

## Concerns on Proposed Crane and Derrick Rules National Utility Training & Safety Education Association

The National Utility Training & Safety Education Association (NUTSEA) is an organization comprised of electric utility safety and training professionals from distribution electric cooperatives, generation and transmission utilities and safety organizations from throughout the United States. The membership consists of approximately 250 utility safety professionals. Our membership provides safety and training services to most of the electric cooperatives in the United States.

Our biggest concern with these proposed rules is with the sections dealing with training. The proposed rules only exempt electric utilities from the regulations for work involving power lines mounted on poles. But utilities also today have significant underground facilities, substations and communication facilities. Construction work performed on any of these other facilities would not be exempt from these proposed rules even though the same boom trucks; hoisting equipment and employees are used. Because of work that would be done on these other types of facilities, if electric utilities are not fully exempted from these rules then we will have to abide by these training rules also.

That means that probably every single lineworker will have to be trained and certified. Not many co-ops today have a person with the job title of "equipment operator". If they do then this is the person who would normally be expected to operate the digger/derrick and might be the only one needing training and certification. This job position though is disappearing as co-ops, like everyone else, get leaner. Instead, all most co-ops have today are lineworkers and they are expected to be able to perform all jobs and operate all equipment. Thus, practically all lineworkers would need to be trained and certified. This would be very expensive and cumbersome.

You are not going to find very many training programs or schools that are qualified to teach and certify operators in very many of the rural places that cooperatives serve. And, according to the proposed rules, a co-op would not be able to do their own training and certification in house. At best they would still need to contract with and use an outside person to monitor and audit the training and certification. NUTSEA isn't aware of any member organizations or statewide training groups who have anyone that could meet the qualifications to be a trainer and do this training for their co-ops.

This means that electric co-ops will probably have to send their employees to a school somewhere with all the attendant costs of travel, meals, lodging, tuition, fees, etc. The other alternative is to try and find and hire someone to come in to the cooperative facility to do the training. The problem with this approach is that every training organization that provides this type of service will only take a handful of students at a time. So if a co-op has more than six or eight persons

needing training there will have to be multiple sessions. The cost would be considerable. Typical training programs that we have seen run \$1200 to \$1400 for classroom training and then an additional \$450+ or so for the certification testing. If the trainer has to provide the truck or crane for testing or practice you can expect to pay additional for that. The total cost to the electric co-ops all across the country would be enormous. We note that in OSHA's economic analysis though that the potential costs to electric utilities were never even considered.

The majority of utility hoisting work is done performing maintenance related work and thus utilities already follow the crane and derrick rules found in the 1910 General Industry standards. To be forced to also implement the construction standards in these proposed rules will cause a great deal of confusion. The confusion would be very similar to that which exists now between the GT&D safety standards in 1910.269 and the powerline construction standards in the 1926 Subpart V rules. The C-DAC proposal exempted electric utilities from all the proposed rules and we concur with their recommendation. Utilities have training programs in place already to train their employees on the safe use of their hoisting equipment and have a long history of safely operating that equipment. If electric utilities are exempt from the crane and derrick rules for work on energized lines, where potentially the greatest hazard to crane and derrick workers exist, then utilities should be exempt from these proposed rules for all their hoisting work.

Some of NUTSEA's other concerns and issues with these proposed rules:

All through the proposed standard OSHA talks about maintaining distances from "power lines" but no where do they explain just what part of the power line distance needs to be kept from or in what direction. Are we talking about just the conductors or the poles or supporting structures also? Are we talking about strictly horizontal distance from conductors or distance in any direction? A lineworker could be working near a 500kV power line but because it is suspended on towers that are 160 feet high he could easily maintain the required 50 feet of clearance almost anywhere under that line. Certainly nothing that NUTSEA wants a crane to be doing. NUTSEA believes OSHA needs to clarify that these clearance distances need to be measured horizontally from the outside edge of the conductor nearest the crane location.

Page 59915-1926.952 Table V should be included and updated to meet the new NESC minimum clearances.

Page 59730-Column 3 (last paragraph) Proposed paragraph (c) (13) excludes tree trimming and tree removal work from the scope of the proposed rule. Shouldn't qualified line personnel be exempt from all operations of a crane and derrick near energized lines? The Crane and Derrick rules clarifies that the power lines are presumed to energized (Page 59926,1926.1410 c (1)) unless the

utility owner confirms that the power lines has been and continues to be deenergized and visibly grounded at the worksite. Qualified line personnel will be informing contractor on the status of the lines. Line people are more knowledgeable about energized lines, than tree trimming and tree removal person.

Page 59734-Table 5 Insulated line hose or cover-up is not included that is referenced on Page 59927 1926.1410(c) (12).

Page 59924 – 1926.1407(a)(1) – Option 1:

Implies that the utility will deenergize and ground power lines whenever contractor requests if that is the option the contractor wishes to use. There are very few distribution and almost no transmission lines today that can just be deenergized and taken out of service whenever a contractor wants.

Going along with this, and relevant to all the proposed rules that talk about the utility grounding or covering up power lines or even meeting with the contractor or their engineer; it needs to be made clear that the contractor will have to pay for these services, that the utilities don't have to provide this at no cost. There can be a lot of labor and materials involved depending on the complexity of the lines involved. In the case of cover-up materials such as line hose and blankets it has always been NUTSEA policy to have these materials sent to a test lab and retested after they have been up in the air and exposed to the sun for extended periods of time. Who pays?

Page 59925 – 1926.1407(e) Voltage information

NUSTSEA objects to the use of the word “will” in this rule as well as in other parts of the proposal. 1926.1408(c) uses the term “must provide”. We're sure that most of our systems will do their best and try to provide information such as voltages that contractors might request. Or that they will even try and meet with them on job sites if at all possible. But we can also see the possibility of an information request getting lost in the shuffle, small co-ops not having the time/manpower to meet all requests, wrong information inadvertently being given, etc. NUTSEA sees this as a potential avenue for litigation in the event of a power line contact accident.

Page 59926 – 1926.1410(c)(1) and (d)

Apparently, according to the proposed rules, a contractor can choose to use a PE of his choice instead of consulting with utility. While PE is supposed to be qualified with respect to transmission and distribution lines, who determines this qualification? Under 1910.269, anyone working on a utility system has to be deemed qualified to work on any particular system by the utility (employer). What if the outside PE makes recommendations as to work procedures that are counter to the utilities practices or procedures?

Paragraph (d)(1) of this rule requires reclosing mechanisms to be turned off. There are a lot of protective devices in use today that are not capable of having their reclosing mechanisms disabled. Must the utility replace them? What if turning off the reclosing will cause operational problems or system stability problems for the utility? Can the independent PE decide these matters for a cooperative?

Page 59927 – 1926.1410(d)(4)(i)

Requires the use of an insulating link even on Subpart V work if within MAD values in Table V-1. These links have problems. First they are only available in voltage ranges up to around 33kV. So they would be useless in work at higher voltages. Second they have length so they increase the amount of headroom needed to hoist and place an object such as a transformer on a pole. Many times there is just barely enough clearance space under an energized line for the boom head, never mind also trying to fit an insulated link in there also. That's why we use cover-up, synthetic hoist ropes and rubber gloves. When utilities do use an insulated link they typically use a fiberglass link stick (live-line tool) that is designed for that task. These link sticks are maintained and tested in accordance with rules in 1910.269. Would contractor not doing electric work test and clean their link sticks or insulating links as rigorously? And if they do test, how? There are currently no test standards for insulating links.

Page 59934 (1926.1419 c) Hand signals are not standard and should be illustrated in the Crane and Derrick final rules. 1926.551 (n) rules for helicopter are illustrated.

1926.1410(d)(5)

Requires the use of non-conductive rigging. NUTSEA presumes, after reading OSHA's definition of non-conductive, that they are referring to the use of synthetic slings. We don't know any manufacturers that advertise these slings as being non-conductive. There are no test standards for testing these slings for their dielectric properties. If they are not tested how do you know they are non-conductive? Utilities almost exclusively use synthetic slings in our industry today but they don't consider them to be non-conductive. If true non-conductivity is needed then an insulated link stick is inserted in the rigging.

1926.1410(d)(7)

Tag lines must be non-conductive, i.e. synthetic, ropes. Do they need to be tested? Must they be what electric utilities commonly refer to in the industry as "Hot Ropes" which are brand new synthetic ropes always kept in clean containers, kept perfectly dry and never, ever allowed to touch the ground? It would be exceedingly difficult on most construction sites to keep such ropes in a condition clean enough to retain their dielectric properties.

Page 59752 and 59924 [1926.1407 b (2)] Refers to tag lines. Tag line are not tested, you can never consider tag lines as non-conductive. Dirt, grease, moisture, previous use of these tag lines will affect the conductivity.

1926.1410(d)(11)

Properly grounded to what? By whom? How? NUTSEA doesn't want untrained, non-utility personnel attaching grounds to a utility system's neutrals or pole grounds. Mishandling or misapplication of grounds can be every bit as hazardous as coming in to contact with energized conductors. No training required to teach contractor's personnel of the hazards of remote grounds?

1926.1410(f)

Again, what penalty or issues for the utility if they can't meet with equipment operator and other workers when they want? Why should utility assume responsibility/liability of reviewing contractor's procedures?

1926.1410(h)

Why should utility be involved in this? Contractor should pick his or her own responsible person to direct the work.

1926.1410(j)

Again, it seems to us that the rule may be interpreted as requiring utility to deenergize and ground power lines, or move them, at contractor's request if contractor can't develop procedures to meet all the requirements of this rule. What if utility can't/won't deenergize or move line? Who pays?

1926.1411(a)

Rule only covers equipment traveling under power lines. What about along side a power line? It is not uncommon, especially when moving cranes in rough terrain, for the operator to actually swing the boom to the side of the crane in order to maintain balance and keep from tipping over on side sloping surfaces. This rule also needs to address clearances under these types of conditions also.

Page 59932 – 1926.1416

If electric utilities do not get an exemption from these rules for all utility work then this rule could become a problem. The digger/derricks typically used by electric cooperatives do not have a lot of these "operational aids". Anti two-blocking devices, radius indicators, load weighing, outrigger position indicators and hoist drum rotation indicators are not typically installed on the types of trucks we use.

Page 59935 – 1926.1423(h)

This is a newly allowable method for anchoring fall arrest systems. Would this method also now be permitted for other areas of work requiring fall protection such as under the general industry confined space and walking/working surface rules? This could give utilities a lot more flexibility in how to set up fall protection systems.

Page 59941 – 1926.1431(k)(11)(ii)

This would seem to apply to material handling bucket trucks, which have a jib mounted hoist on the boom next to/over the bucket. A good many of these hoists and jibs are rated well over 500 pounds capacity. Would this mean that the utility can no longer make full use of the lifting capacity of these trucks?

Visual acuity-

Another commenter to these proposed rules has made a point of saying that OSHA should also implement vision requirements in this rule. He feels that in order to be a qualified spotter a worker must possess extraordinary vision in order to be able to see a wire or conductor suspended in the air and be able to judge the distance from the crane to the conductor. Experience shows us that this is simply not the case. Most lineworkers today must have a Commercial Driver's License (CDL) in order to drive utility line trucks in the United States. A requirement of having a CDL and driving a commercial motor vehicle is that the driver must also have a current medical certification. One of the requirements of obtaining the medical certification is that the driver must have at least 20/40 vision, with or without correction, in each eye. We have many lineworkers today who hold valid CDLs and a medical certification but whose vision is far from 20/20. These employees have no problem at all with being able to see a suspended conductor. A spotter only needs to be able to see the conductor; they do not need to be able to read text at that distance.

On behalf of the membership of NUTSEA we thank you for the opportunity to make these comments on these proposed crane and derrick safety rules.