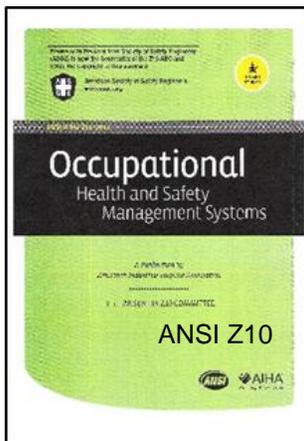


How Occupational Safety and Health in the U.S. is being Hijacked!



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"Grizzy", as he likes to be called has been recognized by OSHA's National Office in Washington D.C. as both a National Electrical Code (NEC®) historian as well as "the best electrical safety trainer in the country!" Certainly at the very least Grizzy has been OSHA's electrical safety "go-to guy" and has been instrumental in shaping and interpreting OSHA policy and regulations for several decades.

Grizzy has trained OSHA compliance officers, appeared as OSHA's electrical expert, and guided hundreds of electrical fatality investigations. Grizzy continues to train OSHA compliance officers and personnel coast to coast, as well as still providing investigative assistance to the Agency on fatality investigations and significant cases. His electrical expertise has not only shaped OSHA policy but also the OSHA Electrical Standard's. Grizzy is currently a member of the ASTM F-18 Committee which writes the "Electrical Protective Equipment for Workers" standards.

Licensed by the Department of Education, and prior to his OSHA career, Grizzy had been both an educator and administrator for various public and private schools and held the position of Electronic Department Chairman and Director of Education at a New York City proprietary school.

In addition to being a professional speaker and nationally recognized seminar leader with over 40,000 hours of platform experience, Grizzy has lectured at numerous colleges and universities all across the US and has numerous published works in video and print which have assisted safety professionals and helped workers for decades

Recognized nationally as preeminent in regulatory electrical safety training, Grizzy conducts training all across the country providing insight into navigating the complex regulatory requirements. Grizzys training philosophy is that students/attendees should have fun while learning. Quite a concept!

Grizzys passion for electricity and decades of collecting rare electrical artifacts which he is now exhibiting and demonstrating affords attendees of his events a unique opportunity to actually see a "slice of history". In fact his events have been characterized by attendees: "It's like watching the History Channel, only live!"

Grizzy is frequently commissioned to present many of his unique and spectacular events at major professional conferences and other conventions throughout the U.S. as a keynote, plenary session and closing keynote presentations.

- What the big consensus standard organizations don't want you to know.
- U.S. Standards are being replaced with feckless requirements from overseas.
- Following these consensus organization standards to the letter are willful OSHA violations.
- Consensus organizations standards (such as NFPA 70E) are actually removing American safety standard requirements which have been developed and existed for decades from their standards and replacing them wholesale with pernicious requirements originating overseas.
- Recent NFPA advertising states: "We develop the code, we know the code, we teach the code". However NFPA doesn't enforce the code! The Authority Having Jurisdiction (AHJ) does. That would be OSHA!
- Occupational Safety and Health is being turned on its head. For decades OSHA standards were historically characterized as minimum standards while consensus standards were typically characterized as best practices. What's occurring today is a paradigm shift in Occupational Safety and Health where consensus organization standards are in violation of OSHA. OSHA standards are now the benchmark needing to be achieved!
- Interviews with the committee members who write this code reveal why they don't even subscribe to what they've written in the standards.
- We in the U.S. have been writing electrical standards since 1881 with the first National Electrical Code published in 1897. We don't need to abandon that pedigree for the adoption of requirements originating overseas.
- To date no countries or international standards setting organizations have adopted even a single U.S. safety and health standard. On the other hand U.S. consensus organizations have been adopting entire foreign and international standards and systematically inserting them into our U.S. Standards (touted as harmonization). This is unacceptable. It is unreasonable to conclude that such requirements will make the U.S. workplace safer if not make the certification accrediting organizations wealthier. Enough is enough with this harmonization.
- OSHA rejects new consensus standard requirements! Find out what they are and why OSHA won't accept them.

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Foreword

My career in Occupational Safety and Health including with OSHA (Occupational Safety and Health Administration) has spanned over three decades. I'm not the stereotypical bureaucrat. I have spent most of my OSHA career as a faculty member at the OSHA National Training Institute. I was dedicated to the mission of the Agency. I personally assisted our OSHA CSHO's (Compliance Safety and Health Officers) in electrical fatality investigations providing technical forensic analysis as well as investigative approach for OSHA. Perhaps these numerous fatality investigations solidified my commitment to occupational safety and health and the mission of OSHA.

Having trained OSHA CSHO's in electrical standards as well as investigative skills, I have always professed to them the import of objectivity in an investigation and any conclusions drawn must be predicated on a preponderance of evidentiary facts in order to be valid. This book is reportage. I've done the research, I'll present the facts and you can decide and draw your own conclusions.

Consummate, dedicated Safety and Health professionals do not subscribe to gambling with human life. We analyze to prevent any injury to people. Anything less is unacceptable and the antithesis of safety and health.

I am publishing this book and disseminating it in an effort to educate and inform as many people as possible as to what's happening to our safety and health standards here in the U.S. Most occupational safety and health professionals, electrical workers, contractors and others have no idea what's occurring and how their profession as well as safety and health in the U.S. is being hijacked. Workers are being placed in harm's way with exposure to serious hazards. Consensus Organizations are touting this as the new approach to safety and health in the 21st Century. While it may seemingly be new or novel it's certainly not protecting our workers. I'll pull back the curtain on these big organizations, expose the nefarious requirements contained in their standards, and walk you through step by step all of the indisputable facts, and you will discover why you need to know this information and follow this invaluable guidance!

Grizzy

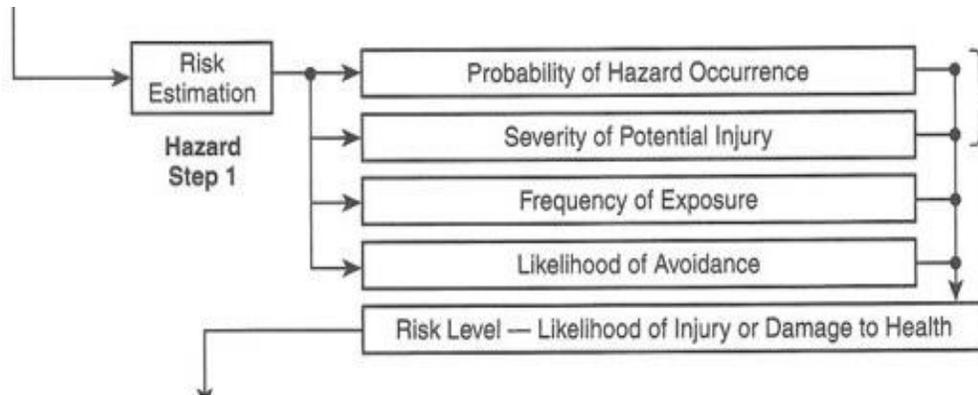
The Background

The 2015 edition of NFPA 70E Standard for Electrical Safety in the Workplace, contained a new requirement for “risk assessment”. For decades prior to this there were nearly 90 references in 70E requiring a “hazard analysis”. In the 2015 edition all hazard analysis references were totally removed and replaced with risk assessment including a new Annex to presumably explain how this new requirement worked.

The most disturbing aspects of “risk assessment” were contained in the definition (Article 100) as well as the criteria explained in the charts and tables contained in Annex F “Risk Assessment procedure”. The definition stated that risk assessment be predicated on *estimates* of the *potential severity* of the injury or damage to health, and *estimates* the *likelihood* of occurrence of injury or damage to health to determine if protective measures are required. There were nearly 10 pages of charts and tables in the Annex which were presumably required to be filled out in order to conduct the *risk assessment* as required by the standard. Surveys conducted with “qualified” electrical workers who would be required to fill out the voluminous charts indicated that 100% of the qualified workers would not take the time to do this. The requirements are vague and subjective requiring estimates which are disconcerting to qualified electrical workers trying to apply the risk assessment. Qualified workers emphatically indicated that this risk assessment process and paperwork would consume more time than the actual work itself. Nearly all of the workers surveyed indicated that they already been conducting JSA’s and or JHA’s (job safety analysis & job hazard analysis) to eliminate the hazards and protect themselves.

The committee members (who wrote this “*risk assessment*” requirement) stated that this new requirement was based on “*harmonization*”! However personal interviews of more than a dozen committee members found that virtually none of them knew where this originated from.

The criteria contained in the *risk assessment* charts include estimating the severity of injury or damage to health, the likelihood of occurrence of that injury or damage to health, the frequency and duration of exposure of persons to the hazards, and the likelihood of avoiding or limiting the injury or damage to health.



Excerpted from Figure F.1 (b) Risk Assessment Process from NFPA 2015 Annex F

The basic premise of this criteria is antithetical to the fundamental tenants of occupational safety and health which are predicated on hazard analysis to prevent any injury to the safety and health of any person. We have never considered any injury acceptable based on a reduction of the severity of the injury. Does this mean that an amputation is acceptable as long as we don't have a fatality? Or that a fracture is acceptable as opposed to an amputation? What is this garbage?

The likelihood of avoiding or limiting the injury or damage to health is further explained in the Annex as "Spatial possibility to withdraw from the hazard". Try jumping out of the way in an arc blast/arc flash! One would think that this electrical safety standard was written by either neophytes or fools, or at the very least written by people having no respect for human life.

What about this frequency of exposure stuff? That would suggest that it's OK to work exposed to a fall hazard without fall protection or alternatively work on live energized electrical circuits without LOTO or electrical PPE as long as we only do it very infrequently.

Any estimates of any of these individual criteria would significantly skew the fill in the blank estimate tables and permit exposure to hazards according to the standard. Never has such a moronic assertion ever been applied to human life, at least since the existence of OSHA and the occupational safety and health profession here in the U.S.

Many of the proponents of this risk assessment approach who are delivering presentations at professional conferences and other venues are professing that risk assessment is the same

as OSHA's Safety and Health Program Guidelines which were published by OSHA in 1989 as well as OSHA's I2P2 (Injury and Illness Prevention Program). Nothing could be further from the truth. Risk assessment is the antithesis of these OSHA Safety and Health Management System models.

Who Conducts Risk Assessments?

The Occupational Outlook handbook published by US Bureau of Labor Statistics defines:

Actuaries analyze the financial costs of risk and uncertainty. They use mathematics, statistics, and financial theory to **assess the risk** that an event will occur and they help businesses and clients develop policies that **minimize the cost** of that risk.

Occupational Safety and Health Professionals **analyze** many types of work environments and work procedures. Specialists inspect workplaces for adherence to regulations on safety, health, and the environment. They also design programs **to prevent disease or injury** to workers and damage to the environment.

Obviously actuaries are assessing risk to minimize cost and gambling with money for fiscal benefits. Occupational safety and health professionals do not gamble with human life, they analyze hazards to prevent any injury. There is a huge difference in the two. They are diametrically opposed. Attention occupational safety and health professionals, your occupation is now being changed to an actuary by these consensus organizations (NFPA, ANSI, etc.). The committee members who wrote this into 70E don't believe in or subscribe to what they wrote. More on this later.

Congratulations occupational safety and health professionals, your job description has been changed. You have now been reclassified as an actuary. Does that trouble you?

The Source Documents – Where Does This Garbage Come From

An examination of the 70E Annex B revealed the source standard documents. These source standard documents included:

ANSI/AIHA Z10, American National Standard for Occupational Health and Safety Management Systems,

BS OSHAS 18001, Occupational Health and Safety Management Systems,

and ISO - International Organization for Standardization, ISO 14001, Environmental Management Systems and Requirements with Guidance for Use.

What management systems standards and environmental standards had to do with electrical safety compelled further research. The most shocking revelation was revealed in ANSI Z10 (which was the immediate basis or source standard for the risk assessment requirement in NFPA 70E). ANSI Z10 E6.4B: states that “Risk cannot be eliminated entirely, though it can be substantially reduced”, and even more significant is this statement:

ANSI Z10 Appendix F: “It should be noted that the science behind determining the relationships between hazard, exposure and risk has not sufficiently evolved to be precise or predictive.”

In other words **“risk assessment” is junk science!** It doesn’t work! That should have been the end of it, but no, the committee decides that protecting human life should be predicated on junk science, so they put it in U.S. Safety Standards.

What’s even more appalling is that the AIHA (American Industrial Hygiene Association) wrote the “Health and Safety Management Systems” standard and persuaded ANSI to adopt it and codify it as ANSI Z10.

While I’ve always been impressed by the science of industrial hygiene and the scientific approach that industrial hygienists apply using very sophisticated instruments to measure and quantify air contaminants to parts per million (PPM). I’m now reminding them at professional conferences that the AIHA now states that estimates are the new norm don’t you know. Throw those instruments away and simply estimate the air quality. Just put your head into the confined space and take a whiff and just estimate the absence of oxygen or presence of IDLH (immediate dangerous to life and health) atmosphere. Of course you remember writing in Z10 that the frequency of exposure is now also criteria, so if you only go into that confined space once a year (based on an estimate without actual sampling) it’s now OK based on risk assessment estimate models that the AIHA wrote in ANSI Z10. That would be the same risk assessment you stated in Z10 had no scientific basis to be precise or predictive!

The source document(s) that ANSI Z10 was based on are listed in the Annex and include:
OHSAS 18001 Occupational Health and Safety Management Systems,
ANSI/ISO 14001 Environmental Management Systems,
ANSI/ISO 26000 Guidance on Social Responsibility,
ANSI/ISO Q9001 Quality Management Systems.

None of these international standards have anything whatsoever to do with occupational safety and health here in the U.S.

OHSAS (Occupational Health and Safety Advisory Services) is a consortium of private corporations located in Scotland whose primary business is to certify ISO compliance. This group adopted ISO standards and wrote OHSAS 18001 Occupational Health and Safety Management Systems and convinced BSI (British Standards Institute) to officially adopt it just like AIHA did with ANSI for Z10.

All of these standards have their ultimate source or basis in ISO (International Standards Organization) standards, which is headquartered in Geneva Switzerland. Nearly all ISO standards are directly interrelated meaning that they directly reference each other so compliance with all is virtually requisite to compliance with any individual ISO standard. Despite the fact that every ISO standard has rigid requirements for corporate “transparency” it took weeks of scrolling the ISO website to accidentally stumble onto who the president of ISO is. Nothing I put into their search engine directly revealed this or other management team members despite all this “transparency” stuff touted by ISO. By the way the President of ISO is Zhang Xiaogang, a Chinese industrialist and steel magnate.



Zhang Xiaogang, President ISO

The other ISO Standards that are the basis for NFPA 70E, ANSI Z10 and other U.S. standards include ANSI/ISO 14001 Environmental Management Systems which focuses on managing your organization's impact on the external environment, to reduce pollution and comply with regulations. The standards Scope & Purpose: Climate change, global warming, greenhouse gas emissions, carbon footprint, carbon trading etc. What does any of this have to do with electrical safety? This is not a rhetorical question.

Also listed as a base/source standard in ANSI Z10 (which includes NFPA 70E) is ISO 26000 Social responsibility. This standard deals with understanding social responsibility, accountability, transparency, ethical behavior, respect for stakeholder interests, respect for the rule of law, respect for international norms of behavior (ISO spelling), respect for human rights, Labour practices (ISO spelling), and also includes the environment, global warming, climate change, greenhouse gas emissions, carbon footprint, and carbon trading. More relevant electrical safety stuff!

Is ISO a standards setting organization or an activist group? OK perhaps that's a rhetorical question. It's interesting to note that many ISO standards are available in multiple languages (since it is international), except this one on social responsibility which is published in only one language. That language is English! What? How about publishing it in Chinese, or some other language and disseminate this in China or elsewhere in the world where it's needed. We in the U.S. don't need to be sanctimoniously lectured by this organization or any other overseas organization about social responsibility. ISO, you know where you can go!



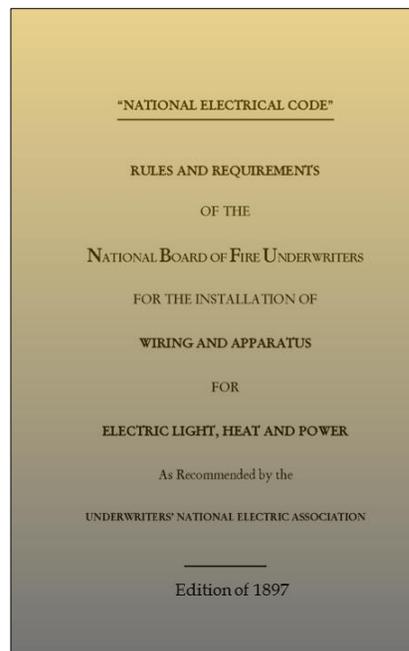
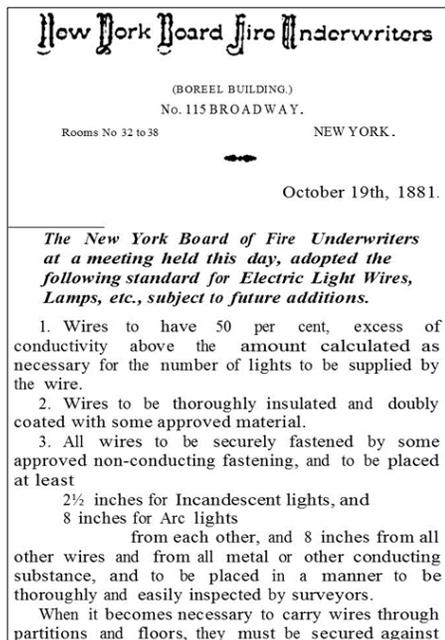
Joe Bhatia, President ANSI

In 2015 S. Joe Bhatia, was named president and CEO of the American National Standards Institute (ANSI). His first official act as president of ANSI (first month) was to meet with top

officials from Chinese entities in Beijing for a series of discussions and trade-related activities aimed at harmonization and conformity assessment. He has since made numerous trips annually including to meet with ISO President Dr. Zhang Xiaogang. ANSI leadership meets frequently with Chinese officials.

I sure hope that as a result of all these meetings, China will be adopting many of our U.S. Standards, all in the interests of harmonization of course. What's even more disturbing was the fact that the U.S. Assistant Secretary of Labor for OSHA (previous administration) David Michaels, traveled to Beijing China for a series of meetings with government officials, worker safety and health advocates, and industry representatives.

More harmonization! Since those meetings U.S. consensus standards organization such as ANSI have adopted yet more standards from overseas. Hey, when are the overseas organizations going to adopt U.S. Standards all in the interest of harmonization? Who said this harmonization stuff was supposed to be entirely one sided?



We've been writing electrical safety standards here in the U.S. since as early as 1881 with the first National Electrical Code written in 1897. Why would we abandon over a century of electrical safety code writing experience to discard our standards and adopt overseas

standards that aren't even electrical safety standards? We here in the U.S. were writing electrical standards when overseas countries were burning whale oil for light. It appears that harmonization requires abandoning our history and experience.

If I want a model for a scaffolding, or a trenching, or a fall protection, or a walking working surfaces, or a machine safeguarding, etc. etc. etc. standard,I don't model them after environmental standards or a standards on social responsibility! If I want an occupational safety and health standard I don't model it after any standard that states up front that the methodology used has no scientific validity (remember ANSI Z10). Attention NFPA 70E panel! If I want a model for an electrical standard I don't copy an environmental standard or a social responsibility standard. Can you committee members grasp that concept?

I have nothing against the environment or social justice however it has no place in occupational safety and health. If you want to be an environmentalist or an activist for social justice by all means go do it. But neither of which has anything to do with the occupational safety and health profession.

Now We Are Told To Abandon Our Social, Cultural, Moral, and Professional Values

According to ISO/IEC GUIDE 51 3.15 & 3.9 Tolerable risk – “level of risk that is accepted in a given context based on the **current values of society**. Tolerable risk can be determined by: The current values of society.” Let's stop and think about that for a minute.



Working conditions in China reported by

“Investigations reveal that the employees at the factories work up to 74 hours a week, with a monthly overtime of 52 to 136 hours, are moved between day and night shifts at their employers' will, and in peak seasons work 7 days a week. Minimum Wage in China for the year 2015-2016, From 11 Yuen = \$1.65/hr. to 17 Yuen = \$ 2.56/hour.

Underage workers (from 16 to 18 years old) and student workers complete the same work and working hours as adults. Hiring discrimination against men, people over 39 years of age, long or colored hair, ethnic minorities, and pregnant women. Workers must work at an intense rate

for 10 to 11 hours per day, assembling one cell phone case every four seconds. Factory cafeteria and facilities unsanitary and not well maintained.”

“In China, workplace deaths a small cost Productivity tops safety laws” By Michelle Phillips-
The Washington Times- Sunday, August 8, 2010.

“Tens of thousands of Chinese workers are killed in workplace accidents each year because the communist nation relies on local authorities to enforce national safety guidelines, which companies and local governments routinely ignore for the sake of production....”

Yulin Dog Meat Festival, is an annual celebration held in China. The festival spans about ten days during which it is estimated that 10,000–15,000 dogs are slaughtered.



This treatment of these poor animals is reprehensible. We don't have a national annual 10 day celebration to practice this abuse of animals here in the U.S.

Don't write to me with your indignation over these photos of the Yulin Dog Meat Festival. I'm not interested! I'm only interested with your indignation over pernicious value systems forced on us through our safety and health standards here in the U.S. Better still voice your indignation by writing to NFPA and ANSI and by submitting a code proposal to remove these pernicious overseas/ISO requirements from our U.S. standards. I love animals and I cherish human life otherwise I wouldn't have a multi decade career in occupational safety and health.

I won't abandon my social, cultural, moral and professional values in the interest of “harmonization” or because NFPA, ANSI or anyone else says so. These activities are not our Societal values here in the U.S.



Skittles & Paws

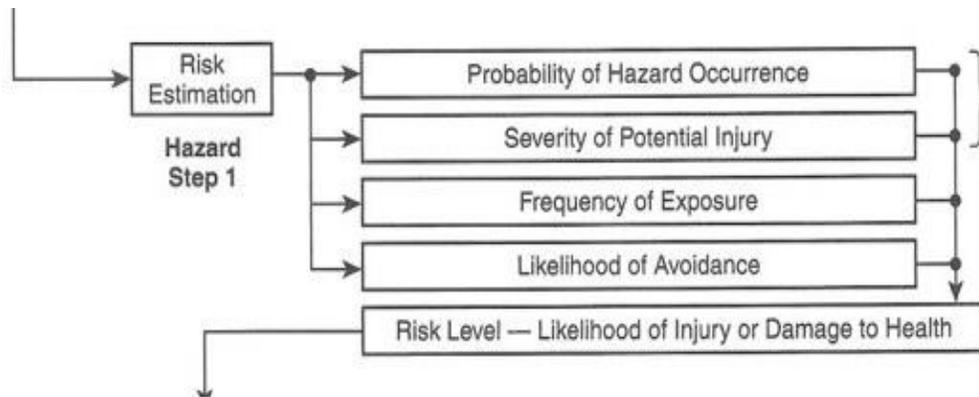
Committee Members (NFPA and ANSI) Don't Subscribe To What They Wrote

One of the first committee members I interviewed was with an ANSI Z10 committee member. He stated that he believed that this risk assessment approach was the greatest thing since sliced bread. I explained how this was adopted by NFPA 70E and further explained how it negatively impacts electrical safety as a result of estimates, and the risk assessment criteria. He was genuinely surprised and suggested that this Occupational Health and Safety Management System standard Z10 was “a general standard and not intended to be adopted to a hazard specific standard” such as NFPA 70E. I informed him that I didn't know what he or the Z10 committee intended but was informing him what in fact had actually occurred. I further suggested that under the circumstances (the unintended consequences) perhaps the writers (including himself) shouldn't be writing standards in the first place.

During a week-long NFPA 70E committee meeting here in the city I live and knowing many of the panel members, I personally invited a different group of members out to dinner each night throughout the week. I did this to both interview them and to lobby for some 70E code changes I was planning to submit. There were at least a dozen members in total whom I interviewed throughout the week. I was surprised to discover that not a single person knew or would admit to knowing that it was based on ISO standards dealing with environmental issues such as climate change, global warming, greenhouse gas emissions, carbon footprint, carbon trading or the ISO standard on social responsibility. The ISO standard on social responsibility contains requirements for understanding social responsibility, accountability, transparency, ethical behavior, respect for stakeholder interests, respect for the rule of law, respect for international norms of behavior (ISO spelling), respect for human rights, Labour practices (ISO spelling), the environment –global warming, climate change, greenhouse gas emissions, carbon footprint, carbon trading. Although they appeared surprised to learn this they remained steadfast in their embrace of risk assessment as the greatest thing since sliced bread.

I then asked them if they had teenaged children or grandchildren who were of automobile driving age, they did. I asked them when they instructed their children/grandchildren NOT to wear their seatbelts while driving. They looked at me like I was crazy. I then offered to each

and every one of these committee members to travel to wherever they lived in the country at my time and expense to train their children/grandchildren on when they didn't need to wear seatbelts while driving, based on the risk assessment model/criteria. That same risk assessment that they are all committed to and that they all embrace and wrote into the standard.



From Figure F.1 (b) Risk Assessment Process from NFPA 2015 Annex F

I then proceeded to outline an example of the children/grandchildren driving only a few city blocks in their housing development to visit a friend. They wouldn't be on any busy city streets or on any highways at highway speeds. They would only be in a residential housing development driving at perhaps 20 MPH (miles per hour) at most. Using their risk assessment criteria I "estimate" that the "likelihood" of an occurrence of some sort of accident would be virtually nonexistent. Furthermore even if the auto did jump the curb, that would further attenuate the speed of the auto and if the vehicle were to strike a tree or pole (which I estimate would be highly unlikely), the "severity" of any sustained injury would be very minor or nonexistent. Not fatal, not an amputation, not a laceration, but perhaps just a bruise/contusion at most. Therefore under these circumstances and applying the risk assessment model the panel members' love so much this would be OK to forego the use of a seat belt under these circumstances. Once again they looked at me like I was crazy. They all declined my offer.

Their immediate dismissal of my application of their risk assessment approach to the safety of their loved ones was infuriating if not disrespectful. I immediately upped the ante and offered to add additional training for their teen children/grandchildren. I reminded these panel members that the fill in the blank charts in the 70E Annex was predicated on estimates of such things as

frequency of exposure which can dramatically skew the assessment results. I then offered to educate their children/grandchildren again applying the risk assessment model in 70E that it would be OK to have unprotected sex if it was done very infrequently (perhaps once every two years). They immediately declined my offer and totally rejected it.

I have no respect for anyone professing a philosophy (risk assessment) but refuses to follow it themselves. It's OK for everyone else but not me, my family or loved ones. By the way I also made this offer to the ANSI Z10 panel member previously referred to and he declined as well.

Let me be perfectly clear here. The committee members (over a dozen interviewed) do NOT believe in the risk assessment requirements they put into the code. Many of these committee members have been on the committee for literally decades. Some are IBEW (International Brotherhood of Electrical Workers) representatives who would have their brothers and sisters (IBEW brotherhood) follow these requirements, many panel members are IEEE members. Virtually none of these people have ever investigated an electrical fatality and most of these old fossils should retire, get the hell off the panel/committee and make room for more knowledgeable, more capable and younger people. Not being able to refute the facts I presented, these panel members then revert to their inane default position. That is to ignore the facts and suggest that I am illiterate. I'm informed that there are one and two day classes offered on risk assessment that redefine the English language including the word "estimate" to fit their required narrative. I immediately inform these people that English is my first language, I know what the word "estimate" means, I'm very conversant in English and I'm a published author. I tell them where to go, I don't need a class on how to read, they need a class on how to write!

I'm sure that these committee members will assert that they have removed many of the charts and tables from the 2018 edition of 70E. They would have us believe that somehow everything is now changed. Hello! Removing the explanatory material does not make the risk assessment requirement go away, nor does it change the basic requirements for a risk assessment which can still be seen in ANSI Z10 and ISO standards. If I remove the logo and identifying markings

on my minivan can I now assert it is an exotic car? I never cease to be amazed at the lengths these people will go to twist and convolute the English language to fit their required narrative.

NFPA is an electrical safety standard with the hazards of electricity being acute (immediate), nearly always serious and in many instances fatal as in electrocution or arc blast/arc flash. The application of risk assessment to protect the safety and health of people is the most insidious and moronic assertion I've ever heard in my life.

Just When You Thought They Couldn't Screw It up Any Worse

The latest 2018 edition of NFPA 70E found some new wholesale changes. Changes that removed literally dozens of ASTM (American Society for Testing and Materials), electrical standards which have been a requirement contained in NFPA 70E since the second edition of 1981.

These ASTM standards are specification standards developed here in the U.S. for the manufacture and testing of electrical PPE (Personal Protective Equipment) including such things as; Standard Specification for Insulating Gloves, Standard Specification for Rubber Insulating Blankets, Standard Specification for Rubber Insulating Sleeves, Standard Specification for In-Service Care of Insulating Gloves and Sleeves, Standard Guide for Visual Inspection of Electrical Protective Rubber Products, Standard Specification for Insulated and Insulating Hand Tools, Standard Performance Specification for Flame Resistant and Electric Arc Rated Protective Clothing Worn by Workers Exposed to Flames and Electric Arcs, and literally dozens and dozens of others. All of these were removed as a mandatory requirement from NFPA 70E and replaced with "*conformity assessment*". "*Conformity assessment*" is rooted in, you guessed it, overseas ISO standards. Perhaps "*conformity*" is an appropriate term since this compels us here in the U.S. to abandon our safety standards and *conform* to overseas standards. Only as long as we permit this to happen.

We in the U.S. have been relegated from world class leaders in the development of safety and health standards to followers of dangerous standards from overseas countries with an insidious agenda.

Conformity Assessment

Conformity Assessment (from 70E Annex H) has its basis in ISO standards and also has a standard developed by ISEA (International Safety Equipment Association) and approved by ANSI in February 2014 as an official ANSI Standard codified as ANSI/ISEA 125. Again, all modeled after ISO standards including requirements for ISO certification. To date there is still no foreign country, *international organization*, or *international standards group* that has adopted even a single U.S. Standard. Now we have yet another standard predicated on ISO requirements. We are told yet again it's all in the interests of *harmonization*.

ANSI/ISEA 125 "American National Standard for Conformity Assessment of Safety and Personal Protective Equipment" has 3 levels of conformity assessment. For each level there are requirements for "*declaration of conformity*".

Level 1 supplier's declaration of conformity. Is signed documentation provided by a supplier that indicates the supplier's attestation that a product conforms to the requirements of an applicable product performance standard for which claims are made. The "attestation" is simply a statement from the supplier of the PPE, based on a decision following review, that fulfillment of specified requirements has been demonstrated. In other words the supplier of the PPE says that they are simply self-certifying that the PPE is OK and safe.

Level 2 and Level 3 conformity require varying levels of compliance requiring ISO certification including:

ISO 9001:2008, Quality management systems – *Standard Requirements* (which include ISO certification),

ISO/IEC 17011:2004, Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies,

ISO/IEC 17021:2011, Conformity assessment – requirements for bodies providing audit and certification of management systems,

ISO/IEC 17025:2005, General requirements for the competence of testing and calibration Laboratories,

ISO/IEC 17065:2012, Conformity assessment – Requirements for bodies certifying products, processes and service.

Now we are told that we have to be ISO certified. For this we abandoned all of the ASTM specification standards. ATM was founded in 1898 and has been developing standards for that long. In the interest of full disclosure I must state that I am a voting member of the ASTM F18 committee that develops the standards for electrical protective equipment. These standards have been in place and relied upon here in the U.S. for many decades. These standards are highly technical standards with detailed specifications and testing protocols for the manufacture, and testing of electrical PPE. They have served us well here in the U.S. for many decades. These same ASTM standards are in fact referenced in the OSHA standard on Electrical Protective Equipment.

The ANSI/ISEA 125 “American National Standard for Conformity Assessment of Safety and Personal Protective Equipment” contains no safety manufacturing specifications or testing protocols whatsoever. They are entirely procedural, addressing documentation and certification procedures. These ISO standards are all about policy, procedures, instructions and supporting materials such as logs, forms, tags records, etc. as well as ISO CERTIFICATION! The ISO accredited certifying bodies which conduct multiple audits on an annual basis, for tens of thousands of dollars each visit never set foot on the jobsite or production floor. They are looking entirely at paperwork. I’m sure this ISO certification will certainly make the workplace safer if not the accrediting organizations wealthier. Oh, and don’t forget that passing the certification audit requires compliance with the ISO standards including understanding social responsibility, accountability, transparency, ethical behavior, respect for stakeholder interests, respect for the rule of law, respect for international norms of behavior, respect for human rights, Labour practices (ISO spelling), the environment –global warming, climate change, greenhouse gas emissions, carbon footprint, and carbon trading.

There appear to be as many ISO and IEC standards listed on the ANSI website as there are ANSI standards and many are the basis for ANSI standards. The ANSI website even states “become an ANSI member today and save on ISO and IEC standards”.

I thought ANSI stood for the **American National Standards Institute**. Now it’s clear what Joe Bhatia the president of ANSI has been doing on his numerous trips overseas to visit with ISO President Zhang Xiaogang, and top Chinese officials in Beijing. Rest easy though because this

is all for harmonization don't you know. Don't worry, these organization presidents and overseas government officials know what's best for us.

I obtain my electrical insulated gloves from a company in my local area that also has been performing the ASTM required testing every 6 months on my gloves. This company sells electrical insulated gloves that are fully compliant with ASTM D120 Standard Specification for Rubber Insulating Gloves as well as testing my gloves in accordance with ASTM F496 Standard Specification for In-Service Care of Insulating Gloves and Sleeves. Whenever there is a change or update to the ASTM standard the test lab updates its testing protocols to conform to the latest ASTM standard. Further their test lab is accredited by North American Independent Laboratories for Protective Equipment Testing (NAIL for PET).



Certainly this is the pinnacle for any U.S. electrical testing laboratory. However since the release of the 2018 edition of NFPA 70E they are technically no longer in compliance with NFPA 70E. To be in compliance they would have to abandon all of their current accreditation with NAIL, as well as all of the ASTM standards which they test to. Additionally they would have to comply with all the required ISO standards, apply for ISO certification and undergo the requisite numerous annual ISO certification audits at considerable expense. The paperwork required for certification would cripple this company and insure that they would no longer provide the outstanding customer service they have historically provided and are famous for by being nimble, responsive to customers, adapt as needed to customer needs, and totally customer service focused. The focus required for ISO certification is entirely on policy, procedures, instructions and supporting paperwork generated with materials such as logs, forms, tags records, etc. etc. I've urged my glove testing company not to abandon their current practices and advised them that if they did they would be ultimately providing gloves and glove testing to their customers that would NOT be OSHA compliant.

Every single person I've ever interviewed who has worked for an ISO certified company indicated that their company dropped the ISO certification within a couple of years since it had no positive effect making the company better in any way. In fact, it was always disastrous, costing the company severely.

It is possible to be "ISO Certified" while producing a worthless product, with consistently late deliveries, nonexistent customer service and zero customer support. The ISO rules require detailed procedures and documented tracking of every employee movement and process ad nauseam with frequent audits to confirm the process. That is what's required for ISO certification.

For more on ISO certification and specifically ISO 9000, which has been repackaged as ISO 9001 (basically the same stuff), I recommend the compelling book, "In Pursuit of Quality The Case Against ISO 9000 by John Seddon.

Excerpted from the inside flap:

" In this blistering attack on one of the sacred cows of business today, John Seddon shows how the ISO standards are not only failing to deliver the improved quality they promise, but in most cases are actually damaging the companies that have implemented them.

Seddon explains why the command-and-control ethos that pervades the ISO way of thinking – an inflexible compliance to a rigid set of written rules is precisely what most companies do not need. In its place, he shows how real quality can be achieved in business today by viewing the organization as a system and taking a customer-focused view of the company's products and procedures.

Seddon argues persuasively that managers must not allow themselves to be coerced into adopting harmful procedures in order to satisfy some external auditor's notion of quality. After all there is a better way. A better way to treat customers, a better way to treat employees, a better way to make decisions: a better way to run an organization. Managers have suffered long enough.

With numerous examples of the serious damage done by companies who have jumped on the ISO bandwagon, this impassioned book will help managers take a new look at the critical

question of how to develop a true quality organization. It's time to "stop production" on ISO 9000."

The focus of ISO compliance and certification is entirely on process rather than on customers, products, employees or outcomes. I'm amazed at the fact that executive level management of U.S. companies feel compelled to look overseas to have ISO tell them how to run their organizations, have them document the process with excruciating detail, and have them pay huge sums of money to have this documentation regularly audited. One Chief Executive stated that the last ISO certified organization he joined was "documenting how to lose a million dollars a week. Wrong answer."

I recently approached my glove supplier asking them if they could provide a pair of electrical insulated 12kv (12,000 volt) high voltage gloves for something in the neighborhood of \$12. Naturally they were perplexed, which I anticipated. First off there is no such thing as 12kv gloves. The ASTM standards recognize 6 levels of gloves. Class 00 are 500 volt, class 0 are 1kv, class 1 are 10kv, class 2 are 20kv, class 3 are 30kv and class 4 are 40kv. That's it. Furthermore gloves of any class are considerably more in cost than \$12.

Here is what I found on ebay and shared with my glove supplier. By the way there are dozens of overseas sellers/suppliers offering these gloves on ebay.





The product description reads as follows:

Features: 100% brand new and high quality 12KV high-voltage insulating gloves, insulation gloves, electrician safety gloves, safety insulated gloves

Specifications: Material: Rubber Color: Red

Length: 40cm (please kindly allow little difference because of different hand measuring)

Usage: to prevent workers / electricians from electric shock injury Kind reminding: please make sure that the users wear the gloves when the hand is dry.

These are allegedly rated at 12kv made and shipped from overseas for \$10.99 with free shipping (with additional discounts for quantities of 3 or more). The photos show a mold seam which is not in permitted by ASTM D120 Standard Specification for Rubber Insulating Gloves which requires these gloves be made without any seam. ASTM doesn't recognize 12kv gloves. Gloves that meet the ASTM standards will protect the worker regardless if their hands are wet or dry.

I doubt that this seller/supplier would understand "declaration of conformity" but I'll bet that this seller/supplier will provide a statement that the product (gloves) conforms to the requirements of "an applicable product performance standard for which claims are made". In other words they will say "sure they are OK for electricians to use". It says so in the listing description. I suspect that many more of these gloves will make their way into the U.S. Electric utility workers would never use such gloves but many electricians are not as knowledgeable in the ASTM requirements for rubber insulating gloves and might be enticed to purchase these because they are low cost and with free shipping. If the sellers provide a "declaration of conformity" then these glove fully meet the requirements of ANSI/ISEA 125 "American National Standard for Conformity Assessment of Safety and Personal Protective Equipment" and the requirements

of NFPA 70E. The declaration simply attests to the fact that yes these gloves are made to our manufacturing specifications (manufacturer insert your manufacturing specification number here, whatever you want it to be). After all harmonization is all about global competitiveness. Haven't we been constantly lectured how desperately we need harmonization to be globally competitive.

The U.S. Dept. of Labor – Bureau of Labor Statistics reported that in 2016 there were 227,000 electrical line installers (lineman) in the U.S. (includes telecommunications). Let me assure you that these workers are concerned with their family and their jobs. Global competitiveness and harmonization is not even tertiary on their list or minds and it's not even on their radar. They don't think or care about that at all. Their utility companies that they work for all have their infrastructure systems of power generation, transmission and distribution located here in the U.S. including the product they sell (electricity) which they neither export nor import. Global competitiveness and harmonization is of no concern or consequence to their business.

The U.S. Dept. of Labor – Bureau of Labor Statistics also published that in 2016 (latest statistics available) there were 666,900 electricians in the U.S. (install, maintain, and repair electrical power, communications, lighting, and control systems in homes, businesses, and factories). They are all working here in the U.S. and not wiring premises overseas. They are concerned about their family and their jobs. Global competitiveness and harmonization is not even tertiary on their list or minds and in it's not even on their radar. They don't think or care about that at all.

Remember the Hazard Communications Standard aka GHS (global harmonization standard)? How that going for you? Are you more globally competitive now that we have that standard? Of course not. Let's face it, the big companies who have been conducting business overseas are and have already been complying with whatever standards they needed to in order to do business there. Adopting overseas standards in lieu of our existing safety and health standards here in the U.S. does nothing whatsoever to change that. Especially in the case of electrical safety work practice standards like NFPA 70E. Do you think electricians working at any of Zhang Xiaogang's (President of ISO & Chinese industrialist and steel magnate) steel mills is feverishly filling out risk assessment tables in 70E, making estimates based on probabilities of occurrence, frequency of exposures, severity of injuries, etc. and selecting the appropriate

level of PPE which has a “declaration of conformity” in accordance with ANSI, ISEA, and ISO standards? If you believe that I have a bridge I’d like to sell you.

Do the proponents of this garbage think we are stupid? This pretext of harmonization and global competitiveness is total BS used to push other agendas. I say enough! Together we can change this narrative and hopefully put a stop to this. More on this later.

NFPA’s Alleged Rationale and Justification for this

NFPA publishes what they call a “National Electrical Code Style Manual”. Despite the title the manual states under its scope, “**1.2 Scope.** This *Manual* provides editorial and administrative requirements for writing the *National Electrical Code*® (NFPA 70) and the Standard for Electrical Safety in the Workplace (NFPA 70E). Except as otherwise specified in this manual, the *NEC*® and the Standard for Electrical Safety in the Workplace shall comply with the *Manual of Style* for NFPA Technical Committee Documents.”

In other words NFPA 70E is bound by the requirements contained in this manual.

NFPA stated that the reason that all of the ASTM standard requirements *had to be removed* from 70E was because the style manual prohibits references to other standards in the mandatory standard text. “**4.2 References to Other Standards.** References to other standards shall not be in mandatory Code text. References to product standards shall be in an informative annex. References to other Standards shall be in the Informational Notes.”

So all of the ASTM standard requirements were changed to “informational notes” which are not mandatory. What NFPA did next in 70E Article 130.7(C)(14) Standards for Personal Protective Equipment was to insert a mandatory requirement for “*Conformity Assessment*”. NFPA appears to be schizophrenic. “*Conformity Assessment*” is another standard! Just because the codification number of “*Conformity Assessment*” was omitted it still remains another standard. No different than stating the “National Electrical Code” or “NEC” absent the inclusion of the codification number NFPA70. We hear this constant mantra from NFPA “it has to comply with the style manual” but maybe if we leave out the number of the standard no one

will notice. One would think that the committee members, most of whom have been on the committee for decades and should know better. I suspect they have another agenda.

The fact is that the 70E requirement for *“risk assessment”* and *“conformity assessment”* remains in direct violation of style manual requirements although NFPA doesn’t think anyone will notice.

The requirements of the “Style Manual” **3.2.1 Unenforceable Terms**. The NEC and NFPA 70E shall not contain references or requirements that are unenforceable.

By definition (in 70E) risk assessment is purely qualitative and subjective requiring “estimates”. Estimates as in estimates of likelihoods are NOT quantifiable. There is no way anyone attempting to apply these requirements of NFPA 70E could possibly know what any AHJ (Authority Having Jurisdiction) would estimate at any given point in time since the risk assessment estimates required by NFPA 70E are as myriad as the number of AHJ’s making such estimates.

Furthermore the Style Manual requirements in 1.3 require that standard requirements (NFPA 70E) be “suitable for adoption as a regulatory document”. If the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) who is an AHJ ever attempted to promulgate a regulatory requirement based on such subjective criteria as “risk assessment” as defined in the document (NFPA 70E), OSHA would immediately be sued upon announcement of such a subjective rule in the Federal Register and the courts would incontrovertibly declare such a vague and subjective requirement unenforceable. There is plenty of existing case law on this. NFPA once again violated its own Style Manual requirements when placing *“risk assessment”* in the 70E standard. These explanations I have just given are the basis for a proposal (one of many) to remove all references to *“risk assessment”* and *“conformity assessment”* from 70E. These proposals are all listed at the end of this book.

Once again NFPA appears to be schizophrenic. We can’t put that in the standard, the style manual prohibits it, oh let’s go ahead and put it in the standard.

A couple of years ago the Technical Committee on Fire Department Apparatus required that “tires shall be replaced at least every seven (7) years or more frequently and wrote the

requirement in NFPA 1911 Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles. There was public outcry. NFPA commissioned a study “Automotive Fire Apparatus Tire Replacement” by the Fire Protection Research Foundation in Quincy, Massachusetts. The report issued from the study established that “this requirement lacked supporting scientific documentation”. The requirement was immediately (announced in a TIA-Tentative Interim Amendment) removed from the standard. In the case of 70E, NFPA doesn’t even have to commission a study. The validity of “*risk assessment*” has already been discredited and stated in ANSI Z10. Hey, no scientific basis for a requirement in NFPA 1911, we’ll remove it from that standard. No scientific basis for a requirement in NFPA 70E, oh that’s OK in that standard. Is NFPA schizophrenic? That’s a rhetorical question.

When “Risk Assessment” was incorporated into NFPA 70E from the source document (ANSI Z10) it had already been established and stated in the source document (ANSI Z10) that there was “no scientific basis behind determining the relationships between hazard, exposure and risk”, therefore it should immediately be removed from the 70E standard.

OSHA Rejects New Consensus Standard Requirements

I was visiting one of my clients, OSHA, and conducting a briefing for the managers including the director. As I was explaining these 70E issues including the “*risk assessment*” the director said “hey Grizzy wait just a minute”. He got up and left for a few moments and immediately returned with an active OSHA case file. He said to me that they had an employer assert an affirmative defense against an OSHA citation dealing with electrical wiring that was not explosion proof in an explosive dust environment. He went on to explain that the employer came in with volumes of documents of the “*risk assessment*” that the employer allegedly performed in accordance with the “*risk assessment*” approach in an annex of NFPA 652 Standard on the Fundamentals of Combustible Dust. The employer was asserting this as an affirmative defense to the OSHA citations. The OSHA director said that OSHA was unfamiliar with this “*risk assessment*” approach and were considering how to handle it. I completed my briefing and told him that OSHA should NOT accept any “*risk assessment*” approach for hazard abatement of an explosivity hazard. He agreed. I suppose an argument can be made that the hazard event would occur infrequently since the establishment can only blow up once. Does

that fit the risk assessment model? I further provided OSHA with a copy of the base standard requirements (ANSI Z10) stating that “*risk assessment*” has no scientific basis and was junk science. I told him to provide this to our OSHA attorneys to present this in court to the Judge for the purpose of refuting any affirmative defense asserted by the employer using “*risk assessment*”. I also told the director that if the OSHA attorneys had any more questions or required any further explanation or arguments to call me directly. Having “*risk assessment*” approach refuted as junk science and stated in print in the source standard of course was a slam dunk for OSHA. I was subsequently informed that the attorneys for the employer had no reasonable argument to refute what was stated in print in the standard and accepted the citation and penalty and settled the case. Beware! This “*risk assessment*” stuff is appearing in more and more consensus standards.

Let’s examine this concept. If an employer conducts a risk assessment they have:

1. Identified the hazard(s),
2. Estimated the likelihood of occurrence. Likelihood in the English language is the chance that something will happen. Now we are dealing with probabilities. Probability is a branch of mathematics that deals with calculating the likelihood of a given event's occurrence.
2. Established exposure to employee(s)
3. Estimating how severe the potential injury could be and deciding if and how to reduce the severity of the injury.
4. Established nearly all of the Prima Facie requirements for OSHA to issue a willful citation.

While NFPA 70E bases its standard on all these things, OSHA has entirely different requirements for electrical safety:

29CFR 1910.333(a) "General." Safety-related work practices shall be employed to “prevent electric shock or other injuries” resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized

There is a distinction between preventing all electric injuries and reducing the severity of the injury. There is a distinction between insuring that employees are not injured as opposed to gambling on the probability of an occurrence. Again this establishes nearly all of the required

legal prima facie requirements for OSHA to issue willful citations. OSHA willful citations are currently nearly \$130,000 per citation. Additionally it's impossible for an employer in an OSHA case to assert any affirmative defense refuting the written content of the source standards ANSI Z10 which state that "*risk assessment*" has no scientific basis whatsoever. Why would anyone gamble with human life and safety when it stated in the standard that this process doesn't work?

The concept of "*risk assessment*" has already been unsuccessfully applied to human life in an activity called "*russian roulette*".

In the 2018 edition of 70E some of the more incriminating risk assessment criteria have been removed in the Annex. This doesn't change the "*risk assessment*" model as defined in the base/source standards. This is simply an inane attempt to hide the narrative that these consensus organizations are pushing.

Human life is precious. I will not reduce that to models applied to games of chance.

We in the occupational safety and health profession will not allow the bar to be lowered on protecting employees.

We in the occupational safety and health profession will not allow anyone to be hurt even a little. The goal is that no one gets injured at all.

For those who are in still in denial or still persist on still pushing this absurd narrative I have prepared a "Risk Assessment Attestation" document for your convenience to submit for your affirmative defense to OSHA. Hazard exposures to employees, just risk them away. Simply fill in the form and present it immediately to OSHA.

This form is provided as a convenience for practitioners of "risk assessment" applied to Occupational Safety & Health. Simply fill out this form and provide this completed form to OSHA as soon as possible. Provided by Grizzly. If you have electrical hazards you can now simply risk them away.

Management here at _____
(Insert company name)

Have identified the hazards pursuant to the risk assessment model and have applied the model criteria including: (check all that that apply)

- _____ Probability of this Hazard Occurring
- _____ Severity of potential injury
- _____ Frequency of Exposure
- _____ Likelihood of Avoiding the Hazard

And further:
(Check all that apply)

- Have estimated that it was probably unlikely that the injuries would have been as severe as actually sustained.
- Concluded per our estimate that the injuries sustained were an acceptable level of risk according to the "severity of injury" criteria contained in the risk assessment models.
- Concluded that the activity was an acceptable level of risk according to the "frequency of exposure" criteria contained in the risk assessment model since we only perform work this way infrequently and we only do this _____.
(Insert number of times this was done in the past 6 months)

"The likelihood of an injury is related to the number of people exposed to a hazard" (excerpted from ANSI Z10) and we **only** exposed _____ employee(s) to the hazard.
(Insert number of employees exposed)

Furthermore we estimated and concluded that the hazard could have been avoided by:
(Check all that apply)

- Employee could have jumped out of the way. ("Spatial possibility to withdraw from the hazard" Excerpted from 70E-2015 Annex)
- Sudden or gradual appearance of the hazardous event. (Excerpted from 70E-2018 Annex)
- Attention to detail as every electrical worker knows but sometimes ignores will do much to minimize the number of these injuries. (Excerpted from "Electrical Injuries – Their Cause and Prevention" 1912 by Dr. Charles A. Lauffer MD.)

Pursuant to the definition of Risk Assessment: "An overall process that identifies hazards, estimates the likelihood of occurrence of injury or damage to health, estimates the potential severity of injury or damage to health, and determines if protective measures are required."

We have applied this "estimation" process and fully assert our application of this process as an affirmative defense against all alleged OSHA citations and alleged violations of OSHA standards. We identified the hazards and estimated that the risk was and continues to remain acceptable and in compliance with NFPA 70E & ANSI Z10 permitting this to occur.

Name: _____ Title: (circle one) President CEO Owner
(Print)

Signed: _____ Date: _____

Why are Consensus Organizations Pushing This Rubbish

The only logical explanation and conclusion predicated on these facts is for \$\$\$\$\$!

ANSI is already in the accreditation/certification business. From the ANSI website: ANSI-ASQ ANAB (National Accreditation Board manual) and MA 5000 (Management Systems Accreditation Manual) by the Management Systems Accreditation Council accredited by ANSI outlines the accreditation process.

“This manual explains the operational activities and responsibilities of the ANSI-ASQ National Accreditation Board (ANAB) and management systems certification bodies (CBs) and verification bodies (VBs) accredited by ANAB. This manual is a companion document to ISO/IEC 17021-1, ANAB Accreditation Rules, ISO standards and technical specifications, and IAF documents as they relate to specific programs. Other activities and responsibilities of ANAB and ANAB-accredited and applicant CBs and VBs may be described in additional requirement and operational documents.”

“Accreditation requirements: In addition to this manual and applicable ANAB Accreditation Rules, ISO/IEC 17021-1 and, depending on the specific program, related technical specifications (for example, ISO/IEC 17021-2) and other requirement documents (for example, ISO 50003), IAF documents, and industry-sector documents identified in program-specific Accreditation Rules.”

ISO, ISO and yet more ISO. What gobbledegook! This is just what’s needed here in the U.S. for safety and health. This is all based on yet more ISO overseas standards. Now we know what ANSI president Joe Bhatia was doing on all those frequent overseas trips to China to meet with ISO president Zhang Xiaogang.

Recent NFPA advertising states: “We develop the code, we know the code, we teach the code”. Attention NFPA, you don’t enforce the code! The Authority Having Jurisdiction (AHJ) does. That would be OSHA! Despite the fact that your 70E courses tout OSHA requirements as part of the course you don’t know what the regulatory requirements are, the OSHA legal test and prima facie requirements under section 5(a)2 of Public Law 91-596 (the OSH Act) or citations under section 5(a)(2) of the Act. I would submit that the NFPA instructors teaching all about what OSHA requires have never taught OSHA inspectors, investigated an electrical fatality, or provided expert witness services to OSHA. But remember, they develop the code, they know the code and they teach the code.

OSHA will never accept the tenants of risk assessment! OSHA can never promulgate such a requirement! It's legally unenforceable. Attention NFPA, I thought that your Style Manual prohibited legally unenforceable requirements in your standards?

NFPA is already in the accreditation business offering "electrical certification programs" which include 70E.

What Can We Do? Call to Action!

Harmonization is a scam! There is no such thing as harmonization! We are not harmonizing anything. Our U.S. standards are being hijacked! We are being coerced to abandon our U.S. standards and adopt overseas standards. Standards that do not benefit us here in the U.S. Standards that do not make us safe or improve our safety one iota. *Harmonization* is a myth in these respects. The only benefits of *harmonization* are to the charlatans promoting this garbage and providing accreditation products (standards) and accreditation services (audits and certification). The time has come to send a loud and clear message to these consensus organizations to stop hijacking our standards. We won't compromise our moral integrity, our professional integrity or our value systems here in the U.S. under the fallacious guise of harmonization.

If I were a member of any ANSI or NFPA committee I would be immediately resigning from all committees. I would immediately drop my membership. I am a member of the ASTM F18 committee however ASTM has not abandoned their values. In fact some ASTM members were appalled when NFPA removed the mandatory ASTM standards from 70E. My NFPA membership is still active and I'm waiting for it to expire at which time I will not be renewing it. The only benefit I receive from my membership is a 10% discount on the already overpriced 70E code books which I have historically provided to my students in my "NFPA, OSHA and You: Insight for Implementation" course. The systemic degradation of the 70E standard including the requirements that are in direct violation of OSHA requirements. Additionally combined with the numerous errors in 70E which require extensive time in class to point these

errors out to my students is close to the point where I will discontinue their use and rely entirely on the OSHA standard requirements. By the way all OSHA Standards are free online.

Having submitted proposals for 70E code changes for the previous edition which were obviously not seriously considered by NFPA, I am appealing to all of you reading this. As I recall there were only a dozen or so proposals to remove the risk assessment requirement on the 2015 code cycle. What will get the attention of NFPA (including the committee/panel members) is a large outcry. Somewhere I read that there are 50,000 occupational safety and health professional in the U.S. If only 1% of those professionals sent in a proposal to remove “risk assessment” and “conformity assessment” from 70E, that would amount to more proposals on just two items than NFPA receives for the entire code book. That would get their attention. Now if NFPA receives additional proposals for the removal of these from electrical workers, electrical contractors, inspectors, and other affected parties, the message will be loud and clear. I don’t recall any proposals in even the most popular standards such as the NEC and 70E to number in the 100’s. Imaging if proposals on one or two items of the code numbered in the 1,000’s. Under those circumstances it will be virtually impossible for NFPA and the committee/panel members to ignore the proposals.

NFPA is soliciting public input for the next edition of 70E. Public input stage is currently open and it closes on June 27th 2018. All public input must be received no later than 5:00 PM EST/EDST on June 27th 2018 but preferably sooner. Before accessing the Online Submission System, you must first sign in at ww.nfpa.org. Note: You will be asked to sign-in or create a free online account with NFPA before using this system. Having a free online account allows you to view any NFPA standard online. If you already have this free NFPA account you can access the online public input submission page by typing the following URL address: www.nfpa.org/70E.

Complete instructions are included below for your convenience. I have prepared several proposals for the removal of both “risk assessment” as well as “conformity assessment” which are also included below for your convenience. Please and by all means submit them as written

or modify them to your own wording and liking but it is critical that you send in a submission if we are to put a stop to this insidious hijacking of our U.S. standards.

Remember that it's important that the proposals be succinct, to the point, accurate and have compelling and technically valid and irrefutable substantiation to insure acceptance by NFPA for the code change. Again and to that end I have prepared several proposals for the removal of both "risk assessment" as well as "conformity assessment" from the next edition of NFPA 70E for your convenience and use as desired.

The systemic perpetration of such morally reprehensible value systems upon our American Standards cloaked in sanctimonious assertions of a fallacious construct called harmonization is heinous. The time is now! Let's stand up for our values and principles! Let's stand up to this nefarious action! Let's make our voices heard, loud and clear!

Submitting Public Input / Public Comment through the NFPA Online Submission System

The 70E Standard is open for Public Input (closing on June 27th).

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Before accessing the Online Submission System, you must first sign in at www.nfpa.org.

Note: You will be asked to sign-in or create a free online account with NFPA before using this system:

- a. Click on Sign In at the upper right side of the page.
- b. Under the Codes and Standards heading, click on the “List of NFPA Codes & Standards,” and then select your document from the list or use one of the search features.

OR

- a. Go directly to your specific document information page by typing the convenient shortcut link of www.nfpa.org/document# (Example: NFPA 70E would be www.nfpa.org/70E). Sign in at the upper right side of the page.

To begin your Public Input, select the link “The next edition of this standard is now open for Public Input” located on the About tab, Current & Prior Editions tab, and the Next Edition tab. Alternatively, the Next Edition tab includes a link to Submit Public Input online. At this point, the NFPA Standards Development Site will open showing details for the document you have selected. This “Document Home” page site includes an explanatory introduction, information on the current document phase and closing date, a left-hand navigation panel that includes useful links, a document Table of Contents, and icons at the top you can click for Help when using the site. The Help icons and navigation panel will be visible except when you are actually in the process of creating a Public Input.

**NFPA 70E Proposals & Substantiations for
Removal of “Risk Assessment” and “Conformity Assessment”
From 70E Requirements**

The following proposals with their associated substantiations which are requisite for submission to NFPA for a proposal to change the next edition of NFPA 70E. These have been prepared for your convenience and can be copied and submitted in their entirety. If you prefer, alternatively you can modify these as desired or prepare your own for submission and submit it online.

Multiple proposals and justifications have been prepared for a proposal to remove risk assessment as well as multiple proposals for removal of conformity assessment with various justifications are listed here for your use. Select whichever one from each category you like best and submit it through the NFPA Online Submission System online. It is imperative that you submit a proposal though.

Risk Assessment Proposals:

Proposal: All “Risk Assessment” references and requirements should be removed entirely from NFPA 70E.

Substantiation: Risk assessment does not comport with the requirements of the “Style Manual”.

3.2.1 Unenforceable Terms. The NEC and NFPA 70E shall not contain references or requirements that are unenforceable.

By definition risk assessment is purely qualitative and subjective requiring “estimates”. Estimates as in estimates of likelihoods are NOT quantifiable. There is no way anyone attempting to apply these requirements of NFPA 70E could possibly know what any AHJ would estimate at any point in time since the risk assessment estimates required by NFPA 70E are as myriad as the number of possible AHJ’s making such estimates.

Furthermore the Style Manual requirements in 1.3 require that standard requirements (NFPA 70E) be “suitable for adoption as a regulatory document”. If the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) ever attempted to promulgate a regulatory requirement

based on such subjective criteria as “risk assessment” as defined in the document (NFPA 70E), OSHA would immediately be sued upon announcement of such a subjective rule in the Federal Register and the courts would incontrovertibly declare such a vague and subjective requirement unenforceable. There is plenty of existing case law on this.

Proposal: All “Risk Assessment” references and requirements should be removed entirely from NFPA 70E.

Substantiation: This requirement lacks supporting scientific documentation. The Technical Committee on Fire Department Apparatus had required that “tires shall be replaced at least every seven (7) years or more frequently in NFPA 1911 Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles. NFPA commissioned a study and the report issued from the study established that “this requirement lacked supporting scientific documentation”. The requirement was immediately (announced in a TIA-Tentative Interim Amendment) removed from the standard.

When “Risk Assessment” was incorporated into NFPA 70E from the source document (ANSI Z10) it had already been established and stated in the source document (ANSI Z10) that there was “no scientific basis behind determining the relationships between hazard, exposure and risk”, therefore it should immediately be removed from the 70E standard.

Proposal: All “Risk Assessment” references and requirements should be removed entirely from NFPA 70E.

Substantiation: Risk assessment requirement lacks supporting scientific documentation supporting its validity. The source/base standards from which “Risk Assessment” was originally obtained have their basis in international (ISO) “environmental” standards as well as ISO social responsibility standards. The environment or social justice activism has absolutely no place in occupational safety and health and electrical safety standards here in the U.S. Environmental impact is long term over a period of time whereas occupational safety and health is immediate, acute, and potentially fatal to human beings particularly with respect to electrical hazards such as electrocution and arc blast/arc flash.

The definition of the occupational safety and health professional (as defined in the U.S. Department of Labor Occupational Outlook Manual) is to “analyze work environments and work procedures to prevent disease or injury to workers”, not to asses in order to reduce anything based on feckless

criteria such as making estimates to reduce the severity of an injury including frequencies of exposures, etc.. Actuaries (as defined in the U.S. Department of Labor Occupational Outlook Manual) “assess the risk that an event will occur and they help businesses and clients develop policies that minimize the cost of that risk”. Gambling with monetary costs are far different than gambling with human lives. Risk assessment for the protection of people is antithetical to occupational safety and health in the U.S. and are antithetical to OSHA regulatory requirements.

Proposal: All “Risk Assessment” references and requirements should be removed entirely from NFPA 70E.

Substantiation: This requirement lacks supporting scientific documentation supporting its validity. The fundamental approach of risk assessment is antithetical to occupational safety and health and our entire societal moral compass in the U.S. The “risk assessment” approach to injury or illness to humans has no place in U.S. Standards. The base/source of risk assessment from ISO risk assessment model with the associated definitions and guides defines the acceptable levels of risk (aka tolerable risk from ISO/IEC Guide 51) as being predicated on “current values of society”. This fundamental model was authored by societal groups (other countries) whose occupational safety and health values and standards have not evolved sufficiently to comport with our societal values and existing standard protections of workers in the U.S. The U.S. was first in the electrification of the world and has always been a world class leader in safety standards. We in the U.S. have been writing electrical standards since 1881 with the first National Electrical Code published in 1897. We don’t need to abandon that pedigree for the adoption of pernicious requirements originating overseas.

Conformity Assessment Proposals:

Proposal: Remove “Conformity Assessment” from 130.7(C)(14) and all related references.

Substantiation: Conformity Assessment does not comport with the requirements of the “Style Manual”.

Style Manual **4.2** References to Other Standards. References to other standards shall not be in mandatory Code text. References to product standards shall be in an informative annex. References to other Standards shall be in the Informational Notes.

“Conformity Assessment” is another standard! Just because the codification number of “Conformity Assessment” was omitted it still remains another standard. No different than stating the “National Electrical Code” or “NEC” absent the inclusion of the codification number NFPA70.

Proposal: Remove “Conformity Assessment” from 130.7(C)(14) and all related references.

Substantiation: “Conformity Assessment” lacks supporting scientific documentation supporting its validity. The entire “Conformity Assessment” standard is entirely predicated on ISO standards (foreign standards). Specifically ISO 9001 Quality Management Systems, ISO 17011 Conformity Assessments General Requirements for Accreditation Bodies, ISO 17021 Conformity Assessments for Bodies providing Audits and Certification, ISO 17025 General Requirements for Competency of Testing Labs, and ISO 170065 Conformity Assessment Requirements for Certifying products and Service.

The high capital costs of abandoning the current U.S. standards and accreditation systems which are already in place in lieu of considerably more expensive and time consuming audits and certification protocols associated with ISO certification and ISO related certification organizations would severely handicap U.S. companies in both domestic as well as global markets if not completely drive companies out of business. This substantiation based on fiscal considerations has already been accepted by NFPA as a valid basis for removal of standard requirements (see Fire Protection Research Foundation report: "Automotive Fire Apparatus Tire Replacement" Author: Sreenivasan Ranganathan and Minchao Yin, Fire Protection Research Foundation Date of issue: March 2015), “Due to high capital costs, the decision for replacing fire apparatus tires should be based on an objective decision making process. The required replacement of tires after seven (7) years is placing an undue financial burden on departments and agencies trying to comply with the 1911 requirements.” The requirement was removed from the standard.

Proposal: Remove “Conformity Assessment” from 130.7(C)(14) and corresponding Annex.

Substantiation: This requirement lacks supporting scientific documentation that conformity assessment insures the safety and integrity of PPE and further does not comport with the requirements of the “Style Manual” to insure standard requirements are suitable for regulatory adoption. Conformity assessment doesn’t comport with existing OSHA regulatory requirements for PPE. The entire American Society of Testing and Materials (ASTM) body of electrical protective

equipment safety standards that were developed in the U.S. and in place for decades were removed from mandatory text and replaced with foreign standards.

Unlike the body of ASTM standards which are safety testing protocols (such as ASTM 1506) the foreign standards have absolutely no safety testing protocols whatsoever. They are entirely procedural, addressing documentation and certification procedures. NFPA 70E just replaced all of the ASTM safety testing protocols with foreign administrative certification requirements.

We in the U.S. have been writing electrical standards since 1881 with the first National Electrical Code published in 1897. We don't need to abandon that pedigree for the adoption of pernicious requirements originating overseas.