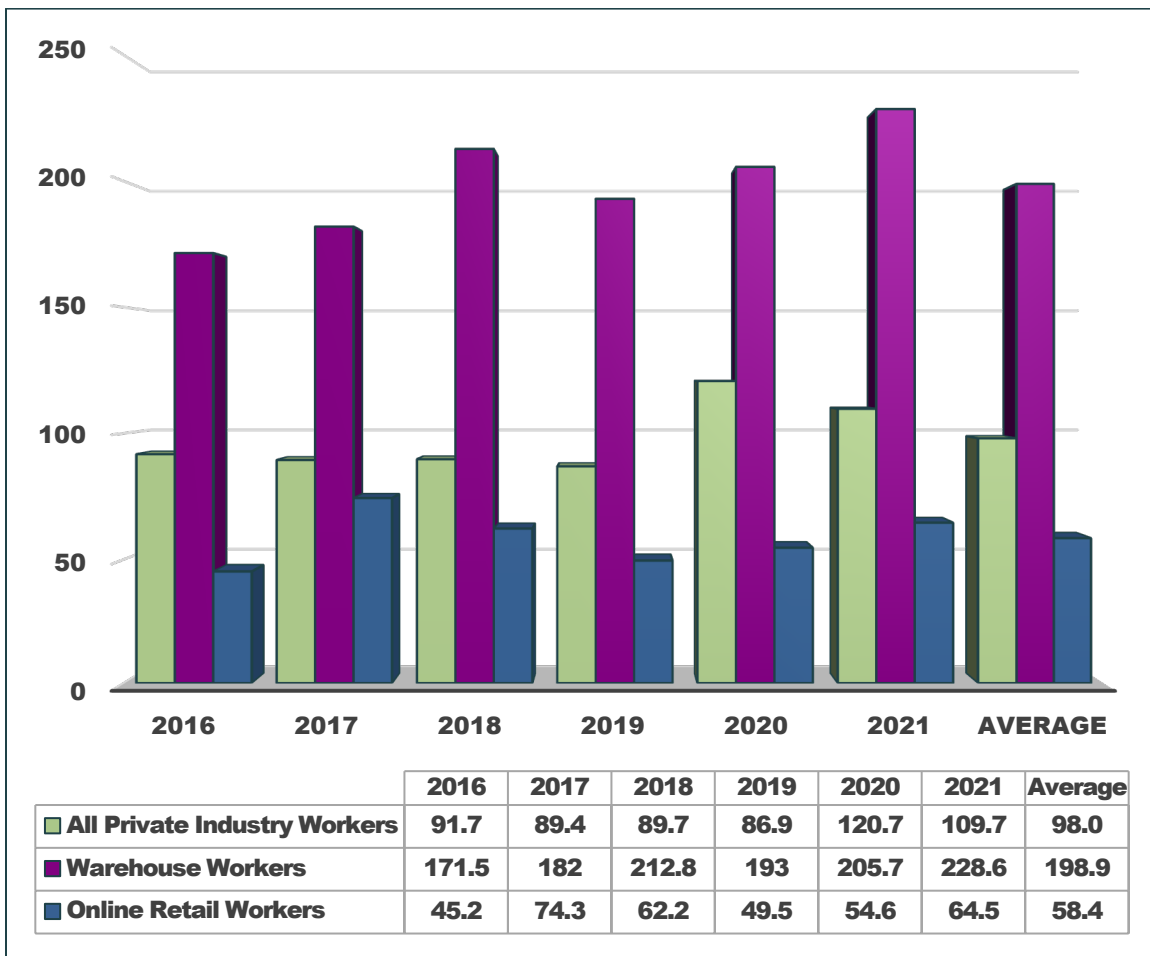
~
**BEFORE AND DURING COVID-19, BLS
INJURY AND ILLNESS RATES INDICATED
WAREHOUSES WERE DANGEROUS
PLACES TO WORK.**

**Significant Exposure for Warehouse
Workers:**

Per BLS data, the number of reported injuries and illnesses in warehouses nearly doubled from 2016 to 2021 (42,500 to 80,500).

*
**Warehouses Ranked High among
Industries for Injury and Illness Rates:**

Within BLS industry rankings, warehouses moved from 19th of 94 industries in 2016, to 10th of 92 industries in 2021.

Figure 1: Days Away from Work per 10,000 Workers

Source: BLS Quarterly Census of Employment and Wages Data
 Note, for an accessible version of this figure, please see Exhibit 2.

OSHA combined days away from work and days on job transfer to calculate a Days Away or Restricted Duty (DART) rate for establishments and industries. The warehousing DART rate in 2021 was 4.6, more than double the 1.7 rate of all private industry workers.⁵ This disparity indicates that workers in warehouses are significantly more exposed to serious injury and illness on the job.

⁵ The BLS definition of private industry employees includes most corporate officials, all executives, all supervisory personnel, all professionals, all clerical workers, many farmworkers, all wage earners, all pieceworkers, and all part-time workers.

OSHA PRIORITIZES URGENT CONCERNS BUT ITS STRATEGY IS FOCUSED ON THE SHORT-TERM

We found that 82 percent of the 3,958 OSHA inspections of warehouses and online retailers were considered unprogrammed enforcement activity, which is activity in response to injury and illness that has already occurred or was reported as having occurred. The remaining 18 percent of inspections were programmed activity based upon planned selection criteria, such as hazards identified in national or regional emphasis programs. The high percentage of unprogrammed inspections reflects OSHA's enforcement strategy as stated in OSHA's Field Operations Manual, which prioritizes and allocates inspection resources based on four categories: (1) imminent danger, (2) fatality/catastrophe, (3) complaints and referrals, and (4) programmed activities.

We reviewed inspection activity to determine the percent of OSHA's inspections devoted to each of the manual's four priority categories. However, while the OSHA Information System tracks the type of inspections that OSHA conducts, the categories listed do not align with the manual's four priority categories. For example, the OSHA Information System did not track the first inspection priority—imminent danger—because these priority findings are identified and addressed onsite as they occur.⁶ In addition, the system identified a total of seven (rather than four) inspections categories by combining some priority categories and adding additional categories: (1) fatality/catastrophe; (2) complaints; (3) referrals; (4) monitoring; (5) accidents; (6) unprogrammed related; and (7) follow-up.

Because OSHA tracks inspections in this manner, we were only able to tally three of the manual's four inspection priority categories (see Table 2). The second priority category, fatality/catastrophe, represented three percent of OSHA's inspections. The third category, complaints/referrals, represented 64 percent of OSHA's inspections. The fourth category, the only programmed activity priority category, represented 18 percent of OSHA's inspections.

⁶ According to OSHA, if a hazard is observed during the course of the inspection that meets the definition of an imminent danger, the inspector will immediately bring the matter to the employer's attention, and the employer normally removes the employee from the hazardous condition. The language regarding the imminent danger will be included as part of the violation document related to the specific hazard observed.

**Table 2: Warehouse and Online Retailer Inspections,
Tracked in OSHA Information System by Priority Category***

Inspection Priority Category	Warehouses	Online Retailers	Total	Percentage of Inspections
Fatality/Catastrophe	103	2	105	3%
Complaints/Referrals	2373	163	2536	64%
Other ⁷	595	23	618	15%
Programmed Activities	691	8	699	18%
Total Inspections	3762	196	3958	100%

*Please also see Exhibit 1, Table 4 for federal and state inspection information.

Source: OSHA Information System data

The Occupational Safety and Health Act of 1970 mandates that employers furnish a place of employment free from recognized hazards that are causing or are likely to cause death or serious physical harm. The act also authorizes the U.S. Secretary of Labor to set mandatory occupational safety and health standards and to enforce those standards with an effective enforcement program. OSHA's mission includes providing training, outreach, education and assistance. To examine if the proactive aspects of outreach and training on hazards affected warehouse workers, we interviewed regional office staff and reviewed OSHA's website and guidance.

We determined that, although OSHA identifies "laborers and freight, stock and material movers" as high-risk jobs, it has not issued any new resource guidance for employers on identifying these hazards in a decade or on implementing solutions since 2015. In addition, the only guidance issued by OSHA specific to warehousing was a 2004 Worker Safety Packet. One regional office did conduct a compliance assistance activity focused on warehousing, and OSHA's Know the Law website covers regulations related to warehousing.

The U.S. Department of Labor's 2022–2026 Strategic Plan⁸ states that OSHA will strategically schedule inspections and outreach in high-risk areas to have the greatest effect on overall compliance so that workplace injuries, fatalities, and illnesses decline. OSHA defined this as the ultimate outcome for workers.

⁷ "Other" includes other inspection/investigation types outlined in OSHA's Field Operations Manual, including monitoring, accidents, unprogrammed related, and follow-up.

⁸ <https://www.dol.gov/sites/dolgov/files/OASAM/pmc/FY2022-2026-Strategic-Plan.pdf>

While OSHA's current strategy understandably gives immediate priority to urgent concerns, the overall strategy is largely short-term and primarily focused on responding to case-by-case reports of injuries or illnesses. As a result, warehouse workers remained vulnerable to high injury and illness rates.

**OSHA'S SITE-SPECIFIC TARGETING
PROGRAMS WERE NOT DESIGNED TO
TARGET ENOUGH WORKPLACES WITH HIGH
RATES OF SERIOUS INJURY AND ILLNESS**

OSHA's SST programs, which are programmed enforcement initiatives, targeted a very small percentage of establishments and, of those targeted, fewer inspections actually occurred. Based on our review of inspection results for OSHA's last two SST programs, SST16⁹ and SST19¹⁰, OSHA had not effectively directed programmed enforcement resources to enough workplaces, including those with high rates of injury and illness, such as warehouses. This occurred because OSHA's policies for SST16 and SST19 did not include any specific and measurable targets for the numbers of inspections to be accomplished to meet the programs' goals. We noted that OSHA's 10 regional offices determined how they would allocate their resources to programmed activities and the SST programs competed with other national, regional, and local emphasis programs for those resources.

The program is based on employer-reported injury and illness data submitted on OSHA's Form 300A¹¹ and was designed to help OSHA achieve its goal of ensuring employers provide safe and healthful workplaces. There were a total of 6,413 warehouses and online retailers required to submit Form 300A data to OSHA. OSHA neither targeted nor inspected any online retailers as part of either SST program. Under SST16 and SST19, there were a total of 144 warehouses in the programs, making up 0.01 and 0.02 percent of the establishments in SST16 and SST19, respectively. OSHA only inspected 23 and 6 warehouses,

⁹ The scope of SST16 was October 16, 2018, to October 16, 2019.

¹⁰ The scope of SST19 was December 14, 2020, to December 14, 2022. In the gap between the programs, OSHA continued to complete SST16 inspections.

¹¹ Eligibility is based on Form 300A reporting criteria of warehouses with 20 or more employees. Form 300A, Summary of Work-Related Injuries and Illnesses, is a form that employers with 20 or more employees must submit annually to OSHA, based on 20 Code of Federal Regulations 1904.41 (a)(1) and (a)(2). Note, if an establishment had 250 or more employees at any time during the previous calendar year and is required to keep records, it is required to electronically submit from OSHA Form 300A, Summary of Work-Related Injuries and Illnesses.

respectively, or 0.04 percent of warehouses in the programs. With so few establishments inspected, improvement is needed to achieve its desired objective of, “ensuring that employers provide safe and healthful workplaces by directing enforcement resources to those workplaces with the highest rates of injuries and illnesses.”

TOO FEW WAREHOUSES INSPECTED LEAVE WORKERS AT RISK

Beginning in 2000, OSHA defined a universe of establishments that met SST program criteria. While approximately 515,000 employers were required to submit Form 300A data in 2020, OSHA set the SST criteria for the universe at 4,000 establishments eligible for inspection and has generally maintained this level in its criteria documents despite industry growth.

OSHA stated this was a policy decision based on resources and the amount of inspections it could feasibly and effectively manage. The SST programs use injury and illness data reported on Form 300A to identify the severity of injuries reported by establishments. While the number of establishments that meet reporting requirements to submit Form 300A had increased significantly since 2000, OSHA had not changed the SST baseline universe. For example, the number of establishments meeting Form 300A reporting requirements increased from 451,000 to 515,000 (14 percent) since 2010.¹² Without a corresponding increase in the criteria for the universe of establishments, the resulting baseline does not reflect industry growth.

ESTABLISHING THE SST PROGRAM UNIVERSE

The process for establishing the SST universe begins with annual employer-reported Form 300A data. OSHA calculates an establishment’s DART rate, then categorizes establishments as high-DART, low-DART, ascending DART,¹³ or non-responders, the latter of which relates to those in the universe that did not submit the required Form 300A. The establishments listed within these categories form the approximately 4,000 establishments in the SST universe.

OSHA’s area office staff then use SST software to randomly select establishments from the universe of 4,000 for inspections. From there, they

¹² The United States Census Bureau’s database does not break out the establishment counts prior to 2008. This audit shows a comparison between 2010 and 2020 as an example of establishment increases over time.

¹³ Ascending-DART applies only to SST19 as it was not utilized in SST16.

determine the number of SST inspections they can accomplish based on available resources. Next, they use the software to generate a randomized list of establishments for inspection (i.e., 5 to 50 establishments selected). The policy does not identify a specific number of inspections for program success.

We determined that, while the majority of establishments inspected for both SST16 and SST19 were high-DART establishments, the total number of actual warehouse inspections were few (see Table 3).

Table 3: Inspections Completed in OSHA’s SST16 and SST19 Programs

Targeting Program	Establishments in SST Criteria	Inspections Completed	Warehouse Inspections Completed
SST16	3016	819	23 ¹⁴
SST19	3900	435	6

Source: SST program data supplied by OSHA

With serious injury and illness rates at more than double the national average, warehouses should be a crucial target for directing enforcement resources. However, for SST16 and SST19, warehouses comprised only 2.8 and 1.4 percent of the total universe of establishments that received inspections under the programs, with 23 and 6 warehouses inspected, respectively. As a result, these programs—designed to direct enforcement resources to workplaces with high rates of injury and illness—did not sufficiently achieve the desired objectives based on the number of establishments in its target universe.

OSHA IS NOT EFFECTIVELY MONITORING SST PROGRAM ACTIVITY

OSHA’s SST policies state that, when the program period ends, area offices must complete all inspections opened before the SST expiration date even if the inspections remain open after the program expiration date. For SST16, OSHA opened 273 inspections with opening dates as late as December 10, 2020, nearly 14 months after the program ended. Given that inspection cycles must be

¹⁴ There were no SST inspections for online retailers. This data only represents warehouses.

completed before initiating any subsequent cycle, untimely inspections have the potential to create a backlog and prevent regions from the timely identification of safety issues at additional warehouses.

Further, delayed program outcomes can result in delayed implementation of any revised guidance for performing these inspections. For example, a new target category was implemented for SST19, known as the ascending-DART. This category is comprised of those establishments where the number of serious injuries rose over the last three years. Six percent (28) of the inspections conducted nationally were ascending-DART inspections, and none of those were conducted at warehouses. A delayed start in SST16 inspections may have meant fewer SST19 inspections, which includes inspections within the new ascending-DART category. In this case, backlogs and fewer inspections under each program potentially left warehouse workers at risk.

Additionally, OSHA's national office did not monitor SST inspection activity to determine how many of the proposed inspections had occurred until after the programs had ended. Monitoring is a key component of internal controls as outlined by the Government Accountability Office's Standards for Internal Controls, which states that management establishes and operates monitoring to assess the quality of performance over time. Thirty-three percent of SST16 inspections occurred after the program end date, indicating OSHA did not monitor the programs timely to ensure inspections were conducted as required.

Further, OSHA had limited controls in place to ensure an adequate number of proposed inspections occurred. The SST programs compete with other national, regional, and local emphasis programs for resources. Consequently, area office staff decide on the number of SST establishments, if any, to inspect. Moreover, the SST software used for selecting establishments for inspection randomly selects a batch of establishments from the pool. Since the pool is not stratified, high-DART establishments with the most serious injuries could potentially receive fewer inspections than other categories, such as low-DART establishments or employers that fail to provide Form 300A data in a timely manner (non-responders). Therefore, OSHA runs the risk of not meeting the intent of the SST program.

Performance results for both SST programs—industry-wide and specifically for warehouses—indicated OSHA has inspected very few of the targeted establishments. Since the programs were specifically designed to direct enforcement resources to workplaces with high rates of injury and illness, the programs have not sufficiently achieved the desired objectives.

OSHA HAD LIMITED VISIBILITY INTO THE NUMBERS AND TYPES OF INJURIES AND ILLNESSES OCCURING IN WAREHOUSES

We found that OSHA had an incomplete view of workplace injury and illness data for warehouse workers. This limited visibility happened in two primary ways: (1) employer under- or non-reporting and (2) lack of detailed data on injuries. On average, between 2016 and 2020,¹⁵ 59 percent of establishments in all industries failed to submit their mandatory annual injury and illness reports (Form 300A) to OSHA. Additionally, OSHA could not identify if an establishment met the criteria for mandatory reporting and, therefore, could neither proactively remind specific establishments that they must report, nor could it effectively cite employers for non-compliance.

While non-compliance with reporting requirements in the warehousing industry was 16 percent on average during the audit period, it averaged 46 percent for online retailers. Non-reporting continues to be a challenge for OSHA and results in an incomplete view of workplace injury and illness.

In addition, OSHA did not collect detailed data on injuries from employers as part of the mandatory Form 300A reporting. Detailed data is key to identifying trends among industries and linking them to those establishments or industries where workers are most frequently and seriously injured. While OSHA also obtained injury and illness rates from BLS, the BLS data did not identify establishments by name and could not be used for targeting. Without an effective program for collection, compilation, and analysis of occupational safety and health statistics, OSHA was unable to identify and appropriately respond to current and emerging hazards.

OSHA FAILED TO EFFECTIVELY ADDRESS EMPLOYER NON-COMPLIANCE WITH MANDATORY INJURY AND ILLNESS REPORTING

Despite persistent non-compliance with mandatory injury and illness reporting, OSHA had not effectively implemented an enforcement strategy to improve Form 300A compliance. This level of non-compliance exists because employers may have an incentive not to comply; not reporting these injury and illness summaries decreases the likelihood that their establishments will be selected for an SST inspection. A January 2021 report by the Government Accountability

¹⁵ At the time of our fieldwork, Calendar Year 2021 Form 300A data was not available.

Office stated that OSHA had limited procedures for encouraging compliance and for penalizing non-compliance.¹⁶ Similarly, in 2018, the OIG reported¹⁷ OSHA did not have controls to ensure it had complete information on the number of work-related fatalities and serious injuries. We attributed this to the lack of guidance and training on how to detect and prevent underreporting and inconsistency in issuing citations for late reporting. We found both the Government Accountability Office recommendation and one of the four OIG recommendations remain unimplemented.

At the time of our review, OSHA's practice for addressing non-compliance was to send between 20,000 and 30,000 postcards to the approximately 500,000 establishments (or between 4 and 6 percent) that potentially did not comply with reporting requirements. The postcards are sent 3 to 4 months after the March reporting date (in June or July). However, following the *Volks* court ruling,¹⁸ OSHA may only issue a citation up to 6 months from a confirmed incident, which greatly reduces the timeframe in which OSHA can issue a citation to a non-responding establishment. Additionally, the 2018 OIG audit found that during the period of January 1, 2015, to June 30, 2017, OSHA only issued an average of 398 recordkeeping citations every 6 months, which is less than 1 percent of the potential non-responders.

OSHA indicated that, historically, the agency was able to issue reporting citations remotely because it manually verified its list of potential non-responders. However, in 2014, OSHA changed its injury and illness reporting platform to allow employers to report electronically and discontinued its manual verification process, stating it was too labor-intensive. OSHA stated that, under its new procedure, it is unable to gain the level of certainty required to prove an establishment must submit injury and illness data. As such, OSHA cannot take enforcement action, such as issuing reporting citations remotely.

In 2021, OSHA rolled out a nationwide pilot program to match suspected non-responders with establishments already scheduled for an inspection. However, during the audit period, OSHA only inspected less than a quarter of a percent (or 379) of the 239,886 potential non-responders on average (see Exhibit 1, Table 5). While the pilot program efficiently leverages inspection resources by

¹⁶ Government Accountability Office, *Workplace Safety and Health: Actions Needed to Improve Reporting of Summary Injury and Illness Data* (January 2021), GAO-21-122, <https://www.gao.gov/assets/gao-21-122.pdf>

¹⁷ OSHA Needs to Improve the Guidance for its Fatality and Severe Injury Reporting Program to Better Protect Workers, Report No. 02-18-203-10-105 (September 13, 2018), <https://www.oig.dol.gov/public/reports/oa/2018/02-18-203-10-105.pdf>

¹⁸ *AKM LLC d/b/a Volks Constructors v. Sec'y of Labor*, 675 F. 3d 752 (D.C. Cir. 2012) (OSHA may only issue a citation up to 6 months from the suspected violation.)

notifying inspectors of the potential non-responders on their inspection lists, the program is not reaching sufficient numbers of non-responders.

Without an effective program for collection, compilation, and analysis of occupational safety and health statistics, OSHA was unable to identify and appropriately respond to current and emerging hazards, such as those found in the warehouse industry, to better protect workers.

OSHA COLLECTS LIMITED INJURY DATA ON FORM 300A, CANNOT ACCESS ESTABLISHMENT DATA FROM BLS, AND DOES NOT FULLY ANALYZE THE DATA RECEIVED

In addition to the levels of non-compliance with Form 300A reporting, OSHA did not collect or was unable to obtain the BLS data necessary to identify current and emerging injury and illness trends or pair injury and illness trends to specific establishments.

The Occupational Safety and Health Act of 1970 requires the U.S. Secretary of Labor to develop and maintain an effective program of collection, compilation, and analysis of occupational safety and health statistics. After passage of the act, OSHA issued the required occupational injury and illness recording and reporting regulations as 29 CFR Part 1904. Since 1971, OSHA and BLS have operated the injury and illness recordkeeping system as a cooperative effort.

OSHA and BLS also signed a Memorandum of Understanding dated July 11, 1990, to further outline BLS's responsibilities. According to the memorandum, BLS is designated to be responsible for conducting the nationwide statistical compilation of occupational illnesses and injuries while OSHA administers the regulatory components of the recordkeeping system. Due to confidentiality agreements between BLS and employers, the detailed data cannot be shared with OSHA.

As a result, OSHA has little insight into the makeup of a particular industry. This is important for industries such as online retailers, which grew from 25,554 establishments in 2017, to 38,785 in 2021, nearly double that of warehouses at 19,709 in 2021. Large-scale companies known for owning warehouses—such as Amazon and Walmart—may choose to classify themselves as online retailers rather than warehouses. Online retailers received only 42 inspections in 2021, less than 1 percent.

Online retailers with fewer than 250 employees at any time during the prior year are not required to submit to OSHA injury and illness data. Further, the

non-compliance rate among those required to submit data was 46 percent. We reviewed data from online retailers that submitted Form 300A injury and illness data to OSHA or that received inspections and noted several large box stores and establishments with known warehouses. For example, an online image search of a sample of these establishments identified numerous interior and exterior photographs of the locations that appear to be warehouses. Additionally, OSHA conducted 196 inspections for online retailers of which 67 were Amazon establishments ranging from 250-5800 employees, and not 1 of those 67 establishments submitted injury and illness data.

OSHA is unable to readily determine whether these online retailer establishments are, indeed, warehouses because BLS data is aggregated. Without better data, OSHA can neither determine if an online retailer is a warehouse nor take informed action to better protect the workers in these establishments.

LIMITED INJURY AND ILLNESS DATA AND ANALYSES

As described previously, OSHA collects its statistics via the annual electronic submission of Form 300A. The form contains six pre-determined fields for establishments to enter injury and illness data:

1. injuries,
2. skin disorders,
3. respiratory conditions,
4. poisonings,
5. hearing loss, and
6. other illnesses.

However, the required data is a count of injuries with no descriptive information about the injury type, thus limiting OSHA's ability to use the data to analyze industry trends. The descriptive information is recorded on a Form 300 Log and maintained at worksites. The logs may be reviewed by OSHA Compliance Safety and Health Officers while conducting an inspection, but only certain employers are required to submit the logs with the more detailed information to OSHA.

On March 30, 2022, OSHA issued a proposed rule in the Federal Register¹⁹ that would require establishments with 100 or more employees in the highest-hazard industries to submit Form 300 Log and Form 301 Incident Report information

¹⁹ OSHA, "Improve Tracking of Workplace Injuries and Illnesses," 87 FR 18528 (March 30, 2022), <https://www.federalregister.gov/documents/2022/03/30/2022-06546/improve-tracking-of-workplace-injuries-and-illnesses>, last accessed April 18, 2023.

once a year to OSHA. These establishments would also continue to be required to electronically submit their Form 300A Annual Summary. The rule was finalized and published (July 21, 2023) with an effective date of January 1, 2024.

However, OSHA had not evaluated and does not monitor the Form 300A data for completeness and accuracy. OSHA's last self-initiated audit of injury and illness data was conducted in 2009, covering 2006 data. Simple analytics such as sorting the Form 300A data to show the employers that reported no injuries or illnesses alongside the average employee count could help OSHA to easily identify potential errors in employer reporting.

For example, our analysis of Fiscal Year 2020 Form 300A data identified 195 warehouses and online retailers with between 100 and 1,935 employees that reported no injuries and no illnesses. This is particularly unusual considering these establishments were potentially open during the COVID-19 global pandemic. Without collecting specific injury data and monitoring collected data for accuracy, OSHA may have left workers at risk.

OSHA stated that it does not necessarily collect data for injury and illness trends and instead relies on BLS because, according to OSHA, BLS data is more robust. However, the Occupational Safety and Health Act of 1970 places responsibility on the U.S. Secretary of Labor to compile accurate statistics on work injury and illness and, in consultation with the U.S. Secretary of Health and Human Services, maintain an effective program of collection, compilation, and analysis of occupational safety and health statistics. While OSHA delegated some responsibility for data collection and compilation to BLS, OSHA remains responsible for ensuring sufficient information is available in order to adequately protect workers from hazards in the workplace.

OSHA DID NOT ENHANCE ENFORCEMENT TO ADDRESS PERSISTENT INJURY AND ILLNESS DATA TRENDS

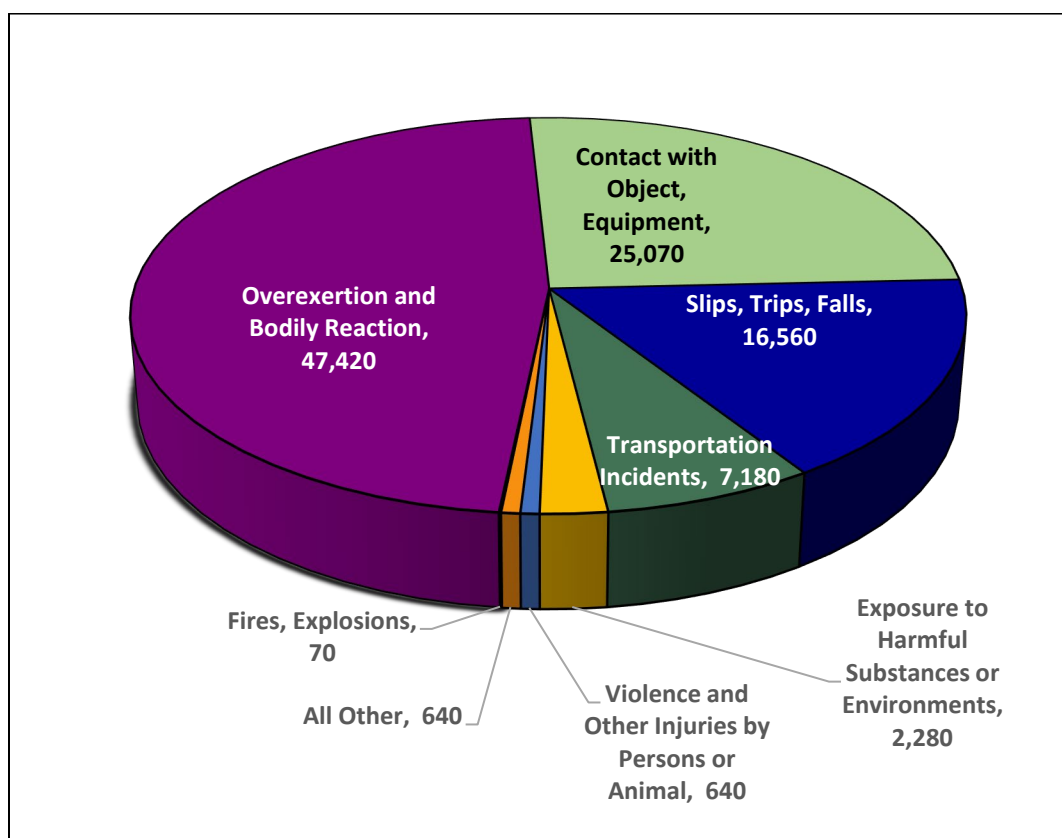
To identify and address injuries and illnesses at warehouses, OSHA utilizes its own serious injury reports, complaint/referral data, and data from Form 300A and BLS. While these sources all have individual limitations, collectively, they show the extent and persistence of certain hazards, such as overexertion and musculoskeletal disorders, which OSHA has not sufficiently addressed. The limitations also prevent OSHA from knowing at which warehouse workers are exposed to workplace hazards.

OSHA defined overexertion/bodily reaction as injuries resulting from motions such as lifting, bending, reaching, or slipping without falling. A musculoskeletal

disorder is defined as a disease that affects the muscles, nerves, blood vessels, ligaments, and tendons. Workers can incur musculoskeletal disorders by lifting heavy items, bending, reaching overhead, pushing and pulling heavy loads, working in awkward body postures, and repetitive tasks. These compelling data demand focused attention and more enforcement activity to better protect the more than 1.6 million warehouse workers nationwide.

Between 2016 and 2020,²⁰ BLS reported a total of 99,860 warehouse injuries, of which 47 percent were attributed to overexertion/bodily reaction (see Figure 2). BLS also separately categorized 46,570 musculoskeletal disorders, accounting for 47 percent of the 99,860 injuries reported. BLS advised that not all musculoskeletal disorders are categorized within overexertion and bodily reaction; there is certainly overlap.

Figure 2: BLS-reported Warehouse Injuries by Events, 2016-2020



Source: BLS Occupational Injuries and Illnesses and Fatal Injuries Profiles
 Note, for an accessible version of this figure, please see Exhibit 2.

²⁰ At the time of our fieldwork, data had only been collected through 2020.

OSHA's complaints and referrals are an additional source of information and show similar types of injuries and potential hazards in the nation's workplaces. During the audit scope, OSHA received 8,920 complaints for warehouses and online retailers; of those, 1,818 were formal complaints, and 749 (41 percent) of those formal complaints did not result in an inspection.²¹ There were 5,369 non-formal complaints, of which 884 received inspections.

While OSHA had access to BLS's data, which includes injury types and identifies emerging injury and illness trends such as musculoskeletal disorders, OSHA was unable to access the names of establishments reporting these injuries due to confidentiality agreements between BLS and employers.

OSHA also used serious injury reports submitted by employers. Employer reporting from January 2015 through May 2022 identified the top three serious injuries in warehouses:

1. fractures,
2. amputations, and
3. soreness/pain/hurt non-specified injuries.

These three serious injury types accounted for 66 percent (48,856 of 74,025) of the serious warehouse injuries reported. OSHA addressed these injuries by responding on a case-by-case basis. However, workers could benefit from OSHA focusing its proactive enforcement strategies on the most prevalent hazards causing these serious injuries.

OSHA stated that it is aware of and has taken some action to address these types of injuries. For example, during the summer of 2022, OSHA simultaneously inspected six large warehouses in five different states. OSHA noted exposures to musculoskeletal disorder risk factors and high rates of the disorders in all six warehouses. High rates of traumatic injuries were also observed among these workers. OSHA subsequently cited these warehouses for several related violations.

OSHA stated it is limited in its ability to target these types of injuries due to a 2001 Congressional Review Act denial of an ergonomics standard. However, this denial does not prevent OSHA from undertaking rulemaking regarding repetitive

²¹ OSHA's Field Operations Manual, Chapter 9C, lists nine criteria by which staff determine if a complaint requires an inspection. The manual states that an inspection is normally warranted if one of the conditions is met, and the complaint being formal is the first of those nine criteria. To require an investigation, a non-formal complaint must meet at least one of the eight additional criteria outlined in the manual.

stress injuries. Rather, the Congressional Review Act stipulates that a rule may not be reissued in substantially the same form. OSHA misinterprets this determination to mean it cannot regulate in the area covered by the disapproved rule. Although OSHA has taken some action, more can be done.

*REGIONAL PROGRAMS EXIST BUT MORE
FOCUSED ATTENTION IS NEEDED AT
WAREHOUSES*

While some states, through legislation, and three regions, through regional emphasis programs, have acknowledged the dangers inherent in warehouse work, more focused attention is needed.

Three states have introduced legislation aimed at reducing employer-imposed quotas and specifically discussed musculoskeletal disorder-type warehouse injuries caused by ergonomics hazards in e-commerce facilities.²² Also, OSHA Region 2: New York and OSHA Region 3: Philadelphia, with a combined total of 3,429 warehouses employing 302,017 workers, have issued specific emphasis programs focused on warehouse hazards.

OSHA Region 9: San Francisco also issued an emphasis program covering powered industrial trucks, a common hazard in warehouses and other industries, such as Wholesale Trade. However, the emphasis program only applies to warehouses under Federal OSHA jurisdiction.²³ Because Region 9 includes four OSHA state plans, the emphasis program offers no coverage to the 304,277 workers at the region's 3,088 warehouses under State Plan jurisdiction. OSHA's remaining regions, with nearly 16,280 warehouses employing over 1.3 million workers, have not established warehouse-specific emphasis programs (see Exhibit 1, Table 6).

These compelling data demand more focused attention, including additional enforcement activity to better protect the more than 1.6 million warehouse workers across the nation's roughly 20,000 warehouses. OSHA advised that it completed an initial hazard assessment in 2022 and that the assessment was part of a larger warehouse initiative that, a year later, remained underway. After our fieldwork was completed and initial results were delivered to OSHA, the agency published a warehouse National Emphasis Program on July 13, 2023. In the emphasis program, OSHA acknowledged the dangers faced by warehouse

²² California Assembly Bill 701; Washington Senate Bill 5891; and New York Senate Bill 8922A

²³ Region 9 includes four states (the States of: California, Arizona, Arizona, and Hawaii) that fall under state plans while others fall under federal plans.

workers and brought emphasis to the hazards that may result in death or serious physical harm. These included struck-by; caught-in-between; slips, trips, and fall hazards; blocked aisles; means of egress; powered industrial vehicles and other material handling equipment; heat; and ergonomic hazards.

While we commend OSHA for establishing the emphasis program in the warehouse sector, several concerns exist within the program that mirror those found in the SST programs, and there are a number of characteristics found in other National Emphasis Programs such as OSHA's Fall and Silica National Emphasis programs, published in 2023, that are missing from the warehouse program. For example, there is no baseline for the number of establishments OSHA intends to reach, nor does the program outline monitoring components or contain a results-oriented approach to measure program success. In addition, the National Emphasis Program's review component, designed to assess effectiveness, measures only a count of employers, employees, violations, and abatements that occurred. The program also suggests that indices of OSHA's Agency Management Plan be used to assess effectiveness, but no guidance is given on how those aspects should be applied.

Lastly, the program mandates OSHA inspectors take ergonomics training, but does not describe the training requirements in contrast to similar programs. For example, the Silica National Emphasis program mandates that inspectors must complete Course #3320, Combustible Dust Hazards and Controls, offered by the OSHA Training Institute. However, no specific course was developed or included in the warehouse National Emphasis Program.

While OSHA's recent actions are a step in the right direction, a more results-driven approach to the program is needed to better protect workers from the serious hazards faced in warehouses.

OIG'S RECOMMENDATIONS

We recommend the U.S. Assistant Secretary for Occupational Safety and Health:

1. Update the criteria for the number of establishments to be included in the Site-Specific Targeting programs' universes to better reflect industry growth and the number of eligible establishments nationwide.
2. Develop specific, measurable inspection goals for the Site-Specific Targeting program, including a baseline for the number of inspections in each Site-Specific Targeting category, and periodically monitor progress toward those goals.

3. Develop a more effective enforcement strategy to improve employer Form 300A compliance.
4. Assess Form 300A data categories and gather more specific supporting information about injuries to better identify the count and type of injuries reported, such as musculoskeletal disorders.
5. Develop improved Form 300A data analyses to better identify trends among industries and establishments.
6. Develop specific measurable inspection goals for the warehousing National Emphasis Program, including a baseline for the number of inspections to complete and periodically monitor progress toward those goals. Ensure the goals contain metrics that demonstrate the outcomes of the program.
7. Issue specific training to address the training components of the warehouse National Emphasis Program.

OIG ANALYSIS OF MANAGEMENT'S COMMENTS

While OSHA provided comments and stated its disagreement with the report's overall findings, it concurred with the need to increase the effectiveness of its enforcement activities to protect workers from excessive injury and illness rates in warehousing and related sectors. However, we find the tone of OSHA's response discouraging, as instead of focusing on the recommendations that could improve the safety of workers at risk, OSHA chose to question the methodologies used by the OIG. We believe OSHA's focus should be on improving the program. OSHA's response did not change the report's conclusions.

In its response to the first finding, OSHA stated that the OIG insisted on only using the limited lens of industry-wide injury rates to determine workers' exposure to risk and to make judgments about how OSHA should allocate its enforcement resources. OSHA agreed that industry injury rates are important data points, but expressed that other factors must be considered when determining a comprehensive approach to enforcement. Additionally, OSHA stated that the data for the audit period shows it had a higher inspection presence in warehousing than in almost every other industry with comparable rates.

We disagree with OSHA and maintain that though the warehousing inspection rate was comparatively high to other industries, the inspection rate was not high enough given the consistently high injury and illness rates in warehouses. Additionally, the audit covered the nature and extent of injuries

in the industry, which showed warehouse workers experienced more than double the number of days away from work (a measure of severity) when compared to all workers in the nation's other industries. Moreover, per BLS's data in 2020, 39 percent of the warehouse injuries resulted in workers being away from work for 31 days or more per incident compared to 23 percent for all industries.

When considering the comparability of inspection rates, OSHA did not address any of the 38,785 online retail establishments, which contain known warehouses and could potentially increase the universe of warehouses well beyond the 20,000 shown in OSHA's analysis. The higher inspection presence that OSHA references equates to an annual average of 4.1 percent of the average 18,493 establishments self-classifying as warehouses, which leaves 95.9 percent of establishments uninspected each year. These data points are compelling and warrant OSHA's attention.

In its response to the second finding, OSHA stated that the OIG failed to understand the intent and legal constraints of the SST program. It also stated that the OIG wants OSHA to restructure the SST program to include more warehouses, but provides no compelling rationale. Additionally, OSHA stated that the OIG claims it "failed to monitor" the SST program based solely on the total number of warehouse inspections conducted.

We disagree with OSHA. As included in the report, we determined that OSHA had not effectively directed programmed enforcement resources to enough workplaces for all industries, including those with high rates of injury and illness, such as warehouses. We considered all industries in evaluating the program's performance and then isolated performance for the warehouse sector to align with the objective of the audit. In both cases, only a small segment of establishments were inspected. Additionally, in regards to monitoring, OSHA lacked evidence to demonstrate periodic program monitoring prior to and up to 14 months after the SST program ending. The lack of monitoring potentially results in untimely inspections, backlog, and untimely identification of safety issues at additional warehouses.

In its response to the third finding, OSHA agreed that additional visibility is needed into the numbers and types of injuries and illnesses occurring in warehouses. OSHA issued a final rule, titled Improved Tracking of Workplace Injuries and Illnesses Final Rule. OSHA expects to receive injury-specific data from approximately 52,000 establishments on approximately 766,000 injury and illness cases—impacting approximately 22 million workers. OSHA is also in the process of updating its Injury Tracking Application to support the implementation of the new rule.

While OSHA did not directly address the seven recommendations, we will work with OSHA towards resolution for all recommendations.

OSHA's response is included in its entirety in Appendix B.

We appreciate the cooperation and courtesies OSHA extended us during this audit. OIG personnel who made major contributions to this report are listed in Appendix C.



Carolyn R. Hantz
Assistant Inspector General for Audit

EXHIBIT 1: WAREHOUSE INSPECTIONS—INSPECTIONS, NON-RESPONDER EMPLOYERS, AND REGIONAL EMPHASIS PLANS

Table 4 shows the total number of federal and state plan inspections of warehouses and online retailers conducted by inspection priority category, as outlined in OSHA’s Field Operations Manual. Of note, programmed inspections account for only 18 percent of OSHA’s total inspections in these 2 industries. The remaining 82 percent constitute inspections stemming from fatalities, catastrophes, complaints and referrals, or other inspection types such as monitoring activities.

**Table 4: OSHA Warehouse Inspections per Priority Category,
Federal and State Inspections**

Inspection Priority Category/ Totals	Warehouses	Online Retailers	Totals
Fatality/Catastrophe			
Federal	62	1	63
State	41	1	42
Sub-Total	103	2	105
Complaints/Referrals			
Federal	1,396	54	1,450
State	977	109	1,086
Sub-Total	2373	163	2,536
Other			
Federal	172	9	181
State	423	14	437
Sub-Total	595	23	618
Programmed Activities			
Federal	236	2	238
State	455	6	461
Sub-Total	691	8	699
Totals	3,762	196	3,958

Source: OSHA Regional Emphasis Plan website, Contact Us by State, and BLS

Table 5 shows the number of federal inspections for identified non-responders by audit scope year. Of note, inspections of non-responders decreased from 0.22 of a percent to 0.06 of a percent. Overall, the average of non-responders that received inspections was 0.16 of 1 percent over the audit period.

Table 5: Number of Federal Inspections for Non-Responders

Year	Number of Non-Responders	Federal Inspections Associated with Non-Responders	Percentage of Federal Inspections for Non-Responders
2016	238,713	515	0.22%
2017	234,689	505	0.22%
2018	223,694	491	0.22%
2019	219,950	443	0.20%
2020	262,265	165	0.06%
2021	260,009	157	0.06%
Averages	239,886	379	0.16%

Source: OSHA Information System data and non-responder list provided by OSHA

Table 6 exhibits the number of warehouses and warehouse employees in each of OSHA's 10 regional offices. The table further breaks down how many regions did or did not protect their warehouse workers with emphasis programs in 2021. Of note, over 1.3 million workers in over 16,000 warehouses are not covered by an emphasis program.

Table 6: Regions Covered/Not Covered by Warehouse Regional Emphasis Plans, 2021

Region/ Total	Not Covered by Regional Emphasis Plan	Warehouses	Warehouse Workers
1	Not covered	603	44,685
4	Not covered	4,237	367,459
5	Not covered	3,245	282,883
6	Not covered	2,499	177,330
7	Not covered	1,182	64,121
8	Not covered	649	34,977
9	Not covered	3,088	304,277
10	Not covered	777	42,679
Sub-totals	n/a	16,280	1,318,411
Region/ Total	Covered by Regional Emphasis Plan	Warehouses	Warehouse Workers
2	Covered	1,568	118,292
3	Covered	1,861	183,725
Sub-totals	n/a	3,429	302,017
Totals	n/a	19,709	1,620,428

Source: OSHA Regional Emphasis Plan website and BLS Quarterly Census Data

EXHIBIT 2: ACCESSIBLE DATA TABLES

The following exhibit contains accessible data for Figures 1 and 2, respectively.

Accessible Data Table for Figure 1: Days Away from Work per 10,000 Workers

Year	Warehouse Workers	Online Retail Workers	All Industry Workers
2016	171.5	45.2	91.7
2017	182	74.3	89.4
2018	212.8	62.2	89.7
2019	193	49.5	86.9
2020	205.7	54.6	120.7
2021	228.6	64.5	109.7
Averages	198.9	58.4	98.0

Source: BLS Quarterly Census of Employment and Wages Data

Accessible Data Table for Figure 2: Warehouse Injuries by Events, 2016–2020

Event	2016	2017	2018	2019	2020	Final
Overexertion and Bodily Reaction	6,960	8,310	10,800	9,830	11,520	47,420
Contact with Object, Equipment	3,750	4,370	5,610	5,210	6,130	25,070
Falls, Slips, and Trips	2,550	3,030	3,860	3,350	3,770	16,560
Transportation Incidents	810	1,180	1,380	1,620	2,190	7,180
Exposure to Harmful Substances or Environments	250	350	310	400	970	2,280
Violence and Other Injuries by Persons or Animal	70	130	220	90	130	640
All Other	60	20	130	240	190	640
Fires, Explosions	–	–	20	50	0	70

Source: BLS Occupational Injuries and Illnesses and Fatal Injuries Profiles

APPENDIX A: SCOPE AND METHODOLOGY

SCOPE

The OIG reviewed BLS injury and illness data and analyzed OSHA complaint, inspection, and violation data for the period from October 1, 2016, through December 31, 2021.

We performed audit work remotely with personnel from OSHA's National Office in Washington, DC; and Regions 2 (New York), 3 (Philadelphia), 6 (Dallas), 9 (San Francisco), and 10 (Seattle). Fieldwork also included meeting with various agency staff as well as question and answer sessions with regional offices.

METHODOLOGY

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To answer our audit objective, we:

- reviewed OSHA's procedures to gain an understanding of internal controls considered significant to the audit objective. We confirmed our understanding of OSHA's inspection and violation processes as well as OSHA's employer reported data through interviews and analyzing relevant documents;
- reviewed and analyzed injury and illness data reported by employers to OSHA using electronic summaries of Form 300A;
- reviewed laws, policies and procedures, court proceedings, and prior audit reports related to the objective;
- interviewed staff and officials from OSHA's national office and, virtually, staff from Regions 2 (New York), 3 (Philadelphia), 6 (Dallas, TX), 9 (San Francisco), and 10 (Seattle);

- analyzed complaints, inspections, and violations from October 1, 2016, through December 31, 2021; and
- assessed the reliability of computer-processed data provided publicly and directly by OSHA.

RELIABILITY ASSESSMENT

In planning and performing the audit, we relied on data from the OSHA Information System and Injury Tracking Application, as well as SST program files provided by OSHA. We also utilized U.S. Census Bureau County Business Pattern Data and BLS data files, including injury and illness rates, injury counts by industry, and rankings for high-injury and illness industries. We assessed the reliability of this data by: (1) performing analytical tests and tracing selected data elements for completeness and authenticity of the data elements used in the audit, and (2) reviewing existing information reported on OSHA's public website. We determined that the data were sufficiently reliable for the purposes of this audit report.

INTERNAL CONTROLS AND RISK ASSESSMENT

In planning and performing our audit, we considered OSHA's internal controls relevant to our audit objective by obtaining an understanding of those controls and assessing control risks relevant to our objective. We considered the internal control elements of control environment, risk assessment, control activities, information and communication, and monitoring during our planning and substantive phases, and evaluated relevant controls. The objective of our audit was not to provide assurance of the internal controls; therefore, we did not express an opinion on OSHA's internal controls. Our consideration of internal controls for administering the accountability of the program would not necessarily disclose all matters that might be significant deficiencies. Because of the inherent limitations on internal controls, or misstatements, noncompliance may occur and not be detected.

CRITERIA

- Occupational Safety and Health Act of 1970, Public Law 91-596, 84 STAT.1590, December 29, 1970, amended through January 01, 2004
- OSHA, Field Operations Manual, September 2019
- OSHA, Compliance Policy Letter 02-00-164, April 14, 2020

- Code of Federal Regulations 29 Part 1904: Recording and Reporting Occupational Injuries and Illnesses, Amended October 29, 2021
- Code of Federal Regulations 29 Part 1903: Inspections, Citations and Proposed Penalties, Amended November 05, 2021
- OSHA, Procedures for the Approval of Local Emphasis Programs, Compliance Policy Letter 04-00-002_0, November 13, 2018
- OSHA, Site-Specific Targeting, Compliance Policy Letter 18-01 (CPL 02), October 16, 2018
- OSHA, Site-Specific Targeting, Compliance Policy Letter_02-01-062, December 14, 2020
- OSHA, Cooperative and State Programs CSP 01-00-005, State Plan Policies and Procedures Manual, May 06, 2020
- Bureau of Labor Statistics, Occupational Injury and Illness Classification Manual, Version 2.01, January 2012
- Government Accountability Office, GAO-14-704g Standards for Internal Control in the Federal Government, September, 2014
- Government Accountability Office, GAO-01-1008g Internal Control Management and Evaluation Tool, August, 2001

PRIOR RELEVANT COVERAGE

During the last six years, the OIG has issued five reports of significant relevance to the subject of this report:

1. OSHA Needs to Better Address Complaints and Referrals for Increased Worker Safety, Report No. 02-23-001-10-105 (March 6, 2023), available at: <https://www.oig.dol.gov/public/reports/oa/2023/02-23-001-10-105.pdf>;
2. COVID-19: OSHA's Enforcement Activities Did Not Sufficiently Protect Workers from Pandemic Health Hazards, Report No. 19-23-001-10-105 (October 31, 2022), available at: <https://www.oig.dol.gov/public/reports/oa/2023/19-23-001-10-105.pdf>

3. COVID-19: Increased Worksite Complaints and Reduced OSHA Inspections Leave U.S. Workers' Safety at Increased Risk, Report No. 19-21-003-10-105 (February 25, 2021), available at: <https://www.oig.dol.gov/public/reports/oa/2021/19-21-003-10-105.pdf>;
4. OSHA Needs to Improve the Guidance for its Fatality and Severe Injury Reporting Program to Better Protect Workers, Report No. 02-18-203-10-105 (September 13, 2018), available at: <https://www.oig.dol.gov/public/reports/oa/2018/02-18-203-10-105.pdf>; and
5. OSHA Could Do More to Ensure Employers Correct Hazards Identified During Inspections, Report No. 02-17-201-10-105 (March 31, 2017), available at: <https://www.oversight.gov/report/dol/osha-could-do-more-ensure-employers-correct-hazards-identified-during-inspections>.

APPENDIX B: AGENCY'S RESPONSE TO THE REPORT


U.S. Department of Labor

Assistant Secretary for
Occupational Safety and Health
Washington, D.C. 20210



September 22, 2023

MEMORANDUM FOR: CAROLYN R. HANTZ
Assistant Inspector General for Audit

FROM: DOUGLAS L. PARKER 

SUBJECT: Response to Office of Inspector General's Recommendations in
Final Audit Report Number "OSHA needs To Do More To Address
High Injury Rates Of Warehouse Workers"

This memorandum provides OSHA's Response to the Office of the Inspector General's (OIG) Recommendations in "OSHA needs To Do More To Address High Injury Rates Of Warehouse Workers."

As always, we appreciate the interest of the OIG in increasing the effectiveness of OSHA programs. However, the OIG's warehousing audit process was a missed opportunity to work collaboratively with OSHA to evaluate the effectiveness of OSHA enforcement programs affecting the warehousing sector. Instead, based on a limited set of data points that do not account for important contextual factors and without considering the overall impacts on worker safety across multiple industries, the OIG seeks to substitute the OIG's judgments on policies, targeting methodologies, and resource allocation for that of OSHA leadership. These broad policy judgments go well beyond the OIG's expertise and what the limited audit findings support.

OSHA recognizes a need to increase the effectiveness of our enforcement activities to protect workers from the unacceptable injury rates in warehousing and related sectors. This is why, prior to this audit, OSHA included in its management plan the development of an initiative to address high injury rates in warehousing. In July, OSHA launched its National Emphasis Program (NEP) to prevent workplace hazards in warehousing, distribution, and higher risk retail sectors. The Agency is concluding the outreach and education phase of the NEP rollout and will soon be conducting additional safety inspections in warehouse settings focused on forklift operations, material handling and storage, and fall and trip hazards, as well as screening work sites for heat and ergonomic hazards. Our concern for these workers and the high injury rates they experience is also why we have dedicated considerable resources to addressing ergonomic hazards at fulfillment centers, in cooperation with other enforcement agencies conducting related investigations, and have been negotiating enterprise-wide remedies to address the root causes of hazards in warehousing and similar product storage settings. These efforts only get passing mention in the audit.

Because of OSHA's demonstrable and measurable activity in the warehousing industry, both historically and planned, OSHA not only disagrees with the OIG's report but is frustrated and

disappointed with the OIG's conclusions. The OIG's methodology and reasoning are flawed and do not result in recommendations that would strengthen OSHA's enforcement efforts. Despite providing considerable information and making repeated attempts to educate the OIG on our programs and the complex factors involved in effectively establishing enforcement priorities, the OIG insisted on only using the limited lens of industry-wide injury rates to determine workers' exposure to risk and to make judgments about how OSHA should allocate its enforcement resources.

Result 1: OSHA Conducted a Limited Number of Warehouse Inspections While Injury and Illness Rates Remained High

The underlying premise of the OIG's audit findings is that OSHA's programmed inspection activity should be more focused on warehousing because of the high injury rates in that industry. OSHA agrees that industry injury rates are an important data point in evaluating risk to workers and allocating inspection resources, but a comprehensive approach to enforcement requires OSHA to take other factors into account. Looking exclusively at various industries' injury rates as the basis for allocating enforcement resources does not take into account a number of factors, including but not limited to (1) the seriousness of those injuries; (2) how many of those injuries result in deaths; (3) occupational illnesses and risks of exposure to occupational health hazards in different industries; (4) the potential for catastrophic incidents in industries like petrochemicals that require intensive enforcement attention despite low injury rates; or (5) whether the injuries that occur in a particular industry are ones OSHA can effectively address, because of, for example, the lack of effective standards or jurisdictional limitations.

However, even if one accepts the OIG's premise that injury rates alone should drive how much attention OSHA pays to a particular industry, the data for the audit period show that OSHA and its state partners have had a higher inspection presence in warehousing than almost every other industry with comparable rates.

The following table shows the industries with the highest injury rates, the number of inspections that occurred in that industry, the number of facilities nationwide, and the ratio of inspections to establishments in that industry during the 5-year period of the audit:

Industry	2017 BLS TRC Rate	Inspection s	Establishments (CY21)	Inspection Rate
Warehousing and Storage (493)	5.5	3,942	20,002	1 inspection for every 5.1 establishments
Nursing and Residential Care Facilities (623)	7.3	4,338	85,697	1 inspection for every 19.8 establishments
Couriers and Messengers (492)	7.1	889	21,360	1 inspection for every 24.0 establishments
Air Transportation (481)	6.1	309	6,290	1 inspection for every 20.4 establishments
Hospitals (622)	6.1	3,140	12,210	1 inspection for every 3.9 establishments
General Merchandise Stores (452)	5.6	2,168	66,323	1 inspection for every 30.6 establishments
Wood product manufacturing (321)	5.4	4,998	15,170	1 inspection for every 3.0 establishments
Performing arts, spectator sports, and related industries (711)	5.2	381	67,057	1 inspection for every 176.0 establishments
Animal production and aquaculture (112)	4.8	1,099	27,475	1 inspection for every 25.0 establishments
Food manufacturing (311)	4.8	8,795	36,665	1 inspection for every 4.2 establishments
Crop production (111)	4.7	3,358	50,096	1 inspection for every 14.9 establishments
Building material and garden equipment and supplies dealers (444)	4.7	2,123	68,863	1 inspection for every 32.4 establishments

Support activities for agriculture and forestry (115)	4.5	2,523	21,117	1 inspection for every 8.4 establishments
Leather and allied product manufacturing (316)	4.5	127	1,386	1 inspection for every 10.9 establishments
Food and beverage stores (445)	4.5	3,006	148,642	1 inspection for every 49.4 establishments
Beverage and tobacco product manufacturing (312)	4.2	1,038	14,801	1 inspection for every 14.3 establishments
Nonmetallic mineral product manufacturing (327)	4.1	3,659	16,814	1 inspection for every 4.6 establishments
Primary metal manufacturing (331)	4.1	3,059	5,639	1 inspection for every 1.8 establishments
Total -- Top 18 Industry Sub-Sectors	N/A	48,952	685,607	1 inspection for every 14.0 establishments

Sources: QCEW 2021 Annual Averages, US Private Sector:

<https://data.bls.gov/cew/data/api/2021/a/area/00000.csv>

BLS 2021 Table 1. Incidence rate of nonfatal occupational injuries and illnesses by industry and case type:

<https://www.bls.gov/if/nonfatal-injuries-and-illnesses-tables/table-1-injury-and-illness-rates-by-industry-2021-national.htm>

Inspection data is from OIS for inspections opened Oct. 1, 2016 – Dec. 31, 2021, based on primary NAICS code.

Notably, for the handful of industries with lower inspection ratios than warehousing, the industry was either significantly impacted by COVID (hospitals and food manufacturing) or has a significantly higher fatality rate than warehousing (wood products manufacturing, nonmetallic mineral product manufacturing, and primary metal manufacturing). While OSHA wishes to have a greater presence in a range of high-hazard industries, including warehousing, there is not a serious argument to be made, based on the data, that there is a meaningful discrepancy between injury rates in warehousing and OSHA's enforcement presence there relative to other industries.

Result 2: OSHA's Site-Specific Targeting Programs (SST) Were Not Designed to Target Enough Workplaces with High Rates of Serious Injury and Illness

This result demonstrates the OIG's continued failure to understand the intent and legal constraints of OSHA's SST program. The SST program uses employer-reported injury rates to target for inspection establishments that: (1) have high or upwardly trending lost-time illness and injury rates; (2) fail to report their rates; or (3) report their rates but either have some indicia of potential under-reporting or serve as a control group. Specific warehouse establishments are included on the list if they meet the SST criteria. Further, because of the legal requirement to ensure an objective selection process, OSHA uses a randomization process to develop the SST targeting lists.

OIG claims OSHA "failed to monitor" the SST program based solely on the total number of warehouse inspections conducted. Focusing on this single data point, OIG reaches this conclusion without any evaluation of the overall effectiveness of the program. OSHA does not believe this is a reasonable or appropriate conclusion under any recognized standard for conducting performance audits.

The OIG apparently wants OSHA to restructure the SST program to include more warehouses, but provides no compelling rationale why OSHA should pass over meatpacking plants, manufacturing, or other worksites that also have high injury rates to conduct more warehouse inspections under the SST program. Indeed, the lower number of warehouse inspections relative to other industries reflects the fact that, at the site-specific level, high injury rates occur in a wide range of industries. By focusing on warehousing in a vacuum, the audit result fails to account for positive impacts of the SST program at other high-injury worksites, and how those could be

adversely affected by shifting resources to warehousing. More fundamentally, the OIG fails to provide any reasoned basis for insisting that the SST program, rather than OSHA's NEP on warehousing, should be the targeting vehicle for more effective warehouse inspections.

The SST program is always subject to modification and improvement, and OSHA has made some modifications over the course of the program. OSHA agrees a focus should be on facilities with high rates of significant injuries, but notes that its decision to include a mix of non-reporting and other establishments provides OSHA important information about its injury and illness reporting program. It also provides the Agency with a control group that allows for evaluation of the program's effectiveness. The fact that not all SST inspections are conducted on a timely basis is because SST inspections are resource dependent. That flexibility is built into the program, by design, to enable local management to meet competing demands and priorities.

Result 3: OSHA Had Limited Visibility Into the Numbers and Types of Injuries and Illnesses Occurring in Warehouses

The OIG is correct that OSHA needs additional visibility into the numbers and types of injuries and illnesses occurring in warehouses. This is why the Agency has been diligently working on a rule to expand the injury and illness data that employers must provide to OSHA. On July 21, 2023, OSHA issued a final rule, titled Improved Tracking of Workplace Injuries and Illnesses Final Rule. With the new requirements of the rule, OSHA expects to receive injury-specific data from approximately 52,000 establishments on approximately 766,000 injury and illness cases – impacting approximately 22 million workers. OSHA expects that the information submitted will include significant additional data on types of injuries, risks, and trends in specific industries including warehouses. Many of these requirements would be in place today, had the prior Administration not withdrawn parts of OSHA's 2016 injury reporting rule.

OSHA is also in the process of updating its Injury Tracking Application to support the implementation of the Improved Tracking of Workplace Injuries and Illnesses Final Rule. Some of the data gathered under this rule will be made publicly available on OSHA's website. This will allow employers, current and potential employees, employee representatives, current and potential customers, researchers, and the public to make more informed decisions factoring in a business's workplace safety and health practices and outcomes.

We again thank you for your interest in OSHA programs and worker safety and health.

APPENDIX C: ACKNOWLEDGMENTS

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