



January 17, 2023

Amazon.com Services LLC-MCO2
Stephen Waller, Site Manager
2600 N. Normandy Blvd.
Deltona, FL 32725
Re: Inspection #1608788

Dear Mr. Waller,

An inspection of your workplace at 2600 N Normandy Blvd., Deltona, FL 32725, beginning on July 18, 2022, was conducted pursuant to a referral filed with the Jacksonville Area Office. The referral alleged the following with respect to ergonomics:

- Workers face immense pressure to meet the pace of work and production quotas at the risk of sustaining musculoskeletal injuries, which are often acute.
- Evidence that injuries may not have been reported, because Amazon's on-site first-aid clinic ("AmCare") is not staffed appropriately, which our investigation has revealed would otherwise be an important mechanism by which Amazon gathers injuries to report.

The investigation included (1) a review of OSHA 300, 300A, and 301 injury and illness recordkeeping forms for the years since the facility started operation until the date of the inspection, (2) private employee interviews, (3) management interviews, (4) review of your company's overall ergonomic hazard control efforts, (5) review of employee medical documents including first aid logs and treatment logs, (6) analysis of work performed in several inbound and outbound process paths, video of employees performing tasks in several inbound and outbound process paths, and analysis of ergonomic risk factors using the revised NIOSH lift equation¹, the lumbar motion monitor², ACGIH hand activity TLV, ACGIH Upper Limb Localized Fatigue TLV³.

Findings

Based on the review of the injury and illness information, interviews with employees, and ergonomic risk assessments, employees are exposed to a high risk of serious musculoskeletal disorders when routinely working in the following process paths specific to the Deltona, FL site:

¹ Applications Manual for the Revised NIOSH Lifting Equation, <https://www.cdc.gov/niosh/docs/94-110/pdfs/94-110revised082021.pdf?id=10.26616/NIOSH PUB94110>

² Marras, W. S., Sudhakar, L. R., & Lavender, S. A. (1989). Three Dimensional Measures of Trunk Motion Components during Manual Materials Handling in Industry. *Proceedings of the Human Factors Society Annual Meeting*, 33(11), 662-666. <https://doi.org/10.1177/154193128903301108> and Marras, W.S., Allread, W. G., Burr, D.L., Fathallah, F. (2000). Prospective validation of a low-back disorder risk model and assessment of ergonomic interventions associated with manual materials handling tasks. *Ergonomics*. 43. 1866-86. 10.1080/00140130050174518

³ American Conference of Governmental Industrial Hygienists (ACGIH). Threshold limit values and biological exposure indices for 2022. Cincinnati: ACGIH. <https://portal.acgih.org/s/store>

Site: MCO2	Back Risk Evaluation Tool		Upper Extremity Risk Evaluation Tool	
Process Path	NIOSH Lift Equation	Lumbar Motion Monitor	ACGIH Hand Activity TLV	ACGIH Upper Limb Localized Fatigue TLV
Each Receive/Decant	2.9		6.6	14.9
Stow - Mezzanine	2.7	92%	7	9.9
Pick Mezzanine	2.5	91%	6.9	14.1
Pack (Singles, Multi, BOD)	2.1	90%	6.1	6.4

Red indicates a high risk for musculoskeletal disorders based on the score of the risk evaluation tool

This hazard alert letter identifies jobs with a high level of ergonomic risk that are in addition to the jobs OSHA has recently listed in the 5(a)(1) violation. While some ergonomic risk factors can be reduced or eliminated by implementing a single means of abatement, in most cases a process will provide the most effective method of addressing the risk factors. Amazon recognizes feasible mitigation strategies, including but not limited to, those outlined in the NIOSH guidance on Elements of Ergonomics Programs, as evidenced by inclusion of those and many other methods in the Amazon document North American WHS Ergonomics Procedure North America, Published: March 20th, 2020, Effective: March 20th, 2020. Elements of an effective ergonomics program include, but are not limited to the following:

1. Worksite analysis to recognize and identify existing manual handling hazards in the workplace and develop an effective ergonomics program. Conduct an ergonomic assessment by a certified professional ergonomist, or other qualified professional. The analysis should include an assessment with validated methods [i.e., NIOSH lifting equation, the lumbar motion monitor, ACGIH TLV for Hand Activity and Upper Limb Localize Fatigue or other validated ergonomic risk assessment methods for manual handling tasks. and employee participation (e.g., surveys, interviews). Periodic ergonomic surveys of employees and risk assessment of process paths in the workplace should be conducted at appropriate intervals or when changes to the work may change the ergonomic risk, to evaluate the effectiveness of controls,
2. Training and education for exposed employees, including methods to evaluate the effectiveness of the training. Re-training should be done annually, or as operations change. Training should be done in a manner understandable by all employees (in a language that they speak) and address hazards associated with the work they perform, early recognition of musculoskeletal injuries and illnesses, the ergonomic risk factors associated with their job(s), and how to prevent MSDs. The training should include the elements of the ergonomics program and the affected employee's role in the program. Training should also be provided to operations area managers and process assistants as well as First Aid staff. The supervisors' training program should allow recognition of ergonomic risk factors, early signs of MSDs, and how to respond when risk factors are observed or when symptoms are reported. The training program should include the establishment's health care providers to ensure they are able to recognize symptoms of MSDs and are familiar with appropriate protocols for treatment of MSDs. Educational material or training on ergonomics should be provided to people responsible for designing jobs and buying equipment, tools, workstations, and parts,
3. Hazard prevention and control that includes the identification of paths with ergonomic risk factors and engineering, administrative, and work practice controls to materially reduce the hazard.

- a. Engineering controls are designed by a certified professional ergonomist or other qualified professional and may include workstation redesign, tool and handle redesign, and use of mechanical lifting aids. The goal should be to make the job fit the person.
 - b. Administrative controls are implemented which reduce the duration, frequency, and severity of exposure to ergonomic risk factors. These controls may include job rotations that reduce ergonomic risk, reduction of repetitions, multiple-person lifts, and maintenance of related equipment.
 - c. Work practice controls are implemented which include work techniques, new employee conditioning, and reduction of weight lifted,
4. Medical management - Medical management includes protocols for treating musculoskeletal disorders (MSDs) that are developed and reviewed by a healthcare professional who is experienced and licensed in the diagnosis and treatment of MSDs. The protocols should address early recognition, evaluation, and referral of MSD cases. Healthcare personnel who treat employees with MSD symptoms must be practicing within the scope of their license and they must be trained to follow the MSD protocols. Systematic reviews of incident trends and worksite reviews for ergonomic risk and root cause analysis should be reported to operations management. The medical staff and managers should eliminate policies that discourage employees from reporting injuries and symptoms,
 5. Program evaluation. The elements of the ergonomics program; management leadership, employee participation, training, hazard identification, and control, and medical management should be evaluated periodically (at least annually) to compare the ergonomics program policies and goals to the practices at the site,
 6. Personnel responsible for OSHA recordkeeping must be trained in the requirements of OSHA recordkeeping. The entries on the OSHA 300 and 301 forms should be periodically verified by a knowledgeable person.

To evaluate your efforts in reducing these hazards, please send me a letter detailing the actions you have taken or plan to institute, to address our concerns within 60 days of the date of this correspondence. We will review your response and determine if a follow-up is needed to further evaluate your workplace, including any recommended/implemented controls.

Under OSHA's current investigation procedures, we may visit your work site within six months to examine the conditions noted above. Enclosed is a list of available resources that may be of assistance to you in preventing work-related injuries and illnesses in your workplace.

Thank you in advance for your attention to these concerns. Working together, we can move closer to achieving the goal of workplaces free of preventable hazards. If you have any questions, please feel free to contact the Area Office at 904-232-2895.

David Tisdale
Area Director

cc:

RESOURCES

OSHA 3220 Pocket Guide, Worker Safety Series, Warehousing,
https://www.osha.gov/sites/default/files/publications/3220_Warehouse.pdf

NIOSH Elements of Ergonomics Programs, www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html

Applications Manual for the Revised NIOSH Lifting Equation,
https://www.dir.ca.gov/dosh/dosh_publications/mmh.pdf

CAL/OSHA Ergonomics Guidelines for Manual Material Handling,
https://www.dir.ca.gov/dosh/dosh_publications/mmh.pdf

2021 Threshold Limit Values (TLVs®) and Biological Exposure Indices (BEIs®) of the American Conference of Governmental Industrial Hygienists (ACGIH®), <https://www.acgih.org/TLV/>.



January 17, 2023

Amazon.com Services LLC-MCO2
Stephen Waller, Site Leader
2600 N Normandy Blvd.
Deltona, FL 32725

RE: OSHA Inspection No. 1608788

Dear Mr. Waller:

An inspection of your workplace and evaluation of your OSHA recordkeeping logs at 2600 N Normandy Blvd., Deltona, Florida, on July 18, 2022, disclosed the following workplace condition(s) which have been associated with the development of heat-related illnesses in workers:

Employees were exposed to the recognized hazards of high ambient temperatures while performing moderate to intense work such as, but not limited to standing, walking for long periods of time, carrying items into carts, pushing/pulling carts filled with items and intense arm/hand and trunk work among other tasks. Calculated Wet Bulb Globe Temperatures (WBGT) were 24.1 °C (75.2°F) at the Outbound docks area and 24.0 °C at Inbound docks area, which is above the recommended ACGIH TLV for unacclimatized employees. Such exposures may lead to the development of serious heat-related illnesses such as, but not limited to, heat cramps, heat exhaustion, and heat stroke.

In the interest of workplace safety and health, I recommend that you voluntarily take the necessary steps to materially reduce or eliminate your workers' exposure to the conditions listed above, including, but not limited to, the following:

General Controls:

General controls include training, personal protective equipment (PPE), engineering, work practice, and administrative controls, health screening, and heat alert programs, (*see also* NIOSH Criteria Document, *Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments*, February 2016, page 7), available at: www.cdc.gov/niosh/docs/2016-106.

1. **Training:** inform workers and supervisors of the following:
 - a. Hazards of heat-related illnesses.
 - b. How to avoid heat-related illnesses by recognizing and avoiding situations that can lead to heat-related illnesses.
 - c. Recognition of signs and symptoms of heat-related illnesses.
 - d. First aid procedures.
 - e. Employer's program to address heat-related illnesses.

2. **Personal Protective Clothing and Equipment:**
 - a. Hats for work outdoors in the sun.
 - b. For indoor work, loosely worn reflective clothing designed to deflect radiant heat, such as vests, aprons, or jackets.
 - c. Cooling vests and water-cooled/dampened garments may be effective under high temperature and low humidity conditions. However, be aware that cooling vests can become an insulator when they reach the body's temperature.
 - d. Consider the use of dermal patches for monitoring core temperature to better identify when workers need to be removed from the work area.
 - e. Consider the use of heart rate monitoring to better identify when workers need to be removed from the work area. Both sustained (180 bpm minus age) and recovery (120 bpm after a peak work effort) heart rates are recommended guidelines for limiting heat strain.

3. **Engineering Practice Controls:**
 - a. Use air conditioning
 - b. Increase general ventilation
 - c. Provide cooling fans
 - d. Use reflective shields to block radiant heat
 - e. Provide shade for outdoor work sites.

4. **Administrative and Work Practice Controls:**
 - a. Schedule hot jobs for cooler parts of the workday; schedule routine maintenance and repair work during cooler seasons of the year when possible.
 - b. Provide adequate, cool drinking water on the worksite that is easily accessible and permit employees to take frequent rest and water breaks.
 - c. Use relief workers and reduce physical demands of the job.
 - d. Use work/rest schedules.

5. **Health Screening and Acclimatization:**
 - a. Allow new workers to get used to hot working environments by using a staggered approach over 7-14 days. For example, new workers should begin work with 20% of the normal workload and time spent in the hot environment, and then gradually increase the time over a 7–14-day period. The same should be done for workers returning from an absence of three or more days, starting with 50% of the normal workload and time spent in the hot environment, then staging acclimatization over three consecutive days. Advise workers that certain medications can increase risk of heat stress. These include:
 1. Amphetamines – sometimes prescribed for narcolepsy or attention deficit hyperactivity disorder (ADHD),
 2. Diuretics - water pills,
 3. Antihypertensives - blood pressure medication,
 4. Anticholinergics - for treatment of chronic obstructive pulmonary disease (COPD), and
 5. Antihistamines - allergy medications
 - b. In addition, alert workers to the dangers of using illegal drugs and alcohol in hot work environments. Illegal amphetamines, such as methamphetamine, are particularly hazardous when heat stress is present.
 - c. Some conditions, such as pregnancy, fever, gastrointestinal illness, heart disease, and obesity, may increase the risk of heat-related illness. Advise workers to check with their doctors if they have any questions. (Please note: the employer is NOT entitled to

know whether workers have these conditions, but only whether workers have any health conditions that limit their ability to perform their job duties. In some instances, workers with chronic conditions may need extra time to become acclimatized or may need other accommodations, such as more frequent breaks or restricted work.)

- d. Encourage workers to consult a doctor or pharmacist if they have questions about whether they are at increased risk for heat-related illness because of health conditions they have and/or medications they take.

You may voluntarily provide this Area Office with progress reports on your efforts to address these heat-related conditions in your workplace. OSHA may return to your worksite to further examine the conditions noted above.

Sincerely,

David S. Tisdale
Area Director

Additional Resources:

1. OSHA-NIOSH InfoSheet: Protecting Workers from Heat Illness, www.osha.gov/sites/default/files/publications/osha-niosh-heat-illness-infosheet.pdf.
2. CDC Workplace Safety and Health Topics: Heat Stress, www.cdc.gov/niosh/topics/heatstress.
3. NIOSH Criteria Document: Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments, February 2016, www.cdc.gov/niosh/docs/2016-106/.
4. American Conference of Governmental Industrial Hygienists (ACGIH®) Action Limit (AL) for un-acclimatized workers and a Threshold Limit Value (TLV®) for acclimatized workers, *see* Heat Stress and Strain: TLV® Physical Agents 2022 or latest edition. *See* ACGIH® website at www.acgih.org/.
5. NOAA/NWS Heat Safety webpage, www.weather.gov/safety/heat.



January 17, 2023

Amazon.com Services LLC – MDW8
Vaskrsije (Vajo) Jankovic (Site Leader)
1750 Bridge Dr.
Waukegan, IL 60085

Re: Inspection #1608898 [push/pull forces]

Mr. Jankovic,

An inspection of your workplace at 1750 Bridge Dr. in Waukegan, IL, beginning on July 18, 2022, was conducted pursuant to a referral filed with the Occupational Safety and Health Administration (OSHA), Chicago North Area Office. The referral alleged the exposure to ergonomic hazards causing acute musculoskeletal injuries from manual material handling.

As part of our investigation, push/pull data samples were taken for push/pull movements of various manual tasks (i.e., movement of cages, pallet jacks, and boxes) with a calibrated ergonomic force gauge. These tasks included measurements of the horizontal movement of cages, pallet jacks, and boxes in several process paths within Inbound Receive and the Outbound Ship Dock processes. The resulting horizontal force values were analyzed using the State of Ohio Bureau of Worker's Compensation (OBWC) Push/Pull Guidelines*, objective guidelines for the risk assessment of workplace injury to the shoulders and back from pushing and pulling. Several measurements were found to be in elevated risk categories using the OBWC Push/Pull Guidelines.

- Two-handed peak push force measurements taken while pushing packages into floor level racking in the Inbound Stow process path were found to be high risk forces based on the OBWC Push/Pull Guidelines. The values for the two measurements taken in this area were 95.9 lbs. and 90.6 lbs., for hand heights of 22.5 and 31.5 inches respectively.
- Two-handed breakaway pull force measurements taken while moving a pallet jack in the Outbound Ship Dock GE Sort and Outbound Ship Dock Load process paths were found to be either high risk or moderate risk forces based on the OBWC Push/Pull Guidelines. The values for the four measurements taken in this area and on this equipment were 14.7 lbs., 36.7 lbs., 66.9 lbs., and 52.2 lbs., for handle heights of 32.5 inches. The first value was for the pulling of an empty load, the second value was for the pulling a loaded pallet on the dock floor, the third value was for pulling a loaded pallet over the trailer threshold, and the fourth value was for pulling a loaded pallet on the trailer floor. The value of the measurement taken at the threshold of the

trailer was found to be a high risk force and the value of the measurement taken inside the trailer was found to be a moderate risk force.

[*https://www.bwc.ohio.gov/downloads/blankpdf/PushPullGuidelines.pdf](https://www.bwc.ohio.gov/downloads/blankpdf/PushPullGuidelines.pdf)

The package stowing related measurements outlined above suggest that manual pushing of packages into racking systems as part of the Inbound Stow process path and the manual pulling of packages from racking systems as part of the Outbound Pick process path may present hazards to the workforce in terms of potential injury in areas such as but not limited to the shoulder and back from forceful lateral exertions. It was determined that Amazon has not performed in depth ergonomic baseline field analyses of pushing and pulling of packages into and out of the storage racking systems within the AMXL business unit. It is therefore recommended that Amazon pursue such baseline ergonomic field analyses to fully evaluate the potential risks and develop potential solutions.

The pallet jack related measurements outlined above suggest that manual movement of loaded pallet jacks inside of trailers and over trailer threshold transitions may present hazards to the work force in terms of injury to areas of the body such as but not limited to the shoulder and back from forceful lateral exertions. It was determined that Amazon has not performed in depth ergonomic baseline field analyses of the manual pushing and pulling of loaded pallets with pallet jacks in the AMXL business unit. It is therefore recommended that Amazon pursue such baseline ergonomic field analyses to fully evaluate the potential risks and develop potential solutions. Recognized potential root causes of elevated push/pull forces include trailer/dock transitions, debris in trailer (i.e., wood splinters), and maintenance/lubrication of manual pallet jack systems. Potential abatement options may include the use of electric pallet jacks (EPJs) where able to be safely utilized and/or manual pallet jacks with manual start assist technologies.

In the interest of workplace safety and health, we recommend that you voluntarily take the necessary steps to eliminate, or materially reduce, any future employee exposure to the potential hazards described above.

You may voluntarily provide the Chicago North Area Office with a progress report on your efforts to address these concerns. Under OSHA's current inspection protocol, we may return to your worksite in approximately one year to further examine the conditions noted above.

If you have any questions, please feel free to contact the Chicago North Area Office at (847) 227-1700.

Sincerely,

A handwritten signature in black ink that reads "Jacob Scott". The signature is written in a cursive style with a large, stylized initial "J".

Jacob Scott
Acting Area Director



January 17, 2023

Amazon.com Services LLC – MDW8
Vaskrsije (Vajo) Jankovic (Site Leader)
1750 Bridge Dr.
Waukegan, IL 60085

Re: Inspection #1608898 [struck-by injury hazards from objects handled during TPS and Team Lift activities]

Mr. Jankovic,

An inspection of your workplace at 1750 Bridge Dr. in Waukegan, IL, beginning on July 18, 2022, was conducted pursuant to a referral filed with the Occupational Safety and Health Administration (OSHA), Chicago North Area Office. The referral alleged the exposure to struck-by hazards of packages in storage.

As part of our investigation, injury and illness data was reviewed for your facility for approximately five calendar years (2017– late July of 2022). The following trend in the data was observed related to Associates being struck by objects not in storage, but rather while directly being handled during Tilt-Push-Slide (TPS) and Team Lift (TL) manual package movements:

Employees are experiencing and have experienced struck-by injuries to various parts of the body related to the loss of control of packages, during the manual handling (TPS or Team Lift) of objects weighing greater than 50 lbs. These injuries are occurring and have occurred in Inbound Receive, Inbound Stow, Outbound Pick, and Outbound Ship Dock process paths. Examples include, but are not limited to, the following examples provided below:

- 7/27/22 or 7/28/22 (dates vary) – crushing/smashing; face; furniture (61 lbs.); Inbound Receive
- 6/22/22, 6/23/22 or 6/26/22 (dates vary) – strain/sprain; lower leg; fitness equipment (148 lbs.); Outbound Ship Dock
- 4/4/22 – bruise; upper leg; kayak; Outbound Pick
- 3/8/22 – abrasion/scratch; foot; bed frame (66 lbs.); Inbound Stow
- 2021 (exact date unknown) - bruise; hand; package; Outbound Ship Dock
- 11/20/20 – crushing/smashing; hand; bed frame; Outbound Dock
- 10/23/20 – bruise; foot; dog kennel (78 lbs.); Outbound Pick
- 9/18/20 -sprain/strain; foot; unknown item; Outbound Pick
- 8/23/20 – fracture; foot; package (55 lbs.); Outbound Ship Dock

- 6/20/20 – bruise; hand; package (62 lbs.); Outbound Ship Dock
- 3/4/20 – laceration/cut; nose; bed; Outbound Pick
- 2/12/20 – bruise; foot; weights; Outbound Ship Dock
- 1/21/20 – bruise; knee; bed; Inbound Receive
- 12/30/19 – bruise; lower arm; bed and frame (98 lbs.); Outbound Ship Dock
- 12/27/19 – bruise; foot; ladder; Outbound Pick
- 12/10/19 – abrasion/scratch; foot; package (54 lbs.); Outbound Pick
- 12/4/19 – bruise; upper arm; unknown item; Outbound Ship Dock
- 9/19/19 – laceration/cut; lip; unknown item; Outbound Pick
- 6/10/19 – bruise; foot; mechanical lift item; Outbound Ship Dock
- 5/8/19 – sprain/strain; shoulder; TV (90 lbs.); area unknown
- 3/21/19 – bruise; knee; package (50 lbs.); Outbound Ship Dock
- 7/6/18 – sprain/strain; hand; cargo carrier (62 lbs.); Outbound Pick
- 6/10/18 – sprain/strain; shoulder; grill (74 lbs.); Outbound Pick
- 5/23/18 – bruise; foot; unknown item; Outbound Pick

Since no OSHA standard applies to this specific struck-by hazard scenario and since it is not considered appropriate at this time to invoke Section 5(a)(1), the General Duty Clause of the Occupational Safety and Health Act, no citation will be issued for the specific hazard scenario identified above as a result of this inspection.

In the interest of workplace safety and health, it is recommended that you voluntarily take the necessary steps to eliminate or materially reduce your employees' exposure to the hazard described above.

Abatement methods may involve a combination of engineering and administrative controls aimed at significantly reducing the amount of manual material handling being performed on heavy packages at AMXL facilities. Additional specific abatement methods are outlined in Citation 2 Item 1 (general duty clause violation addressing ergonomic hazards at MDW8) signed on January 17, 2023.

OSHA welcomes any report of your efforts to reduce the above-mentioned exposures. If you have any questions, please feel free to contact the Chicago North Area Office at (847) 227-1700.

Sincerely,



Jacob Scott
Acting Area Director



January 17, 2023

Amazon.com Services LLC-MCO2
Stephen Waller, Site Manager
2600 N. Normandy Blvd.
Deltona, FL 32725
Re: Inspection #1608788

Dear Mr. Waller,

An inspection of your workplace at 2600 N Normandy Blvd., Deltona, FL 32725, beginning on July 18, 2022, was conducted pursuant to a referral filed with the Jacksonville Area Office. As part of the inspection, the on-site team inspected the AMCARE Unit, now called the Wellness Center. The team lead and two physicians interviewed the individual supervising the AMCARE Unit, three on-site medical representatives (OMRs), and over 50 employees who had sought care. The physicians reviewed and discussed the Conservative Care Protocol in place at the time of the inspection.

The investigation included (1) a review of OSHA 300, 300A, and 301 injury and illness recordkeeping forms for the years since the facility started operation until the date of the inspection, (2) private employee interviews, (3) management interviews, (4) review of employee medical documents including first aid logs and treatment logs, and (5) analysis of work performed by OMRs.

AMCARE / The Wellness Center (AWC) provides immediate medical service and first aid treatment to Amazon workers at the Deltona warehouse and represents the primary mode for outside referrals to physicians when employees experience an injury or have a health complaint. This service provides entry into the Amazon injury management system, previously Gensuite and since fall 2021, Austin. The goal is to document adverse events, define them as recordable or reportable, provide early intervention to limit the severity of the injury, and provide referrals to an outside healthcare provider when deemed necessary. It should also support emergency referrals and education (for example on ergonomic techniques). However, OSHA's investigation identified the following issues that can pose a serious hazard to workers.

Findings

Structure of the AMCARE unit:

Inadequate supervision of clinical personnel with appropriate clinical skills:

Unit Supervisor (US)

- The AWC supervisor, at the time of our inspection, was an athletic trainer by training. His explicit role at MCO2 was administrative supervision of the unit, and he did not work there as an athletic trainer. He denied responsibility for the accuracy of notes, the integrity of following processes, or other forms of content management beyond administration.

Onsite Medical Representatives and Athletic Trainers / Injury Prevention Specialists (AT/IPS)

- Amazon requires OMRs to hold some type of clinical license upon hire but does not require them to maintain that license actively. Therefore, in Amazon's approach, neither re-training nor other forms of clinical supervision are necessary or assured. The clinical licenses of the professional groups hired by Amazon all require that they must work under the supervision of either a registered nurse, advanced practice nurse, a collaborating physician (athletic trainers), or a physician (Emergency Medical Technician, EMT), with a structured approach to care.
- Licensed Practical or Vocational Nurses (LLN, LVN) must always work under a clinician with a higher scope of practice, i.e., a registered nurse, an Advanced Practice Registered Nurse, or a physician. An

LPN/LVN may undertake a focused clinical assessment, such as inquiring about the level of pain on a typical, pain scale and determining whether someone should then be referred to a physician. The American Nurses Association states that nurses are always bound by their professional status, so an LPN is unable to work in any healthcare field and ignore fundamental nursing expectations and ethics.

[Florida Nurse Practice Act Laws and Rules - StatPearls - NCBI Bookshelf \(nih.gov\).](#)

Note: It is unclear why an individual without a clinical license would ever inquire about a pain score, especially when a clinical protocol then directs decision-making based on the pain score. The OMRs at the MCO2 site clearly perform clinical work.

- Athletic trainers render services under the direction of or in collaboration with a physician ([HOME | ATAF](#)).
- Emergency Medical Technicians must be certified under a Federal or State system, but their license is always dependent on the medical system in which they work. Working in a medical system, with its licensing, continuing education, and supervision requirements, helps them adhere to acceptable clinical practices.

The OSHA inspection identified multiple events where staff whose license had expired were performing clinical assessments, including assessing pain levels, evaluating a passive and active range of motion, or other clinical assessments without an appropriate clinical supervisor. This activity jeopardizes the professional standing of staff even if it does not violate Amazon's hiring rules.

Inadequate coordination with workers' compensation:

- OSHA reviewers identified multiple gaps in workers' compensation management and in Amazon staff's adherence to protocols for non-work-related events.
- Austin's documentation was poor, imprecise, and inadequate to document the actual status, resolution, or progression of conditions. Many entries that were listed as "visits" were blank, i.e., contained no documentation. Although Amazon recognized this problem, and documented it in an internal review, after the implementation of the Austin program, the Austin records did not appear to improve in quality or completeness.
- OSHA's onsite reviewers identified multiple events where Amazon staff failed to follow up with employees in ways that effectively explained if there was any improvement or resolution.
- Florida workers' compensation statutes define a 21-day waiting period for full compensation benefits, and a 7-day waiting period for compensation unless an injured worker is off work for 22 days or more. Several workers, off work for more than 21 days, did not automatically receive full compensation.
- Several workers described active obstruction of efforts to seek medical care. These workers commonly sought care from their own physicians without notifying Amazon because of such obstacles.
- Multiple injured Amazon workers described that they were told to request short-term disability, leading to under-reporting of days away and reducing workers' compensation benefits.

Process Deficiencies:

- Practices by each of the three clinician categories encountered (LPNs, EMTs, ATs) deviate from expected practices.
- Poor record-keeping on the part of LPNs (Nurse practice act: 64B9-8.005 Unprofessional Conduct with inadequate recording).
- Practicing beyond the scope of the licensee's license, educational preparation, or nursing experience.
- Florida Athletic Trainers (ATs) are highly qualified, multi-skilled healthcare professionals who render service or treatment, under the direction of or in collaboration with a physician, in accordance with their education, training, and the state's statutes, rules, and regulations. In this case, an AT performed physical examinations of shoulder injuries, without an active license or without the supervision or collaboration of a physician's clinical assessment.
- Applying ice and massage meets the criteria for first aid and therefore does not require entry onto the 300 logs. However, "first aid" for OSHA recordkeeping purposes differs from first aid in clinical terminology. Assessing pain levels with a pain score, for example, with a protocol for decision-making is not "first aid" but represents a formal clinical evaluation that implies the presence of a license and

appropriate clinical supervision. Multiple visits for such “first aid” deviates from standard clinical practices and from the clinical usage of the term.

- The MCO2 facility was still using Amazon’s prior Conservative Care Protocol, had access to a Physician Help Line, and used the Austin System for documentation. OSHA identified deficiencies with each of those tools.
- Conservative Care Protocol: Although one OMR knew that a new CCP had been released, she stated it was not yet available to OMRs in Deltona, at least three months after release, and she still used the CCP in the prior ring binder.
- Comparison of the protocols in the prior CCP document with actual clinical management practices documented major discrepancies. For example, a critical element of the initial evaluation was documentation of the pain level on a numeric (1 to 10) pain scale. When Amazon workers identified pain above a certain level, the OMRs were to contact the physician helpline (PHL). OSHA reviewers identified multiple examples of presenting pain above the identified threshold that did not lead to a PHL call.
- Similarly, head trauma with dizziness and other symptoms did not automatically lead to referrals to a physician.
- Multiple workers described severe back pain, and the OMR failed to undertake a formal evaluation of “red flags”, the criterion for emergency interventions, or refer the injured worker to a physician.
- The US (AT/IPS) stated that, to his knowledge, no one at MCO2 had ever used the PHL.
- Several workers described that they had undergone an active and passive range of motion evaluation with physical examination, indicating an AT working beyond scope of practice as this would require physician supervision and/or collaboration.
- Amazon employee interviews revealed a common practice of the 3-week AMCARE rule, which required that injured workers seek care in AWC for three weeks before a referral to a physician was granted.
- A critical element of injury management is identifying the causal event or exposure and promptly managing the injury to minimize adverse effects and prevent long-term adverse outcomes. In general, OMRs failed to document the specific mechanism of injury for musculoskeletal symptoms, failed to help the supervisor identify the specific process element requiring modification, and failed to prevent the worsening of the injury.
- This failure results in a lack of Amazon’s recognition of the true incidence of injuries related to specific processes and/or means to correct the hazards.
- Amazon does not appear to have any quality management processes in place for its clinical staff with major deficiencies in documenting care. This represents a dramatic deviation from standard practices for clinicians in the U.S.

Outcomes

Although a central Amazon program manager does, at least annually, send a workers’ compensation notification and update, Amazon does not appear to examine its processes systematically. Despite formal guidance on root cause analysis and interventions, Amazon does not appear to use such individual events routinely either at the individual event level or at the facility level to mitigate ergonomic hazards.

Because the Austin records are so poor, it is also difficult to understand which elements of specific process paths cause the injuries.

Finally, because OMRs discourage workers from seeking medical treatment, many injuries progress. Multiple workers described being discouraged from seeking outside care or experiencing obstacles to obtaining such care, i.e., through the “21-day rule.” The injured workers are then sometimes left both with chronic pain and with functional impairment. Multiple interviewees described ongoing physical limitations. OSHA staff interviewed several workers who had been terminated while still suffering from injuries, before achieving maximum medical improvement.

At this time the Occupational Safety and Health Administration will not issue a citation for providing medical care beyond first aid, which is an issue that would be addressed under the General Duty Clause of the Occupational Safety and Health Act of 1970. Amazon should consult its corporate medical

department to review why hiring clinical staff, with a license, and having them work outside the scope of their license poses a risk to those individuals' licenses.

In the interest of workplace safety and health, it is recommended that Amazon voluntarily take reasonable steps to address these issues. First, Amazon should conduct a systematic review by a qualified physician who is Board Certified in Occupational Medicine using the points above to assess current gaps in structure and processes. Second, because workers' compensation statutes differ in each state, a careful review of Amazon's approach to referring workers is necessary, with special attention to the implementation of the Conservative Care Protocol. Third, an occupational medicine physician should also provide guidance and ongoing training for the AMCARE staff, review their recordkeeping practices and adherence to Amazon's protocols, and review trends in symptoms and injuries. Forth, ensure that OMR staff are not working outside their scope of practice and/or performing evaluations that place Amazon employees at risk of serious harm. Finally, implement a quality management plan.

To evaluate your efforts in reducing these hazards, please send me a letter detailing the actions you have taken or plan to institute, to address our concerns within 60 days of the date of this correspondence. We will review your response and determine if a follow-up is needed to further evaluate your workplace, including any recommended/implemented controls. Under OSHA's current investigation procedures, we may visit your work site within six months to examine the conditions noted above.

Thank you in advance for your attention to these concerns. Working together, we can move closer to achieving the goal of workplaces free of preventable hazards. If you have any questions, please feel free to contact the Area Office at (904) 232-2895.

David Tisdale
Area Director

cc:



01/17/2023

Amazon.com Services, LLC, DBA DY01
Attn: Eric Crouch, Operations Manager Site Leader
500 Hudson Valley Avenue
New Windsor, NY 12553

Re: Inspection # 1607234

Dear Mr. Crouch:

An inspection of your workplace at 500 Hudson Valley Avenue, New Windsor, NY, beginning on July 18, 2022, was conducted pursuant to a referral filed with the Albany Area Office. The referral alleged the following with respect to ergonomics:

- Workers face immense pressure to meet pace of work and production quotas at the risk of sustaining musculoskeletal injuries, which are often acute,
- Evidence that injuries may not have been reported, because Amazon's on-site first-aid clinic ("AmCare") is not staffed appropriately, which our investigation has revealed would otherwise be an important mechanism by which Amazon gathers injuries to report.

The investigation included (1) a review of OSHA 300, 300A, and 301 injury and illness recordkeeping forms for the years since the facility started operation until the date of the inspection, (2) private employee interviews, (3) management interviews, (4) review of your company's overall ergonomic hazard control efforts, (5) review of employee medical documents including first aid logs and treatment logs, (6) analysis of work performed in several inbound and outbound process paths, video of employees performing tasks in several inbound and outbound process paths, and analysis of ergonomic risk factors using the revised NIOSH lift equation¹, the lumbar motion monitor², XSENS motion capture system³, ACGIH hand activity TLV, ACGIH Upper Limb Localized Fatigue TLV⁴, and the State of Ohio Bureau of Worker's Compensation Push/Pull guidelines⁵.

¹ Applications Manual for the Revised NIOSH Lifting Equation, https://www.dir.ca.gov/dosh/dosh_publications/mmh.pdf

² Marras, W. S., Sudhakar, L. R., & Lavender, S. A. (1989). Three Dimensional Measures of Trunk Motion Components during Manual Materials Handling in Industry. *Proceedings of the Human Factors Society Annual Meeting*, 33(11), 662-666. <https://doi.org/10.1177/154193128903301108> and Marras, W.S., Allread, W. G., Burr, D.L., Fathallah, F. (2000). Prospective validation of a low-back disorder risk model and assessment of ergonomic interventions associated with manual materials handling tasks. *Ergonomics*. 43. 1866-86. 10.1080/00140130050174518

³ <https://www.xsens.com/musculoskeletal-models-with-xsens>, accessed 11/18/2022

⁴ American Conference of Governmental Industrial Hygienists (ACGIH). Threshold limit values and biological exposure indices for 2022. Cincinnati: ACGIH. www.acgih.org

⁵ <https://www.bwc.ohio.gov/employer/programs/safety/PushPullGuide/PushPullGuide.aspx>, accessed 11/18/2022

Findings

Based on the review of the injury and illness information, interviews with employees, and ergonomic risk assessments, employees are exposed to a high risk of serious musculoskeletal disorders when routinely working in the following process paths:

Process Path	Back Risk Evaluation Tool			Upper Extremity Risk Evaluation Tool	
	NIOSH Lift Equation	Lumbar Motion Monitor	OBWC Push/Pull Limit	ACGIH Hand Activity TLV	ACGIH Upper Limb Localized Fatigue TLV
Water Spider			Unacceptable		
Induct Scanner				1.4	2.8
Pick and Stage	2.3 CLI	87 %	Unacceptable		
		Red indicates a high risk for musculoskeletal disorders based on the score of the risk evaluation tool			

Employees working in the Water Spider process path were required to pull full go-carts and pallets loaded with packages or Gaylords with manual pallet jacks out of semi-truck trailers. Employees were exposed to high pull forces when initiating pallets and go-carts and when go-cart wheels were locked exposing them to an increased risk of low back and shoulder MSDs.

Employees working in the Induct process path as an Induct Scanner were required to continuously grip a scanner weighing 1.6 to 2.0lbs while scanning packages at a high rate of frequency. This exposed employees to an increased risk of hand, arm, and shoulder MSDs. Employees were also required to sustain a flexion of the arm to reach packages on the conveyor.

Employees working in the Pick and Stage process path were required to repeatedly lift, pull, twist, and bend during the process exposing them to an increased risk of low back and shoulder MSDs. Employees were required to bend to pull out large totes weighing up to 50lbs from floor level, pull them down the aisle and lift the totes onto the U-boat carts above shoulder height. Employees also were required to bend to lift packages off shelves at floor level and onto U-boat carts.

This hazard alert letter identifies jobs with a high level of ergonomic risk that are in addition to the jobs OSHA has recently listed in the 5(a)(1) violation. While some ergonomic risk factors can be reduced or eliminated by implementing a single means of abatement, in most cases a process will provide the most effective method of addressing the risk factors. Amazon recognizes feasible mitigation strategies, including but not limited to, those outlined in the NIOSH guidance on Elements of Ergonomics Programs, as evidenced by inclusion of those and many other methods in the Amazon document North American WHS Ergonomics Procedure North America, Published: March 20th, 2020, Effective: March 20th, 2020. Elements of an effective ergonomics program include, but are not limited to the following:

1. Worksite analysis to recognize and identify existing manual handling hazards in the workplace and develop an effective ergonomics program. Conduct an ergonomic assessment by a certified professional ergonomist, or other qualified professional. An analysis should include

an assessment with validated methods [i.e., NIOSH lifting equation, the lumbar motion monitor, ACGIH TLV for Hand Activity and Upper Limb Localize Fatigue or other validated ergonomic risk assessment methods for manual handling tasks. and employee participation (e.g., surveys, interviews)]. Periodic ergonomic surveys of employees and risk assessment of process paths in the workplace should be conducted at appropriate intervals or when changes to the work may change the ergonomic risk, to evaluate effectiveness of controls,

2. Training and education for exposed employees, including methods to evaluate the effectiveness of the training. Re-training should be done annually, or as operations change. Training should be done in a manner understandable by all employees (in a language that they speak) and address hazards associated with the work they perform, early recognition of musculoskeletal injuries and illnesses, the ergonomic risk factors associated with their job(s), and how to prevent MSDs. The training should include the elements of the ergonomics program and the affected employee's role in the program. Training should also be provided to operations area managers and process assistants as well as First Aid staff. The supervisors' training program should allow recognition of ergonomic risk factors, early signs of MSDs, and how to respond when risk factors are observed or when symptoms are reported. The training program should include the establishment's health care providers to ensure they are able to recognize symptoms of MSDs and are familiar with appropriate protocols for treatment of MSDs. Educational material or training on ergonomics should be provided to people responsible for designing jobs and buying equipment, tools, workstations, and parts,
3. Hazard prevention and control that includes the identification of paths with ergonomic risk factors and engineering, administrative, and work practice controls to materially reduce the hazard.
 - a. Engineering controls are designed by a certified professional ergonomist or other qualified professional and may include workstation redesign, tool and handle redesign, and use of mechanical lifting aids. The goal should be to make the job fit the person.
 - b. Administrative controls are implemented which reduce the duration, frequency, and severity of exposure to ergonomic risk factors. These controls may include job rotations that reduce ergonomic risk, reduction of repetitions, multiple person lifts, and maintenance of related equipment.
 - c. Work practice controls are implemented which include work techniques, new employee conditioning, and reduction of weight lifted.

The following engineering, administrative and work practice controls are feasible and will materially reduce the hazard at this workplace:

- a. Task/Process Path: Water Spider
 - Use motorized or pull-assist pallet jacks when removing pallets containing packages or Gaylords.
 - Use go-carts instead of pallets to reduce pull forces.
 - Regularly maintain casters on go-carts and pallet jacks to minimize drag and friction forces.
 - Originating sites should clean the tailer floors prior to loading.
 - Originating sites should only lock wheels that are easily accessible during unloading.

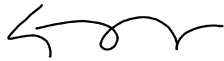
- b. Task/Process Path: Induct Scanner
 - Use a smaller, lighter scanner, or wearable scanner on the finger or hand.
 - Use a fixed wrap-around scanner that does not need to be held.
 - c. Task/Process Path: Pick and Stage
 - Eliminate stacking totes three high on U-boats to reduce lifting and awkward postures. Hand heights during lifts should be less than 58”.
 - Use a 2-person lift when loading totes onto U-boats to reduce lifting, twisting, and awkward postures.
 - Eliminate dragging of stacked totes on the floor to reduce pull forces.
 - Use height adjustable carts to slide totes from the Stow shelf to the cart and then slide the tote onto the U-boat to reduce lifting and pull forces.
4. Medical management - Medical management includes protocols for treating musculoskeletal disorders (MSDs) that are developed and reviewed by a healthcare professional who is experienced and licensed in the diagnosis and treatment of MSDs. The protocols should address early recognition, evaluation, and referral of MSD cases. Healthcare personnel who treat employees with MSD symptoms must be practicing within the scope of their license and they must be trained to follow the MSD protocols. Systematic reviews of incident trends and worksite reviews for ergonomic risk and root cause analysis should be reported to operations management. The medical staff and managers should eliminate policies that discourage employees from reporting injuries and symptoms,
5. Program evaluation. The elements of the ergonomics program; management leadership, employee participation, training, hazard identification and control, and medical management should be evaluated periodically (at least annually) to compare the ergonomics program policies and goals to the practices at the site,
6. Personnel responsible for OSHA recordkeeping must be trained in the requirements of OSHA recordkeeping. The entries on the OSHA 300 and 301 forms should be periodically verified by a knowledgeable person.

To evaluate your efforts in reducing these hazards, please send me a letter detailing the actions you have taken, or plan to institute, to address our concerns within 60 days of the date of this correspondence. We will review your response and determine if a follow up is needed to further evaluate your workplace, including any recommended/implemented controls.

Under OSHA's current investigation procedures, we may visit your work site within six months to examine the conditions noted above. Enclosed is a list of available resources that may be of assistance to you in preventing work-related injuries and illnesses in your workplace.

Thank you in advance for your attention to these concerns. Working together, we can move closer to achieving the goal of workplaces free of preventable hazards. If you have any questions, please feel free to contact the Area Office at 518-464-3203.

Sincerely,



Rita Young, MS

Area Director

cc: Amazon Corporate Headquarters, 410 Terry Ave. N, Seattle, WA 98109

RESOURCES

OSHA 3220 Pocket guide, Worker Safety Series, Warehousing,
https://www.osha.gov/sites/default/files/publications/3220_Warehouse.pdf

NIOSH Elements of Ergonomics Programs,
www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html

Applications Manual for the Revised NIOSH Lifting Equation,
https://www.dir.ca.gov/dosh/dosh_publications/mmh.pdf

CAL/OSHA Ergonomics Guidelines for Manual Material Handling,
https://www.dir.ca.gov/dosh/dosh_publications/mmh.pdf

[*if used in the risk table*] 2021 Threshold Limit Values (TLVs®) and
Biological Exposure Indices (BEIs®) of the American Conference of
Governmental Industrial Hygienists (ACGIH®),
<https://www.acgih.org/TLV/>.