

# CONCISE EXPLANATORY STATEMENT

## Cranes, Rigging and Personnel Lifting

Public Hearings: October 5<sup>th</sup>, 6<sup>th</sup> and 11<sup>th</sup>, 2011

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## **I. Purpose of Rulemaking**

Chapter 296-155 WAC, Safety Standards for Construction Work. This adoption is to address the requirements that employers must follow with regard to inspection, maintenance and operation of cranes used in the construction industry. This phase also includes updates to our current rigging and personnel lifting requirements. RCW 49.17.400 through 49.17.440 requires the department to establish by rule a crane certification program for cranes used in the construction industry and to establish requirements that must be met to be considered a qualified crane operator. This adoption was developed with the assistance of a stakeholder group from the industry. In addition, the Occupational Safety and Health Administration (OSHA) has adopted their final rule and this adoption also includes requirements OSHA has in their rule in order for the Division of Safety and Health (DOSH) to be at least as effective as the federal rule. References were also updated throughout other DOSH standards.

## **II. Changes to the Rules (Proposed rule versus rule adopted):**

Several comments were received relating to:

- An exemption for digger derricks
- Crane legislation and the possibility of exempting electrical industry service trucks
- OSHA's recent settlement agreement with Edison Electric Institute (EEI)
- Governor Gregoire's Executive Order 10-06
- Definition of "construction work"
- APA rule-making requirements
- One-year implementation period

These comments were summarized and answered in the department response portion of this document. Additionally, other comments received were also addressed in the department response portion of this document.

As a result of written and oral comments received, the following sections are being changed as indicated below:

### **WAC 296-155-52900 Scope.**

- In subsection (3)(e), modified the exemption relating to digger derricks. It now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are **NOT** exempt."
- In subsection (4), modified the language relating to digger derricks and when the section would apply. It now reads, "Digger derricks that do not meet the exemption criteria in subsection (3)(e) of this section must comply with WAC 296-155-529 (Crane certifier accreditation and crane certification) through WAC 296-155-53300

(Operator qualifications and certification) one hundred and eighty days after the effective date of this section.

**WAC 296-155-52902 Definitions.**

- In the definition of “boom”, the department removed the word “equipment”. It now reads, “Boom (other than tower cranes) means an inclined spar, strut, or other long structural member which supports the upper hoisting tackle on a crane or derrick. Typically, the length and vertical angle of the boom can be varied to achieve increased height or height and reach when lifting loads. Booms can usually be grouped into general categories of hydraulically extendible, cantilevered type, latticed section, cable supported type or articulating type.”
- Modified the definition of “construction”. It now reads, “Construction work means (for purposes of this part) all or any part of excavation, construction, erection, alteration, repair, demolition, and dismantling of buildings and other structures and all related operations; the excavation, construction, alteration, and repair of sewers, trenches, caissons, conduits, pipelines, roads, and all related operations; the moving of buildings and other structures, and the construction, alteration, repair, or removal of wharfs, docks, bridges, culverts, trestles, piers, abutments, or any other related construction, alteration, repair, or removal work. Construction work does not include the normal day-to-day activities at manufacturing facilities or powerhouses.”
- Deleted the definition of “equipment”.
- In the definition of “ground conditions” the department changed the word “equipment” to “crane/derrick”. It now reads, “Ground conditions means the ability of the ground to support the crane/derrick (including slope, compaction, and firmness).”

**WAC 296-155-53200 General inspection criteria, wire rope inspection and removal criteria, and preproof load test requirements for all cranes.**

- In subsection (7)(f), the department added the words “and certified scale with a current certificate of calibration”. It now reads, “Proof load tests require the use of freely suspended certified weights, or scaled weights using a certified scale with a current certificate of calibration; however, line pull test can be accomplished using a static test and a certified scale with a current certificate of calibration”.

**WAC 296-155-53300 Operator qualifications and certification.**

- In subsection (1)(a), the department added the words “which has an accredited program” after the word “organization”. It now reads, “Has a valid crane operator certificate, for the type of crane to be operated, issued by a crane operator testing organization, which has an accredited program, accredited by a nationally recognized accrediting agency. The operator certification must include a successful passing of a written and practical examination for each crane category listed in Table 3 and by crane type for mobile cranes.”
- In subsection (1)(d), the department added a “/” between the words “crane” and “equipment”. The department also added the words “and the applicable ASME

standard” after the words “crane/equipment manufacturer”. It now reads, “If there is no accredited written or practical test for operator certification available, the employer must ensure the operator has been completely trained, evaluated and tested by the employer on the operating procedures for the piece of equipment in use as recommended by the crane/equipment manufacturer and the applicable ASME standard. This process must be documented and made available upon request.”

- In Table 3, the department added the words “including digger derricks” to (1)(c) and (1)(d).
- In Table 3, the department added the words “not including digger derricks” to (5).
- In subsection (2)(c), the department added the words “derrick”, “crane/derrick” and “derrick”. It now reads “Qualified crane/derrick operator. While operating the crane/derrick, the trainee/apprentice must be continuously supervised by a qualified crane/derrick operator who meets the following requirements:”
- In item (2)(c)(i), the department added the word “derrick”. It now reads, “The qualified crane/derrick operator is an employee or agent of the trainee’s/apprentice’s employer.”
- In item (2)(c)(ii), the department added the word “derrick” and replaced the word “equipment” with “crane/derricks”. It now reads, “The qualified crane/derrick operator under this section is familiar with the proper use of the crane/derricks controls.”
- In item (2)(c)(iii), the department added the word “derrick” in two places. It now reads, “While supervising the trainee/apprentice, the qualified crane/derrick operator performs no tasks that detract from the qualified crane/derrick operator’s ability to supervise the trainee/apprentice.”
- In item (2)(c)(iv), the department added the word “derrick”. It now reads, “For cranes other than tower cranes: The qualified crane/derrick operator and the trainee/apprentice must be in direct line of sight of each other. In addition, they must communicate verbally or by hand signal.”

#### **WAC 296-155-53408 Power line safety.**

- In subdivision (2)(c), the department added the words “the utility owner” and deleted an “s” from the word “operator”. It now reads, “Voltage information. Where Option (3) is used, the utility owner/operator of power lines must provide the requested voltage information prior to commencement of work or within two working days of the employer’s request.”
- In subdivision (4)(e), the department added the words “utility owner” and deleted the words “power line”. It now reads, “A planning meeting with the employer and utility owner/operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) is held to determine the procedures that will be followed to prevent electrical contact and electrocution. At a minimum these procedures must include:”

**WAC 296-155-53412 Operational aids.**

- In sub-item (3)(d)(ii)(B), the department corrected a reference in the exception. It now reads, “The requirements in subsection (3)(d)(ii)(A) and (B) of this section do not apply to such lattice boom cranes when used for dragline, clamshell (grapple), magnet, drop ball (wrecking ball), container handling, concrete bucket, marine operations that do not involve hoisting personnel, and pile driving work.”

**WAC 296-155-56425 Sample declaration form for hours of experience.**

- In the table, the department added the words “including digger derricks” to (1)(c) and (1)(d).
- In the table, the department added the words “not including digger derricks” to (5).

### III. Summary of Comments Received and Department Response

General Comments	Department Response
<p>Progress has been made in some aspects of the rule; however, we continue to have concerns that L&amp;I's construction crane safety rules inappropriately regulate electrical work that is already subject to a separate rule under Chapter 296-45 WAC, and that the State Legislature had no intention of regulating when it passed the construction crane legislation in 2007. The consequence of this over-regulation is the additional cost to customers-owners, both in terms of actual costs and lost productivity. We strongly believe that if an additional worker and public safety is the objective, then the electric utility industry and L&amp;I should work together to strengthen the existing apprenticeship and training programs that currently exist.</p>	<p>The department appreciates this comment.</p> <p>We agree that Chapter 296-45 WAC, Safety Standards for Electrical Workers, covers the operation and maintenance of electrical power generation, control, transformation, and distribution lines and equipment.</p> <p>We also understand that the electrical utility industry performs activities that is not covered in Chapter 296-45 WAC but is covered in Chapter 296-155 WAC, Safety Standards for Construction Work. This is clarified more thoroughly with the exemption of digger derricks and the use of cranes in the electrical utility industry.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt."</p>
<p>In November 2010, Governor Gregoire issued Executive Order 10-06 suspending all non-critical rule development, and directing the Office</p>	<p>The department appreciates this comment.</p>

of Financial Management (OFM) to publish criteria for exceptions to the rulemaking moratorium. Both the Executive Order and OFM memorandum cite the impacts of the current recession on local governments and businesses, and the need for a "stable and predictable regulatory environment." The OFM memo provides that a rulemaking is non-critical unless the rule is "required by federal law or state law or required to maintain federally delegated or authorized programs." The OFM memo further directs agencies to identify whether an exception to the rulemaking moratorium applies in issuing the agency's rulemaking agenda. In issuing its rulemaking agenda, L&I listed the crane rulemaking as exempt from the moratorium for the following reasons:

"The Occupational Safety and Health Administration recently adopted a crane construction rule effective November 8, 2010. This rulemaking is to address the requirements employers must follow with regard to inspection, maintenance, and operation of cranes used in the construction industry. The L&I rulemaking document classifies the crane rulemaking with a status of "proceed," with the rationale that the rule is "required to be in compliance with federal law."

While it may be the case that certain parts of the state's construction crane rules must be updated to meet the new federal OSHA standards, this is not true as it relates to digger derricks. Clearly, with the recent OSHA decision to fully exempt digger derricks from federal crane rules, it is incorrect to classify the digger derricks portion of L&I's crane rules as necessary to comply with federal standards.

If a rule that is being pursued meets an exemption, the rule may be approved to proceed in the rule-making process. The department received an exemption allowing us to proceed with this rule-making.

We also understand that the electrical utility industry performs activities that is not covered in Chapter 296-45 WAC but is covered in Chapter 296-155 WAC, Safety Standards for Construction Work. This is clarified more thoroughly with the exemption of digger derricks and the use of cranes in the electrical utility industry.

The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45

	WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt.”
<p>We urge L&amp;I to clarify the exemption for utility work. Implementing the law as proposed is estimated initial costs of up to \$750,000 to train its employees. And, in the meantime, we may be required to outsource certain types of utility work. Outsourcing may have the adverse consequence of delaying or inhibiting safe and reliable service to customers. The effect of outsourcing may delay utility work necessary to ensure the continued operation of the system. The proposed rules address important and necessary public safety concerns regarding the operation of certain construction crane equipment; however, it would be ill-advised and contrary to legislative intent, federal requirements and the governor's rulemaking moratorium to apply rules within Chapter 296-155-529 WAC to utility functions. We remain committed to training, testing, and certification of employees to ensure proper worker safety and system safety and reliability. We appreciate the opportunity to participate and comment in this proceeding and looks forward to working with L&amp;I to resolve these important issues.</p>	<p>We also understand that the electrical utility industry performs activities that is not covered in Chapter 296-45 WAC but is covered in Chapter 296-155 WAC, Safety Standards for Construction Work. This is clarified more thoroughly with the exemption of digger derricks and the use of cranes in the electrical utility industry.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, “Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt.”</p>
<p>In addition to the construction crane statute, the proposed construction crane rule fails to meet certain provisions of the Administrative Procedures Act (APA). The proposed rule is a significant legislative rule under RCW 34.05.328(5) (a), which applies to significant legislative rules adopted by L&amp;I and certain other agencies. Therefore, the rulemaking is subject to additional analysis under this statute. These APA rulemaking requirements were established by the Legislature to subject certain types of significant rules to additional analysis to avoid duplication and ensure coordination with other existing regulatory requirements. Specifically, prior to adopting the rule, L&amp;I must undertake the following analysis:  <b>RCW 34.05.328(1){e}</b>- "Determine, after considering alternative</p>	<p>The department has complied with the rulemaking requirements of the Administrative Procedures Act (APA) in promulgating this rule. The department has considered the alternatives to adopting these rules, considered this and other comments in reaching to final rule language and has thoroughly reviewed OSHA’s crane construction rule effective November 8, 2010. The department believes the adopted rule language is the least burdensome alternative of other options considered, other rule language proposed, and the final rule language. In addition, the department must be at least as effective as OSHA but has the authority to exceed requirements adopted by OSHA. Finally, the department must comply with the requirements of RCW 49.17.400-440</p>

versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection."

**RCW 34.05.328{1}{h}**- "Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

(i) A state statute that explicitly allows the agency to differ from federal standards; or

(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection ...

**RCW 34.05.328{1}{i}**- "Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter."

We believe if existing safety and training requirements and programs in the utility industry are analyzed as required by the APA, the outcome will be that any necessary additional training will be incorporated into the existing programs we implement in partnership with IBEW.

For example, RCW 34.05.328(1)(e) requires the regulatory requirement to be the "least burdensome" that will "achieve the general goals and specific objectives" of the underlying law. Rather than creating a new operator certification program, a "least burdensome" approach would seek to utilize the already-existing safety and training programs implemented by PUDs in partnership with the International Brotherhood of Electrical Workers (IBEW). Taken together, these rulemaking provisions require that L&I analyze how the proposed construction crane rules are coordinated with other state and federal laws and rules. These include the existing rules adopted and enforced by L&I at WAC Chapter 296-

in adopting these requirements, which has resulted in standards that are more comprehensive than those adopted by OSHA. These statutory provisions do not allow the department to exempt the electrical industry from the operator certification and/or training requirements; a legislative amendment to the statute would be required to do so.

<p>45 (Safety Standards for Electrical Work), Washington's Apprenticeship Act and Rules, RCW Chapter 49.04 RCW and WAC Chapter 296-05, and federal OSHA standards at 29 C.F.R. § 1926. To date, the rulemaking materials provided L&amp;I include no such analysis.</p>	
<p>It is the intent of our company to be in full compliance with the construction crane safety rules and regulations once they are finalized. However, if L&amp;I proceeds with the proposed language, we are requesting a one-year delay of the implementation period for training and certification requirements. We believe a one-year implementation period is warranted to allow electric utilities to better manage the additional costs.</p>	<p>A change was made to the proposed language relating to digger derricks. Because of this change, a one-year implementation is no longer necessary. The proposed language does have a 180 day implementation period for digger derricks.</p>
<p><b>WAC 296-155-52900 Scope</b></p>	
<p>The proposed rule that the state has developed with stakeholders will create safer construction sites. While I am enthusiastic about the improved safety for construction, I believe the other industries that utilize cranes should adopt similar requirements. In crane operations, there is little difference between construction and general industry, logging, electrical or maritime. When specific industries are chosen over others for the application of safety rules clarity suffers.</p>	<p>The department appreciates this comment. Currently, the Governor has a rule-making moratorium in effect until December 31, 2012, which prevents the department from addressing these other industries relating to safety requirements involving the use of cranes.</p> <p>No change was made to the proposed language based on this comment.</p>
<p>The distinction OSHA makes to exclude articulating cranes while delivering construction materials is ill warranted. The department took the right approach in including these types of cranes and not including OSHA's exemption.</p>	<p>The department appreciates this comment.</p> <p>OSHA's partial exemption for articulating boom cranes was thoroughly discussed during the stakeholder process and it was decided that delivering materials at a construction site was no less dangerous or hazardous than it was using the same type of crane to perform any other construction activity.</p> <p>No change was made to the proposed language based on this comment.</p>
<p>While OSHA may be exempting digger derricks in high voltage</p>	<p>The department appreciates this comment.</p>

<p>situations, digger derricks are utilized in many other scenarios. They are used for items such as lifting signs, placing vaults, and low power situations such as setting slab mounted transformers. I disagree with the concept that in the area where there is the highest number of fatalities for cranes (electrical) and in the most extreme cases (such as high voltage) an exemption should be granted. As much as I disagree, in situations where the electrical industry falls exclusively outside of the construction standards, these rules do not apply. However, when performing construction activity, it should be necessary for the highest risk work to comply with the rules. Further, it seems somewhat incredulous to believe that an exempt operator and digger derrick would not be used in construction activities that fall under the rule. At a maximum the exemption should only be for emergency power recovery situations to the extent they would fall under the construction standard.</p>	<p>We are only exempting digger derricks for work covered in Chapter 296-45 WAC.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt."</p>
<p>There was a comment made earlier between the work performed of the digger derrick and the utility industry and the high-voltage applications, and the digger derricks' application in planting signs. The exemption achieved by Edison was specific to the utility industry and the high voltage application. Because this equipment has a wench line, it erroneously is characterized as a crane, when in reality in the high voltage application, it's used in many applications as a hotline tool. To compare that with the planting of signs is not comparable. It shows a lack of understanding as to what high-voltage application of that piece of equipment is. Whether DOSH chooses to exempt it in other applications is at your discretion, but in the high-voltage field, there is specific reasons why that specific exemption is sought.</p>	<p>The department appreciates this comment.</p> <p>We are only exempting digger derricks for work covered in Chapter 296-45 WAC.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt."</p>
<p>I just want to mention a few of the things that have been talked about here today as far as the digger derricks. You know, OSHA's rules are the minimal. We can be more and we should be more. The</p>	<p>The department appreciates this comment.</p> <p>We are only exempting digger derricks for work covered in</p>

<p>number one cause of accidents with cranes in the country is getting into power lines, so we've got to do more to be careful in that area, and I know my union brothers and sisters have the ability to do this kind of training, and I'm hoping they will embrace it. Even though I know they do a tremendous job in safety and health, this rule isn't that hard to comply with and they've got the ability to do it, so I hope we can get past that. We don't have to be the least. We can be the most, and I'm proud of what we've done with this rule.</p>	<p>Chapter 296-45 WAC.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt."</p>
<p>We ask that you re-assess two specific aspects of the proposed rule: 1) requirements for electric utility digger derricks, and 2) the timeline for implementation. We understand the significant challenge the department has encountered to reconcile the intent of the law, which is to regulate construction cranes, with the result of the Occupational Safety and Health Administration's (OSHA) rulemaking process, which has obligated Washington to adopt construction crane safety regulations at least as effective as federal standards. As you know, the OSHA rulemaking has been the subject of litigation. The Edison Electric Institute (EEI), representing investor-owned electric utilities, challenged OSHA's subjection of digger derricks to construction crane safety requirements. OSHA and EEI have recently reached a settlement which exempts electric utility digger derricks trucks from the federal construction crane rules. Under this agreement, OSHA agreed not to enforce provisions of its crane rule relating to digger derricks, and further will "exempt from the requirements of the Standard all digger derricks operation covered by subpart V of 29 C.F.R.&gt;§ 1926. This expanded exemption would cover digger derrick activities conducted by both electric utility companies and electric utility contractors." The proposed LNI rule provides a partial exemption from the crane</p>	<p>The department appreciates this comment.</p> <p>We also understand that the electrical utility industry performs activities that is not covered in Chapter 296-45 WAC but is covered in Chapter 296-155 WAC, Safety Standards for Construction Work. This is clarified more thoroughly with the exemption of digger derricks and the use of cranes in the electrical utility industry.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, "Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt."</p>

<p>safety requirements for digger derricks that does not correspond with OSHA’s decision to exempt utility digger derricks from regulation as construction cranes. Accordingly, we requests the following amendments to the proposed rule language:  <u>(e) Service trucks with mobile lifting devices designed specifically for the use in the power line and electric service industries. Digger derricks when used for augering holes for poles carrying electric and telecommunications lines, placing and removing the poles, and for handling associated materials to be installed on or removed from the poles.</u> Digger derricks used in work subject to chapter 296-45 WAC, Safety standards for electrical workers, must comply with chapter 296-45 WAC. Digger derricks used in work for telecommunications service (as defined in chapter 296-32 WAC, Safety standards for telecommunications) must comply with chapter 296-32 WAC.  <u>Cranes/derricks, other than digger derricks with mobile lifting devices used in the electric service industry, for the erection or improvement of new or existing transmission and distribution lines including telecommunications and equipment, are not exempt.</u></p>	
<p>We also provide safety and training services for approximately 20 small electric utilities in Washington. I would like to speak to the same exemption or the same agreement that the Edison Electric and OSHA agreement was referred to earlier. The original C-DAC document erred, I believe, in not -- in including parts of the digger derrick and exempting parts of the digger derrick or parts of the work. It's not reasonable to say that an operator would need a certification to operate the truck in one application and not need a certification to operate the truck in another application. I would entirely agree with this issue and would hope that the department would make those corrections. Well, the differences in the pieces of equipment don't fit the original exemption. And like you stated earlier, there are different documents out there, ANSI standards, et cetera, with the steel winch line, which a lot of digger derricks used to come with 30 years ago, that increased the hazard, increased the</p>	<p>The department appreciates this comment.</p> <p>We also understand that the electrical utility industry performs activities that is not covered in Chapter 296-45 WAC but is covered in Chapter 296-155 WAC, Safety Standards for Construction Work. This is clarified more thoroughly with the exemption of digger derricks and the use of cranes in the electrical utility industry.</p> <p>The following change was made to the exemption of digger derricks in WAC 296-155-52900, it now reads, “Digger derricks when used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications. Cranes other than digger derricks when</p>

<p>electrical hazard. I don't believe that there's been a huge -- or issue with vehicles like tipovers and things like that in the electric utility industry much like crane issues have resulted in other industries. Our operators operate under very narrow scope of work. I don't believe that -- I don't believe that those two things are incompatible, but I don't think they're exactly the same either. No. I think it's actually both. Our equipment operators and our linemen are trained to operate that specific piece of equipment on that type of industry, and I think they do so safely. We train to those requirements. We train our riggers. We train our signal men. But I don't believe it is necessary to send every one of our employees, because each employee that we have out there may do any one of those things. We run crews with all journeymen linemen on them. There's not a certification or a license required for -- there's not a license required for a journeyman lineman in the state of Washington. So, therefore, why are you requiring a license for them to operate a digger derrick? I would assume -- I presume that operating -- working around energized electrical conductors is a little more hazardous than operating a digger derrick. I think the work by sending all of those people out to get a crane operators license is a very expensive commodity for the utilities. I think it is not really gaining any safety.</p>	<p>used for activities that are covered under chapter 296-45 WAC, Safety standards for electrical workers, or chapter 296-32 WAC, Safety standards for telecommunications are <b>NOT</b> exempt.”</p>
<p>The crane safety legislation included an exemption for powerhouse cranes, on the basis that these types of cranes are installed within the powerhouse building and specifically designed for the types of operations inside powerhouses. As such, they are not used for “construction” purposes, and unlike large construction cranes, are not mobile or used in outside environments where slopes, stability, and weather present different circumstances. Over the past year, WPUDA and other utilities have worked with LNI staff to ensure that the statutory powerhouse crane exemption is accurately reflected in LNI’s rules, and as proposed the new rule language accomplishes this objective. However, we believe that the having two different powerhouse crane exemption subsections in proposed WAC 296-</p>	<p>The department appreciates this comment.</p> <p>In the proposed language, there is only one exemption for powerhouses, therefore no change was made based on this comment.</p>

<p>155-52900(3) will cause confusion for utilities about the scope of the exemption for crane work within powerhouses.</p>	
<p>We thank you for including in the proposed rule an appropriate exemption for powerhouse cranes. These types of cranes are incorporated into the powerhouse building structure and are specifically designed for the operations of a powerhouse; they are not used for construction of the building itself.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposed language based on this comment.</p>
<p>We write in support of the proposed language at WAC 296-155-52900 Scope. (3) (v): (v) Permanently installed overhead/bridge, gantry cranes, semigantry, cantilever gantry, wall cranes, storage bridge cranes, and others having the same fundamental characteristics which are located in manufacturing facilities or powerhouses.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposed language based on this comment.</p>
<p>Currently, we have more than 8500 member companies in its association. Majority of who are residential contractors, suppliers, subcontractors, and supporting industries. According to the National Association of Home Builders, each home built creates an average of three jobs for a year and generates about \$90,000 in taxes. Unfortunately, single family construction in Washington has come to a near stand-still. The nation's growth is averaging 1%. The state's current economy:</p> <ul style="list-style-type: none"> <li>• The unemployment rate in Washington stands at 9.3% as of August 16<sup>th</sup>, highest in the nation.</li> <li>• Washington has now lost 70,000 construction jobs to date.</li> <li>• Many of the nation's political experts agree that the construction must fully recover before we can truly say the recession is over.</li> </ul> <p>That said, we are suggesting DOSH seriously consider the adopting OSHA's "Material Delivery" exemption, (1926.1400(c)(17)), and all of its explanatory subparts to WAC 296-155-52900, Scope. OSHA has already taken this matter into serious consideration and adopted as such. We strongly believe this will lessen the burden of the ever</p>	<p>The department appreciates this comment.</p> <p>OSHA's partial exemption for articulating boom cranes was thoroughly discussed during the stakeholder process and it was decided that delivering materials at a construction site was no less dangerous or hazardous than it was using the same type of crane to perform any other construction activity.</p> <p>No change was made to the proposed language based on this comment.</p>

<p>increasing cost of doing business in Washington.</p>	
<p><b>WAC 296-155-52902 Definitions</b></p>	
<ul style="list-style-type: none"> <li>• The definition of construction has been an area where many questions have surfaced from the industries utilizing cranes.</li> <li>• The definition provided by the department helps clarify the term construction.</li> <li>• It is necessary to include the detailed explanations for the electric industry as this industry has questioned scope through the legislature, the department, and stakeholder meetings for the past 4 years.</li> </ul>	<p>The department appreciates this comment.</p> <p>A change was made to the exemption of digger derricks which specifically includes the use of cranes that is performing construction activities in the electrical utilities industry, therefore language was modified in the definition of construction. It now reads, “Construction work means (for purposes of this part) all or any part of excavation, construction, erection, alteration, repair, demolition, and dismantling of buildings and other structures and all related operations; the excavation, construction, alteration, and repair of sewers, trenches, caissons, conduits, pipelines, roads, and all related operations; the moving of buildings and other structures, and the construction, alteration, repair, or removal of wharfs, docks, bridges, culverts, trestles, piers, abutments, or any other related construction, alteration, repair, or removal work. Construction work does not include the normal day-to-day activities at manufacturing facilities or powerhouses.”</p>
<p>Additionally, we oppose the suggested change in the “construction” definition in WAC 296-155-325. The definition change singles out electrical work that may be considered construction in certain circumstances, however it does not do the same for other specialized work groups. The change seems to provide a higher standard for assessing utility work as construction as opposed to industries like tree trimming or railroads. Below are current statutes that support our interpretation.</p> <p style="padding-left: 40px;"><i>a. Scope and application. WAC 296-45-015</i></p> <p style="padding-left: 80px;"><i>i. This chapter covers the operation and maintenance of electric power generation, control, transformation, transmission, and distribution lines</i></p>	<p>The department appreciates this comment.</p> <p>A change was made to the exemption of digger derricks which specifically includes the use of cranes that is performing construction activities in the electrical utilities industry, therefore language was modified in the definition of construction. It now reads, “Construction work means (for purposes of this part) all or any part of excavation, construction, erection, alteration, repair, demolition, and dismantling of buildings and other structures and all related operations; the excavation, construction, alteration, and repair of sewers, trenches, caissons, conduits, pipelines,</p>

<p style="text-align: center;"><i>and equipment.</i></p> <p>b. <i>PART U, POWER DISTRIBUTION AND TRANSMISSION LINES WAC 296-155</i></p> <p style="padding-left: 20px;"><i>i. Refer to chapter 296-45 WAC, "Safety standards for electrical workers."</i></p> <p>c. Construction definition in RCW 49.17.400</p> <p style="padding-left: 20px;"><i>i. "Construction" means all or any part of excavation, construction, erection, alteration, repair, demolition, and dismantling of buildings and other structures and all related operations; the excavation, construction, alteration, and repair of sewers, trenches, caissons, conduits, pipelines, roads, and all related operations; the moving of buildings and other structures, and the construction, alteration, repair, or removal of wharfs, docks, bridges, culverts, trestles, piers, abutments, or any other related construction, alteration, repair, or removal work. "Construction" does not include manufacturing facilities or powerhouses."</i></p> <p>d. Scope</p> <p style="padding-left: 20px;"><i>i. (2) RCW 49.17.400 through 49.17.430 do not apply to:</i></p> <p style="padding-left: 40px;"><i>(d) Service trucks with mobile lifting devices designed specifically for use in the power line and electric service industries, such as digger derricks (radial boom derricks), when used in the power line and electric service industries for auguring holes to set power and utility poles, or handling associated materials to be installed or removed from utility poles;</i></p>	<p>roads, and all related operations; the moving of buildings and other structures, and the construction, alteration, repair, or removal of wharfs, docks, bridges, culverts, trestles, piers, abutments, or any other related construction, alteration, repair, or removal work. Construction work does not include the normal day-to-day activities at manufacturing facilities or powerhouses."</p>
<p>We do feel, on the more negative side of my testimony, that the department could do a better job of defining the word "construction" throughout the use of the WAC in Washington, the Washington Administrative Code. We feel that there are multiple instances</p>	<p>The department appreciates this comment. Currently, the Governor has a rule-making moratorium in effect until December 31, 2012, which prevents the department from addressing these other industries relating to the definition of</p>

where the use of the word "construction" comes into play in different codes and standards and is defined inconsistently between those which can lead obviously to confusion on the job. So we would press the department not just for clarity for these rules but for all of the Washington Administrative Codes. It's important for us to have clarity on this definition so we can all move forward on the same sheet of music.	"construction".  No change was made to the proposed language based on this comment.
<b>WAC 296-155-53200 General inspection criteria, wire rope inspection and removal criteria, and preproof load test requirements for all cranes</b>	
Subsection (7)(f) - Thank you for defining the type of weights allowed for proof load tests.	The department appreciates this comment. The proposed language will be adopted.
Subsection 7(f), add language to clarify. It now reads proof load tests require the use of freely suspended certified weights or scaled weights used as certified scale with the current certificate of calibration. However, line pull tests can be accomplished using the static test. Is this line pull test still going to be certified using a certified scale? Is that what we're going to do in that particular instance? I guess my question is checking the brakes of this hoist would be my concern there.	The department agrees and added the following clarified language to the end of subsection (7)(f): "and certified scale with a current certificate of calibration"
<b>WAC 296-155-53202 Additional inspection criteria and proof load testing--Mobile cranes.</b>	
Subsection (4)(a) - Thank you for clarifying the amount of proof load tests.	The department appreciates this comment. The proposed language will be adopted.
Subsection (4)(c) - With the role of the assembly/disassembly director being instituted through OSHA's document, and as a central element of that role being that of post assembly inspection, DOSH has taken the correct approach in removing the quadrennial proof load testing of components. Not only does this significantly reduce the economic impact of the duplicative burden to perform inspections on these components, but it also resolves the issue of components being utilized on multiple machines throughout the 4 years of life of the	The department appreciates this comment. The proposed language will be adopted.

<p>certification. Most importantly, the documentation trail for larger companies with multiple quantities of a singular model number was becoming unwieldy. The department's proposed rule remedy's this without reducing safety.</p>	
<p>I just wanted to clarify, from our previous testimony, the effective date of the tagging the boom. What is that official effective date that it doesn't -- isn't required anymore?</p>	<p>The tagging of crane components will not be required after the effective date of this part.</p>
<p>Also, you know, I can't cite a specific rule here, but another comment that we would like to make has to do with the load testing of the cranes in that we would urge that the load tests be performed in the - - as configured -- configuration as opposed to staying a max load test for a particular-sized crane. Certainly, it doesn't make sense that, if the crane on a particular project isn't going to meet or see anywhere near the load that it's actually rated for, it's extremely cumbersome to not only the project and expense, but an additional effort that will serve as no value. So to the extent that we have to say anything more to enhance the, you know, additional discussion about that, we'd like to do that. Or if this is the forum that takes care of that, then that would be fine.</p>	<p>We did not change this requirement. Mobile cranes are still required to be proof load tested in the as configured condition.</p> <p>No changed was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53300 Operator qualifications and certification</b></p>	
<p>The department needs to continue to defend its position that written and practical exams are both required by crane type for mobile cranes and by category for the other crane categories. The reason the department needs to continue to uphold this position is because this very same requirement exists in ASME. The department and stakeholders chose to merge ASME and the legislation to create the proposed rule. There has been no basis offered for altering the crane types from ASME. There are no statistics provided indicating that it is safer to alter crane types, nor are there any studies provided indicating the advantage of doing so. These issues were discussed at length at the stakeholder meetings and the stakeholders unanimously helped define the department's position. To do anything less will open the floodgates of crane certifier program</p>	<p>The department appreciates this comment.</p> <p>No changed was made to the proposal based on this comment.</p>

<p>approval without any basis for judgment. Further, altering the definitions will severely impact employers who have now relied on this information and process for more than two years.</p>	
<p>It has come to light that testing organizations are not accredited. Rather, the individual testing program is what the accreditation covers. In many instances, programs in development – such as the articulating crane program for CCO – do not meet the level of accreditation until they have established sufficient test results and auditable findings. Being a part of the legislative process in phase I, I believe the intent of the legislation was to require nationally recognized accredited programs. This means that the language in WAC 296-155-53300(1)(a) should be modified to replace the term “organization” with “program” in order to state more clearly the intent. It has also come to light that many of the testing organizations have developed a multitude of test under the umbrella of an accredited exam. The tests that are not individually accredited should not be recognized as such. While I recognize that significant effort and resources are required to develop a nationally accredited exam, this is what the legislature demanded after the fatality in Bellevue. Anything less will require the department to utilize more resources to police the veracity of the certifying programs. If the department chooses to provide more latitude to the testing organizations, the department can expect that the testing will lose the credibility that the legislature sought.</p>	<p>The department appreciates this comment.</p> <p>A change was made to this subsection for clarification. It now reads, “Has a valid crane operator certificate, for the type of crane to be operated, issued by a crane operator testing organization, which has an accredited program, accredited by a nationally recognized accrediting agency. The operator certification must include a successful passing of a written and practical examination for each crane category listed in Table 3 and by crane type for mobile cranes.”</p>
<p>WAC 296-155-53300(1)(d) is essential to Washington’s rule. I would like to thank the department for prescribing that the employer must ensure that the operator has been completely trained, evaluated, and tested by the employer on the operating procedures for the piece of equipment rather than having the operator test on an entirely different type of machine with different operating characteristics as OSHA has done. However, the testing criteria is not clear. I would recommend adding the phrase “and the applicable ASME standard” after “equipment manufacturer”.</p>	<p>The department agrees with this comment and added the following language after the words “equipment manufacturer” in subsection (1)(d):  “and the applicable ASME standard”.</p>

<p>As far as when we first started this process, there were four accredited testing entities in the country, and I believe now there is six or eight. We never took the time to look at what these individual programs did, but we accepted them on face value because they've been through their own process. As you know, the operators have a program down that has been in operation since 2004 out of Local 12 in California that went and got that accreditation, and they've done a fabulous job of training our operators in California, and I'm hoping that there is no problem with using that kind of testing up here. I know there has been questions about it. Like I said, in the rule-making process, we never opened up these other entities to look at what they did. We took them on face value like other people would take our laws on face value.</p>	<p>The department appreciates this comment.</p> <p>No changed was made to the proposal based on this comment.</p>
<p>Another thing too is with the program here as far as the certification of the operators, the department excluded the opportunity for employers to create independent training and certification program in-house and non-portable. I would urge the department to review that and adopt the federal standard that gives the exemption for that.</p>	<p>The department appreciates this comment.</p> <p>The way crane operators become certified would require a legislative change to RCW 49.17.430.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53302 Signal person qualifications</b></p>	
<p>Signal persons are a key element in the direction of a crane. The crane is only certified for one year, and operator certifications are valid for up to five years. Therefore, it is important that the signal person re-qualify every five years as well.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposal based on this comment.</p>
<p>The operator is responsible from wheel to the crane to the hook, and having the qualified rigger or the rigger qualified will give that operator a lot more confidence that, when he lifts the load, that it stays on the hook. And that is somebody else's responsibility. That's the same thing with the signal person. The operator, when he's in the conditions where we need a qualified signal person, can't see everything, and he has to have confidence in the way that person is out there.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53306 Rigger qualifications</b></p>	

<p>Instead of allowing for a broad ambiguity as to what is a qualified rigger, the department performed yeoman's work defining the details. The department, along with stakeholders, drew heavily upon the language under ASME regarding the required knowledge base and drew upon the signal person requirements for testing and term. I strongly support this language as it brings clarity to the issue.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53401 Duties of assigned personnel</b></p>	
<p>For many years, the industry has relied upon ASME for crane standards because the regulations for the state and federal government were so far behind. In 2007, ASME produced a revision to their mobile crane standard (B30.5) that detailed responsibilities/duties related to crane operations. This information was put in under the request of the industry to ensure that there was clarity to the detailed duties of assigned personnel. They had found that too often everyone assumed that "the other person" was handling the details. Since these are national industry standards, it is extremely important for the department to not only reference these items but to bring the details forward so that crane owners, crane users, site supervisors and lift directors can rely singularly on the State of Washington's crane rule instead of intertwining seven or eight different documents with some hope of clarity. Clear rules make safer worksites.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53400 General requirements</b></p>	
<p>I would like a definition from the State as to what and who is going to be responsible for this preventative maintenance program that you are looking at.</p>	<p>The department appreciates this comment.</p> <p>The employer is responsible to ensure that this requirement is accomplished per the manufacturer's recommendations, or if the manufacturer's recommendations are not available then those of a qualified person must be followed.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53402 Assembly/disassembly</b></p>	

<p>I don't believe that we have an adequate system set up to make sure that the A/D inspector is totally qualified. Are we still going to tag the boom sections as we have in the past? So we're not going to tag a jib that's attached to a crane?</p> <p>I do a visual inspection on a jib on a specific crane, and we're not going to use a number at this point in time to establish what component I've actually done a visual inspection on?</p> <p>Why did the department decide to go away from using the component numbers on components such as jibs and so on and so forth?</p>	<p>The department appreciates this comment.</p> <p>The assembly/disassembly (A/D) director must meet the definition of a "qualified person" and a "competent person". We will not be requiring crane components to be tagged after January 1, 2012. After implementation of the Phase I crane rulemaking, it was soon discovered that tracking crane components by employers and the department was extremely difficult and the data that was being tracked was often inaccurate as to the location and use of crane components. It was decided in an effort to make it easier for the employer and the department to omit this tagging and tracking of these crane components and to outline more clearly for the A/D director what is required for assembling crane components onto cranes.</p> <p>No change was made to the proposal based on this comment.</p>
<p>How cumbersome would it be for that A/D inspector to -- when he puts that crane together after it's been moved from one job to another, say it had 200 feet of boom at one job and 150 feet of boom in it to do another job, would he not be able to send the State a report saying this is how this crane is built today, or is that just not something you guys want to get into?</p>	<p>The department appreciates this comment.</p> <p>Our proposed language requires the A/D director to perform an inspection of the crane components and attachments prior to assembly that they are of sound physical condition and function within the manufacturer's recommendations. This inspection record must be kept at the jobsite while the crane is in use.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-53408 Power line safety</b></p>	
<p>I found with the Table 4, 155-53408, there is a little exclusion in there for power lines. It's infeasible for the owner to maintain the approach distance, and the statement in there stating if it's infeasible if the employer determines it's infeasible after consulting with the</p>	<p>The department appreciates this comment.</p> <p>In order for an employer to get inside the "Table 4 zone" with a crane load line or load (including rigging) the</p>

utility and notifying Labor and Industries that they can come up with a plan with a registered engineer after that. As a utility, I think we would like to see language in there that would notify the utility if the department does grant a technical variance to that application. I see a danger here for allowing people who work to get to close to the power lines as is. Utilities not being aware when there is an incident, it could be a significant risk to the public.

employer must follow all of these requirements:

- Notify L&I
- Consult with the utility owner/operator to determine if the line can be deenergized
- The power line owner/operator determines the minimum clearance distance
- Hold a planning meeting with the employer, power line owner/operator to establish procedures to be followed to prevent electrical contact. At a minimum these procedures must include:
  - Make any automatic reenergizing circuit inoperative
  - Have a dedicated spotter on site in continuous contact with crane operator and that spotter must:
    - Be equipped with a visual aid to assist in identifying minimum clearance distance
    - Be positioned to effectively gauge the clearance distance
    - Use equipment that enables the spotter to communicate with the crane operator
    - Give timely information to crane operator so that the required clearance distance is maintained
- Erect and elevated warning line or barricade
- Crane must have an insulating link installed

	<ul style="list-style-type: none"><li>• Use non-conductive rigging</li><li>• If crane is equipped with a range or movement limiter it must be set to prevent breaching the minimum clearance distance</li><li>• Tag line must be non-conductive</li><li>• Barricades must be set to keep workers 10 feet away from the crane</li><li>• Workers must be prohibited from touching the load line above the insulating link</li><li>• Ensure only essential personnel are permitted in the area of the crane and load</li><li>• The crane must be grounded</li><li>• Insulating line hose or cover-up must be installed by utility owner/operator</li><li>• This procedure must be written and immediately available on-site</li><li>• Crane user, utility owner/operator, crane operator, and all other workers that will be in the area of the crane or load will meet to discuss this procedure that will be implemented to prevent breaching the minimum approach distance established</li><li>• The procedure developed are implemented</li><li>• The utility owner/operator, and all employers involved in the work will identify one person to will direct implementation of the procedure and this person must have authority to stop work to ensure safety</li><li>• If a problem arises that prevents implementation of</li></ul>
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	<p>the procedures the employer must stop operations and either develop new procedures to comply with our rule or have the power line deenergized</p> <ul style="list-style-type: none"> <li>• All safety devices must meet the manufacturer's procedures for use and conditions of use</li> <li>• The employer must train crane operator and crew members assigned to work in accordance with the training requirements outlined in WAC 296-155-53408(2)(f)</li> </ul> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-541 Self-erecting tower cranes</b></p>	
<p>It is important to have a section pertaining directly to this type of crane. While the superstructure resembles a tower crane, the base and slew ring are more similar to a mobile crane. ASME has concurred with this approach as they have been developing a separate section for self-erecting tower cranes (B30.29). I believe the language provided in the proposal by the department to be very much in line with the language that will be published by the ASME subcommittee. With the continued growth of this type of crane in our industry, DOSH has taken the important steps of dealing with the safety issues that these cranes present.</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposal based on this comment.</p>
<p><b>WAC 296-155-54200 Overhead/bridge and gantry cranes - general</b></p>	
<p>We also write in support of the proposed language at WAC 296-155-54200 (New Section):  (1) Permanently installed overhead/bridge and gantry cranes which are located in a manufacturing facility or powerhouse must follow</p>	<p>The department appreciates this comment.</p> <p>No change was made to the proposal based on this comment.</p>

<p>the requirements of WAC 296-24-235 (General safety and health standards), even when a construction activity is being performed. This requirement applies to overhead, bridge, gantry cranes, including semigantry, cantilever gantry, wall cranes, storage bridge cranes, and others having the same fundamental characteristics. This will align the DOSH proposal with the current Federal OSHA standard.</p>	
<p><b>WAC 296-155-562 Lifting devices other than slings and rigging hardware.</b></p>	
<p>My primary question was with the use of the word "qualified person" for inspections, both initial and periodic inspections, of below-the-hook lifting devices. In the B30.20, we generally use the term "designated person" to do the inspection, and then if there is any damage found during the inspection, then you get a qualified person to review the damage and determine whether or not it constitutes a hazard.</p>	<p>The department appreciates this comment.</p> <p>The department and the stakeholders agreed to use the term "qualified person" instead of "designated person" so that the employer would know that it would be expected for the person performing the inspection of the below-the-hook lifting devices was qualified to determine if it was safe to use or not.</p> <p>No change was made to the proposal based on this comment.</p>
<p>Second is on the periodic inspections of lifting devices. We currently use the word "qualified," which you have replicated in your rule, but we are in the process of changing that to a "designated person" at the request of the B30. That is my question. That applies to all five portions of the below-the-hook lifting devices proposed rule.</p>	<p>The department appreciates this comment.</p> <p>The department and the stakeholders agreed to use the term "qualified person" instead of "designated person" so that the employer would know that it would be expected for the person performing the inspection of the below-the-hook lifting devices was qualified to determine if it was safe to use or not.</p> <p>No change was made to the proposal based on this comment.</p>