



Washington State Department of  
Labor & Industries

## Ergonomics Rulemaking Scheduled Airlines – Ground Crew Operations

*Broad stakeholder meeting*

*First scoping meeting*

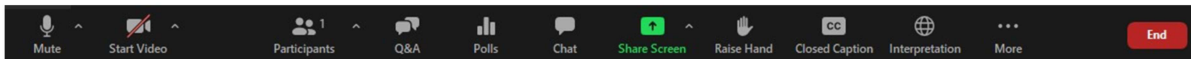
*January 9, 2025*




## Agenda

- Welcome and Introductions
- Zoom / Meeting Information
- Safety Tip
- Purpose
- Background
- Industry Selection
- Roadmap
- Basics of Ergonomics
- Scoping Questions
- Rulemaking Timeline and Next Steps

## Zoom Meeting Information



### ▪ Online

- Controls at the bottom of the Zoom screen
- **Interpreter Channel or Globe Icon (EN-English or ES-Spanish)** 
- Questions:
  - **Raise Hand Option:** For live questions-DOSH staff will call on attendees after presenting the new requirements and draft language. In addition, DOSH staff will call on attendees after presenting the supplemental information.
  - **Q&A Icon**-Enter questions for DOSH staff. DOSH staff may respond directly; or, will read questions to the technical specialist to answer.
  - **Chat**-Feature disabled.

### ▪ Phone

- To raise/lower hand use \*9
- To mute/unmute use \*6

**NOTE:** Speakers will be speaking slowly because of concurrent interpretation. Please be patient.

## Safety Tip – Shoveling Snow

- Use a lightweight (about 3 pounds), sturdy shovel
- Handle length at chest level to avoid bending
- A curved shaft with a D-handle at the top helps with posture
- Use a smaller blade for heavier snow
- Warm up before starting
- Dress in layers and wear boots with good traction
- Push snow rather than lift
- Work at a comfortable pace and take breaks



Source: [https://www.ccohs.ca/oshanswers/ergonomics/snow\\_shovelling.html](https://www.ccohs.ca/oshanswers/ergonomics/snow_shovelling.html)

## Purpose of the meeting

- The rule development process is starting with broad scoping conversations to gathering input from interested parties across all industries on key components that the department should consider for future industry specific rules
- The purpose of this meeting is to share information to help develop a common understanding to build on as the rule development process continues
- Feedback on first broad scoping questions is requested to be submitted by January 27, 2025 to [RulemakingErgo@lni.wa.gov](mailto:RulemakingErgo@lni.wa.gov)

The purpose of this meeting is to share information to help ensure a common understanding of the new law, WMSD hazards, and ergonomics to build on as the rule development process continues. We welcome questions related to the information in the presentation and questions that would support your ability to answer the scoping questions.

We do not intend to get input on the scoping questions at this meeting, rather, we ask that feedback on the scoping questions be sent in writing to the rulemaking email address of [RulemakingErgo@lni.wa.gov](mailto:RulemakingErgo@lni.wa.gov).

Questions outside of the presentation content will be tracked in a parking lot.

We intend to work collaboratively with stakeholders on the rule development process. Information on the rule development roadmap will be discussed later in the meeting.

# Background – WMSDs and Ergonomics

## Work-related musculoskeletal disorders (WMSDs)

- Leading type of occupational injury
  - Nearly 1/3 of all compensable claims
- Affects the soft tissues of the musculoskeletal system
- Commonly caused by overexertion and/or repetitive movements and/or reactions from certain postures
- Are *not* injuries resulting from impact
  - Examples: Falls, struck by/against events, cuts or motor vehicle crashes

To give some context on what WMSDs are, they are, first off, caused or exacerbated by the work performed by a worker. Secondly, they are conditions that disturb or disrupt the function of soft tissues of the musculoskeletal system, for example, ones nerves, tendons, ligaments, etc. And they develop when the physical requirements of a job exceed the physical capacity of the human body. There will be more examples of this in the next few slides.

## Examples of WMSDs

- Back sprain due to lifting heavy objects or patients
- Carpal Tunnel Syndrome due to repetitive placing, grasping or moving objects
- Tendonitis in arm/wrist due to repetitive use of tools
- Rotator cuff syndrome due to bending and reaching

These are some examples of WMSD's. There are many others not shared here.



## Ergonomics

Ergonomics is the science and practice of designing jobs to workplace to match the capabilities and limitations of the human body

- Ergonomics identifies factors in the workplace that may pose a risk of WMSDs
- Ergonomics then looks for ways to reduce or eliminate the risk
- Ergonomics can have other benefits such as improving productivity and reducing absenteeism

WMSDs hazards are what we are trying to prevent. Ergonomics is the solution.

## Background – New Law

## 2023 ergonomics law (RCW 49.17.520) Overview

L&I will adopt rules for WMSD hazards (with constraints):

- Only one rule for an [industry](#) (NAICS code) or a [risk class](#) in a 12-month period, and not before July 1, 2026
- Compensable WMSD claim rate > 2X the overall statewide rate for a 5-year period
  - 2017–2021 statewide average: 4.4 per 1,000 FTE
  - 2018–2022 statewide average: 4.3 per 1,000 FTE
- May not adopt emergency rules or rules for employee home offices

[Read more on the Ergonomics Rulemaking website](#)

**What is a NAICS code?** For purposes of WMSD rules, “industry” is any classification in the North American Industry Classification System (NAICS), a national standard used to classify business establishments according to their primary economic activity. NAICS uses a six-digit coding system to identify particular industries. The first two digits designate the sector, the third digit designates the subsector, the fourth digit designates the industry group, the fifth digit designates the NAICS industry and the sixth digit designates the national industry.

The new law allows L&I to adopt rules at the three-digit, four-digit, and four-digit NAICS code level. When adopting rules using NAICS code, the new law requires the rules must exclude any NAICS code in the lower digit level that have a compensable WMSD claim rate of less than 2X the overall statewide rate for the 5-year period. For example, if adopting rules at the three-digit NAICS level, the rules must exclude any four-, five-, or six-digit NAICS codes that are less than the 2X overall statewide rate.

**What is a risk classification?** Rather than choosing a specific industry for rulemaking, the law allows L&I to focus rulemaking on a specific risk classification. When L&I is setting workers’ compensation insurance premiums, we group work activities that have similar risks for insurance loss together into risk classifications. Risk classifications and their descriptions are defined in the Washington Administrative Code – 296-17A.

The state risk classification system uses a simple hierarchical structure with two levels: a main risk classification level with 4-digits, which can then be subdivided into 6-digit sub-risk classifications. When adopting rules using risk classes,, the new law requires the rules must exclude any 6-digit sub-risk class that have a compensable WMSD claim rate of less than 2X the overall statewide rate for the 5-year period.

**What is a compensable claim?** Accepted claims are divided into medical-only claims and compensable claims. Compensable claims have additional expenses, including payments for time-loss, permanent partial disability awards, total permanent disability, and survivor benefits.

## 2023 ergonomics law (RCW 49.17.520) – overview (cont'd)

L&I will annually publish:

- All industries and risk classes eligible for rulemaking
- “High priority” industries or risk classes most likely to be selected for future rulemaking
- “Low priority” industries or risk classes trending  $\leq 2X$  the statewide rate 3 years from the recent 5-year period = "low priority"
- Review of compensable WMSD claims to confirm appropriately included

[Read more on the Ergonomics Rulemaking website](#)

See the Ergonomics Rulemaking website to read the 2023 and 2024 reports of Industries and Risk Classifications Eligible for Ergonomic Rulemaking.

## Trends

L&I is to consider the following trends when selecting an industry or risk classification for rulemaking:

- Whether the statistical trend suggests the industry or risk class will have a rate lower than two-times the state average in the next three years.
  - If yes, these industry or risk class is still eligible but must be a low priority for rulemaking
- In selecting an industry or risk class for rulemaking, L&I is to consider whether the trend of the WMSD compensable claim rate is demonstrating a statistical downward trend in the claims rate that is greater than the statewide average

Per RCW 49.17.520, L&I is required to consider trends when selecting an industry or risk classification for rulemaking.

## Priority Industries

- "High priority" for rulemaking:
  - 2023: 31 industries and risk classes
  - 2024: 29 industries and risk classes (same as 2023 with 2 removed)
- Identified top 5 high-priority list
  - Same list in 2023 and 2024
- Solicited input from interested parties re: top 5 and initial industry/risk class for rulemaking
  - Included the WISHA Advisory Committee and Workers' Compensation Advisory Committee

As mandated in the new legislation, per RCW 49.17.520(8)(c), L&I is required to publish a list of industries and risk classifications that are likely to be selected for future rulemaking — a 'high-priority' list. These high-priority industries and risk classes are also prioritized to receive safety and health technical assistance and consultation resources.

## Factors considered for priority industries

### Quantitative factors:

- Compensable claim count
- Number of workers exposed
- Number of employer accounts
- Trend information

### Qualitative factors:

- Uniformity of hazards
- Known or available solutions
- Control of worksite
- If fixed location
- Info on causes, occupations, time loss duration
- Other factors that could impact effective rules

*Not an exclusive list.  
No single factor was determinative.*

In determining the High Priority List, L&I considered many different factors. No single factor was determinative; rather a holistic assessment was made. Primarily, all industries and risk classifications met the criteria and were eligible for rulemaking as having the WMSD compensable claim rate of two times the statewide average. Some of the factors considered included the annual number of compensable WMSD claims, the number of employees potentially impacted, the long-term trend of WMSD rates, and the desire to include a range of industry sectors.

## 2024 High Priority List – Risk Classification (2018-2022)

Risk class code	Risk class description	WMSD claim rate compared to all statewide (Rate Ratio)	WMSD claim rate per 1,000 FTE	Average number of compensable WMSD claims per year	10-year trend analysis: predicted rate ratio 2025 <2	10-year trend analysis: statistical downward trend greater than statewide
0302	Masonry Construction	3.8	16.6	23.0	N	N
0507	Roof Work - Construction and Repair	2.9	12.5	51.4	N	Y
2002	Freight Handling Services ( <i>excludes 2002-31</i> )	3.0	12.9	64.6	N	N
2103	Fulfillment Centers	10.1	43.9	349.6	N	N
3403	Aircraft Manufacturing	2.4	10.2	514.4	N	N
3906	Bakeries, Cracker, Pasta, Confection - Manufacturing/Wholesale, NOC ( <i>excludes 3906-05</i> )	3.1	13.5	64.2	N	N
6108	Nursing and Convalescent Homes	2.2	9.5	163.0	N	N
6402	Supermarkets	2.8	12.1	475.4	N	N
6407	Wholesale Stores, NOC incl. wholesale/retail combination	2.7	11.8	250.8	N	N
6802	Scheduled Airlines - Ground Crew ( <i>excludes 6802-01</i> )	10.8	46.9	174.0	N	N
6904	County and City Fire fighters - Salaried	4.9	21.4	208.0	N	N
7201	State Patient and Health Care Personnel, NOC	4.3	18.8	66.0	N	Y

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As mandated in the new legislation, L&I is required to publish a list of industries and risk classifications that are likely to be selected for future rulemaking — a ‘high-priority’ list. These high-priority industries and risk classes are also prioritized to receive safety and health technical assistance and consultation resources.

Notes for the table:

- FTE (full time equivalent): 1 FTE = 2,000 hours
- For column “10-year trend analysis: predicted rate ratio 2025 <2”: The new law requires L&I to annually publish industries and risk classifications for which the statistical trend suggests they will have a rate ratio lower than two in the next three years. If yes, the industry or risk class is still eligible but must be a low priority. See the 2024 Report of Industries and Risk Classification Eligible for Ergonomic Rulemaking, Appendix D for more information on trends.
- For column “10-year trend analysis: statistical downward trend greater than the statewide average”: When selecting an industry or risk classification for rulemaking, the new law requires L&I to consider if the industry is demonstrating a statistical downward trend greater than statewide. See the 2024 Report of Industries and Risk Classification Eligible for Ergonomic Rulemaking, Appendix D for more information on trends.



## 2024 High Priority List – NAICS (2018-2022)

NAICS code	NAICS description	WMSD claim rate compared to all statewide (Rate Ratio)	WMSD claim rate per 1,000 FTE	Average number of compensable WMSD claims per year	10-year trend analysis: predicted rate ratio <2 2025	10-year trend analysis: statistical downward trend greater than statewide
23814	Masonry Contractors	2.9	12.6	21.8	N	N
31171	Seafood Product Preparation and Packaging	2.5	10.9	38.8	N	N
31181	Bread and Bakery Product Manufacturing	2.4	10.4	57.0	N	N
31211	Soft Drink and Ice Manufacturing	2.5	11.0	28.8	N	N
42441	General Line Grocery Merchant Wholesalers	5.2	22.7	145.2	N	N
42481	Beer and Ale Merchant Wholesalers	3.3	14.1	41.4	N	N
44413	Hardware Stores	2.5	10.9	95.6	N	N
44511	Supermarkets and Other Grocery Retailers (except Convenience Retailers)	2.7	11.6	453.4	N	N
45291	Warehouse Clubs and Supercenters	2.9	12.7	414.0	N	N
48111	Scheduled Air Transportation	5.1	21.9	247.4	N	N
48412	General Freight Trucking, Long-Distance	2.3	10.2	101.2	N	N
48421	Used Household and Office Goods Moving	3.6	15.5	28.0	N	N
492	Couriers and Messengers	4.7	20.5	350.4	N	N
562	Waste Management and Remediation Services (excludes 5269)	2.4	10.5	109.6	N	N
62191	Ambulance Services	4.4	19.2	46.6	N	Y
62321	Residential Intellectual and Developmental Disability Facilities	3.4	14.7	37.0	N	N
92216	Fire Protection	3.4	14.7	86.8	N	N

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- For column “10-year trend analysis: statistical downward trend greater than the statewide average”: When selecting an industry or risk classification for rulemaking, RCW 49.17.520(3)(e) requires L&I to consider if the industry is demonstrating a statistical downward trend greater than statewide. See the 2024 Report of Industries and Risk Classification Eligible for Ergonomic Rulemaking, Appendix D for more information on trends.

## 2023 and 2024 Top 5 High Priority List

		2018–2022		
*				
	Description	WMSD claim rate compared to all statewide	WMSD claim rate per 1,000 FTE	Average # of WMSD claims per year
<b>Risk Class 2103</b>	<b>Fulfillment Centers</b> ( <i>second rulemaking</i> )	<b>10.1</b>	<b>43.9</b>	<b>349.6</b>
Risk Class 6108	Nursing and Convalescent Homes	2.2	9.5	163.0
Risk Class 6407	Wholesale Stores, NOC including wholesale/retail combination	2.7	12.1	475.4
<b>Risk Class 6802</b>	<b>Scheduled Airlines – Ground Crew Operation</b> ( <i>first rulemaking</i> )	<b>10.8</b>	<b>46.9</b>	<b>174.0</b>
NAICS 42441	General Line Grocery Merchant Wholesalers	5.2	22.7	145.2

In April 2024, L&I narrowed the high-priority list to five industries and risk classifications most likely to be selected for the initial rulemaking efforts. L&I sought input on the five industries at the WISHA Advisory Committee and the Workers’ Compensation Advisory Committee, reviewed applicable data, then selected Scheduled Airlines - Ground Crew Operations.

See Slide 15 and the 2024 Report of Industries and Risk Classification Eligible for Ergonomic Rulemaking, Appendix F for more details on qualitative and quantitative factors considered when narrowing down the list to five.

## Scheduled Airlines - Ground Crew Operations for first rule

- Rulemaking initiated October 29, 2024
- Rule will apply to ground crews employed by businesses operating schedule airlines under risk class 6802-00
  - Scheduled airlines have published fares and definite dates, routes, and time for departure and arrivals
  - Ground crews include baggage handlers, ticket sellers who handle baggage, and maintenance aircraft crew

The rulemaking for Scheduled Airlines- Ground Crew Operations was announced and initiated by filing a CR-101 on October 29, 2024.

For more information on this rulemaking visit the L&I website at [www.lni.wa.gov/safety-health/safety-rules/rulemaking-stakeholder-information/air-transportation-ergo](http://www.lni.wa.gov/safety-health/safety-rules/rulemaking-stakeholder-information/air-transportation-ergo)

Common causes of WMSD injuries include: Lifting and throwing luggage and cargo, repetitive placing, grasping, or moving objects, bending, climbing, reaching, and twisting, pushing or pulling carts or wheelchairs.

This rule writing excludes risk classification sub class 6802-01, Hot Air Balloon – Ground Crew Operations

# Rulemaking Roadmap

# Ergonomic Rule Development Roadmap

**Step 1:** File formal notice of intent to adopt rules (CR-101). L&I filed the CR-101

Preproposal on October 29, 2024

## Scoping

- **Broad conversations:** What components of ergonomic rules might be consistent across all industry specific rules?
- **Conversations specific to Ground Crew Operations:** What are the issues, concerns, and industry best practices L&I should consider when we start rule development?

## Ergonomic Rule Development Roadmap (cont)

### Step 1 (cont.)

#### Develop draft proposed rules and get recommendations from advisory committee

- **Rule Development:** Input from all interested parties on developing the draft proposed rule language.
- **Ground Crew Operations Advisory Committee:** Provide recommendations on draft proposed rules.
- **Analyzing the cost of the proposed rules**
  - Cost Benefit Analysis.
  - Small Business Economic Impact Statement.

## Ergonomic Rule Development Roadmap (cont)

**Step 2:** File proposed rule (CR-102)

### **Public comment period**

- Gather written public comments and hold public hearing; then
- L&I considers and responds to public comments prepared, and makes decisions on final rule language.

## Ergonomic Rule Development Roadmap (cont)

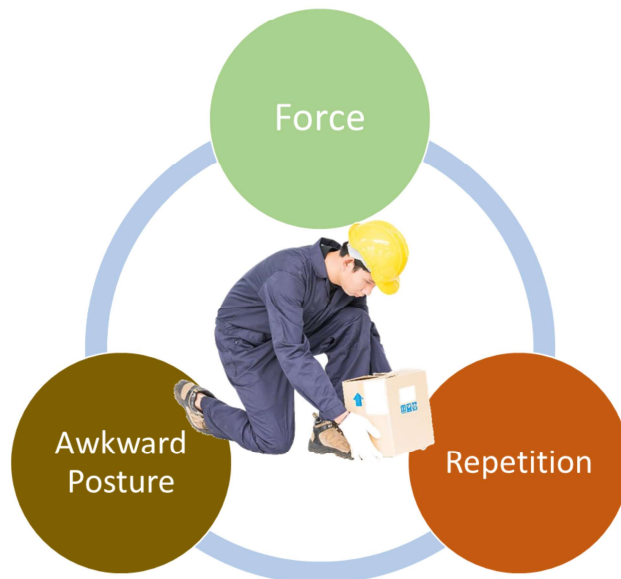
### Step 3: File final adopted rule (CR-103)

- Adopt final rule.
- Prepare for rule implementation-education and outreach.
- Rule goes into effect at least 120 days after adoption and no earlier than July 1, 2026.



# Basics of Ergonomics

## 3+ Risk Factors for WMSDs



### Additional risk factors:

- Vibration
- Contact Stress
- Static Postures

### Contributing factors:

- Cold Temperature
- Psychosocial Factors

WMSDs are frequently caused by the “Big 3” risk factors of force, repetition, and awkward posture. This is especially true when all three risk factors occur at the same time.

There are additional risk factors that can lead to injury:

Vibration can either be to the hands and arms, most commonly with handheld power tool use, or to the whole body, when driving vehicles or operating heavy equipment. Hand-arm vibration can damage the nerves and blood vessels in the fingers, hands and arms. Whole body vibration can lead to damage to the spinal discs.

Contact stress occurs when hard or sharp objects press into soft tissues of the body. Examples include tool handles with rough edges pressing into the hands, or a desk edge pressing into the wrists.

Static postures refers to holding a body position for a long period. These can be awkward postures, such as leaning over a workbench, or natural postures, such as prolonged sitting or standing.

Contributing factors include cold temperature and psychosocial factors. Cold can cause muscle tightness and stiffness. It can also reduce sensation in the hands, which can then result in gripping harder than necessary. Psychosocial factors add to stress levels, muscle tension, and perceptions of pain. These factors occur when workers have little control over their work, have repetitive and monotonous work, are exposed to work demands in excess of their capabilities, and do not feel supported by supervisors and coworkers.

## 3+ Risk Factors for WMSDs



Whole body efforts:

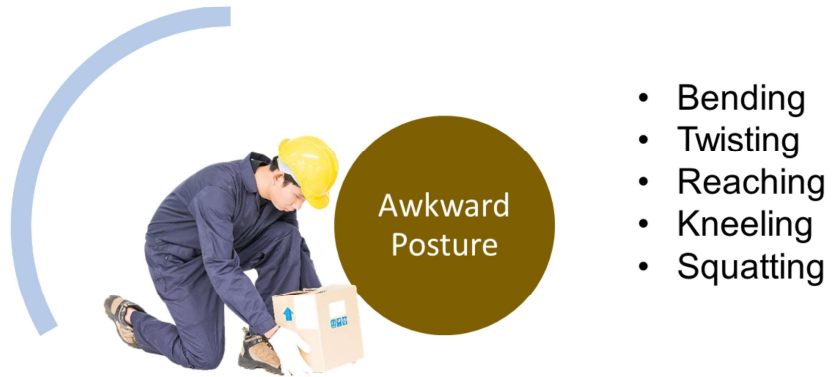
- Lifting and lowering
- Carrying
- Pushing and pulling

Hand and arm efforts:

- Gripping
- Pinching
- Pressing

Force, or physical effort, is one of the greatest risks for WMSDs. Common examples include manual material handling, where workers are lifting, lowering, or carrying loads, or pushing and pulling carts, pallet jacks, and other heavy loads. Force can also be applied primarily through the hands and arms, such as when gripping tools, pinching small objects between the fingers and thumb, or pressing parts into place.

## 3+ Risk Factors for WMSDs



Awkward postures are the most obvious risk factors, since they are easy to observe. Bending forward at the neck or back increases muscle effort and stresses the spine. Bending at the wrist can increase pressure in the carpal tunnel and damage nerves and tendons. Twisting can increase the risk for back injury, especially when combined with bending and lifting. Reaching out or up repeatedly or when handling heavy items can lead to shoulder and arm injuries. Kneeling and squatting are both damaging to the knees.

## 3+ Risk Factors for WMSDs



Repeating the same or similar motion:

- Frequent lifting
- Assembly work
- Hand tool use
- Sorting and packing

Repetition can cause muscle fatigue and wear and tear on the joints. It's mostly a risk when combined with force, awkward postures, or both. WMSDs frequently occur in jobs that require a lot of manual material handling or hand intensive work.

## Preventing WMSDs: A five step process



You can find more helpful tools and tips for preventing WMSDs on [L&I's website](#).



There are 5 basic steps to solving any ergonomics problem.

The **first step** is to give supervisors and employees some basic education on ergonomics so that they can help with steps 2-5. Employees are experts at their jobs, so it's important to take advantage of what they know. They're also more likely to accept changes if they're involved in the process.

The **second step** is to work with employees to find tasks that might have hazards.

The **third step** is to see if the hazards are really bad enough to create an unacceptable risk for injury.

The **fourth step** is to implement fixes to reduce the hazards and the likelihood of injury.

The **fifth and final step**, and a very important one, is to take another look at the jobs after the solutions are in place to make sure they're effective in reducing the risk of injury.

Lastly, use the process again for other jobs and areas.

## Scoping Questions

## Scoping Questions

*Please submit written feedback via email by January 27, 2025 to [RulemakingErgo@Lni.wa.gov](mailto:RulemakingErgo@Lni.wa.gov)*

- What concerns do you have as L&I starts the first rulemaking?
- What information should L&I discuss at future meetings? Is there specific information L&I should prioritize for the next meeting?
- What other information do you think L&I should be considering as the first rulemaking is starting?



## Scoping Questions (cont.)

- As L&I starts the rulemaking process for industry/risk class specific rules, should L&I strive for consistency in developing the rules? How should L&I consider differences in industries / risk classes?
- Should the industry/risk class specific rules cover all WMSD risk factors or should L&I look to industry/risk class information and data to identify those hazards most associated with the risk of injury?

## Stakeholder Meeting Next Steps

### Broad Scoping Conversations

- L&I to review written feedback for first set of scoping questions
- Second broad scoping meeting will be tentatively scheduled in February

### Scheduled Airlines Ground Crew Operations Scoping Conversations

- First meeting to be announced for later in January

## Scheduled Airlines – Ground Crew Operations Rulemaking Timeline

January 2025	Start stakeholder meetings <ul style="list-style-type: none"> <li>• Broad scoping meeting</li> <li>• Scheduled airline ground crew operations scoping meeting, January 22, 2025</li> </ul>
TBD	File proposed rules
TBD	Adopt final rules
TBD, at least 120 days after adoption no earlier than July 1, 2026	Rule in effect

L&I will assemble a Scheduled Airlines - Ground Crew Operations advisory committee per RCW 49.17.520(6) in January or February 2025

## Thank you!

For more about this rulemaking, including information on stakeholder meetings and frequently asked questions, visit the [ergonomics, scheduled airlines ground crew operations rulemaking page](#).

### Staff Contacts

For questions about this rulemaking project contact [RulemakingErgo@lni.wa.gov](mailto:RulemakingErgo@lni.wa.gov)

For general questions about ergonomics or to schedule a no-charge ergonomics consultation, contact [Ergonomics@lni.wa.gov](mailto:Ergonomics@lni.wa.gov)

### Get updates via email

If you would like to receive email updates regarding this and other rulemaking projects and future stakeholder meetings, please [sign up for our email updates](#).