

## **AGENDA**

### **SAFETY AND HEALTH CODES BOARD**

**Wednesday, November 5, 2003**

**State Corporation Commission  
Tyler Building  
1300 East Main Street, Second Floor  
Richmond, Virginia**

**Courtroom A**

**10:00 a.m.**

- 1. Call to Order**
- 2. Approval of Agenda**
- 3. Approval of Minutes of June 13, 2003 and August 12, 2003**
- 4. Election of Officers**
- 5. Opportunity for the Public to Address the Board on the issues pending before the Board today or on any other topic that may be of concern to the Board or within the scope of authority of the Board.**

***\*\*This will be the only opportunity for public comment at this meeting.\*\****

**[Please limit remarks to 5 minutes in consideration of others wishing to address]**

**6. New Business**

- a) **16 VAC 25-145-10 through 16 VAC 25-145-50, Safety Standard for Fall Protection in Steel Erection, Construction Industry; Final Rule Adoption**

*presenter - Glenn Cox*

- b) **Boiler and Pressure Vessel Rules and Regulations; Notice of Intended Regulatory Action (NOIRA) – contract fee inspector financial responsibility**

*presenter - Fred Barton*

- c) **16 VAC 25-85-1904.12 and 1904.29(b)(7(vi), Occupational Injury and Illness Recording and Reporting Requirements:**

**Amendment to the Final Rule deletes the musculoskeletal disorders (MSD) recordkeeping provisions**

*presenter - Ron Graham*

**7. Items of Interest from the Department of Labor and Industry**

**8. Items of Interest from Members of the Board**

**9. Adjournment**



*COMMONWEALTH of VIRGINIA*

**DEPARTMENT OF LABOR AND INDUSTRY**

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**VIRGINIA SAFETY AND HEALTH CODES BOARD**

**BRIEFING PACKAGE**

**For NOVEMBER 5, 2003**

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**Safety Standards for Fall Protection in Steel Erection,  
Construction Industry, 16 VAC 25-145-10 through 16 VAC 25-145-50;  
Final Adoption**

**I. Action Requested.**

The Virginia Occupational Safety and Health (VOSH) Program requests the Safety and Health Codes Board to consider for adoption the attached draft for 16 VAC 25-145-10 through 16 VAC 25-145-50, Safety Standards for Fall Protection in Steel Erection, Construction Industry, as a final regulatory standard of the Board.

The proposed effective date is January 15, 2004.

**II. Summary of the Final Standard.**

**A. Steel Erection.**

This regulatory language, if approved by the Board, will require protection for steel erection workers from falls from heights starting at 10 feet above a lower level (i.e., working surface). Federal OSHA's requirement for fall protection in this situation starts at 15 feet. In the draft language, a singular exception to the

10-foot fall protection requirement is for employees working as “connectors.” A “connector” is defined in § 1926.751 as “... an employee who, working with hoisting equipment, is placing and connecting structural members and/or components.”

The exception for connectors is based on VOSH’s determination that during the interval when structural steel beams are being placed in position for initial assembly and joining, a greater hazard may exist if connectors are tied off rather than giving them freedom of movement to avoid accidental contact with the steel structural pieces as they are hoisted into position. This final language for the standard, if adopted, would provide connectors with the option of utilizing a personal fall arrest system or not when steel is being placed into position, if they determine that a greater hazard of injury exists from the swinging steel.

Although controlled decking zones (CDZ) would remain prohibited, this final standard provides that access to leading edge decking operations are limited to only those employees engaged in leading edge work, as is provided in the federal standard.

In addition, the final standard would provide that the boundaries of a leading edge decking operation shall be designated and clearly marked. These requirements provide a means of fall protection by restricting access to a leading edge decking area where a fall distance of up to 30 feet could be present. The final standard would also require employees inside the boundaries of a leading edge decking area to be provided with fall protection (e.g. by utilizing a personal fall arrest system or other conventional forms of fall protection).

A non-mandatory Appendix to the standard entitled “Use of Control Lines to Demarcate Leading Edge Decking Operations” will provide guidance to employers on how to limit access to leading edge decking operations. The final Appendix is substantially similar to and would replace the current Appendix D to the Steel Erection Standard entitled “Appendix D to Subpart R -- Illustration of the Use of Control Lines to Demarcate Controlled Decking Zones (CDZs): Non-mandatory Guidelines for Complying with § 1926.760(c)(3).”

*[NOTE: Consistent with current practice, in the interim period until a final standard adopted by the Board becomes effective, VOSH will continue to use its longstanding administrative policy of enforcing 16 VAC 25-175-1926.28(a) and 16 VAC 25-175-1926.105(a) to provide 10-foot fall protection for steel workers, except for employees working as connectors.]*

### **III. Basis and Purpose of the Draft Final Standard.**

#### **A. Basis.**

The Safety and Health Codes Board is authorized by Title 40.1-22(5) "to adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and to effect compliance with the Federal Occupational Safety and Health Act of 1970 (P.L.91-596), and as may be necessary to carry out its functions established under this title.... In making such rules and regulations to protect the occupational safety and health of employees, the Board shall adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity. However, such standards shall be at least as stringent as the standards promulgated by the Federal Occupational Safety and Health Act of 1970 (P.L.91-596). In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws."

At its October 18, 2001 meeting, the Safety and Health Codes Board adopted the preponderance of federal OSHA's revised Safety Standards for Steel Erection (66 FR 5195 and 66 FR 37137) as §1926.750 through §1926.761 and the amended §1926.500 covering Fall Protection.

Upon the recommendation of the Department, paragraphs (a), (b) and (c) of §1926.760 of the federal rule dealing with fall protection requirements for steel erection workers and specifically "connectors" and employees working in "controlled decking zones" (CDZ), were not adopted.

In the alternative, VOSH sought Board approval to continue to use its current administrative policy of enforcing federal identical standards §§1926.28(a) and 1926.105(a) to provide 10-foot fall protection for steel workers, except for employees working as "connectors." In addition, controlled decking zones (CDZ) would be prohibited. After considering the Department's request to continue its administrative policy of enforcement, the Board chose to memorialize the 10 foot height requirement policy of the Department into regulation and asked the Department to begin a Notice of Intended Regulatory Action (NOIRA).

**B. Purpose.**

Although not adopted by the Board when it approved the majority of revised federal Subpart "R" in 2001, 29 CFR 1926.760 (a) of the revised federal standard requires conventional fall protection at heights greater than 15 feet, except for connectors and leading edge decking workers; paragraph (b) of the federal standard requires each connector be protected from fall hazards of two stories or 30 feet, be trained and be provided personal fall arrest system at heights more than 15 feet and up to 30 feet; and paragraph (c) under the federal standard allows for controlled decking zones (CDZ), over 15 feet and up to 30 feet for initial decking installers and protection from fall hazards for employees on

leading edge of more than 30 feet.

VOSH has investigated at least 26 fatal construction accidents over the last eleven years involving falls of 15 feet or less. Although none of these accidents involved any steel erectors, they tragically demonstrate the existence of a fatal hazard involving falls of 15 feet or less. As noted above, VOSH has enforced a 10 foot fall protection requirement in steel erection for over 15 years through the enforcement of §§1926.28(a) and 1926.105(a), and considers that policy to be at least partly responsible for the lack of fatal accidents in steel erection from falls of 15 feet or less. In reviewing these 26 construction fatalities, it is significant that the large majority of the accidents involved fatal head injuries, where the use of personal fall arrest systems, guard rails, safety nets, or working from an elevated work platform would have prevented the victim's head from hitting the ground.

The CDZ provisions in the federal standard, 29 CFR §1926.760(c)), provide no fall protection for leading edge decking workers other than training on how to avoid falls. The training of decking workers and limiting access to a work area does not provide equivalent protection to an engineering control or a personal fall arrest system when an employee actually does fall, for whatever reason. Although steel erectors are generally better trained than the average construction worker to work at heights, when they do fall, the hazard and risk of serious injury or death are exactly the same for a steel erector as for any other construction worker.

The intent of this rulemaking is to establish in regulation the current VOSH administrative policy whereby VOSH regulations §§1926.28(a) and 1926.105(a), are used to require steel erection employers to provide protection for steel erection workers from falls at or above 10 feet.

As noted previously, a singular exception to the use of §1926.28(a) and §1926.105(a) in steel erection has been recognized for employees working as "connectors." A "connector" is defined in §1926.751 as "...an employee who, working with hoisting equipment, is placing and connecting structural members and/or components." This final rulemaking would not impact the Board's decision to prohibit CDZs.

The final standard, if adopted by the Board, would also require fall protection for employees working in leading edge decking operations, and provide guidance to employers on how to restrict access to a leading edge decking area where a fall distance of up to 30 feet could exist for employees not utilizing a personal fall arrest system or other conventional form of fall protection.

### **C. Impact on Employers.**

No additional impact on employers is anticipated if the final standard is adopted, as it merely codifies the current and longstanding VOSH administrative policy

previously detailed. Virginia employers have long been familiar with VOSH's compliance guidelines as enforced in conjunction with §§1926.28(a) and 1926.105(a).

**D. Impact on Employees.**

No adverse impact to employees is anticipated from the adoption of the final standard. Employees in Virginia will continue to be protected from falls from heights of 10 feet or greater, which have heretofore been covered by VOSH's compliance policy as enforced in conjunction with §§1926.28(a) and 1926.105(a).

**E. Impact on the Department of Labor and Industry.**

No additional fiscal impact is anticipated from the adoption of the final standard. The Department will continue to inspect worksites to make sure workers are protected from fall hazards from heights of 10 feet or greater which have heretofore been covered by Virginia's compliance policy as enforced in conjunction with §§1926.28(a) and 1926.105(a).

**F. Technological Feasibility**

The proposed regulatory changes are technologically feasible. VOSH has enforced under an administrative policy a 10 foot fall protection requirement in steel erection for over 15 years through the enforcement of §§1926.28(a) and 1926.105(a). The final standard will memorialize existing VOSH requirements heretofore enforced through administrative policy.

**G. Benefit/Cost:**

The proposed change would have no impact as it would not modify employee safeguards or impose additional costs on employers as the proposed fall protection requirements are currently enforced by VOSH administratively.

**H. Summary of Public Participation Efforts**

The Public Participation Guidelines of the Board in accordance with the Virginia Administrative Process Act (APA) require a 60-day public comment period which was held from July 14, 2003 through September 12, 2003. Exclusive of the public hearing, no written comments were submitted for consideration by the Board during this period.

As noted above, the Board also held a public hearing on the proposed regulation on August 12, 2003 in Richmond as required by the Public Participation Guidelines of the Board. Three individuals addressed the Board at that meeting. Their written statement or a summary of their comments are summarized below with a response by the Department staff.

## Commenter One

The Safety Director for Riddleberger Bros., Inc., of Mt. Crawford, VA ("Commenter One"), was the first commenter at the public hearing. He asked that additional clarification be added regarding the protection of "connectors" in §30 of the proposed regulation. He suggested amending the proposed language by including the following language, "*and the iron is in the air for connection....*" The amended subsection 30.1 would read as follows:

### "§ 30 Connectors

Each connector shall:

1. Be protected in accordance with § 20 of these requirements from fall hazards of 10 feet or more above a lower level; except when structural members are being lifted for connection *and the iron is in the air for connection*, when it is considered by the connector to be a greater hazard to utilize fall protection in accordance with § 20, than to have freedom of movement to avoid accidental or inadvertent contact with structural members being hoisted to be placed and connected into position."

Commenter One explained that this added language would cover additional situations where structural members are being lifted for connection. Once ironworkers have hot bolted, they should tie off. He stated that this change would require protection in situations where structural workers are between multiple lifts, e.g., ironworkers are already on the beam in the air and have bolted up and the crane has gone down to get another load, but the ironworkers are not yet tied off. The hazard of being knocked off the beam by the crane load is gone and that point and replaced by other fall-related hazards that can result from not being tied off.

**Staff Response:** The staff of the Department agrees that some changes in the wording of this subsection would help to clarify the intent and requirements of this provision. This exception to the general fall protection requirements contained in §20 was to prevent "connectors" from being exposed to the potentially greater hazard of being struck by structural steel members during initial placement and connection due to wind gusts, crane operator error or some other unforeseen incident which could cause the steel to swing in an unpredictable manner and strike the connector. In such situations, if the connector is "tied off" his freedom of movement could be so limited as to prevent his ability to avoid the steel that was swinging out of control.

However, as Commenter One noted, during the time between multiple lifts (or for that matter during the time immediately prior to initial placement of the structural steel



member), connectors are not exposed to any hazard of swinging steel. The intent of the proposed regulation is to provide fall protection at all times for all steel erection employees, including connectors, at or above the 10 foot height, except in cases where a connector is immediately subject to the potentially greater hazard of being struck by swinging steel during placement of the steel for initial connection.

The staff recommends that proposed § 30.1 be amended to read as follows (new language in italics and deleted language struck through):

“§ 30 Connectors

Each connector shall:

1. Be protected in accordance with § 20 of these requirements from fall hazards of 10 feet or more above a lower level; except when structural members are being ~~lifted~~ *placed* for connection, when it is considered by the connector to be a greater hazard to utilize fall protection in accordance with § 20, than to have freedom of movement to avoid accidental or inadvertent contact with structural members ~~being hoisted to be placed and connected into position~~ *during placement and initial connection.*

Commenter One next suggested amending the proposed language in §40.B., Decking, by adding the following language: “*within the decking zone and*” so that subsection 40.B. would read as follows:

“§40 Decking

...

- “ B. Each employee working *within the decking zone and* at the leading edge of decking operations shall be protected in accordance with subsection 20 A. of these requirements from fall hazards of 10 feet or more above a lower level.”

Commenter One explained that without this suggested change, ironworkers within the decking area, whether or not engaged in leading edge decking work, might misinterpret the language to infer that they do not have to be “tied off” if they are not immediately located at the leading edge. Such an error could increase the risk of fall hazards. Inclusion of this suggested language would limit access to others from coming into the decking zone. He added that not adopting the “controlled decking zone” provision from the federal OSHA standard would

keep workers from falling.

**Staff Response:** The staff of the Department agrees that some changes in the wording of this subsection would help to clarify the intent and requirements of this provision. The intent of the proposed language in §40, Decking, is to make clear that the “controlled decking zone” concept contained in federal OSHA’s Steel Erection Standard at 29 CFR 1926.760(c) is not being adopted in Virginia, and that in its stead, fall protection will be required for all workers engaged in decking operations, or any other worker within the boundaries of a leading edge decking operation.

*[NOTE: “Leading edge” is defined in the Steel Erection Standard to mean “the unprotected side and edge of a floor, roof, or formwork for a floor or other walking/working surface (such as deck) which changes location as additional floor, roof, decking or formwork sections are placed, formed or constructed.” 16 VAC 25-175-1926.751]*

The current proposed language in §40.B. only provides protection from falls for employees “working at the leading edge of decking operations.” While the Department interprets the words “working at the leading edge” to include all employees who may be present at the “leading edge” whether they are engaged in placement of decking, delivering tools or supplies, observing the decking operation, or are present for any other reason; staff concurs with Commenter One in noting that the proposed language in §40.B. does not address the issue of workers who are not immediately present at the “leading edge,” but are still inside the boundaries of the leading edge decking operation, and potentially exposed to fall hazards. Because the very nature of leading edge work is that the “leading edge” is never static - it is always changing and moving; the potential for unintended exposures to fall hazards increases within the boundaries of a leading edge decking operation. In addition, there is the potential for other fall hazards to be present, such as floor holes, that are inside the boundaries of the leading edge decking operation, but not located at the “leading edge.” The current language in the proposed regulation adopted by the Board at its December 2, 2002 meeting, would not address exposure to such hazards.

Accordingly, the staff of the Department recommends that proposed § 40.B. be amended to read as follows (new language in italics and deleted language struck through):

“§40 Decking

...

- B. Each employee working *within the boundaries of a leading edge decking operation* ~~at the leading edge of decking operations~~ shall be protected in accordance with subsection 20 A. of these requirements from fall hazards of 10 feet or more above a lower level.”

In closing, Commenter One anecdotally related that during one of his company’s large projects involving steel erection, four employees experienced falls, but because all four were “tied off,” each was able to return safely home at the end of the work day.

### **Commenter Two**

The second commenter at the public hearing presented the Board with a written statement from the President of the Iron Workers’ District Council of the Mid-Atlantic States (Commenter Two) **(a copy of the statement is included for the Board’s consideration, with the revised minutes for the public hearing)**. Commenter Two noted that the federal OSHA Steel Erection Standard resulted from recommendations of the Steel Erection Negotiated Rulemaking Advisory Committee (SENRAC), which was comprised of members from labor, management, industry, and state and federal governments. He said that SENRAC spent years meeting, reviewing and analyzing thousands of documents, statistics and comments to arrive at a unanimous consensus for their recommendations which then underwent OSHA’s approval process before becoming a regulation. Commenter Two stated that the State of Virginia had not offered any views or arguments that were not thoroughly considered and subsequently rejected by SENRAC or OSHA.

**Staff Response:** The Staff of the Department respects the concern and perspective of Commenter Two and is well aware of the education, training, and practical work experience which he and the organization he represents relied on in promoting their position on SENRAC and the federal OSHA standard. However, the staff respectfully disagrees with the position taken by Commenter Two. First, the staff notes that all of the arguments currently raised by Commenter Two were presented previously to the Board at its October 18, 2001 meeting where the issue of fall protection in steel erection initially came before the Board. At that time, the Board decided to proceed with this rulemaking. Second, the VOSH Program has successfully enforced a 10 foot fall rule for steel erection for over 15

years. During that period of enforcement, no fatalities involving a fall of 15 feet or less occurred in the Commonwealth in the steel erection industry. Given this lengthy period of successful enforcement of §§1926.28(a) and 1926.105(a), it is hard for the staff to question either the technological feasibility or benefit/cost of such a policy.

In regard to proposed 16 VAC 25-145-20, General Requirements, Section A, Commenter Two objected to VOSH's adoption of a 10-foot height requirement for the use of fall protection systems instead of the federal requirement of more than 15 feet, noting that it is very difficult in field applications to arrest a fall in 10 feet. He added that there is no statistical evidence regarding ironworker fatalities resulting from falls of 10-15 feet.

**Staff Response:** With regard to the issue that it is "difficult in field applications to arrest a fall within 10 feet," Commenter Two attached pages from the preamble to the federal OSHA Steel Erection Standard (66 Fed. Reg. 5203, 5243-5249) in support of his contention. Without restating the lengthy analysis that federal OSHA engaged in on this issue, it can be noted that while some comments in the federal record supported the 15 foot fall requirement eventually adopted in the federal standard and noted the difficulties of providing fall protection in certain circumstances, there were equally persuasive comments which argued for a 6 foot fall requirement in steel erection (66 Fed. Reg. 5244). OSHA did provide an analysis of the difficulties of arresting a fall using various configurations of body harnesses, lanyards and lifelines (66 Fed. Reg. 5244); however, they also noted that a number of commenters during the federal rulemaking, which included large multi-state construction companies, had successfully implemented 6 foot fall protection programs for all steel erection operations, including connecting and decking. One commenter indicated that when "the structure cannot accommodate fall protection or prevention systems, their company uses aerial lifts and/or scissors lifts." (66 Fed. Reg. 5244).

As noted earlier in this briefing package, the Board is authorized by Va. Code § 40.1-22(5) "to adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees....In making such rules and regulations to protect the occupational safety and health of employees, the Board shall adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity....In addition to the

attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws." (Emphasis added.). The federal register documents provided by Commenter Two, while providing support for his position, also clearly provide support for the Department's position that providing fall protection during all steel erection activities at the height of 10 feet is feasible (see also comments provided by Commenter One). In addition to feasibility, the Board is charged to consider "the attainment of the highest degree of health and safety protection for the employee" and "experience gained under this and other health and safety laws." The VOSH Program has over 15 years experience in successfully enforcing a 10 foot fall requirement in steel erection, and memorializing that policy into regulation is consistent with the statutory mandate of the Board.

With regard to Commenter Two's statement that there is no statistical evidence regarding ironworker fatalities resulting from falls of 10-15 feet, he again provided support from the federal rulemaking record (66 Fed. Reg. 5244-5255). However, as those pages indicate, because of recordkeeping methods at the federal level, OSHA does not breakout how many ironworker fatalities occurred between 11 and 15 feet (but OSHA noted that the study they looked at found that 25% of all falls studied during a five year period were from a height of 11-20 feet, with an additional 8% from a height of 6-10 feet).

What can be concluded from those studies as well as the Department's own statistics on fatal construction accidents in Virginia (26 fatal construction accidents of falls of less than 15 feet over the last 11 years), is that falls from heights of 10 feet or above can result in a material impairment of health or functional capacity." (Va. Code § 40.1-22(5), emphasis added.). Again, VOSH has enforced a 10 foot fall protection requirement in steel erection for over 15 years through the enforcement of §§1926.28(a) and 1926.105(a), and considers that policy to be at least partly responsible for the lack of fatal accidents in steel erection from falls of 15 feet or less over the last 11 years. As noted in the briefing package above, although steel erectors may generally be better trained than the average construction worker to work at heights, if they do fall, the hazard and risk of serious injury or death are exactly the same for a steel erector as for any other construction

worker.

The staff does not recommend any changes to the proposed regulation in response to these comments.

With respect to 16 VAC 25-145-30, Connectors, Commenter Two stated that the connectors can best determine what is safest and in their best interest. The flexibility given connectors in respect to fall protection should include the entire connecting operation. In support of this position, Commenter Two attached pages from the preamble to the federal OSHA Steel Erection Standard (66 Fed. Reg. 5203, 5245-5247).

**Staff Response:** As noted above, the staff is well aware of and has a great deal of respect for the opinion and practical work experience of Commenter Two and the organization he represents. It was with the knowledge of the significant experience and skill with which connectors generally approach their job, that the longstanding VOSH administrative policy and the proposed regulation were drafted to contain the provision that allows connectors to make their own decision about fall protection and whether a "greater hazard" could exist while structural steel was being placed and initially connected.

Without restating the analysis that federal OSHA engaged in on this issue, it is noted that OSHA in the end deferred to the SENRAC position, which it described as a "compromise position" (i.e. not unanimous) (66 Fed. Reg. 5246). As noted with the other fall protection issues above, it is clear from the federal rulemaking record and the comments received from Commenter One discussed above, that providing fall protection for connectors is feasible. It is also clear that a fall by a connector from a height of 10 to 15 feet could result in a material impairment of health or functional capacity." (Va. Code § 40.1-22(5), emphasis added.). Although steel erectors may generally be better trained than the average construction worker to work at heights, if they do fall, the hazard and risk of serious injury or death are exactly the same for a steel erector as for any other construction worker. Because of the VOSH Program's long experience in successfully and safely enforcing a 10 foot fall requirement in steel erection, the staff feels that memorializing that policy into regulation is consistent with the statutory mandate of the Board.

The staff does not recommend any changes to the proposed regulation in response to these comments.

With respect to 16 VAC 25-145-40, Decking, Commenter Two stated that arresting a fall from 10 feet, especially during a decking operation is very difficult. He contends that increased training and restriction of individuals to the work area (under the federal standard requirements) will dramatically decrease accidents in the decking operation, whereas mandatory fall protection for these few specialized ironworkers may increase risks.

**Staff Response:** Refer to the discussion above concerning the difficulties of arresting a fall from 10 feet during a connecting operation and the Staff's response. It should again be noted that the federal rulemaking record contained comments from a number of large multi-state construction companies that had successfully implemented 6 foot fall protection programs for all steel erection operations, including connecting and decking.

The Federal Register documents provided by Commenter Two, while providing support for his position, also clearly provide support (along with the comments of Commenter One discussed above) for the Department's position that providing fall protection during all steel erection decking activities at the height of 10 feet is feasible, and is currently practiced by construction firms in Virginia. Finally, while we agree with Commenter Two that the increased level of training required under the standard is a great improvement over the old steel erection standard, the staff respectfully disagrees with the contention that training of decking workers and limiting access to the decking area (which are required as well under the final VOSH standard), would provide equivalent protection to an engineering control (e.g. a net, guard rails, etc.) or a personal fall arrest system when an employee actually does fall, for whatever reason. Although steel erectors may generally be better trained than the average construction worker to work at heights, if they do fall, the hazard and risk of serious injury or death are exactly as severe for a steel erector as for any other construction worker.

The staff does not recommend any changes to the proposed regulation in response to these comments.

### **Commenter Three**

The last commenter was a staff member of the Virginia Department of Labor and Industry, Richmond, VA. Commenter Three distributed two reports to the Board.



The first hand-out was concerned VOSH inspections in Steel Erection (Standard Industrial Classification (SIC) 1791) for the Period of January 1, 1983 through August 5, 2003, which includes VOSH inspections in Steel Erection (SIC 1791) where §§1926.28(a) and 1926.105(a) were cited during the period of January 1, 1983 through August 5, 2003. Commenter Three stated that VOSH conducted 987 inspections in the Steel Erection industry during the period of January 1, 1983 through August 5, 2003. Approximately 53% of the inspections involved the issuance of serious, repeat or willful violations of the VOSH Construction Standards and approximately 33% of the inspections were found to have no violations of VOSH Standards. Thirty-three of the inspections concerned fatal or catastrophic accidents (a catastrophe is defined as three or more employees being admitted to the hospital).

The second hand-out concerned VOSH Fatality Inspections for Steel Erection (Standard Industrial Classification (SIC) 1791) for the Period of January 1, 1983 through August 5, 2003. This report contained a narrative description of the accident for most, but not all of the inspections, and lists any violations and penalties that were cited by VOSH. In this report, a dot was placed beside the cases involving fatal accident inspections concerning decking operations and connectors in which citations were issued involving §§1926.28(a) and §1926.105(a).

**Staff Response:** The staff does not recommend any additional changes in response to the comments of Commenter Three, to those already recommended to the proposed regulation.

Contact person:

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**Safety Standards for Fall Protection in Steel Erection,  
Construction Industry, 16 VAC 25-145-10 through 16 VAC 25-145-50;  
Final Regulation**

As Adopted by the  
Safety and Health Codes Board

Date: \_\_\_\_\_



VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Effective Date: \_\_\_\_\_

[16 VAC 25-145-10 through 16 VAC 25-145-50, Safety Standards for Fall Protection in  
Steel Erection in the Construction Industry]

When the regulations, as set forth in the 16 VAC 25-145-10 through 16 VAC 25-145-50, Safety Standards for  
Fall Protection in Steel Erection in the Construction Industry, are applied to the Commissioner of the

Department of Labor and Industry and/or to Virginia employers, the following federal terms shall be considered to read as below:

Federal Terms

VOSH Equivalent

29 CFR

VOSH Standard

Assistant Secretary

Commissioner of Labor and Industry

Agency

Department

January 1, 2004

January 15, 2004

## 16 VAC 25-145

### Fall Protection for Steel Erection

#### §10 Application of Regulations

Notwithstanding any other provisions to the contrary relating to fall protection and controlled decking zones (CDZ) in the regulation of steel erection in 16 VAC 25-175-1926.500; 16 VAC 25-175-1926.751 thru 16 VAC 25-175-1926.759; 16 VAC 25-175-1926.761; and Appendix D to Subpart R- Illustrations of the Use of Controlled Decking Zones (CDZs): Non-mandatory guidelines for complying with §1926.760 (c)(3); the provisions of 16 VAC 25-145 shall take precedence.

#### § 20 General Requirements

- A. Except as provided by paragraph C. of this section, each employee engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge of 10 feet or more above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.
- B. Perimeter safety cables. On multi-story structures, perimeter safety cables shall be installed at the final interior and exterior perimeters of the floors as soon as the metal decking has been installed.
- C. Connectors and employees working in leading edge decking operations shall be protected from fall hazards as provided in Sections 30 and 40 respectively.

#### § 30 Connectors

Each connector shall:

1. Be protected in accordance with § 20 of these requirements from fall hazards of 10 feet or more above a lower level; except when structural members are being ~~lifted~~ *placed* for connection, when it is considered by the connector to be a greater hazard to utilize fall protection in accordance with § 20, than to have freedom of movement to avoid accidental or inadvertent contact with structural members ~~being hoisted to be placed and connected into position~~ *during placement and initial connection*.
2. Have completed connector training in accordance with § 1926.761.
3. Be provided, at heights at or above 10 and up to 30 feet above a lower level, with a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary to be able to be tied off; or be provided with other means of protection from fall hazards in accordance with subsection 20 A. of these requirements.

#### §40 Decking

- A. The use of controlled decking zones is prohibited.
- B. Each employee working *within the boundaries of a leading edge decking operation* ~~at the leading edge of decking operations~~ shall be protected in accordance with subsection 20 A. of these requirements from fall hazards of 10 feet or more above a lower level."
- C. Access to the leading edge of decking operations shall be limited to only those employees engaged in leading edge work.
- D. The boundaries of a leading edge decking operation shall be designated and clearly marked. The operation shall not be more than 90 feet (27.4 m) wide and 90 (27.4 m) feet deep from any leading edge. The operation shall be marked by the use of control lines or the equivalent. Examples of acceptable procedures for demarcating can be found in Appendix A.
- E. Each employee working in a leading edge decking operation shall have completed training in accordance with §1926.761.
- F. Unsecured decking shall not exceed 3,000 square feet (914.4 m<sup>2</sup>).
- G. Safety deck attachments shall be performed from the leading edge back to the control line and shall have at least two attachments for each metal decking panel.
- H. Final deck attachments and installation of shear connectors shall not be performed in areas where leading edge decking operations are being conducted.

§50 Illustration of the Use of Control Lines to Demarcate Leading Edge Decking Operations: Non-mandatory Guidelines for Complying with 16 VAC 25-145-40.C.

- A. When used to control access to areas where leading edge and initial securement of metal deck and other operations connected with leading edge work are taking place, the work area is defined by a control line or by any other means that restricts access.
  - 1. A control line is erected not less than 6 feet (1.8 m) nor more than 90 feet (27.4 m) from the leading edge.
  - 2. Control lines extend along the entire length of the unprotected or leading edge and are approximately parallel to the unprotected or leading edge.
  - 3. Control lines are connected on each side to a guardrail system, wall, stanchion or other suitable anchorage.
- B. Control lines consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:
  - 1. Each line is rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches (1.0 m) from the walking/working surface and its highest point is not more than 45 inches (1.3 m) from the walking/working surface.

2. Each line has a minimum breaking strength of 200 pounds (90.8 kg).



COMMONWEALTH of VIRGINIA

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VIRGINIA SAFETY AND HEALTH CODES BOARD

BRIEFING PACKAGE

FOR NOVEMBER 5, 2003

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**16 VAC 25-85-1904, Occupational Injury and Illness Recording and Reporting Requirements,  
Revised Final Rule, §§1904.12 and 1904.29**

**I. Action Requested.**

The Virginia Occupational Safety and Health (VOSH) Program requests that the Safety and Health Codes Board consider for adoption federal OSHA's amendment to the revised final rule for the Occupational Injury and Illness Recording and Reporting Requirements, §§1904.12 and 1904.29, as published in 68 FR 38601 on June 30, 2003.

The proposed effective date is January 15, 2004.

**II. Summary of the Amendment.**

Federal OSHA has deleted two provisions of the Occupational Injury and Illness Recording and Reporting Requirements ("Recordkeeping") rule published on January 19, 2001. The first provision deleted is §1904.12 which required employers to check the musculoskeletal disorder (MSD) column on the OSHA 300 Log if an employee experienced a work-related MSD. The second provision amended §1904.29(b)(7)(vi) by deleting the MSD requirement which stated that MSDs are not considered privacy concern cases.

Since publication of the Recordkeeping rule in January 2001, the effective date of these provisions has been delayed by federal OSHA and also by the Board at its June 13, 2003 meeting. As a result, the requirements deleted by this final rule have never been in effect. (68 FR 38601)

**III. Basis, Purpose and Impact of the Amendment.**

**A. Basis.**

In January 2001, federal OSHA published revisions to its rule on recording and reporting occupational injuries and illnesses (66 FR 5916-6135) to take effect on January 1, 2002. It should be noted that prior to the January 2001 revision, OSHA's injury and illness forms did not contain a column specifically for MSD cases. The old 200 Log contained a column for "repeated trauma" cases, which included some disorders affecting musculoskeletal tissues, but also included other conditions, such as occupational hearing loss.

Section 1904.12(a) of the new rule, which has never become effective, required an employer to check the MSD column on the OSHA 300 Log if an employee experienced a work-related MSD meeting the MSD definition contained in the regulation.

Section 1904.12 of the new rule did not establish the criteria for determining which MSD cases were recordable. Rather, the section made clear that MSDs were to be treated like any other injury or illness for purposes of applying the recording criteria and entering the necessary descriptive information about the case on the Log. (68 FR 38602)

On July 3, 2001, federal OSHA proposed delaying until January 1, 2003, the effective date of §1904.12 (66 FR 35113 - 35115). Federal OSHA explained that it was reconsidering the MSD column requirement and definition in light of the U.S. Secretary of Labor's decision to develop a comprehensive plan to address ergonomic hazards, and to schedule a series of forums to consider key issues relating to the plan, including the approach to defining ergonomic injuries. (68 FR 35223-35115)

After considering the views of interested parties, federal OSHA published a final rule on October 12, 2001, delaying the effective date of §1904.12 until January 1, 2003. OSHA also added a note to §1904.29(b)(7)(vi) explaining that the second sentence of §1904.29(b)(7)(vi) would also be delayed until January 1, 2003. The second sentence of §1904.29(b)(7)(vi) states that MSDs are not "privacy concern cases." (66 FR 52034)

At its meeting on October 18, 2001, the Safety and Health Codes Board adopted federal OSHA's revised rule on recording and reporting occupational injuries and illnesses, §§1904.0 through 1904.46, with an effective date of January 1, 2002. The Board also delayed the effective dates until January 1, 2003 for the following provisions: §§1904.10 (a) and (b), specifying criteria for cases involving occupational hearing loss; 1904.12, defining "musculoskeletal disorder (MSD)" and requiring employers to check the MSD column on the OSHA Log if an employee experiences a work-related MSD; and the second sentence of 1904.29(b)(7)(vi) covering forms, and stating that MSDs are not considered privacy concern cases.

On July 1, 2002, federal OSHA published in the *Federal Register* two regulatory actions regarding §1904.12. In Part I of the document, OSHA proposed to delay the effective date of §1904.12 and the second sentence of §1904.29(b)(7)(vi) for an additional year until January 1, 2004 (67 FR 44124 - 44126). In Part III of the document, OSHA requested comment on issues related to the MSD column and definition. (67 FR 44126 - 44127) After considering the views of interested parties received during the comment period, federal OSHA determined that the effective date of §§1904.12 and 1904.29(b)(7)(iv) should be delayed until January 1, 2004.

At its meeting on December 2, 2002, the Safety and Health Codes Board adopted federal OSHA's revised final rule covering the hearing loss recording provisions of §1904.10(a) and

(b)(1)-(7), effective on March 1, 2003, and the delay of the effective date for §1904.10(b)(7) until further notice.

On December 17, 2002, federal OSHA issued a final rule delaying until January 1, 2004 the effective date of the MSD and hearing loss column requirements in §§1904.12 and 1904.10, respectively, and the statement in §1904.29(b)(7)(vi) that MSDs are not considered privacy concern cases. (67 FR 77165) OSHA did not reach a decision on the need for an MSD column at this time. On June 13, 2003, the Safety and Health Codes Board adopted federal OSHA's delayed effective dates with an effective date of January 1, 2004.

**B. Purpose.**

Federal OSHA deleted the MSD column on the OSHA 300 Log because it determined that the record does not support the column requirement. OSHA determined that the MSD column would not be a useful tool in addressing MSDs at the establishment level because:

- 1) the column would show only the total number of MSDs that occurred in an establishment and nothing about the nature or cause of these disorders;
- 2) the number of MSD cases in an establishment is easily obtainable without the column requirement.

OSHA also deleted the MSD requirement in §1904.29(b)(7)(vi) which states that MSD injuries and illnesses are not to be considered privacy concern cases. Since §1904.12 was also deleted, there is no basis to implement the privacy provisions of §1904.29(b)(7)(vi) which relied upon the MSD definition in §1904.12. The MSD injuries and illnesses cases are covered by the general rule on privacy cases. When the employer has categorized the case as an occupational illness, and the employee independently and voluntarily requests that his or her name not be entered on the OSHA 300 Log, the case will be considered a privacy concern case. (68 FR 38606)

**C. Impact on Employers.**

Employers are already required to record all workplace injuries and illnesses that meet the criteria established in §§1904.4 through 1904.7 of the recordkeeping rule, regardless of whether a particular injury or illness meets the definition of MSD in §1904.12. Thus, deletion of the MSD column on the OSHA 300 Log will have little, if any, impact on employers other than to relieve employers from the legal requirement to check the MSD column. (68 FR 38602)

Employers can obtain information to effectively analyze and address ergonomic injuries occurring in workplaces from the case-description section of the 300 Log and in the 301 Incident Report. Evaluation of these case-entry data will enable employers, workers and OSHA to identify specific types of MSDs, to link specific MSD injuries to specific ergonomic risk factors, and to identify trends in certain jobs or work practices over time. (68 FR 38604)

The MSD column would not assist with the kind of detailed analysis necessary to effectively abate MSDs at the establishment level. Conscientious employers, employees and authorized representatives who wish to address MSDs in their workplaces will do so by examining the entire 300 Log, whether or not an MSD column is implemented. (68 FR 38603)



**D. Impact on Employees.**

Employees will continue to have access to the information provided in their employer's Recordkeeping Log and, under the new rule, to the information in the part of the Incident Report explaining how the incident occurred. Employers and employees will be able to categorize this injury and illness information in any manner they find useful. (67 FR 77166)

**E. Impact on the Department of Labor and Industry.**

No impact on the Department is anticipated by this action. This amendment to the revised final rule deleted 2001 requirements that had not yet become effective and added no new or additional requirements. This rule continues OSHA's and VOSH's current policies on recording of MSDs, and protecting employee privacy. (68 FR 38606)

Federal regulations 29 CFR 1953.23(a) and (b) require that Virginia, within six months of the occurrence of a federal program change, to adopt identical changes or promulgate equivalent changes which are at least as effective as the federal change. The Virginia Code reiterates this requirement in § 40.1-22(5). Adopting these revisions will allow Virginia to conform to the federal program change.

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# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF LABOR AND INDUSTRY

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## VIRGINIA SAFETY AND HEALTH CODES BOARD

### BRIEFING PACKAGE

FOR NOVEMBER 5, 2003

### Request to Initiate Notice of Intended Regulatory Action (NOIRA) To Promulgate Regulations Governing Financial Responsibility of Boiler and Pressure Vessel Contract Fee Inspectors

#### **I. Action Requested.**

The Virginia Boiler and Pressure Vessel Program requests the Safety and Health Codes Board to authorize the Department to initiate the regulatory rulemaking process to promulgate regulations governing the financial responsibility of boiler and pressure vessel contract fee inspectors by filing a Notice of Intended Regulatory Action (NOIRA), pursuant to the Virginia Administrative Process Act (§2.2-4007).

#### **II. Basis, Purpose and Impact of the Proposed Rulemaking.**

##### **A. Basis.**

The Safety and Health Codes Board is authorized by Title 40.1-51.9:2 C of the *Code of Virginia* to, "...promulgate regulations requiring contract fee inspectors, as a condition of their doing business in the Commonwealth, to demonstrate financial responsibility sufficient to comply with the requirements of this chapter. Regulations governing the amount of any financial responsibility required by the contract fee inspector shall take into consideration the type, capacity and number of boilers or pressure vessels inspected or certified." (Full text of statute is provided in Appendix A.)

**B. Purpose.**

The request to begin regulatory rulemaking is to set minimum aggregate limits for professional liability or errors of omission coverage for contract fee inspectors operating in the Commonwealth. It will also examine the other methods of insuring financial responsibility set out in the law, i.e., self-insurance, insurance, guaranty or surety, or any other method approved by the Board. The intent of this financial responsibility is to assure additional protection to the public, including compensation to third parties, in cases where there is bodily injury and property damage resulting from, or directly relating to, a contract fee inspector's negligent inspection or recommendation for certification of a boiler or pressure vessel.

This request for proposed rulemaking is necessary as the guidelines for insurance coverage previously issued by the Department did not have the force of law. The Department therefore needs this rulemaking to comply with the mandate and intent of the governing statute, §40.1-51.9:2.

**C. Impact on Contract Fee Inspectors.**

These regulations would require contract fee inspectors to be indemnified for any bodily injury and property damage resulting from or directly related to an inspector's negligent inspection or recommendation for certification of a boiler or pressure vessel. Contract fee inspectors are statutorily required to provide documentation of their means of indemnification at the time of their certification or before performing inspections and at renewal of the instrument of insurance, guaranty, or surety.

**D. Impact on Boiler or Pressure Vessel Owners.**

It is anticipated that any additional costs to the contract fee inspector as a result of the requirements of these regulations will be passed on to the boiler or pressure vessel owner who is the end user of the service.

**E. Impact on the Department of Labor and Industry.**

No significant impact on the Department is anticipated beyond the cost to promulgate these regulations.

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## **RECOMMENDED ACTION**

The Boiler and Pressure Vessel Program recommends that the Safety and Health Codes Board direct the Department to initiate a Notice of Intended Regulatory Action (NOIRA) to promulgate regulations governing the financial responsibility of boiler and pressure vessel contract fee inspectors, as authorized by § 40.1-51.9:2 C.

The Department also recommends that the Board state in any motion it may make to promulgate this regulation that it will receive, consider and respond to petitions by any interested persons at any time to reconsider or revise this proposed regulation to be adopted in accordance with the Administrative Process Act.

## **APPENDIX A--Code of Virginia Section Authorizing Action.**

### **§ 40.1-51.9:2. Financial responsibility requirements for contract fee inspectors.**

A. Contract fee inspectors inspecting or certifying regulated boilers or pressure vessels in the Commonwealth shall maintain evidence of their financial responsibility, including compensation to third parties, for bodily injury and property damage resulting from, or directly relating to, an inspector's negligent inspection or recommendation for certification of a boiler or pressure vessel.

B. Documentation of financial responsibility, including documentation of insurance or bond, shall be provided to the Chief Inspector within thirty days after certification of the inspector. The Chief Inspector may revoke an inspector's certification for failure to provide documentation of financial responsibility in a timely fashion.

C. The Safety and Health Codes Board is authorized to promulgate regulations requiring contract fee inspectors, as a condition of their doing business in the Commonwealth, to demonstrate financial responsibility sufficient to comply with the requirements of this chapter. Regulations governing the amount of any financial responsibility required by the contract fee inspector shall take into consideration the type, capacity and number of boilers or pressure vessels inspected or certified.

D. Financial responsibility may be demonstrated by self-insurance, insurance, guaranty or surety, or any other method approved by the Board, or any combination thereof, under the terms the Board may prescribe. A contract fee inspector whose financial responsibility is accepted by the Board under this subsection shall notify the Chief Inspector at least thirty days before the effective date of the change, expiration, or cancellation of any instrument of insurance, guaranty or surety.

E. Acceptance of proof of financial responsibility shall expire on the effective date of any change in the inspector's instrument of insurance, guaranty or surety, or the expiration date of the inspector's certification. Application for renewal of acceptance of proof of financial responsibility shall be filed thirty days before the date of expiration.

F. The Chief Inspector, after notice and opportunity for hearing, may revoke his acceptance of evidence of financial responsibility if he determines that acceptance has been procured by fraud or misrepresentation, or a change in circumstances has occurred that would warrant denial of acceptance of evidence of financial responsibility under this section or the requirements established by the Board pursuant to this section.

G. It is not a defense to any action brought for failure to comply with the requirement to provide acceptable evidence of financial responsibility that the person charged believed in good faith that the owner or operator of an inspected boiler or pressure vessel possessed evidence of financial responsibility accepted by the Chief Inspector or the Board.

(1996, c. 294.)

## RECOMMENDED ACTION

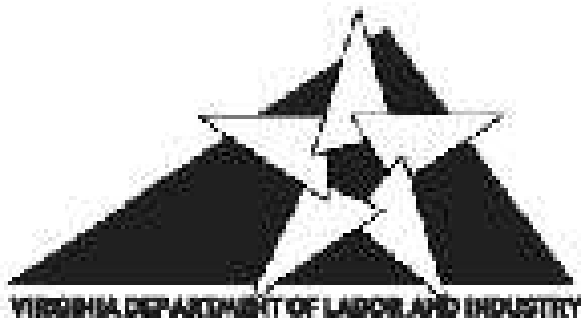
Staff of the Department of Labor and Industry recommends that the Safety and Health Codes Board adopt the amendment to the revised final rule to 16 VAC 25-85-1904, Occupational Injury and Illness Recording and Reporting Requirements, §§ 1904.12 and 1904.29(b)(7)(vi), as authorized by Virginia Code §§ 40.1-22(5) and 2.2-4006.A.4(c), with an effective date of January 15, 2004.

The Department also recommends that the Board state in any motion it may make to amend this regulation that it will receive, consider and respond to petitions by any interested person at any time with respect to reconsideration or revision of this or any other regulation which has been adopted in accordance with the above-cited subsection 2.2-4006.A.4(c) of the Administrative Process Act.

**16 VAC 25-85-1904, Occupational Injury and Illness Recording and Reporting Requirements,  
Revised Final Rule, §§1904.12 and 1904.29**

As Adopted by the  
Safety and Health Codes Board

Date: \_\_\_\_\_



VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Effective Date: \_\_\_\_\_

16 VAC 25-85-1904, Occupational Injury and Illness Recording and Reporting Requirements,  
Revised Final Rule

When the regulations, as set forth in the revised final rule for the Occupational Injury and Illness Recording and Reporting Requirements, §§1904.12, and 1904.29 (b)(7)(vi), are applied to the Commissioner of the Department of Labor and Industry and/or to Virginia employers, the following federal terms shall be considered to read as below:

Federal Terms

VOSH Equivalent

29 CFR

VOSH Standard

Assistant Secretary

Commissioner of Labor and  
Industry

Agency

Department

January 1, 2004

January 15, 2004

To obtain a copy of this Revised Federal Final Rule for the Occupational Injury and Illness Recording and Reporting Requirements, 68 FR 38601 (June 30, 2003) to be considered by the Board, please refer to:

[http://www.osha.gov/FedReg\\_oshapdf/FED20030630.pdf](http://www.osha.gov/FedReg_oshapdf/FED20030630.pdf)