EXHIBIT 3

ACCSH Materials for 5/23-4 Meeting

SIP-IV Candidates and Crane Amendments

Candidates for Standards Improvement Project (SIP-IV)

1. Personal Protective Equipment ("PPE") Fit

Ensuring that personal protective equipment properly fits each employee is essential to their protection. This is especially important for female construction workers who may be smaller than their male counterparts, and may not be able to use standard-size PPE. Adding the proposed language to paragraph §1926.95(c) will clarify the construction PPE requirements and make them consistent with general industry PPE requirements. The Agency preliminarily concludes that providing clearer and more explicit language will aid employers in providing employees with properly fitting PPE. OSHA believes the proposed language is not a new or additional burden under the existing language in §1926.95(a), which states that PPE "shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary…." Clearly, for PPE to provide protection against the hazards for which it is designed, it must fit properly. Fit testing already is required, for example, for respiratory protection.

Several commenters to the SIP RFI, including the AFL-CIO and the International Safety Equipment Association, recommended that the Agency revise its construction PPE standards to ensure that PPE would fit all construction employees. OSHA's Advisory Committee on Construction Safety and Health (ACCSH) also made the same recommendation to the Agency.

Current Regulatory Text	Proposed Regulatory Text	Explanation
1926.95(a) "Application." Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact. **1926.95(b)** "Employee-owned equipment." Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment. **1926.95(c)** "Design." All personal protective equipment shall be of safe design and construction for the work to be performed.	**1926.95(a)** "Application." Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact. **1926.95(b)** "Employee-owned equipment." Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment. **1926.95(c)** "Design and selection." All personal protective equipment shall be of safe design and construction for the work to be performed~~.~~ ,and shall be selected to ensure that it properly fits each affected employee	Ensuring that personal protective equipment properly fits each employee is necessary to protect small- and large stature construction workers who and may not be able to use standard-size PPE. Adding the proposed language will clarify the construction PPE requirements about fitting PPE to employees, and will aid employers in providing employees with properly fitting PPE.

2. Certification of training for 29 CFR 1926, subpart M—Fall Protection (in construction)

In subpart M—Fall Protection, paragraph 1926.503(a) requires employers to train employees to recognize fall hazards and the procedures they must follow to minimize these hazards. Paragraph 503(b) requires employers to create and maintain a written certification record verifying compliance with the paragraph 503(a) training requirements. The requirement to prepare this written certification record imposes a substantial paperwork burden on employers. OSHA estimates that this requirement costs the construction industry over $13 million annually. OSHA has seen no persuasive evidence indicating that its training-certification requirements improve the overall effectiveness of the training or the rates of compliance with training requirements. More importantly, OSHA does not believe that removing this requirement will preclude OSHA's Compliance Officers from bringing citations for failure to provide training. CSHO's do not rely on the certification to determine whether or not an employer provided training, but instead rely on employee interviews and observation for making that determination. This is a commonly cited provision (over 700 times in 2005-2010).

The Agency removed requirements for written training certifications from its standards in a recent standards improvement project (76 Federal Register 33590; June 8, 2011). The Agency preliminarily concludes that removing the certification-for-training requirement from subpart M will eliminate significant employer burden without reducing employee protections.

Current Regulatory Text	Proposed Regulatory Text	Explanation
1926.503(b) "Certification of training." **1926.503(b)(1)** The employer shall verify compliance with paragraph (a) of this section by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training. **1926.503(b)(2)** The latest training certification shall be maintained.	~~**1926.503(b)**~~ ~~"Certification of training."~~ ~~**1926.503(b)(1)**~~ ~~The employer shall verify compliance with paragraph (a) of this section by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training.~~ ~~**1926.503(b)(2)**~~ ~~The latest training certification shall be maintained.~~	Written certifications create significant paperwork or administrative burdens on employers, and are unnecessary for enforcement purpose.

3. Underground Construction, Caissons, Cofferdams, and Compressed Air

On December 7, 2012, OSHA published a Request for Information (RFI) as part of its Standards Improvement Project—Phase IV. OSHA solicited comments from the public on ways it could improve OSHA standards.

In response to the RFI, the National Institute for Occupational Safety and Health (NIOSH) submitted a comment asking OSHA to update the decompression tables in Appendix A of Subpart S—Underground Construction, Caissons, Cofferdams and Compressed Air. According to NIOSH, studies (Kindwall et al., 1982, and Kindwall, 1997) show "that the OSHA decompression tables were not sufficiently protective of worker health." OSHA-2012-0007-0017. NIOSH argues that updating the decompression tables in Appendix A will shorten the time needed for decompression, and reduce the instances of decompression sickness. NIOSH recommended that OSHA take the following steps when updating its decompression tables: require staged decompression, allow 100 percent oxygen use during decompression, vary the decompression schedule based on exposure time, and allow for greater pressures in underground construction projects. Other commenters also recommended updating to the decompression tables. OSHA-2012-0007-0011, -0012, and -0016.

OSHA considered updating its decompression tables in the past. In a presentation to OSHA's Advisory Committee on Construction Safety and Health (December 2011), members of the underground construction industry explained that industry practices have changed significantly since OSHA promulgated Subpart S. These changes result in work at higher pressures, which the decompression tables in Appendix A do not address. For this reason, members of the industry requested variances from OSHA to use other decompression tables. Updating the decompression tables would make variances unnecessary.

OSHA is proposing to permit alternative decompression methods that the underground construction industry now uses. The Agency will collect more

information during rulemaking and evaluate the appropriateness of these methods.

NIOSH pointed out in their comment to the RFI that they supported research for the Edel-Kindwall decompression tables that OSHA is considering for several variance requests. NIOSH also mentioned "national" decompression tables (England, France, Germany, and Brazil) that have elements that would improve the safety of underground workers. A United Kingdom study compared decompression tables and found that all, including a U.S. decompression table, were suitable for work in the United Kingdom. Flook, 2003.

At this time, OSHA proposes revising Appendix A by allowing the use of various decompression tables to meet the decompression requirements for underground construction work, which likely would include the following tables:

1. Edel-Kindwall decompression tables
2. British decompression tables
3. French decompression tables
4. German decompression tables
5. Brazilian decompression tables

OSHA preliminarily concludes that allowing employers to choose from among a variety of decompression tables will provide greater flexibility for employers performing underground construction work and greater protection for the health of underground workers. OSHA is still in the process of determining the availability of these tables and whether any legal restrictions apply. These factors could affect which tables OSHA includes in the proposed rule.

4. **Manual on Uniform Traffic Control Devices (MUTCD)**

OSHA is proposing to amend Sections 1926.200(g)(2) (Traffic signs and devices), 1926.201(a) (Flaggers), and 1926.202 (Barricades) to incorporate Part VI of the 2009 Manual on Uniform Traffic Control Devices (MUTCD), including Revision 1 dated May 2012 and Revision 2 dated May 2012.

Currently, OSHA's standards incorporate by reference Part VI of the 1988 Revision 3 [1993] and Millennium [December 2000] Editions of the MUTCD. OSHA incorporated these versions in 2002. Prior to the 2002 rulemaking, OSHA required conformance with the 1971 version of the MUTCD. However, OSHA allows the use of more recent versions of the MUTCD to comply with these standards.

Commenters to the SIP RFI recommended that the Agency update the MUTCD reference to the most recent edition. DOT requires compliance with the most recent edition of the MUTCD for major new road and highway construction, and the most recent edition is the most readily available and most widely used. The Agency preliminarily concludes that updating the reference to the most recent MUCTD will not increase costs or requirements on employers and will make it easier for OSHA to enforce the MUTCD, thereby reducing burden on employers and compliance officers.

The MUTCD is a complex document comprised of standards, guidance, and support material. In the past, OSHA adopted the "shall" and "must" provisions of the MUTCD. Often, it was difficult to locate these provisions, but the 2009 version clearly labels them as "standards." OSHA will only incorporate sections labeled as standards, and only the parts of the MUTCD that affect worker safety regarding the use of signs and devices, flaggers, and barricades. (OSHA is not proposing a change to 1926.200(g)(1), which requires the use of legible traffic signs at all points of hazard and does not reference the MUTCD. OSHA may use provisions of the 2009 Edition of MUTCD to identify points of hazards under this standard [(g)(1)], per the Inspection and Citation Guidance for Roadway and Highway Construction Work Zones, Directive (CPL 02-01-054).

The Federal Highway Administration's ("FHWA") revisions to the MUTCD largely make the document more user friendly and account for advances in technology. A comparison of the 1988 and 2009 versions shows few new requirements; rather, the document is easier to use, with more guidance and support material available. This is because the MUTCD is a document that allows engineers and those designing traffic control systems a great deal of flexibility to adapt to different situations and changing conditions on highway and roadway work zones. The MUTCD states that, "[t]hus, while this Manual provides Standards, Guidance, and Options for design and applications of traffic control devices, this Manual should not be considered a substitute for engineering judgment. Engineering judgment should be exercised in the selection and application of traffic control devices, as well as in the location and design of roads and streets that the devices complement."

The changes to the MUTCD sections that affect worker safety since 1988 and 2000 are minimal. The following areas are a few of the areas that DOT identified in its final rule as significant changes to the MUTCD that relate to work safety:

- The needs and control of all road users through a temporary traffic control (TTC) zone apply to all public facilities and private property open to public travel, in addition to highways.
- FHWA allows highway agencies to update over time existing devices (signs) already in use that do not comply with the new MUTCD provisions to meet the new provisions, unless the FHWA establishes a target compliance date for upgrading such devices.
- Accessibility and detectability must be maintained along an alternate pedestrian route if a TTC zone affects an accessible and detectable pedestrian facility.
- Workers within the public right-of-way must use high-visibility safety apparel.
- There is a new section on "Automated Flagger Assistance Devices" (AFAD). These optional devices enable a flagger to be positioned out of the lane of traffic and are used to control road users through TTC zones.
- New requirements that flaggers shall use a STOP/SLOW paddle, flag, or an AFAD to control road users, and that the use of hand movements alone is

prohibited. In the past it was not clear that hand signals alone were insufficient.

- All channelization devices must be crashworthy.
- Temporary traffic barriers, including their end treatments, must be crashworthy.
- The following are not traffic control devices: 1) floodlights; 2) vehicle arresting systems and crash cushions; and 3) glare screens.

Updating the MUTCD will not increase compliance burden on the employer, will reduce confusion as to which edition employers must comply with, and will allow compliance officers to use and cite from the same manual that the overwhelming number of employers already use.

Amendments to Subpart CC--Cranes and Derricks

Further amendments to §§ 1926.1407, 1408, and 1410.

Sections 1926.1407 – 1409 establish safety requirements employers must follow when equipment is assembled/disassembled and operated near power lines. Several provisions permit the use of NRTL-approved equipment (proximity alarms and insulating links) as one of several *options* for additional safety. In §1926.1410 insulating lines are *a requirement* when working closer than the Table A distances from a power line

A "proximity alarm," is defined in § 1926.1401 as "a device that provides a warning of proximity to a power line that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7." An "insulating link/device" is defined in § 1926.1401 as "an insulating device listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7."[1]

When it issued the standard, OSHA was aware that there were not yet any proximity alarms or insulating links that were listed, labeled, or accepted by a Nationally Recognized Testing Laboratory (NRTL) in accordance with 29 CFR 1910.7. However, OSHA included them as options in sections 1407 – 1409 and a requirement in 1410 in the expectation that compliant devices would soon be available. Including currently unavailable options in sections 1407 – 1409 did not hinder employer compliance

[1]Sections 1407 and 1408 apply when the power line voltage is less than 350 kilovolts (kV). Section 1409 establishes comparable requirements, except for minimum clearance distances, to power lines operating at higher voltages.

because employers could choose from other, available, options. Once NRTL listed, labeled, or accepted devices became available, employers would be able to use them in lieu of the other options.

Because proximity alarms and insulating link/devices remain optional under sections 1407 – 1409, OSHA is not proposing to modify the substance of the paragraphs referring to those devices. However, to make it clear that those devices may only be used in lieu of other options when they are listed, labeled, or accepted by a NRTL, OSHA is proposing to amend the text of the provisions in which they appear to make the NRTL requirement explicit in those provisions rather than requiring employers to refer to the definitions in section 1401 to find the NRTL requirement. The Agency believes that adding the NRTL language to the text of sections 1407 – 1409 will avoid the possibility that employers may mistakenly believe that they may use any devices that are marketed as proximity alarms and insulating link/devices without the need for them to be NRTL listed, labeled, or accepted.

Section 1410 presents a different problem. That section applies when equipment must be operated within the permitted minimum clearance distances due to feasibility constraints. Because of the heightened danger of electrocution when the minimum clearance distances are breached, section 1410 *requires* employers to use a number of precautions concurrently, including an insulating link/device, to protect workers. To take into account the lack of NRTL listed, labeled, or accepted insulating link/devices at the time the rule was issued, OSHA temporarily required non-NRTL devices to be used but also required that employees (except operators) who may come in contact with the equipment, the load, or the load line, be insulated or guarded from the equipment, the load, or the load line by other means, such as insulating gloves rated for the voltage involved.

The temporary provision for non-NRTL devices was set to expire on November 8, 2013. OSHA anticipated that NRTL devices would be available by that time, but no insulating link/devices have yet been NRTL listed, labeled, or accepted, nor does it appear that any such devices will be available in the

foreseeable future. To accommodate the absence of compliant devices while ensuring that employees are adequately protected, OSHA is proposing to permit employers their choice of two options: (1) they may use a NRTL listed, labeled, or accepted device (an option they may only use if and when such devices become available); or (2) they may use an insulating link that is not NRTL listed, labeled, or accepted in conjunction with another means of insulating or guarding workers from the equipment, the load, or the load line. As under the current standard, gloves rated for the voltage involved will be considered adequate insulation or guarding.

The following table compares the provisions that OSHA is proposing to amend alongside the amended versions.

CURRENT REGULATORY TEXT	PROPOSED REGULATORY TEXT
§ 1926.1407 Power line safety (up to 350 kV) – assembly and disassembly. * * * * * (b) *Preventing encroachment/electrocution*. Where encroachment precautions are required under Option (2), or Option (3) of this section, all of the following requirements must be met: * * * * * (3) At least one of the following additional measures must be in place. The measure selected from this list must be effective in preventing encroachment. The additional measures are: * * * * * (ii) A proximity alarm set to give the operator sufficient warning to prevent encroachment.	**§ 1926.1407 Power line safety (up to 350 kV) – assembly and disassembly.** * * * * * (b) *Preventing encroachment/electrocution*. Where encroachment precautions are required under Option (2), or Option (3) of this section, all of the following requirements must be met: * * * * * (3) At least one of the following additional measures must be in place. The measure selected from this list must be effective in preventing encroachment. The additional measures are: * * * * * (ii) A proximity alarm that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, set to give the operator sufficient warning to prevent encroachment.

§ 1926.1408 Power line safety (up to 350 kV) – equipment operations. * * * * * (b) *Preventing encroachment/electrocution.* Where encroachment precautions are required under Option (2) or Option (3) of this section, all of the following requirements must be met: * * * * * (4) Implement at least one of the following measures: (i) A proximity alarm set to give the operator sufficient warning to prevent encroachment. * * * * * (v) An insulating link/device installed at a point between the end of the load line (or below) and the load.	**§ 1926.1408 Power line safety (up to 350 kV) – equipment operations.** * * * * * (b) *Preventing encroachment/electrocution.* Where encroachment precautions are required under Option (2) or Option (3) of this section, all of the following requirements must be met: * * * * * (4) Implement at least one of the following measures: (i) A proximity alarm that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, set to give the operator sufficient warning to prevent encroachment. * * * * * (v) An insulating link/device that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, installed at a point between the end of the load line (or below) and the load.
§ 1926.1410 Power line safety (all voltages) – equipment operations closer than the Table A zone. * * * * * (d) A planning meeting with the employer and utility owner/operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) is held to determine the procedures that will be followed to prevent electrical contact and electrocution. At a minimum these procedures shall include: * * * * * (4) *Insulating link/device*.	**§ 1926.1410 Power line safety (all voltages) – equipment operations closer than the Table A zone.** * * * * * (d) A planning meeting with the employer and utility owner/operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) is held to determine the procedures that will be followed to prevent electrical contact and electrocution. At a minimum these procedures shall include: * * * * * (4) *Insulating link/device*.

(i) An insulating link/device installed at a point between the end of the load line (or below) and the load. * * * * * (iv) Until November 8, 2011, the following procedure may be substituted for the requirement in paragraph (d)(4)(i) of this section: all employees, excluding equipment operators located on the equipment, who may come in contact with the equipment, the load line, or the load must be insulated or guarded from the equipment, the load line, and the load. Insulating gloves rated for the voltage involved are adequate insulation for the purposes of this paragraph. (v) Until November 8, 2013, the following procedure may be substituted for the requirement in (d)(4)(i) of this section: (A) The employer must use a link/device manufactured on or before November 8, 2011, that meets the definition of an insulating link/device, except that it has not been approved by a Nationally Recognized Testing Laboratory, and that is maintained and used in accordance with manufacturer requirements and recommendations, and is installed at a point between the end of the load line (or below) and the load; and (B) All employees, excluding equipment operators located on the equipment, who may come in contact with the equipment, the load line, or the load must be insulated or guarded from the equipment, the load line, and the load through an additional means other than the device described in	(i) An insulating link/device that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, installed at a point between the end of the load line (or below) and the load; or (ii) An insulating link/device that has not been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, installed at a point between the end of the load line (or below) and the load. When such a device is used, all employees, excluding equipment operators located on the equipment, who may come in contact with the equipment, the load line, or the load must be insulated or guarded from the equipment, the load line, and the load. Insulating gloves rated for the voltage involved shall be considered adequate insulation.

	paragraph (d)(4)(v)(A) of this section. Insulating gloves rated for the voltage involved are adequate additional means of protection for the purposes of this paragraph.	

THE FOLLOWING GOES IN THE AMENDMENTS SECTION

XX. Section 1926.1407 is amended by revising paragraph (b)(3)(ii) to read as follows:

§ 1926.1407 Power line safety (up to 350 kV) – assembly and disassembly.

* * * * *

(b) *Preventing encroachment/electrocution.* Where encroachment precautions are required under Option (2), or Option (3) of this section, all of the following requirements must be met:

* * * * *

(3) At least one of the following additional measures must be in place. The measure selected from this list must be effective in preventing encroachment.

The additional measures are:

* * * * *

(ii) A proximity alarm that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, set to give the operator sufficient warning to prevent encroachment.

XX. Section 1926.1408 is amended by revising paragraphs (b)(4)(i) and (v) to read as follows:

§ 1926.1408 Power line safety (up to 350 kV) – equipment operations.

* * * * *

(b) *Preventing encroachment/electrocution.* Where encroachment precautions are required under Option (2) or Option (3) of this section, all of the following requirements must be met:

* * * * *

(4) Implement at least one of the following measures:

(i) A proximity alarm that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, set to give the operator sufficient warning to prevent encroachment.

* * * * *

(v) An insulating link/device that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, installed at a point between the end of the load line (or below) and the load.

XX. Section 1926.1410 is amended by revising paragraphs (d)(4)(i) and (ii) to read as follows:

§ 1926.1410 Power line safety (all voltages) – equipment operations closer than the Table A zone.

* * * * *

(d) A planning meeting with the employer and utility owner/operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) is held

to determine the procedures that will be followed to prevent electrical contact and electrocution. At a minimum these procedures shall include:

* * * * *

(4) *Insulating link/device.*

(i) An insulating link/device that has been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, installed at a point between the end of the load line (or below) and the load; or

(ii) An insulating link/device that has not been listed, labeled, or accepted by a Nationally Recognized Testing Laboratory in accordance with 29 CFR 1910.7, installed at a point between the end of the load line (or below) and the load. When such a device is used, all employees, excluding equipment operators located on the equipment, who may come in contact with the equipment, the load line, or the load must be insulated or guarded from the equipment, the load line, and the load. Insulating gloves rated for the voltage involved shall be considered adequate insulation.

(iii) Paragraphs (d)(4)(i) and (ii) of this section do not apply to work covered by Subpart V of this part.

[Note/reminder: The amendment to 1410(d)(4) is predicated on the final Subpart V rule being published first. If this proposed rule were to issue first, OSHA would need to retain current (d)(4)(ii) and (iii) as (d)(4)(iii) and (iv), and renumber provisions in subpart V].