Small Business Economic Impact Statement Memo	Chapter 296-96 WAC, Safety Regulations and Fees for All Elevators, Dumbwaiters, Escalators and Other Conveyances

Date: April 19, 2021

1. **Describe the rule, including: a brief history of the issue; an explanation of why the rule is needed; and a brief description of the amendments that would impose new or additional costs on affected businesses, including small businesses.**

In the United States, there are currently more than 1.03 million elevators making approximately 20.6 billion passenger trips and 56,000 escalators transporting 105 billion passengers each year.[1] These conveyances are considered one of the safest modes of transportation, but they create a safety risk if not installed or altered properly, or if not inspected and maintained on a timely basis. Injury data from Consumer Product Safety Commission (CPSC) and the Bureau of Labor Statistics (BLS) indicate that conveyance-related accident rates are relatively low and fatalities are rare, and most accidents occur due to reckless behaviors of maintenance workers or passengers. The BLS catalogued 46 occupational fatalities related to the primary source category of 'elevators, hoists, aerial lifts, and personnel platforms',[2] and an estimated 26,129 non-fatal incidents involving elevators and other lifts occurred in the U.S. in 2019.[3]

Pursuant to Washington law (RCW 70.87.120), the Washington State Department of Labor and Industries (L&I) must ensure the safety of all elevators and other conveyances in the state, except for those located in Seattle or Spokane metropolitan areas. This law gives L&I statutory authority to adopt rules governing the mechanical and electrical operation, acceptance tests, conveyance work, operation, and inspections that are necessary and appropriate and to adopt minimum standards governing existing installations. L&I may also establish by rule a schedule of fees to pay the costs incurred by L&I for the work related to administration and enforcement of chapter 70.87 RCW.

In 2018, L&I engaged in rulemakings to adopt new safety codes and make changes to the licensing rules. During the 2018 rulemaking process, L&I received additional proposals from stakeholders for potential rule revisions. In January 2019, L&I filed a preproposal statement of inquiry (CR-101) initiating a rulemaking to address stakeholders' requests that were held over from the 2018 rulemaking process, as well as to further update and clarify the existing rules (see WSR 19-03-162).[4] Washington's elevator stakeholders were invited to participate in

[1] These figures were estimated by the National Elevator Industry Inc. (NEII), 2020.
[2] Data sources: Census of Fatal Occupational Injuries (CFOI), BLS,2020.
[3] Data sources: "NEISS Data Highlights - Calendar Year 2019," CPSC's National Electronic Injury Surveillance System (NEISS), 2019.
[4]Available at: http://lawfilesext.leg.wa.gov/law/wsr/2019/03/19-03-162.htm

the review of the existing rules, submit proposals for changes to the rules, and provide recommendations to L&I regarding possible rule changes.

In April and May 2019, a Technical Advisory Committee (TAC) of industry experts and the Elevator Safety Advisory Committee (ESAC) reviewed proposals and provided recommendations to L&I on adoption of the rules. Because some of the recommended changes were outside the scope of the CR-101 filed on January 22, 2019, the notice was withdrawn and a new preproposal (CR-101) with an expanded scope of rulemaking was filed October 22, 2019.

Description of rule amendments

There are three major types of proposed changes to the current rule:

1) **Significant rule amendments.** Included in this category are amendments to:
WAC 296-96-00675(9), WAC 296-96-00675(10), WAC 296-96-00910(4), WAC 296-96-00916(2)(e), WAC 296-96-01055, WAC 296-96-01057, WAC 296-96-23117, WAC 296-96-01030, WAC 296-96-02700.

2) **Minor housekeeping changes and several addendums to the language for clarification purpose.**
These addendums are necessary to promote the simplicity, clarity and consistency of the rules under this chapter, includes modifications to:
WAC 296-96-00650, WAC 296-96-00675, WAC 296-96-00904, WAC 296-96-00906, WAC 296-96-00910, WAC 296-96-00912, WAC 296-96-01030, WAC 296-96-01035, WAC 296-96-02410, WAC 296-96-02452, WAC 296-96-02460, WAC 296-96-02465, WAC 296-96-02470, WAC 296-96-02471, WAC 296-96-02530, WAC 296-96-02552, WAC 296-96-02580, WAC 296-96-02605, WAC 296-96-02640, WAC 296-96-02650, WAC 296-96-02700, WAC 296-96-05000, WAC 296-96-05020, WAC 296-96-05030, WAC 296-96-05070, WAC 296-96-05090, WAC 296-96-05140, WAC 296-96-05190, WAC 296-96-05210, WAC 296-96-07150, WAC 296-96-11080, WAC 296-96-18020, WAC 296-96-20005, WAC 296-96-23117, WAC 296-96-23118, WAC 296-96-23126, WAC 296-96-23130, WAC 296-96-23132, WAC 296-96-23200, WAC 296-96-23303, WAC 296-96-23605, WAC 296-96-23701, WAC 296-96-24401, WAC 296-96-24457, WAC 296-96-24480, WAC 296-96-24500, WAC 296-96-24516, WAC 296-96-24528, WAC 296-96-24537, WAC 296-96-24543, WAC 296-96-24553, WAC 296-96-24560, WAC 296-96-24600, WAC 296-96-24611, WAC 296-96-24630, and WAC 296-96-24670.

3) This rulemaking is intended to increase fees by 5.08% to support operating expenses for inspections and other public safety activities for the Elevator Program. This is the Office of Financial Management's (OFM) maximum allowable fiscal growth factor for fiscal year 2020.[5]

Rulemaking is the best approach to align Washington's elevator licensing requirements with industry standards and practices, to update the current language to meet changing industry needs, and for rule clarity and ease of use.

2. Identify which businesses are required to comply with the rule using the North American Industry Classification System (NAICS).

The major amendments proposed by this rulemaking are related to safety code for elevators and escalators. The majority of the industries potentially affected by the proposed rule are identified and listed in the table below. The rule could potentially affect any business that owns buildings with conveyances; consequently, other industries not included in this list may also be impacted.

Table 1. Industries Likely Affected by the Proposed Rule

6-Digit NAICS	Description of Business Areas
238290	Other Building Equipment Contractors
238990	All Other Specialty Trade Contractors
336411	Aircraft Manufacturing
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
423830	Industrial Machinery and Equipment Merchant Wholesalers
424510	Grain and Field Bean Merchant Wholesalers
445110	Supermarkets and Other Grocery (except Convenience) Stores
448140	Family Clothing Stores
488310	Port and Harbor Operations
493120	Refrigerated Warehousing and Storage
511210	Software Publishers
522130	Credit Unions
531110	Lessors of Residential Buildings and Dwellings
531210	Offices of Real Estate Agents and Brokers
611110	Elementary and Secondary Schools
611310	Colleges, Universities, and Professional Schools
622110	General Medical and Surgical Hospitals

[5]The fiscal growth factor of 5.08% is based upon OFM's projections adopted in November 2018. Each November, OFM's Expenditure Limit Committee adjusts the limit for fiscal growth factors for the previous and current fiscal year, and projects a limit for the following two years.

623311	Continuing Care Retirement Communities
623312	Assisted Living Facilities for the Elderly
721110	Hotels (except Casino Hotels) and Motels
813110	Religious Organizations
813410	Civic and Social Organizations
813990	Other Similar Organizations (except Business, Professional, Labor, and Political)
921140	Executive and legislative offices, combined
921190	Other General Government Support
925110	Administration of housing programs

3. Identify and analyze the probable costs to comply with the adopted rule.

The estimated costs in this analysis, if any, represent only the new costs of complying with the proposed rules for the affected parties, excluding realized potential costs associated with or originating from the current practices, or "baseline" standards under existing laws, rules or national consensus standards. Therefore, the costs that can be attributed to or are insignificantly different from these baseline standards are not analyzed or factored into our estimates.

3.1 Cost of installing an accessible stop switch

The new subsection WAC 296-96-00675(9) modifies the requirement in Section 3.10.3 of ASME A17.3. The proposed requirement is above the national safety standards, and imposes costs. Specifically, (9)(a) requires at least one stop switch to be located where it can be reached prior to physically stepping onto the car top. On older conveyances, the inspection station's stop switch is often located on the crosshead, and in many cases it cannot be reached without climbing onto the car top, creating a safety hazard. Property owners and managers will incur costs to retrofit non-compliant units.

The approach to estimating monetized compliance costs is to: 1) estimate the number of units that will be affected by the change in the provision; 2) estimate the cost per unit of installing the required switch; and 3) sum the costs for all affected units to yield aggregate probable costs of the requirement.

The provision would apply to currently active conveyances with a freight or passenger cab. Conveyances are considered active if they are within the state jurisdiction and operated/used under normal conditions. Table 2

shows the distribution of all conveyances in Washington State by their current status. Table 3 illustrates the distribution of the 18,718 currently active conveyances by type.

Table 2: The Distribution of All Conveyances by Status

Status of Conveyances[6]	Count	Share of Total
Active	18,718	48.9%
Inactive	12,936	33.8%
Deleted/ Removed	3,185	8.3%
New-not Accepted	1,411	3.7%
Cancelled	1,237	3.2%
Red-Tagged	658	1.7%
Decommissioned	73	0.2%
Temporary	58	0.2%
Total	38,276	100%

Table 3: The Distribution of All Currently Active Conveyances by Conveyance Type

Type of Conveyances	Count	Share of Total
Hydraulic elevator (Freight and Passenger)	11,768	62.9%
Cable elevator (Freight and Passenger)	3,688	19.7%
Wheel chair lift (and Porch lift)	1,139	6.1%
Escalator	525	2.8%
Material lift	374	2.0%
Grain elevator personnel lift	299	1.6%
Dumbwaiter	219	1.2%
Stair lift	195	1.0%
Inclined elevator	174	0.9%
Roped-hydraulic elevator (Freight and Passenger)	105	0.6%
Special purpose elevator	103	0.6%
Limited-Use/Limited-Application (LULA) elevator	70	0.4%
Belt manlift	16	0.1%
Hand-powered manlift or freight elevator	16	0.1%
Private residence elevator installed in other than a private residence	9	0.0%
Moving walk	6	0.0%
Boat launching elevator	4	0.0%
Sidewalk freight elevator	4	0.0%
Electric manlift	3	0.0%
Casket lift	1	0.0%

[6] See Table A-1 in Appendix for the definition of each status.

Personnel hoist	0	0.0%
Total	**18,718**	**100%**

Based on the distribution of conveyances, 16,046 currently active elevators fall into the type potentially affected (Table 4), but the exact number of units requiring a switch installation is difficult to determine. Given the fact that an accessible stop switch is already a feature on newer installations, and industry has made an active effort to update older units, L&I believes that less than 15% of existing elevators would be affected. Thus, we conservatively estimate a range of 10% to 15% of existing units, or some 1,605 to 2,407 conveyances would be affected by this requirement.[7]

Table 4: Universe of Elevators Potentially Requiring a Stop Switch.

Type of Conveyance	Count
Hydraulic elevator (Freight and Passenger)	11,768
Cable elevator (Freight and Passenger)	3,688
Grain elevator personnel lift	299
Roped-hydraulic elevator (Freight and Passenger)	105
Special purpose elevator	103
Limited-Use/Limited-Application (LULA) elevator	70
Private residence elevator installed in other than a private residence	9
Sidewalk freight elevator	4
Universe of elevators potentially requiring stop switch.	**16,046**

Based on the input from industry representatives, the average cost of this requirement would be $500 per elevator. The estimate includes the cost of the code compliant switch assembly, appropriate conduit and wiring, and installation.

Table 5: Total Cost of Stop Switch Requirement

Universe of elevators that are required a stop switch	16,046
Estimated percentage elevators of requiring a retrofit	10% to 15%
Estimated number of elevators requiring a stop switch	1,605 to 2,407
Cost of materials and installation of a stop switch per elevator	$500
Total cost of stop switch requirement	$802,300 to $1,203,500
Annualized cost of stop switch requirement	$103,902 to $155,852

Given these cost factors, the total probable cost of the provision is estimated at $802,300 to $1,203,500. Because the new installations would already require the stop switch, the cost only applies to existing units, and the cost would only have to be incurred once by the conveyance owners. In addition, the stop switch will continue to

[7] Two participants in the April 2019 TAC meeting informally indicated that the percentage could be as low as 3.8% and 1.2% of units in their areas respectively.

function and deliver safety benefits over a period of ten years or longer.[8] Thus, the annualized cost of the switch installation would be $103,902 to $155,852.[9]

3.2 Cost of disallowing alternative testing

Alternative testing was first incorporated into the 2013 edition of ASME and was maintained in the 2016 edition (ASME A17.1-2016) released in January 2016.[10] Prior to the 2018 update, L&I was two code cycles (2013 and 2016 editions) behind the industry safety standards. L&I completed a rulemaking process in 2018 to update its code requirement to the 2016 ASME standards, including the adoption of alternative testing option effective September 2018. Alternative testing methods have only been allowed since then.

This rulemaking was initiated in October 2019 and the new subsection WAC 296-96-00675(10) would disallow the clause 8.6.11.10 of the ASME standards 'Category 5 Tests Without Load Via Alterative Test Methodologies' from being followed in Washington; only standard testing as outlined in ASME A17.1 is allowed. L&I believes that the alternative "Without Load' methods have not demonstrated the same level of safety as standard testing with load methods. Further, the alternative testing methodologies are not common practice nationwide. Therefore, the change disallowing their use ensures the greater safety of conveyances. L&I is not aware of any elevator mechanics or elevator companies in the State of Washington that perform alternative tests in accordance with this provision. Thus, the change is unlikely to add any additional cost to affected parties.

3.3 Cost of signature requirement on continuing education certificates

Elevator mechanic licenses are required to be renewed every two years. Per WAC 296-96-00912(1)(c), renewal is conditional upon completion of a minimum of eight hours of approved continuing education within one year preceding a license renewal application and the submission of a certificate of completion for the course. This rulemaking amends the language under WAC 296-96-00916(2)(e)(iii) to specify that certificates of completion for continuing education courses must include the student's signature in addition to the instructor's; and the certificate must state that it is not valid without the signatures of both. The Elevator Program's current policy is only to accept certificates that have both signatures,[11] and the practice is widely accepted by industry. The amended

[8] Based on the elevator stakeholders' input and L&I's expert judgement.
[9] The discount rate is 5%.
[10] NEII Comment in "Regulations-Comments, 10/20/20", Pennsylvania DLI- Elevator Safety Board, Available at: https://www.dli.pa.gov/Businesses/Labor-Management-Relations/elevator_safety_board/Pages/default.aspx
[11] The public L&I website's 'Renew an Elevator Mechanic License' page indicates that renewal of an elevator mechanic license requires "[a] signed certificate of completion for your required 8 hours of continuing education courses." https://lni.wa.gov/licensing-permits/elevators/mechanics-helpers/renew-an-elevator-mechanic-license#renew -accessed 2/17/21

language should help clarify the expectations for both providers of continuing education and mechanics renewing their licenses. Because this is an existing practice, the amendment should not involve significant costs.

3.4 Cost of fee increases

In order to support increasing operating expenses, this rulemaking proposes to increase fees by the fiscal growth factor of 5.08% for all elevator related services. The increase reflects the Office of Financial Management's (OFM) maximum allowable fiscal growth rate for fiscal year 2020. The impacted sections are listed in Table 6. Since the fee increases are within the rates allowed by the OFM, the fee increases are exempted from regulatory analysis.

Table 6: Provisions with Proposed Fee Changes

Section	Description
WAC 296-96-00922	Licensing fees.
WAC 296-96-01005(c)	Obtaining Permits.
WAC 296-96-01010	Installation and alteration permit fees.
WAC 296-96-01025	Permit fees for personnel and material hoists.
WAC 296-96-01027	Permit fee refunds.
WAC 296-96-01030	Plan approval.
WAC 296-96-01035	Inspection fees.
WAC 296-96-01035(1)	Reinspection.
WAC 296-96-01035(2)	Jump Inspection
WAC 296-96-01035(3)	Variance inspections.
WAC 296-96-01035(4)	"Red tag" status fee
WAC 296-96-01035(5)	Decommission inspection.
WAC 296-96-10135(6)	Voluntary inspections by request.
WAC 296-96-01040(1)	Construction use inspection fee.
WAC 296-96-01045(3)	Residential elevator inspection and fees.
WAC 296-96-01055	Technical services and consultations.
WAC 296-96-01057	Accident investigations.
WAC 296-96-01060	Inspections after normal business hours.
WAC 296-96-01065	Annual operating permit fees.

Two provisions include additional potential fee increases: WAC 296-96-01055, Technical services and consultations; and WAC 296-96-01057, Accident investigations. The current language only allows L&I to bill for whole hours, which may result in under-charging in some cases. For example, if one inspection requires 61 minutes and another one requires one hour and 59 minutes, L&I could only charge for one hour of inspection time in both cases. The proposed rule adds language to both provisions that would allow L&I to charge customers for the actual amount of time this service takes. This proposed change would make the billing practices more consistent with those of other programs.

Estimating the cost impact of billing for partial hours is complicated because there are no records of the unbilled partial hours from which we can estimate the average unbilled time per inspection. The typical accident inspection requires four to eight hours. We will make the conservative estimate that the typical billed time would increase by 30 minutes per four to eight hours of inspection time. The same approach is used for estimating the impact of both WAC 296-96-01055 and 296-96-01057.

3.4.1 Cost of fee increase for technical services and consultations

Technical Services and Consultations are services requested voluntarily by customers. These services generally result in few billed hours annually (see Table 7). Currently the fee for field technical services is $80.30 per hour (including travel time) plus the standard per diem and mileage allowance granted to department inspectors. The proposed fee increases by the fiscal growth factor of 5.08% would increase this rate to $84.30. The average billed time for fiscal years 2018- 2020 was three hours; the total fee collected for fiscal years 2019 and 2020 was zero dollars.

Table 7: Total Technical Inspection Fees Collected 2018-2020

Year	2018	2019	2020	Average
Technical Inspection Fees	$725.78	$0.00	$0.00	$241.93
Total Hours Billed	9	0	0	3

We estimated the unbilled hours using the assumption that technical inspections require four to eight hours. To be conservative, we generated the estimate of unbilled hours based on the nine billed hours in 2018. We estimate that 0.5 to 1 partial hours per year would be billed under the proposed rule, resulting in a cost increase of $42.15 to $84.30 to customers annually.

Table 8: Increased Cost in Accident Investigation Fees

Annual Average hours billed for accident inspections (FY 2018-2020)	3
Hours required for typical inspection	4 to 8
Estimated number of inspections with unbilled partial hours	1 to 2
Estimate of unbilled hours per year	0.5 to 1
Hourly Fee for Accident Investigation	$84.30
Total increase in cost per year	**$42.15 to $84.30**

3.4.2 Cost of fee increase for accident investigations

WAC 296-96-01057 mandates that L&I investigate injury-related conveyance accidents reported by the owner. Timely completion of accident investigations is critical to ensure the safety of all elevators and conveyances in Washington. The number of reported conveyance related accidents for fiscal years 2016-2019 is presented in Table 9. On average, L&I is responsible for investigating 77 accidents annually.

Table 9: Conveyance Accidents Reported[12] (2016-2019)

Year	Elevator	Escalator	Total
2016	20	64	84
2017	19	47	66
2018	15	67	82
2019	13	64	77
Average	17	60	77

The accident inspection service is a fee-for-service program, and L&I has discretion whether to bill the owner of inspected conveyance for the investigation. Currently L&I may charge at a rate of $80.30 (including travel time) plus the standard per diem and mileage allowance granted to department inspectors. The proposed fee increases by the fiscal growth factor of 5.08% would increase the rate to $84.30.

The Elevator Program's current billing practice is not to charge for the first accident investigation for a location and ownership. If subsequent accidents occur within a year of the first one, the owner is charged for each subsequent accident investigation occurring at the location. If a year passes with no accident investigations, L&I no longer charges until their next accident investigation within a year. As a result of the charging practice, the number of investigations may differ substantially from the total fees charged. The average fee collected in the last three available fiscal years was $4,188, corresponding to approximately 52 billed hours (see Table 10).

Table 10: Total Accident Inspection Fees Collected 2018-2020

Year	2018	2019	2020	Average
Accident Investigation Fees	$4,323.74	$7,173.71	$1,065.90	$4,188
Total Hours Billed	54	89	13	52

Table 11: Increased Cost in Accident Investigation Fees

Annual Average hours billed for accident inspections (2018-2020)	52.2
Hours required for typical inspection	4 to 8
Estimated number of inspections with unbilled partial hours	6.5 to 13
Unbilled partial hours per inspection	0.5
Estimate of unbilled hours per year	3.3 to 6.5
Hourly Fee for Accident Investigation	$84.30
Total increase in cost per year	**$280 to $560**

Based on the data from the past three fiscal years, we estimate that 3.3 to 6.5 partial hours per year would be billed, resulting in a cost increase of $280 to $560 to customers annually.

[12] FY 2020 data was incomplete and therefore excluded from the average.

3.5 Cost of car top guardrails and signage

The sections WAC 296-96-23117 and WAC 296-96- 23118 under the current rule specify standards for car top guardrails for traction and hydraulic evaluators. This rulemaking amends WAC 296-96-23117 to incorporate traction and hydraulic elevators into a single section and more significantly, to adopt national consensus standard (ASME A17.1/CSA B44, 2.14.1.7) for guardrails on existing elevators in Washington State. Because the hoistways in existing elevators may not have sufficient overhead space to meet the clearances specified in 2.14.1.7.2(a) or (b), the amended rule allows for a slightly reduced railing height based upon existing instruction conditions. This would allow existing elevators to comply without being required to modify their hoistways. The adoption of the national standard for existing conveyance would involve alteration of the car top guardrails for numerous elevators, but the change is exempted from analysis under RCW 34.05.328(5)(b)(iii).

However, in the case that overhead conditions prevent the railing from complying with national standards, WAC 296-96-23117(5) requires the owner to provide signage as required by WAC 296-96-23119(2). Purchasing and installing the sign would result in increased costs, and the amendment would affect all existing elevators except for electric manlifts.

We estimate the cost in the following steps: 1) we identify all elevators that will be affected by rule; 2) we estimate the number of elevators that are not likely to have overhead conditions that allow compliance with ASME A17.1/CSA B44, 2.14.1.7; 3) we estimate the cost of installing the sign per unit; and 4) we sum the costs for all affected units. The signage is assumed to be installed by a licensed elevator mechanic or contractor, and the estimated installation time is one hour. Results of the cost estimation are presented in Table 12.

Table 12: Increased Cost of Signage Requirement.

Average wage for Elevator and Escalator Installers and Repairers (SOC code 47-4021)[13]	$54.60
Time to install required signage (hour)	1
Cost of each sign	$5
Total cost of one installation	$59.60
Universe of elevators potentially requiring signage	16,220
Estimated percent of elevators requiring signage	10% to 15%
Estimated number of signs to be installed	1,622 to 2,433
Estimated cost of signage requirement	$96,671 to $145,007
Annualized cost of signage requirement	$12,519 to $18,779

We estimate that approximately 1,622 to 2,433 conveyances might be affected by the signage requirement, resulting in an additional cost of $96,671 to $145,007. Since the change applies to existing elevators, this would involve a one-time cost to comply. As the change will deliver safety benefits over a period of ten years or longer,[14] the annualized cost of the provision would be $12,519 to $18,779.[15]

3.6 Cost of amendment to plan approval exception

The rulemaking amends WACs 296-96-02605 and 296-96-02640 regulating residential and commercial stairway chairlifts to align the language with national standard ASME 18.1-2017 (adopted in 2018). A new section (7.8) in the ASME A18.1-2017 national standard indicates that all carriages, including residential ones, must have an overspeed governor. The ASME A18.1 provides instructions for testing the overspeed governor in commercial units, but not for residential units. L&I adopted language to clarify that the testing procedures specified in ASME A18.1-2017, 10.4.1 should be followed for both commercial and residential units. The rule adopts national consensus standard without material change and is exempt from the regulatory analysis requirement. The amendment applies to new and altered chair lifts.

To facilitate compliance with the standard adopted in WAC 296-96-02605, L&I amended the exception to WAC 296-96-01030, applying to residential chair lifts. Under the current rule, new and altered residential incline chair lifts are not required to have plans reviewed; however, the equipment must be listed and labeled by an accredited product testing laboratory and the plans supplied by the manufacturer must be on-site. The current rulemaking amends the exception to specify that L&I may request additional information as deemed necessary to determine compliance with adopted codes and testing standards. The amendment further indicates that governor overspeed safety testing shall be verified by manufacturer's documentation in accordance with ASME A18.1 Requirement 9.9.3. The overspeed testing is required by national consensus standard (see WAC 296-96-02605).

The testing itself does not represent a new cost because it is already required by the adopted national standard. There may be minor administrative costs for lift contractors to include the required documentation in permit applications, but the costs are likely to be minimal. The documentation of testing results and the specifications sheet is a part of ordering the equipment. Additionally, submission of documentation from the testing lab waives

[13] Data Source: 2020 Occupational Employment and Wage Estimates, available at: https://esdorchardstorage.blob.core.windows.net/esdwa/Default/ESDWAGOV/labor-market-info/Libraries/Occupational-reports/OES/2020-oes-wage-estimates-report.pdf

[14] Based on the elevator stakeholders' input and L&I's expert judgement.

[15] The discount rate is 5%.

the requirement for full load testing in the field, and allows the contractor or property owner to avoid a larger cost. The probable cost of change is not significant.

3.7 Cost of changes to machine room requirements

The adoption of ASME A17.1-2016 by L&I allows for elevator equipment to be located in the hoistway. However, the language under the current Washington rule is ambiguous and confusing, implying that the practice may not be allowed. This rulemaking amends WAC 296-96-02552 to clarify the language and reflect currently adopted national standards for machine room-less elevators. This clarification enables customers to take advantage of the benefits of machine room-less elevators.

WAC 296-96-02700 is a new section that specifies requirements for machine rooms for private residence elevators. The rule changes would affect customers that install a machine in the hoistway. Currently, the standards for private residence elevators are set by ASME A17.1-2006, 5.3 which do not include requirements for machine rooms. The proposed subsection (1) adopts National Fire Protection Association (NFPA) 70 Section VIII as the current standard of code. Since this represents an adoption of national consensus standard without material changes, it is exempt from review under the APA. The subsection (2) creates a new regulatory requirement for an access door to the elevator motor brake in private residence elevators. The current national consensus standard (2016 ASME A17.1 - 5.3) does not require an access door for private residence elevators, which creates a safety issue for emergency rescue. The change to the section coincides with WAC 296-96-02552 that allows the machine and brake in the hoistway.

The proposed requirement for an access door would represent a potential new cost to customers who install a machine in the hoistway. However, there are currently no conveyances in the state with a machine in the hoistway. On the other hand, allowing the machine in the hoistway represents a substantial cost savings opportunity for customers because they would no longer need a dedicated machine room. The National Elevator Industry Inc (NEII) estimates that employing machine room-less designs can create savings of $50,000 - $100,000 per unit.[16] The cost of the access door would be included in the price of the elevator, and would still represent a substantial savings over elevators with a dedicated machine room. Thus, the new section does not add any realized cost to affected parties. Rather, it enables residential customers to safely take advantage of the potential cost savings and other advantages of machine room-less elevators.

[16] National Elevator Industry Inc, NEII "Machine Room-less Elevators: The New Standard in Elevator Design," available at: http://www.neii.org/mrls.cfm

3.8. <u>Summary of quantifiable costs of the proposed rule</u>

The total quantifiable costs from each section above and the average cost per active conveyance are summarized in Table 13.

Table 13: Summary of Quantifiable Annual Costs of The Proposed Rule

Cost Component:	Range of Cost	Point Estimate
1. Cost of installing an accessible Stop Switch (WAC 296-96-00675(9))	$103,902 to $155,852	$129,877
2. Cost of Fee Increase for Technical Services and Consultations (WAC 296-96-01057)	$42.15 to $84.30	$63
3. Cost of Fee Increase for Accident Investigations (WAC 296-96-01057)	$280 to $560	$420
4. Increased Cost of Signage Requirement (WAC 296-96-23117(5))	$12,519 to $18,779	$15,649
Total Annual Cost:	$116,743 to $175,276	$146,009
Average Annual Cost per Active Conveyance[17]	$6.24 to $9.36	$7.80

All of the costs considered in Table 13 are associated with conveyances or inspections of conveyances, and the cost to businesses will vary with the number of conveyances owned. Business owners with more conveyances will have a greater cost of compliance with the rule, all else equal. Based on the current number of active conveyances in Washington State, the average cost per conveyance is $6.24 to $9.36.

4. Determine whether or not an SBEIS is required, and based on this determination, whether the information provided above is sufficient or additional information is needed to fulfill the requirements in the Regulatory Fairness Act (Chapter 19.85 RCW).

An SBEIS is not required if the average cost to a business in the affected industries is at or below minor cost. Minor cost is defined as a cost per business that is less than three-tenths of one percent of annual revenue or income, or one hundred dollars, whichever is greater, or one percent of annual payroll.[18] Conveyances are owned by businesses of various sizes across a variety of industries. Currently there is a lack of specific information about the exact number of businesses in each affected industry that will actually incur these costs. Table 14 shows the distribution of conveyance owners by the number of conveyances they own in Washington State. Sixty-five

percent of the 7,736 owners have only one active conveyance, and less than 1% of owners have 26 or more conveyances.

In section 3, L&I estimated that the average compliance cost per active conveyance owned would be $6.24 to $9.36 annually. For owners of more than one conveyance, the cost per owner was estimated by multiplying the estimated cost per conveyance by the number of conveyances owned. Owners with nine or fewer conveyances (97%) are estimated to incur less than $84.28 in annual cost, while owners with more than 100 conveyances can incur as much as $3,211.86 per year. [19]

Table 14: The Distribution of Owners by Number of Conveyances

Type of Owners	Number of Owners	Share of Total	Average Cost Per Owner
With more than 100 conveyances	8	0.10%	$623.69 to $3,211.86
50-99 conveyances	12	0.16%	$311.85 to $927.04
26-49 conveyances	39	0.50%	$162.16 to $458.84
10-25 conveyances	178	2.30%	$62.37 to $234.10
5-9 conveyances	341	4.41%	$31.18 to $84.28
3-4 conveyances	720	9.31%	$18.71 to $37.46
2 conveyances	1,375	17.77%	$12.47 to $18.73
1 conveyance	5,063	65.45%	$6.24 to $9.36
All	7,736	100.00%	

For the 99.24% of owners that own 25 or fewer conveyances, the annual cost would be $234 or less. The industry affiliation for all these businesses is unknown. Therefore, L&I is not able to calculate the minor cost threshold for these industries. However, given the magnitude of this average cost, L&I believes it is unlikely it will exceed minor cost threshold by any of the above criteria (one percent of annual payroll, or the greater of three-tenths of one percent of annual revenue or one hundred dollars).

For the companies that have more than 25 conveyances, the industries they are affiliated with are identified in Table 15. All of these industries have minor cost thresholds (1% of annual payroll) greater than $3,211, the largest possible cost to any affected businesses. This clearly indicates the average per-business cost of these proposed rule amendments is far below the threshold for businesses in any of the affected industries discussed in Section 2.

[17] There are currently 18,719 active conveyances.
[18] Under RCW 19.85.020.
[19] This is based on the 356 conveyances owned by the University of Washington, the largest owner of conveyances in the state.

Table 15: Minor Cost Thresholds For the Selected Industries

6-digit NAICS	Industry description	Average number of firms	1% of annual payroll[20]
336411	Aircraft Manufacturing	26	$3,581,659.43
424510	Grain and Field Bean Merchant Wholesalers	37	$10,256.96
445110	Supermarkets and Other Grocery (except Convenience) Stores	862	$20,772.56
448140	Family Clothing Stores	212	$10,980.58
488310	Port and Harbor Operations	23	$14,089.09
493120	Refrigerated Warehousing and Storage	40	$28,159.25
511210	Software Publishers	1,492	$121,006.47
531110	Lessors of Residential Buildings and Dwellings	1,568	$3,307.25
531120	Lessors of Nonresidential Buildings	510	$5,239.72
611110	Elementary and Secondary Schools	317	$14,786.21
611310	Colleges, Universities, and Professional Schools	240	$26,565.36
622110	General Medical and Surgical Hospitals	54	$1,332,123.01
921140	Executive and Legislative Offices, Combined	305	$150,761.16
921190	Other General Government Support	14	$14,542.54
925110	Administration of housing programs	8	$21,195.30

Therefore, an SBEIS is not required for this rulemaking pursuant to RCW 19.85.030(1), and the information provided in Section 1 through Section 3 is sufficient to fulfill the requirements in the Regulatory Fairness Act (chapter 19.85 RCW). It is also worth noting that the information provided above serves the purpose of making this determination only, and should not be treated as the content of an official SBEIS report specified in RCW 19.85.040.

[20] Calculated from the Quarterly Census of Employment and Wages (QCEW), 2019 annual averages for Washington state.