

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
Website address www.dir.ca.gov/oshsb

**SUMMARY**
PUBLIC MEETING/PUBLIC HEARING/BUSINESS MEETING

March 15, 2007
San Diego, California

I. PUBLIC MEETING**CALL TO ORDER AND INTRODUCTIONS**

Chair MacLeod called the Public Meeting of the Occupational Safety and Health Standards Board (Board) to order at 10:00 a.m., March 15, 2007, in Tower 8 of the County Administration Center, 1600 Pacific Highway, San Diego, California 92101.

A. ATTENDANCE**Board Members Present**

Chairman John MacLeod
Jonathan Frisch, Ph.D.
Art Murray
Steven Rank

Board Members Absent

Liz Arioto
Larry Gotlieb
Jose Moreno

Board Staff

Keith Umemoto, Executive Officer
David Beales, Legal Counsel
Michael Manieri, Principal Safety Engineer
Marley Hart, Staff Services Manager
Christina Witte, Executive Secretary

Division of Occupational Safety and Health

Steven Smith, Senior Industrial Hygienist

Others present

Bo Bradley, AGC of CA
Lynne Formiyli, CTA
Tina Kulinouich, Fed/OSHA
Jane Ong, University of San Diego school of Law
Terry Thedell, SDGEE
Larry Pena, SCE
Stephen Sicilano, OSH Reprot
Dan Leacox, Greenberg Training
Bruce Wick, CALPASC

Elizabeth Treanor, PRR
Richard Harris, RCA
Kevin Bland, CFCA
J. Alan Schumannpad, SECF
Grahau Brent, NCCCO
Brenda Roach, Unger Construction Co.
Bob Hornauer, NCCCO

B. OPENING COMMENTS

Chair MacLeod indicated that this portion of the Board's meeting is open to any person who is interested in addressing the Board on any matter concerning occupational safety and health or to propose new or revised standards or the repeal of standards as permitted by Labor Code Section 142.2.

Chair MacLeod opened the floor for public comment.

Kevin Bland addressed the Business Meeting Agenda item regarding an update on pneumatic nailers. He has been involved in the development of the proposed standard through the advisory committee process and before the petition on nailers was submitted. He has come to understand that some language is being added after the consensus reached by the advisory committee that is a little bit troubling for those in the industry.

The original standard stated that the nailer was to be unplugged from the air source when it was not in use or when it was unattended. There were still a lot of injuries, but he said there was no connection between that portion of the standard and the injuries being sustained out in the field. Prior to submitting the petition, there was a survey by some of the labor and industry groups working in conjunction with an independent epidemiologist. This survey covered 33 framing contractor companies in Southern California, totaling 42 million man hours worth of work. Out of those, there were approximately 555 injuries, none of which were from unattended nailers.

The proposed language, which is not part of the advisory committee recommendation, states, "the tool is outside the operator's possession or control for a substantial period of time such as during a rest break or a shift change." The proposal crafted during the advisory committee concentrated on where injuries were being caused, based on information from the survey and other information from different industries, experts, labor, and management.

Mr. Bland emphasized the importance of careful consideration of the language and its justification prior to the proposal's being noticed for public hearing. The language as written during the advisory committee clearly follows the causes of injury identified during the survey and the other work that went into the petition. That language was crafted as an attempt to prevent injuries and to tailor a standard that is on point with the research. For instance, one scenario discussed was disconnecting the nailer during jams, which was not happening before the proposal. A jammed nailer is not unattended and therefore, not technically a violation. Another was changing the settings on the nailer. The survey also identified issues such as training. He stated that the language regarding unattended nailers has raised concerns in the industry, and those concerns should be addressed prior to any 45-day notice.

Chair MacLeod summarized by stating that the proposal had not been noticed yet, but that Mr. Bland was not happy with the proposal as modified after the advisory committee. Mr. Bland agreed, and he stated that he was attempting to educate the public and Board staff prior to the notice, in order to avoid a large number of written and oral comments that would require responses. This is an issue on which Mr. Bland felt that he and others had spent a lot of time and effort to address prior to the 45-day notice.

Mr. Umemoto stated that his update on this rulemaking, which was on the agenda for today's Business Meeting, was going to concentrate more on the progress being made on the proposal and not the details of the language itself. He felt that it was premature to focus on the language, because the proposal was not yet ready to be noticed. The 45-day notice period will provide stakeholders an opportunity to comment on the actual language.

Mr. Bland stated that he would be available for any questions the Board might have after Mr. Umemoto's update during the Business Meeting, and he thanked the Board for the opportunity to address this issue.

Mr. Graham Brent, Executive Director of the National Commission for the Certification of Crane Operators (NCCCO), presented a report regarding crane operator certification statistics over the past two years since the standard had become effective. The NCCCO is one of only two organizations accredited by the National Commission for Certifying Agencies (NCCA) in the state that administers written and practical exams for crane operators under the provisions of Section 5006.1. Since the establishment of the NCCCO in 1995, they have administered over 250,000 written and practical exams to more than 50,000 crane operators in the entire United States. The largest amount of testing has been conducted in California in a very short period of time.

In a letter submitted to the Board members, the NCCCO points out the remarkable comparison between the first year of testing and the second year. Prior to the standard's effective date, the NCCCO cancelled over one-third of the scheduled written exams in 2004 because of no registrations. One year later, the NCCCO administered 850 tests compared to 152 the previous year and 313 in 2006. These statistics emphasize the exponential growth in the testing rate. There are options available for testing, including eleven permanent practical exam sites in the state.

The NCCCO conducts no training in order to keep the training function completely separate from the independent assessment, but there are more than 30 "training farms" currently active in California supplying that need. Most of the information presented in this report to the Board was obtained from the NCCCO website. The Board members can refer to that website at a later date should they want more information.

Between 2004 and 2006, NCCCO administered 1,277 written crane operator certification exams. They administered 38,542 exams to more than 16,500 crane operators. That 16,500 includes some retests by people who were not successful the first time. The overall pass rate during this period of time was 67%, so clearly some candidates are coming through on the second time. The average number of written exams taken by any one candidate is 2.3 on the mobile crane program, which means that they are taking the core exam and one of the four specialties. This indicates that they are very focused on the particular sub-type of crane and not simply going in and taking all of the tests. In California, the NCCCO has found that the most popular crane type for certification is the small, fixed-cab crane. Telescopic cranes are by far and away the most popular, with 90% of the exams being given on that type of crane and 50% of those were of the small telescopic type. These cranes are often found on small construction and a lot of general industry type applications.

There was great concern at the beginning of the program that there should be opportunities for people to test on the written and the practical exam, and the NCCCO is confident that they provide those opportunities. There were 17,000 practical exams administered to over 12,000 crane operators. Of those, 7,351 were certified between 2004 and 2006. When combined with those that have been certified this year and those who were certified prior to the standard's effective date, more than 8,000 crane operators have been certified by NCCCO in California. Most of those are mobile crane operators. The NCCCO has a tower crane operator program that meets the California standards as well as an overhead crane program that is not yet mandated in the state. Of the 8,000 certified crane operators in California, there are only 260 certified tower crane operators. There is a much larger number of tower crane operators still coming through the system. The NCCCO has actually administered the written exam to over 560 tower crane operators, so the number of certified tower crane operators is expected to increase.

The easiest way to get a sense for the extraordinary increase in testing as a result of the standard is to examine the charts provided in the written report. The peak was in 2005, prior to the certification deadline of June 20, 2005. Although employers were initially slow to respond, the message was clearly received loud and clear, as indicated by the peak in 2005 on both the written and the practical exams. Although the rate of testing spiked in 2005, that level was maintained in 2006.

The NCCCO now offers a tower crane recertification program for those who need to recertify on tower cranes. There has been a recertification program for mobile cranes for several years. In addition, the NCCCO is permitting exams on shorter boom cranes below the previous boom length requirements. The paperwork requirement on the physical qualification side has been adjusted in order to alleviate some of the restrictions previously imposed without compromising the integrity of the program. Bob Hornauer is the NCCCO liaison in California. He handles most of the direct issues and concerns of the State. Mr. Hornauer is also the NCCCO's manager of test integrity and looks into any concerns regarding inappropriate testing or misuse of the credentials.

To facilitate access to the exams, the NCCCO plans to provide an online application and computer-based testing due to pilot in California in June. California has been selected to be the first state in the computer-based testing process, based on the volume and the demand in this state. The NCCCO is also moving forward with accreditation from another organization. The NCCA is the accrediting organization specified in the standard, but the American National Standards Institute (ANSI) also has a very credible program for accreditation and in many ways is a lot stricter than the NCCA. The NCCCO has voluntarily elected to undergo that accreditation process for no other reason than it is an excellent internal audit tool and a management system review.

Mr. Brent concluded by indicating that although the last three years have been extraordinarily challenging for the NCCCO due to the increase in volume, they feel that they have managed to accommodate that volume and respond to issues as they arise. The NCCCO appreciates the lead taken by California in creating this standard ahead of the federal initiative, which still is not issued as a proposed standard. There is some thought that it might come out as a proposed standard later this year. However, with the lead-time needed to create a final rule and the extensive lead-time built into the standard itself, the NCCCO does not expect to see any federal standard in place until at least 2012.

Mr. Rank commented that in view of one of the largest construction booms in years, not only in the United States, but in the Western states in particular, he did not doubt that the commitment the Board made to crane operator certification a couple of years ago is paying off now. There is a relationship among the number of fatalities and serious accidents and a large increase in man hours. The California standard has set the pace, and this has been very important. The Board has received good feedback from the construction field, and the value of the standard is reflected in what is happening in the field. He commended the NCCCO for their efforts beginning in 1995 and continuing up to the present.

Dr. Frisch asked whether the 33% fail rate reflected in Mr. Brent's report was the fail rate for the first exam or if it included all exams. Mr. Brent responded that it was the fail rate for all exams. Dr. Frisch then asked about the fail rate for subsequent exams; in other words, he asked how many people were taking the exam more than once, and how many attempts it took to achieve certification. Mr. Brent responded that the majority of second time takers do pass. Although he did not have the exact data, there was a small number of operators who do not pass.

Dr. Frisch asked whether the NCCCO had analyzed the reasons for the failures, and Mr. Brent responded that although the NCCCO had not performed a post-test analysis, there was a pretty good sense from some of the issues that have arisen that in some cases, it is poor training. In other cases it is learning disabilities. In some cases, it may be a language issue, as the certification exams are given only in English.

Dr. Frisch then asked whether Mr. Brent had a sense as to how many of the failures were related to a language issue. Mr. Brent responded in the negative. Dr. Frisch asked whether Mr. Brent had the ability to find out. Mr. Brent responded that he could perform further research. Dr. Frisch commented that one of the objections that had been made about the exams in the past is that it is available only in English. While the rationale for that has been well articulated, he was interested to know how many of the people failing the exam were failing due to the language issue as opposed to other issues. He asked whether the fail rate was only for the written exam or for the written and practical exams combined. Mr. Brent responded that the pass rate for the practical exam was 77%, which was somewhat higher than that of the written exam.

Dr. Frisch referred to an issue that had been raised in the previous year regarding the exam not being appropriate for the articulating boom crane and asked Mr. Brent whether anything was being done to address it. Mr. Brent responded that it is still a live issue. The NCCCO had met with the petitioning organization. The NCCCO continues to encourage them to participate in the development of an exam that would directly meet their requirements. There is another meeting planned for April. The NCCCO had performed its own pilot testing of the practical exam to determine whether or not the existing exam meets the needs of operators of articulating boom cranes. The NCCCO is confident that it meets those needs. However, the content of the written exam needs to be addressed, and the NCCCO is asking the distributors of that type of equipment to assist them in developing a written exam.

Dr. Frisch commented that one of the discussions surrounding this issue was whether the existing exam misled operators as to the proper way to operate that type of crane. He asked Mr. Brent if that was his understanding, or if that was an issue. Mr. Brent responded that he believed that that discussion was in reference to a couple of questions on the test that talk in specifics about whether wheels should be locked or how outriggers should be extended, and there are some differences on some models of cranes. That does present some challenge, because even among the types of cranes addressed specifically, there are many variations between manufacturers and models. The key issue is to be sure that the question is phrased in such a way that it does not mislead and is a generic enough question so that it applies to all the makes and models of that type of crane that the operator might encounter.

Dr. Frisch asked whether the NCCCO had a mechanism in place to address questions that arise as a result of the exam. Mr. Brent responded in the affirmative. Mr. Brent stated that, although the NCCCO had a small administrative staff of which he was one, they are a volunteer-driven organization. Therefore, there are subject matter experts on the committees constantly reviewing those issues.

Chair MacLeod asked whether California was seeing a decrease in crane accidents as a result of the certification program. Mr. Brent responded that the NCCCO does not gather specific data on accidents, but they have enough individual employer data to indicate that loss rates are down. The insurance industry is providing studies based on their perception that, as a risk management tool and as an injury and death prevention device, certification has its place. The problem with accumulating data is that there is not always a point in time that can serve as a before and after point. It is not easy to pinpoint the standard as the cause. Actually, California will probably generate some interesting data over time; it probably will take two or three more years to see that effect. However, because the standard applies to general industry and construction and there are very few exemptions, there should be some significant improvement.

Ms. Heza stated that CalOSHA could perform an analysis of the accidents that they have investigated. Crane accidents have a tendency to be very high profile, even when no one is injured. She felt that Mr. Brent was correct in that it would take two to three years to see any significant trends.

C. ADJOURNMENT

With no further comments, Chair MacLeod adjourned the Public Meeting at 10:30 a.m.

II. **PUBLIC HEARING**

A. PUBLIC HEARING ITEM

Chair MacLeod identified the proposals to be heard during the public hearing and stated that the Informative Digest for the proposed changes was contained in the Notice of Hearing. He stated that the Notice of Hearing, including the proposed text and Initial Statement of Reasons, was available at the entrance to the room.

1. TITLE 8: **CONSTRUCTION SAFETY ORDERS**
Chapter 4, Subchapter 4, Article 32
Section 1740(b)
Storage and Use of Fuel Gas Cylinders

On October 20, 2005, the Board granted Petition File No. 472 by Mr. Michael Sterret, representing the Associated General Contractors (AGC) of California. Mr. Sterret is the Chair of the AGC's Safety and Health Council. The AGC requested the Board amend Construction Safety Order (CSO) Section 1740(b) which pertains to storage and use of gas cylinders, requiring them to be stored and used in the upright (vertical) position. The Petitioner proposed that Section 1740(b) be amended to be consistent with the General Industry Safety Orders (GISO) gas storage requirement in Section 4845(h) that requires only welding fuel gas cylinders to be used with the valve end up. The Petition Decision directed staff to amend Title 8 consistent with the Petitioner's request.

Section 4845(h) also requires all liquefied gases, including acetylene, to be stored and shipped with the valve end up. Section 4845(h) does not require other compressed gasses to be stored in the upright position when they are in use. California addresses general industry requirements for gas cylinder storage in Section 4650(e) which requires all compressed gas cylinders to be stored or transported in a manner to prevent them from creating a hazard from tipping, falling or rolling. It does not specifically require that they be stored in a vertical position. Subsection (n) of this section addresses protection of cylinders against damage. Section 4650(e) also requires liquefied gases be stored and transported in a position so that the cylinder safety device is in direct contact with the vapor space in the cylinder at all times. This would be the vertical position, consistent with Section 4845(h).

During the course of the evaluation of the petition by Board and Division staff it became clear that although there is consistency between general industry standards, there is inconsistency among the CSO and the GISO as to which types of gas cylinders are to be used and stored vertically. Following discussions with the Division of Occupational Safety and Health (Division); the AGC; the office of the State Fire Marshall; review of the ANSI Z49.1-2005 standard on safety in welding,

cutting and allied processes, and compressed gas providers, staff prepared the amended language currently before the Board. The Division's evaluation of this petition recommended that Section 1740 be amended as requested by the Petitioner to ensure consistency between Title 8 GISO and CSO standards, national consensus standards and Federal OSHA construction industry standards which only require fuel gas cylinders to be used with the valve end up—not all cylinders.

One written comment was received regarding the proposal, and Board staff believes the proposal is ready for the Board's consideration and public comment.

There was no public comment on this proposal.

Dr. Frisch asked whether Board staff had received an analysis from federal OSHA on this proposal, and Mr. Manieri responded in the negative.

2. TITLE 8: **SHIP BUILDING, SHIP REPAIRING, AND SHIP
BREAKING SAFETY ORDERS**
Chapter 4, Subchapter 18, Article 8
Section 8397.16
**Shipyard Safety Orders, Land-Side Fire Protection—
Update of National Fire Protection Association (NFPA)
Standards**

On September 15, 2004, Federal OSHA promulgated standards updating 19 National Fire Protection Association (NFPA) standards concerning fire protection in shipyard employment. As required by the Labor Code, the Board staff acted promptly via the Horcher process to meet the 6 month deadline for adoption of federal standards to render Title 8 at least as effective as federal OSHA standards. As a result, California's shipyard fire protection standards are at least as effective as those enforced by federal OSHA for the rest of the country.

On October 17, 2006, federal OSHA again promulgated amendments to its shipyard safety orders updating eleven of the 19 NFPA standards. The standards address criteria for portable fire extinguishers, installation of standpipe and hose systems, national fire alarm code, sprinkler systems, and other matters, as listed in the documents relied upon section of the Board memorandum. California is proposing to similarly update standards through this rulemaking proposal. In the course of comparing the October 17, 2006, federal Final Rule with Title 8, staff noted that all of the previously updated NFPA standards for shipyard fire protection require updating except one; NFPA 1981-2002 which is already at least as effective as the federal standard. Staff also proposes a secondary minor amendment to delete title language which uses the term 'private hydrant,' a term that is no longer used in the updated (2003) edition of the NFPA 14 standard.

Federal OSHA has submitted official correspondence to the Board indicating that the proposal is at least as effective as the relevant federal OSHA provisions. Consistent with the Labor Code Section 142.3(a)(3), which exempts the Board from the rulemaking provisions of Article 5 of the Government Code, the Board is processing this rulemaking through the public hearing process, but

oral and written comments are restricted to three areas: 1) clear and compelling reasons why the state should deviate from the federal standard; 2) identification of any issues unique to California that this proposal should

address, and 3) solicitation of comments on the effective date. The effective date of this proposal is to be upon filing with the Secretary of State as provided by the Labor Code.

There have been no written public comments. The Board staff believes the proposal is ready for the Board's consideration and public comment.

There was no public comment on this proposal.

ADJOURNMENT

With no further comments, Chair MacLeod adjourned the Public Hearing at 10:41 a.m.

III. BUSINESS MEETING

Chair MacLeod indicated that this portion of the Board's meeting is closed to comments from the public, except when specifically requested by the Board. The purpose of this Business Meeting is to allow the Board to conduct its monthly business.

A. PROPOSED SAFETY ORDERS FOR ADOPTION

1. TITLE 8: **CONSTRUCTION SAFETY ORDERS**
Chapter 4, Subchapter 4, Article 34
Section 1801
TUNNEL SAFETY ORDERS
Chapter 4, Subchapter 7, Article 6
Section 8416
Update of ANSI Z136.1 Laser Safety Standards, Warning Signs, Labeling, and Posting of Signs
(Heard at the February 15, 2007, Public Hearing)

This proposal came before the Board at the February 15, 2007, Public Hearing, and it consists of amendments to update existing references to American National Standards Institute (ANSI) Z136.1 standards from the 1993 edition to the current 2000 edition which appears in the construction safety orders and the tunnel safety orders. Sections 1841 and 8416 are intended to prevent injury to the eyes of construction and tunneling operation workers by forewarning the worker of the laser hazard present. The use of lasers in the 180 nanometer to 1 millimeter wavelength range in construction and tunneling industries has grown significantly over the past decade with the most prevalent use in surveying equipment, tunneling, and drilling equipment and machinery.

The physiological effects of unshielded eye exposure to lasers of various wavelengths is well documented in the medical literature. The necessity for this rulemaking proposal is substantiated by the accident data reported to staff by the Division of Occupational Safety and Health and more

significantly by industry databases such as those compiled by the Rockwell Laser Industries statisticians. The majority of laser injuries occur as a result of absent or inappropriate protective eyewear and the unprotected/unaware worker inadvertently staring into the beam or receiving laser light through incidental intrusion into the worker's line of sight.

The updated ANSI standard referenced in the proposal addresses these exposure potentials by incorporating the latest, most recognized, symbols and wording consistent with laser equipment manufacturer recommendations that will adequately warn workers consistent with their injury illness prevention training about the laser(s) present in their workplace and instruct them to take appropriate action to protect their eyes.

The proposal also deletes outdated 1993 ANSI language that internally references other laser sign symbol standards that are out of print and references to 1993 edition sections that do not apply to warning signs and labels. Finally, the proposal contains language to clarify to the employer that consistent with section 1801 of the Construction Safety Orders, lasers shall not only be operated, but installed and adjusted as set forth in Section 1801.

There were no written comments or Board dialog specific to the proposed amendments. Board staff recommends the Board adopt the proposed amendments to Sections 1801 and 1846 of the Construction and Tunnel Safety Orders.

MOTION

A motion was made by Board Member Murray and seconded by Dr. Frisch to adopt the proposed safety order.

Chair MacLeod asked for a roll call.

ROLL CALL VOTE

A roll call was taken and all Board members present voted aye. The motion passed.

Chairman MacLeod announced the next item on the agenda for adoption.

2. TITLE 8: **GENERAL INDUSTRY SAFETY ORDERS**
Chapter 4, Subchapter 7, Article 98
Section 5004
Chapter 4, Subchapter 7, Article 101
Section 5047
**SHIP BUILDING, SHIP REPAIRING AND SHIP BREAKING
SAFETY ORDERS**
Chapter 4, Subchapter 18, Article 6
Section 8379
Use of Personnel Suspended Platforms from Crane or Derrick
(Heard at the October 19, 2006, Public Hearing)

At the October 19, 2006, Public Hearing, the Board was briefed on a proposal based upon a Division of Occupational Safety and Health (Division) Form 9 Request for New or Change in Existing Safety Order, in which the Division proposed amendments to the General and Shipyard Safety Orders as they pertain to the use of fiber rope and synthetic web slings. The proposal specifies what material is

acceptable as a suspension means for suspended personnel platforms. The failure to provide an acceptable suspension means for suspended personnel platforms could result in catastrophic failure of the synthetic material as a result of damage by heat, flame, the elements, mechanical action, etc., and failure of the platform to be able to safely suspend employees, which could result in a fall from elevation and serious employee injury or fatality.

While all slings require regular inspection by a qualified person, fiber rope or synthetic web slings that are damaged or defective can result in failure prior to such problems being discovered through inspection. Lifting personnel in a platform suspended by fiber or synthetic materials increases the chance of failure in the event that potentially damaging operations such as welding and or sandblasting are conducted from the platform.

In the course of the development of this proposal, staff reviewed the applicable ANSI/ASME standards and contacted a leading manufacturer of suspended work platforms and man-baskets who indicated that the proposal is consistent with manufacturer's safety instructions to the extent that fiber or synthetic materials are not to be used as a suspension means.

The final Statement of Reasons indicates this proposal was modified as a result of a Board member comment regarding the use of steel chain, and a 15-day Notice yielded no further comments or further modifications. Board staff recommends that the proposed amendments to GISO section 5047 and Section 8379 of the Shipyard Orders be adopted as modified.

MOTION

A motion was made by Board Member Frisch and seconded by Mr. Murray to adopt the proposed safety order.

Mr. Rank commented that one of the rationales for not allowing synthetic web slings on personnel platforms was that problems with synthetic web slings cannot always be determined through visual inspection by qualified person as required by existing Title 8 rigging standards and manufacturer's recommendations, and that the inability to detect damage before the sling is placed in service can result in catastrophic failure that could result in serious employee injury or fatality. He then asked whether the same risk is present when using synthetic slings on plywood pallets, pipe, structural steel, or similar materials. He asked why synthetic slings were in use at all, given that defects may not be detectable in a visual inspection even by a qualified person. He stated that he disagreed with the rationale that synthetic slings are unsafe. They are used every day, and when they are inspected and used correctly, they are as safe as wire rope slings. He stated that there were specific instances in which wire rope slings had been severed by welding units that have brushed back and forth across a building and worn the outer covering off of the wire rope. Those worn areas then become vulnerable to electrical strikes. There have even been fatalities, although this is not common. Mr. Rank was concerned that adoption of the proposed standard would prohibit synthetic slings altogether, although

they might be the most appropriate equipment for a given situation, such as when there are several welding leads coming into one sling and electrical charges are to be avoided. He agreed with the spirit of the proposed standard, but did not want to base it on the premise that synthetic slings are inherently unsafe.

Mr. Manieri responded that the reason for the ANSI prohibition of synthetic slings on man baskets is that the consequences of failure on a personnel platform are severe injury or death. Synthetic slings are acceptable for use for suspending lumber and other materials, but they have an inherent characteristic that makes internal fractures and failures that are developing in the material difficult to detect, even by a qualified person. The reason that synthetic slings are not prohibited for materials is that the consequences of failure are not as grave. This is why ANSI does not want synthetic slings to suspend people. In the case of welders on a suspended platform, synthetic slings are much more vulnerable to a cut or failure than wire rope. With respect to the electric shock concerns voiced by Mr. Rank, there are shields that can be placed on the cables to protect them from electrical contact. Mr. Manieri stated that the overall position of ANSI, as reflected by the proposed standard, is that synthetic slings for suspending people is not a good idea, but that synthetic slings are safe for suspending lumber, platforms, and other inanimate objects.

Mr. Rank stated that one of the major reasons for prohibiting synthetic slings for suspending personnel platforms was that they are easily cut, and that is true in situations in which the slings are near the sharp edges of structural members or plywood, but that when the synthetic slings are used in baskets that are on a vertical hitch, the danger from sharp edges is eliminated.

Chair MacLeod stated that it was his understanding that it is easier to detect damage to a wire rope sling than it is to detect damage to a synthetic sling. Mr. Manieri agreed, stating that the metal in wire or chain rope is inherently more durable and resistant to the effects of weather, the elements, cutting, abrasion, and other such hazards than synthetic slings. Therefore, ANSI came to the agreement with the manufacturers of personnel platforms, the wire rope manufacturers, and even the synthetic sling manufacturers that synthetics should not be used to suspend people.

Chair MacLeod asked for a roll call.

ROLL CALL VOTE

A roll call was taken and all Board members present voted aye. The motion passed.

Chairman MacLeod announced the next item on the agenda for adoption.

3. TITLE 8: **CONSTRUCTION SAFETY ORDERS**
Chapter 4, Subchapter 4, Article 16, Section 1620;
Article 17, Section 1626; and
Article 18, Section 1629
Railings and Stairways
(Heard at the June 15, 2006, Public Hearing))

Mr. Manieri stated that the proposal was the result of a Division Form 9 request dated December 24, 2001, pertaining to standard railings, tow boards, stairways, and ladders in construction. A second Form 9 dated December 3, 2003, pertained to roof access to buildings under construction. On April 6, 2006, Board staff convened an advisory committee in which these two requests and the necessity for

amendments to Title 8 were extensively discussed. The advisory committee reached consensus and concluded that the Construction Safety Orders required amendment with regard to guardrails, tow boards, stairways, ladders, and access issues in order to be at least as effective as the corresponding federal OSHA inspection standards.

There were no written or oral comments at the June 15, 2006, Public Hearing. However, staff received a comment letter from federal OSHA, which resulted in further discussions among Board staff, the Division, and federal OSHA. Modifications to the proposal resulted in a 15-day notice, and there were no further comments from federal OSHA or any other stakeholder. The modified proposal now addresses various issues, such as construction, temporary railings, strength requirements, stairway and handrail design and use, access to roof and attics of buildings, etc. These proposed amendments are intended to protect construction workers from falls from elevations stairways and provide falling object protection from falls due to unsafe roof attic access.

Board staff recommends that the proposal be adopted as modified.

MOTION

A motion was made by Mr. Rank and seconded by Mr. Murray to adopt the proposed safety order.

Chair MacLeod asked for a roll call.

ROLL CALL VOTE

A roll call was taken, and all Board members present voted aye. The motion passed.

Chairman MacLeod announced the next item on the agenda for adoption.

B. PROPOSED PETITION DECISIONS FOR ADOPTION

1. Petition File No. 488
James L. Meyer, Meyer Consulting Incorporated

Mr. Umemoto stated that Board staff received a petition on October 19, 2006, from Mr. James L. Meyer of Meyer Consulting, Inc. (Petitioner). The Petitioner requested that the Board amend Title 8, Section 3000(d) of the Elevator Safety Orders (ESO) limiting the scope of the ESO by excluding maintenance lifts used to access underground sewage control pumping stations. The petition is based on a Division inspection of a maintenance lift used to access an underground sewage control pumping station operated by the City of West Sacramento. The Division issued an order to remove the lift from service, but after considering the vital role this type of lift plays in the maintenance of underground municipal sewage pumping stations, the lift was allowed to operate pending the petition decision.

Board staff conducted onsite inspections of the maintenance elevators that are the subject of this petition at sewage pumping stations in West Sacramento. Staff noted that those elevators are not accessible by the general public and have an excellent safety history (no reportable accidents have occurred in the operation of these types of lifts since first manufactured and installed in California

in the 1960s). The Division staff noted that the lift has no fixed landings, is designed solely for use by trained and authorized pumping station personnel, and is custom designed and adapted to safely meet the unique access criteria presented by underground pumping stations. Board and Division staff recommend that the petition be granted.

MOTION

A motion was made by Board Member Murray and seconded by Dr. Frisch to adopt the proposed petition decision.

Dr. Frisch asked whether the intent of the petition decision was that, before more of the devices are put into service, the inspections typically performed by the Division at that stage would no longer be required, or would the initial inspection still be performed prior to putting the device into service. Mr. Umemoto responded that it was his understanding that the initial inspection still would be required.

Dr. Frisch then asked whether, once the initial inspection was completed and the device was put into service, it still would require an annual inspection. Mr. Manieri responded that since this petition decision would be remanded over to the Division for their rulemaking action and that specific language has yet to be developed, it is quite possible that the Division could waive the permit requirement or develop an alternate requirement. Mr. Manieri stated that, as the petition stands, these types of lifts would be excluded from the Division's permitting requirements.

Dr. Frisch stated that he was uncomfortable with that provision. Mr. Manieri stated that because these elevators are integral as part of the design of the below-ground sewage access areas, they do have to meet building standard permitting procedures of the local jurisdiction.

Dr. Frisch indicated that although he would vote in favor of the petition decision, he was not comfortable with exempting these devices from any kind of annual inspection process. Mr. Umemoto responded that Dr. Frisch's concerns would be taken under advisement in the crafting of a rulemaking package.

Chair MacLeod asked for a roll call.

ROLL CALL VOTE

A roll call was taken, and all members present voted "aye." The motion passed.

Chairman MacLeod announced the next item on the agenda.

C. PROPOSED VARIANCE DECISIONS FOR ADOPTION

1. Consent Calendar

Mr. Beales stated that of the seven proposed variance decisions for adoption, two involved KONE elevators, two involved vertical wheelchair lifts, one involved personnel hoists at a construction site, and one involved reciprocating conveyors used to move supplies and trash in San Francisco. All of those were recommended to be granted. The seventh proposed decision, based on discussion at the hearing that determined that there was no need for a variance, is recommended for dismissal.

MOTION

A motion was made by Board Member Murray and seconded by Mr. Rank to adopt the consent calendar.

Dr. Frisch quoted from the "Findings of Fact" section of the proposed decision for file number 06-V-057, Shea Trailer, that "personnel hoists shall not be operated when the crane is in use in the shaft." He then asked why that language was not in the decision itself, and Mr. Beales responded that this variance and the conditions imposed are identical to the conditions imposed in a prior case from two years ago involving the same applicant and the same work process in the San Diego area, and it was Mr. Beales' belief that if that language were critical to the function of the variance, it would have been raised by the Division or the Board staff.

Dr. Frisch stated that he had a clear understanding, and he asked whether it is commonly understood that the personnel hoists are not operated while the crane is in the shaft. Mr. Beales responded that he believed it was, and Mr. Murray stated that the applicant had a good safety record.

Chair MacLeod asked for a roll call.

ROLL CALL VOTE

A roll call was taken, and all members present voted "aye." The motion passed.

Chairman MacLeod announced the next item on the agenda.

OTHER

1. PEL Process Update

Mr. Smith handed out was a final draft of the Division's policy and procedure for its advisory committee process for permissible exposure limit (PEL) updates to Title 8, Section 5155 Airborne Contaminants. The Division has been undergoing an advisory process since December 2005 to develop this document. With the advice of the participants, the updates underwent four major

revisions, and it will be sent to the advisory committee members as the conclusion of the advisory process.

Mr. Smith stated that the Division has used advisory committees to develop updates to PELs in Section 5155, and every few years, they bring a proposal before the Board for adoption. This document formalizes that process into a three-step process in which the Division first develops a list of proposed substances to consider in the next advisory committee deliberations. That list goes through an initial advisory meeting in which the Division solicits comments on it. They propose not only the substances to be considered but also a ranking on that list. Based on the comments received at the initial meeting, the Division finalizes the list of substances to be considered and a ranking of those substances.

The next step in the process is to take the list of substances to a health expert advisory committee, which is comprised of technical experts. The Division specifies the types of experts they want on the committee, namely people familiar with exposure levels in the workplace such as toxicologists, epidemiologists, occupational medical physicians, and industrial hygienists. Those are standing members of the health expert advisory committee. As in the past, the Division anticipates that this group would meet every other month to consider at least two or three substances in each meeting and look at the available science for the particular substance. The policy and procedure document illustrates what types of documents are provided these health experts, and it outlines the process used to provide notice of the meetings to the committee members and bring the proper interest parties into the committee process.

Once the health expert advisory committee has developed a recommendation for advice to the Division, it is taken to a feasibility advisory committee. This committee is established to consider the recommendations of the health expert advisory committee. The Division solicits members from interested parties, both from labor and industry, which can consider technical and economic feasibility issues. This committee determines whether it is feasible to effect PELs for the substances considered and recommended by the health expert advisory committee and whether the recommended PEL is achievable. If there are feasibility issues, the advisory committee will ask the Division to consider revising the recommendation before it is brought before the Board.

Once the Division receives a recommendation from the feasibility advisory committee, it is ultimately the responsibility of the Division staff to consider the advice of both the health expert advisory committee and the feasibility advisory committee, develop a proposed standard, and bring the proposal before the Board. In the policy and procedure document, the Division outlines some of the information and the rulemaking they will commit to provide the Board when they present these proposals, including a list of relevant occupational exposure levels that may have initiated the rulemaking process, the recommendation from the health expert advisory committee and justification for any deviations from those recommendations, the findings of the feasibility advisory committee and how they relate to the advice of the health experts and the ultimate recommendation from the Division to the Board, in addition to all related rulemaking documents.

Mr. Smith concluded by asking assistance from the Board staff in soliciting public notice and interested party involvement. The Division anticipates using its website as much as possible, by posting the dates for the advisory committee meetings and providing dedicated pages for PELs. The

policy and procedure document will also be posted on the website and sent via email to all the interested parties that have been working with the Division on its development. The next step will

be soliciting information and advice regarding substances and soliciting nominations for the health expert advisory committee. The Board will be included in those emails in order to familiarize it with the proceedings. That email should be distributed in the next month or so.

Dr. Frisch commended Mr. Smith on his presentation, stating that it is remarkable what the Division has done in developing a sensible process. He asked whether there were any remaining controversies that came out of the process that either had not been adequately addressed or had been addressed in such a way that there was still dissatisfaction with the process. Mr. Smith responded that the Division had received a lot of good input on this process from both sides, and if anything, the issues that may not have been addressed as completely as some of the advisory members wanted are best left to the initial meetings of those particular issues to determine what process or rationale the committee wants to use. That rationale would then be made available to the next committee, and if that committee wants to use that rationale or modify it slightly, it will all be open for public debate. Therefore, Mr. Smith felt that a reasonable compromise had been reached. The issues were not being ignored, but it was determined that they were best addressed in the individual advisory committees.

Dr. Frisch asked how the Division intended to recruit members to the health expert and feasibility advisory committees and make it possible for them to do the intended work. Mr. Smith responded that the Division would like to get recommendations from past committee members and from experts in the respective fields who may not want to participate themselves, relevant professional associations recommendations, and applications and recommendations from the public itself. The Division understands that this is a very labor intensive advisory committee. The Division anticipates that participation in these advisory committees will require at least a two-year commitment, meeting at least six times a year, in addition to the relevant "homework" required to prepare for the meetings. It is a fairly high commitment level for a volunteer advisory committee. The Division understands that and tries to provide the staff support necessary to make the advisory committee members' job as easy as possible.

Dr. Frisch asked whether the studies upon which the PEL recommendations are based would be provided to the advisory committees. Mr. Smith responded that the Division expected to provide the key studies and the documents relied upon to the advisory committees, and other studies used would be available as well. They also intend to use their website and their email program to make those documents available to the public as well.

Chair MacLeod asked whether the Division had used the advisory committee process to develop the policy and procedure document submitted to the Board, and Mr. Smith responded in the affirmative. He reiterated that that committee started in December 2005 and finished in December 2006, after significantly revising the document four times.

Chair MacLeod then asked whether that advisory committee had seen the final document. Mr. Smith responded that they had seen the drafts up until this stage, and that the final would be distributed to the committee members upon his return to the office.

Chair MacLeod asked whether there was an official policy regarding notice of the advisory committee meetings. Mr. Smith responded that the policy and procedure document outlined the minimum amount of time to notice committees, the types of documents to be provided in advance of the committee meeting, and the length of time for public comments to be submitted.

2. Enforcement Update

Ms. Heza stated that an analysis of the Division's active accident investigations may serve to identify possible revisions to standards based on apparent trends in the active investigations, streamlining Cal OSHA's processes, and determining whether the investigators are asking the right questions. Certainly, when they are doing accident investigations, they are going to ask about lockout/tagout and the cause of the accident.

Ms. Heza stated that they began their analysis with agricultural accidents investigated in 2005 and identified the top ten Title 8 citations issued in relation to those accident investigations. The first one was Section 3314, which is lockout/tagout. Other areas were Section 3441, which relates to driverless tractors, and Section 3328, Machinery and Equipment. An element of that section prohibits equipment from being used under conditions that would endanger employees. In many of the agricultural investigations, there may be some equipment where a lockout/tagout standard would be applicable, but perhaps it is not being used or there is no employee exposure. Therefore, investigators may not be asking questions about such things as training or whether or not the power source was cut off. When investigators are performing routine inspections, some of these may not be glaring issues, and perhaps more attention needs to be given to them.

The Division performed approximately 160 accident investigations in construction in 2005, and Ms. Heza and her staff will perform an analysis similar to that done for agricultural investigations. In addition, there were approximately 250 accident investigations in manufacturing. These analyses are somewhat labor intensive, so it will be a while before they have a final product to present. However, in the coming months Ms. Heza will provide preliminary reports in these areas.

Mr. Rank expressed his support of these analyses of the processes in order to provide greater worker safety.

Dr. Frisch suggested that one of the focuses of the analyses might be citations that are appealed. One of the things that he has noticed in his cursory review of the CalOSHA Reporter is the number of citations that are appealed and dismissed by the Appeals Board. It is not always clear why these citations are dismissed on appeal or why they are appealed in the first place. When the same issues continue to come before the Appeals Board, it may be an indication that either the method of enforcement or the language of the standard is creating controversy.

Ms. Heza stated that after the analysis of the accident investigations was complete, she intended to perform an analysis of the appeals outcomes in order to identify patterns. She asked Dr. Frisch if there was anything in particular that he had in mind, and he responded that he was interested in two items currently. One was an analysis of heat illness citations issued. The other issue is hazardous chemicals and materials.

Ms. Heza responded that it is very easy to inspect a facility and find discrepancies on hazardous substances or to find an employee at that facility that is not able to answer questions about a particular substance. It may be a language barrier or it may be that the information on the MSDS's simply may be overwhelming or overly technical.

Mr. Umemoto responded to Dr. Frisch's comments regarding heat illness, stating that Division staff was working on analysis of the heat illness inspections for 2006 and would present the findings at the next meeting. They had presented a similar presentation in April of 2006, and the upcoming presentation would be similar.

3. Legislative Update

Mr. Beales stated that there were a number of bills that were summarized in the Board packets. As of the previous afternoon, no action had been taken on these bills, and there were no additional pieces of legislation to report. There were three categories of bills in the report. The first consisted of substantive bills in the area of health and safety; second consisted of bills that are also in the area of health and safety but make technical changes of such insignificance that they were similar to a Section 100 in rulemaking; and the third consisted of a small group of additional bills that might be of interest to the Board based on general administrative concerns.

- SB 521 would require the Standards Board, because of the size of its budget, to be audited at least once every five years.
- SB 618 would require all state agencies to maintain all of their records in an electronic format.
- SB721 concerns succession planning, ensuring that selected employees are trained and prepared to take over from key managerial and supervisory employees who leave the agency.
- AB 1393 is the successor to a bill that Assembly Member Leno introduced last year that would have mandated that Board members' conflict of interest forms and similar information be posted on the internet. This version of the bill does not require that, but states that there would be an advisory committee to consider whether such records should be posted on agency internet sites.

In the first category, health and safety matters, there are two bills about diacetyl. One would ban the substance generally in commerce in California by a certain date or by four years thereafter. The second bill, which is perhaps more directly relevant to the Standards Board, is AB 514 by Assembly Member Lieber. This bill would go beyond the letter sent to the Board by Member Lieber expressing her support of the establishment of a diacetyl standard, in that it would set a deadline for the adoption of a standard that prohibits the use of diacetyl in the workplace.

Hospital lifting bills were of concern to the Board last year, and this year there are two such bills. Senator Perata introduced a bill similar to the one vetoed last year. There is also AB 371, which states that hospitals applying to the California Health Facilities Financing Authority for financing must submit documentation setting forth their zero lift policy.

AB 1045 is basically a “placeholder” expressing the Legislature’s intent to require the Board to adopt an indoor heat exposure standard.

AB 1467 involves smoking in the workplace. There already are standards in place that have to do with the ventilation of areas where employees are allowed to smoke, such as employee break rooms. This bill would render those standards moot, because it would expand the smoking prohibition to include areas where smoking is allowed currently.

AB 515, again by Assembly Member Lieber, potentially would have a great impact on the Board’s rulemaking activities, because it would set deadlines for the adoption of a potentially very large number of standards regarding cancer-causing or other harmful substances found in the workplace. For instance, it would require that the Board base its standards on new or revised Office of Environmental Health Hazard Assessment risk assessments within one year from the date the Board receives the assessment.

4. Update on Pneumatic Nailers

Mr. Umemoto stated that at the previous Board Meeting, Ms. Arioto had asked for an update on the status of the pneumatic nailer rulemaking package. Dr. Frisch asked whether this update should be deferred to the next meeting, since Ms. Arioto was unable to attend the current meeting.

Mr. Umemoto responded that the update would be very quick, as the package was in the final stages of internal review before being noticed for public hearing. Chair MacLeod stated that Mr. Umemoto should go ahead and present the update and ensure that Ms. Arioto received the information as well.

Mr. Umemoto stated that the proposal was derived from a petition focusing on the standard regarding “unattended” pneumatic nailers and staplers. The Board granted that petition to the extent that an advisory committee be convened. The advisory committee reached a consensus, and language was developed. As previously mentioned, the rulemaking package is in the final stages of internal review and will be noticed for public hearing very soon.

Chair MacLeod referred to Kevin Bland’s testimony during the Public Meeting, and he asked whether the language of the proposal had been changed after the advisory committee had been convened and reached a consensus.

Mr. Tolson, Senior Safety Engineer, OSHSB, responded that there was consensus at the advisory committee, but that in the process of working the proposal through the review process, an issue was raised about whether the effectiveness of the standard would be decreased if the language pertaining to unattended nailers were removed. The latest version of the proposal qualifies the meaning of “unattended.”

Chair MacLeod asked whether the issue was raised at the advisory committee, and Mr. Tolson responded that it was the central issue of the advisory committee. The consensus was that the existing language stated that the tools should be disconnected from the air supply when left unattended, and the industry felt that there were no accidents attributable to unattended tools. Therefore, the consensus of the advisory committee was to strike that language. That raised

concerns that removal of that particular clause would detract from the existing public safety standard.

Chair MacLeod then asked whether there was a way that this issue could be revisited with industry representatives before the notice was issued. Mr. Tolson responded that it would have to go back to the advisory committee.

Chair MacLeod stated that the advisory committee process is collaborative, and as such, there is not always 100% consensus on the proposal. Mr. Tolson stated that, during its review of the proposal, the Division had commented on the lack of language regarding unattended tools, and the industry had become aware of the issue, which led to Mr. Bland's testimony. Board staff has attempted to define or qualify the meaning of "unattended," and had an advisory committee meeting to propose a clarification. The advisory committee chose not to include that language. Mr. Tolson stated that it came down to whether or not to throw out any reference at all to "unattended," which is not an ALAEA issue because the federal standards do not address it all. However, the legal interpretation was that removal of that clause would detract from the level of safety already in existence.

Chair MacLeod directed Board staff to work with industry representatives in an attempt to reach a compromise on the language.

5. Executive Officer's Report

Mr. Umemoto stated that the Elevator Safety Orders had been noticed for public hearing and it will be heard on April 19, 2007. The proposal will resolve issues related to variance applications, but at the same time, it is not going to eliminate all of the issues related to elevators. Board staff does predict that there will be a significant reduction in the number of variance applications as a result of the proposal.

Members of the Division staff are scheduled to convene advisory committees in the coming weeks to address diacetyl, masonry cutting, and heat illness prevention, and Board staff will convene two crane-related advisory committees on April 24 and 25.

At the April Board meeting, in addition to the Elevator Safety Orders, public testimony will be heard regarding Energized Equipment or Systems.

Mr. Umemoto reminded Board members to submit their travel claims before the end of the fiscal year in order to avoid a "last minute crunch."

6. Future Agenda Items

No items identified.

ADJOURNMENT

With no further comments, Chair MacLeod adjourned the Business Meeting at 12:05 p.m.