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**BOARD OF INDUSTRIAL INSURANCE APPEALS
STATE OF WASHINGTON**

In Re: Amazon.com Services LLC
dba Amazon.com

Citation & Notice No. 317965723

Docket No. 22 W0121

**DECLARATION OF RICHARD
GOGGINS IN SUPPORT OF
DEPARTMENT'S RESPONSE TO
MOTION FOR STAY OF
ABATEMENT**

Richard Goggins declares as follows:

I am over the age of eighteen, a citizen of the United States, and I am otherwise competent to testify. I make these statements based on personal knowledge and belief.

I work for the Department of Labor & Industries as an ergonomist. I am an authorized representative of the Director of the Department of Labor and Industries. I have read the pleadings filed by Amazon on May 2nd requesting a stay of abatement for the Kent warehouse.

I am the lead ergonomist in a series of inspections that were conducted around the State following complaints by employees regarding working conditions in Amazon's warehouses. I have completed inspections of an Amazon fulfillment center in DuPont, a delivery station in Sumner,

1 and, most recently, a fulfillment center in Kent based on a worker complaint that Labor and
2 Industries received in August 2021. The inspection of the Kent facility opened on September 14,
3 2021, on which date I accompanied the lead inspector, Laura Rascon-Padilla.
4

5 During our initial walk-through of the Kent facility, I observed a number of work processes with
6 known risk factors for musculoskeletal disorders. Combined with my knowledge from prior
7 inspections of Amazon warehouses and injury data from this facility, I was able to identify a
8 number of jobs that required further analysis. In my DuPont inspection I noted the fast pace of
9 work. In Kent, I immediately noted that the pace of work was faster than at DuPont. Even though
10 the size and weight of items handled in Kent are smaller than those at DuPont, the speed of
11 movement, frequent grasping motions, and moving in and out of awkward positions all
12 contributed to identifying many of the processes as at-risk jobs.
13

14 Labor and Industries retained the services of three nationally recognized experts in ergonomics,
15 Dr. David Rempel, Dr. Robert Harrison, and Dr. Carisa Adamson. These experts, along with
16 other Labor and Industries ergonomists, inspectors, and myself, conducted a very thorough
17 inspection of the Kent fulfillment center in December 2021 and early January 2022. Our
18 inspection team observed and collected data for the processes initially selected for review, and
19 then analyzed the data to determine hazard levels.
20

21 As part of our inspection, I reviewed Amazon's ergonomics program "WHS Ergonomics
22 Procedure NA version 10.0." The program describes a number of ergonomics assessments that
23 each warehouse should conduct as part of the program implementation. "Phase 1" assessments
24 use a screening tool that covers multiple risk factors such as lifting, gripping, repetitive motions,
25 and working in awkward postures. Processes that are found to have risks based on the screening
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1 tool are then to be analyzed using a “Phase 2” tool that is specific to a hazard or part of the body
2 at risk.

3
4 Amazon states on page 5-6 (and elsewhere) of their Memorandum that the Department did not
5 inquire as to what ergonomics work they had already performed at the Kent facility. This is not
6 true. As part of a document request to Amazon early in the inspection process, we asked for
7 copies of any of their ergonomics analyses. This is a standard practice during these types of
8 inspections, since it gives us a better idea of steps the employer has taken to address injury risks.
9 With the exception of evaluations for one job, Amazon refused this request, stating: “a request
10 for all ‘ergonomic evaluations’ that ever occurred at BFI4 is overbroad, including as to temporal
11 scope, and unduly burdensome.” The one analysis provided by Amazon for the Pick job showed
12 it to be high risk for shoulder/elbow and hand/wrist injuries based on their Phase 1 screening
13 tool. The Phase 2 analysis used another screening tool, the Rapid Upper Limb Analysis (RULA).
14 This is primarily a posture-based analysis that is not well suited for assessing jobs that involve
15 repetitive reaching and grasping motions.

16
17 Lacking documentation from Amazon on the extent of their implementation of their program,
18 we were forced to perform our own assessments of at-risk jobs. We used some of the same tools
19 that Amazon lists as Phase 2 tools in their program, including the NIOSH Lifting Equation and
20 the ACGIH Hand Activity Level Threshold Limit Value (HAL TLV). These tools revealed that
21 most of the at-risk jobs that we initially identified did reach hazard levels, and therefore should
22 have been candidates for further measures to reduce the risk.

23
24 In describing the methods of abatement that I have recommended, Amazon states:
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1 Instead, what the Division seeks is nothing short of a fundamental redesign and retrofit
2 of most aspects of a roughly 1.1 million square foot facility before it ever proves any of
3 its allegations and without any consideration to the feasibility, effectiveness, or potential
consequences of the proposed changes.

4 This is simply not true. In this case, as in all of the ergonomic Stay of Abatement cases I have
5 previously been involved in (Alaska Airlines/Menzies Aviation, United Parcel Service, Amazon-
6 DuPont), I have always agreed to work with the employer in coming up with reasonable and
7 feasible interim abatement measures; and I will do so here.

8 Further, as part of our inspection report and the citation provided to Amazon, the team of
9 ergonomists identified a number of feasible means of abatement for each of the processes that
10 reached hazard levels. The most effective solutions are engineering controls – changes to the
11 physical workplace, tools and equipment that will help to design out risk. The types of equipment
12 that we recommended are common in the warehousing industry, and are not overly burdensome
13 for a large employer to purchase and implement.

14
15 One example of a piece of equipment already in limited use at Amazon is a height adjustable
16 platform that can attach to an extendable conveyor to help reduce awkward reaching and bending
17 while loading and unloading packages on trailers. While this device does help to reduce some
18 awkward postures, the analysis of its use at Amazon showed that it increased twisting motions
19 due to the small size of the platform on which workers stood. Workers also used a much faster
20 pace of lifting while using the device compared to using a step stool, and the speed of lifting also
21 contributed to a higher risk for back injury.

22
23 With a larger platform that allows workers to move their feet instead of twisting, and a more
24 reasonable pace of lifting, the device would reduce the injury risk. While a better solution is to
25 unitize packages using pallets, slip sheets or gaylords; the height-adjustable conveyor could still
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1 be useful in cases where Amazon does not have control over the way that trailers are loaded at
2 their source.

3
4 In many of the other processes we saw very little evidence of engineering controls beyond basic
5 workstation design and the use of step stools for accessing higher locations. We have learned as
6 the result of earlier inspections of Amazon facilities that they are testing devices at another
7 facility, such as vacuum lifts for palletizing boxes. Since some evaluation of devices has already
8 been conducted, Amazon should be able to bring any equipment that proves feasible to the Kent
9 location without too much delay.

10
11 Amazon's objections to other individual control measures that were proposed in the citation
12 ignores the fact that those measures are not specifically mandated. Amazon has the option of
13 purchasing, modifying or developing their own engineering controls, as long as they
14 substantially reduce the risk to workers' health and well-being. In addition to equipment and
15 workstation design, Amazon needs to consider the overall design of the jobs themselves. The
16 increased risk of lower back injury with the height-adjustable conveyor is just one example of
17 the impact that the pace of work can have even when other ergonomic factors are improved.

18
19 Amazon also asserts that we copied and pasted control measures from previous citations that are
20 not applicable at the Kent facility. I found a lot of similarities between the Kent and DuPont
21 warehouses. Where processes were substantially similar between DuPont and Kent, we did
22 repeat the same possible control measures. Again, these are suggested options and are not
23 mandated. If a recommended control is not feasible or appropriate, Amazon can offer an
24 alternative that results in an equivalent reduction in injury risk.

1 That said, I note that on page 18 of their Memorandum, Amazon fairly criticizes our
2 recommendation of pallet transfer stations. Upon review, I realized that none of us analyzed any
3 repalletizing operations at Kent, although we did do so at DuPont. The inclusion of pallet transfer
4 was an error; and I apologize for any confusion caused by this mistake.

5
6 Amazon states on page 11 that they are “assessing whether it is feasible to develop and
7 implement a formalized job rotation program.” Successful job rotation programs depend on the
8 ability to move workers to jobs that place substantially different physical demands on them. This
9 could include moving from a standing job to one that allows sitting, or moving from a highly
10 repetitive job to one with more variety.

11
12 Job rotation may have limited effectiveness at Amazon, where so many of the jobs involve
13 similar demands. For example, we did not see any chairs or other forms of seating out on the
14 warehouse floor, even for workers at computer stations. It’s also important to address jobs with
15 very high physical demands before rotating workers into them. For example, unloading and
16 loading trailers are physically demanding to the point that rotating more workers into that
17 position will simply expose more workers to a high risk of injury.

18
19 Most of the engineering controls that Amazon lists as proof of their attention to ergonomics
20 include small changes to the design of conveyors and workstations to reduce awkward postures.
21 While reducing awkward reaches does provide some benefit to workers, these changes don’t
22 address the primary risk factors that we found during analysis, namely repetitive motions
23 combined with gripping and lifting. There were many times that I noted while analyzing videos
24 of the work being done at Kent where employees did not take the time to fully climb ladders, or
25 take a few extra steps to get closer to their work.
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1
2 Designing workstations to reduce awkward postures and training workers to work close to their
3 bodies are not as effective when the pace of work pushes them to take shortcuts and use the
4 fastest motions possible. Amazon’s approach of having workers wear devices that vibrate to alert
5 them when they’re working in awkward postures is just another way of making employees
6 believe it is their fault when they can’t both work safely and keep up with the pace of work.
7

8 Pace of work issues:

9 Based on our inspection at Kent and at other Amazon facilities, I believe that addressing the risks
10 due to the pace of work will be critical to successfully reducing injury rates, especially at their
11 fulfillment centers. The constant pressure to “make rate” was frequently mentioned during
12 employee interviews as one of the factors that led to fatigue and symptoms of injury. One
13 employee even broke down crying during our interview while recounting the toll that the
14 physical demands of the work had placed on their body.
15

16 I am assuming that some of Amazon’s arguments that the Department is asking them to
17 completely re-design their work processes relates to our concerns about the extremely fast pace
18 of work. However, the Department has never asked Amazon to recalculate their algorithms that
19 determine the pace of work required each work process. For purposes of interim abatement while
20 this matter is pending at the Board, it would be acceptable if Amazon were to make it clear to
21 all employees at the Kent warehouse that they will not be disciplined if they do not “make rate.”
22

23 I know that Amazon denies all of the media stories that employees are disciplined for not
24 working fast enough. Therefore, they should be willing to put in writing and tell their employees
25 what they tell the media.
26

1 In combination with the high pace of work and physical demands of many of the jobs, 10-hour
2 shifts and mandatory overtime increase the risk for injury. Shorter duration shifts and making
3 overtime optional could help to reduce risk by allowing workers more recovery time. Recent
4 media reports have pointed out that Amazon now has a surplus of employees who were hired to
5 meet the increase in demand during the pandemic. Improving working conditions could help
6 Amazon to retain enough of these employees to be able to offer shorter shifts and avoid overtime.
7

8 Injury Rates at the Kent warehouse:

9 On page 3 of their Memorandum, Amazon states that “ergonomic injury rates” at Kent have been
10 “substantially reduced over the past five years.” While Amazon has seen a recent decrease in
11 injuries at Kent, I would not characterize it as a substantial reduction. Soon after the facility
12 opened in 2016, the injury rate there grew to be much higher than the rate for the warehousing
13 industry in Washington State. Their musculoskeletal disorder (ergonomic injury) rate was up
14 and down between 2017 and 2021, rather than a steady decline that one would expect with a
15 concerted effort to fix hazards. Worryingly, musculoskeletal disorders (MSDs) have been the
16 single largest category of injuries over the past several years, accounting for almost 2 out of
17 every 3 workers compensation claims in most years.
18

19 In 2021 alone, there were 119 MSDs at the Kent warehouse resulting in 4,644 days of time loss,
20 the equivalent of losing 13 full time workers for an entire year. Several individual claims were
21 for injuries so severe that the affected workers lost more than a year’s worth of working days.
22 While Amazon must cover the costs of these claims through their workers compensation
23 premiums, injured workers incur uninsured costs on their own. The strongest predictor of future
24 musculoskeletal injuries is past musculoskeletal injuries, since damage to muscles, tendons,
25 ligaments and nerves is slow to heal and can often become chronic. Workers who stay with
26

1 Amazon post injury risk re-injury if they continue to do the type of work that injured them
2 initially. Workers who leave Amazon bring their injury history with them.
3

4 In the media, Amazon frames their high injury rates as a recent problem with new employees
5 hired during the pandemic, but here in Washington State the injury rate for all of their
6 warehouses started climbing from 2015 to 2017, and their WMSD rate has been much higher
7 than the rate for the warehousing industry since at least 2015.

8 Based on the level of the hazards that we cited at Kent, the hundreds of employees that are
9 injured there every year, and the lasting toll that the work can take on their bodies, I firmly
10 believe that Amazon should not delay any further in addressing the hazards in their warehouses.
11 And, for all of the reasons I have stated above, I strongly believe that there will be serious injuries
12 at this facility while this litigation is pending if Amazon's Motion to Stay Abatement is granted.
13

14 My qualifications to express the above opinions are as follows:
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- 16 • Board Certified Professional Ergonomist accredited by the Board of Certification in
17 Professional Ergonomics. Certificate No. 1033, 2000.
- 18 • Master of Science degree in Human Factors and Ergonomics. Institute for Safety and
19 Systems Management, University of Southern California, 1994.
- 20 • Worked as an ergonomist in aerospace.
- 21 • Work as a Division of Occupational Safety and Health (DOSH) ergonomist at the
22 Department of Labor & Industries since 1995--providing services in a wide range of
23 industries including: manufacturing, warehousing, transportation, healthcare,
24 agriculture, and more.
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As an ergonomist, I provide a range of services to DOSH customers. For cases in which I go to employers' job sites to evaluate the work, I look for risk factors that can lead to work-related musculoskeletal disorders (WMSDs). A typical sequence of work that I do after conducting a walk-through of the work process includes: use analysis tools to determine the likelihood that risk factors will result in injury, research and identify appropriate solutions for WMSD risk factors, and offer recommendations to employers to reduce or abate hazardous levels of risk factor exposures. I may review information from epidemiological and other ergonomics research to identify hazards in specific industries or types of work. I also review employer injury data looking for patterns of WMSDs. Additionally, as an ergonomist I provide other types of services such as developing and delivering presentations or training in ergonomics.

This declaration applies to AMAZON BFI4's Motion for Stay of Abatement.

I declare under penalty of perjury of the laws of the State of Washington the foregoing is true and correct.

DATED this 12th day of May, 2022, in Olympia, Washington.



Richard Goggins