

Kansas Oil & Gas Industry Response to the OSHA Flame-Resistant Clothing (FRC) Directive

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Written by KIOGA and EKOGA

These comments are filed on behalf of the Kansas Independent Oil & Gas Association (KIOGA) and the Eastern Kansas Oil & Gas Association (EKOGA).

Introduction

The Kansas Independent Oil & Gas Association (KIOGA) represents the interests of independent oil and natural gas producers in Kansas. With over 1,400 members across the entire state, KIOGA is the lead state and national advocate for Kansas Independent oil and natural gas producers. Our members account for 86% of the oil and 63% of the natural gas produced in Kansas. The Eastern Kansas Oil & Gas Association (EKOGA) represents the interests of over 400 independent oil and natural gas producers in Eastern Kansas.

KIOGA and EKOGA have reviewed the OSHA Enforcement Policy for “Flame-Resistant Clothing in Oil and Gas Drilling, Well Servicing, and Production Related Operations” issued March 19, 2010. We have concerns that OSHA has bypassed all stakeholders by not working with industry or going through the rule-making process to come up with the best solution. The industry understands and has recognized that there are tasks in the upstream oil and gas environment that warrant using flame-resistant clothing (FRC), but is concerned about the process OSHA followed and some of the data used to support their guidance. The fatality data cited in the memorandum does not support FRC being worn for all the tasks listed when you analyze flash fire related events. There is also concern that OSHA has determined when and where FRC is to be worn, thus not allowing industry to use the existing Personal Protective Equipment (PPE) hazard assessment standard (1910.132 (d)) or consider engineering and/or administrative controls as adequate for protection against hazards. And last, inconsistent use of FRC in the industry should not be a reason for requiring its wide-spread use. FRC use should be determined by PPE hazard assessments with engineering and/or administrative controls being considered as primary hazard controls.

KIOGA and EKOGA Position

Over the years the upstream Oil and Gas Industry has worked closely to establish dialogues with regulatory agencies to improve the safety and health conditions in the work environment. Through these dialogues, industry and regulatory agencies have created opportunities for open communication in addressing important safety and health issues such as flame-resistant clothing (FRC).

With a solid history of partnerships and communications with key stakeholders by OSHA, the issuance of the OSHA FRC memorandum without industry or public involvement appears to be a departure from how OSHA addresses safety and health issues with the regulated community.

In the past, OSHA addressed safety and health issues by communicating with the potentially affected stakeholders to find workable solutions in public forums. Often times this is done through a memorandum or the rule-making process which allows all stakeholders the opportunity to comment on such issues. In this case, it appears the normal process of engaging industry through the rulemaking process was disregarded. We feel the proven practice of the past of engaging industry would have allowed all stakeholders concerns to be communicated and resolved, thus allowing for the creation of a FRC policy that is most appropriate for the areas where the hazard of a potential flash fire exists. Another concern is that OSHA has taken a performance-standard and made it prescriptive instead of relying on companies and their staff expertise to perform hazard assessments as stated in 1910.132(d). In fact, the preamble to 1910.132 states the Agency believes that the employer will be capable of determining and evaluating the hazards of a particular workplace. Paragraph (d) of the final rule is a performance-oriented provision which simply requires employers to use their awareness of workplace hazards to enable them to select the appropriate PPE for the work being performed. Paragraph (d) clearly indicates that the employer is accountable both for the quality of the hazard assessment and for the adequacy of the Personal Protective Equipment (PPE) selected. In determining the tasks where industry is required to wear FRC, OSHA has removed industries ability to best determine where those hazards exist and what PPE to wear. Industry expertise is needed to determine where hazards exist and what PPE needs to be worn. The best way to address these issues is through the existing performance standard where the burden is on the companies to assess the hazards and determine the best PPE.

The National Institute for Occupational Safety and Health recognizes PPE as a last resort and states elimination and engineering controls as the best option. Industry commonly eliminates, reduces, or mitigates hazards through engineering and/or administrative controls. OSHA stated in the memorandum that “engineering controls are subject to failure due to inadequate design, installation, inspection, testing, and maintenance and listed some examples such as BOP malfunction”, further, OSHA states that “administrative controls are subject to failure when procedures have not been adequately developed, implemented, audited, and enforced.” While it is reasonable to assume that engineering and/or administrative controls can fail, it appears by OSHA’s FRC guidance that no matter how low the risk is, or what engineering or administrative controls are in place, that FRC will be required for certain tasks because the hazard may exist. In industries (cement, manufacturing, and even oil and gas) where airborne contaminants are controlled through engineering or administrative controls, additional PPE is not usually required and those controls are thus deemed adequate. With this FRC guidance, it would seem that all industries, regardless of what engineering and/or administrative controls are being implemented, would be required to wear PPE in case of a potential engineering and/or administrative control failing or being bypassed. Prior to this guidance, OSHA generally has taken the approach that PPE can only be used to supplement engineering and administrative controls when these controls cannot be feasibly implemented to reduce employee exposure to certain hazards.

The data referenced in the memorandum indicated that 16% of fatalities (roughly 6 fatalities per year) in the oilfield resulted from fire and explosion. Recent Bureau of Labor Statistics data show similar results for the category of “Fire and Explosions”. However it should be pointed out that most FRC only protects an individual from flash fires, which are defined in NFPA 2113 as “A rapidly moving flame front which can be a combustion explosion. Flash fire may occur in an environment where fuel and air become mixed in adequate concentrations to combust...flash fire has a heat flux of approximately 84 kW/m² for relatively short periods of time, typically less than 3 seconds”. If you look at the data from the study cited in the OSHA memorandum and break down those incidents involving flash fires, the data shows from 1997 through 2002, only 6% of the total fatalities resulted from flash fire. While the industry certainly agrees that any fatality is a significant loss, the statistics would indicate that as they relate to flash fire incidents, only 2 fatalities out of 500,000 industry employees per year for the upstream oil and gas industry have resulted from flash fires during the years 1997-2002.

Further review of the incidents revealed some interesting facts. In one case there were seven fatalities (five of seven were wearing FRC) on a snubbing unit when an explosion occurred. Another incident listed four fatalities as a result of a tank over pressurization causing an “explosion and fire”. One fatality was an explosion on the rig floor after the explosive cutter head assembly was accidentally detonated. None of these aforementioned incidents are the type of incident FRC is intended to protect against. The data shows most incidents being explosion related not flash fire. Further, there is little correlation between the areas cited in the OSHA memorandum requiring FRC in the upstream oil and gas industry and flash fires that occurred from 1997 through 2002. A closer look at the data and the incident details would be warranted to be more precise in the application of better engineering controls and FRC application in the upstream oil and gas industry. Again, industry believes the standard of 1910.132 (d) is best suited to assess appropriate PPE needs, rather than the current guidance which appears to dictate one specific choice in PPE.

Finally the OSHA memorandum mentions inconsistent use of FRC in the oil and gas industry as one reason for the clarification memorandum. In looking at the data OSHA used to support this conclusion one could see that not all parts of the industry should be required to use FRC all the time. Many companies have chosen to require widespread use of FRC garments not entirely based on incident data or risk but rather the ease in implementation with employees. Companies within the oil and gas industry spend significant resources to determine the most appropriate PPE and when that PPE is needed, and should be able to use engineering and administrative controls along with PPE hazard assessments in determining where FRC needs to be worn.

KIOGA and EKOGA Recommendation

Since all stakeholders recognize the need to have FRC for certain tasks, KIOGA and EKOGA suggest developing a new rule on FRC use and go through the rulemaking process so all stake-holders are included. This would afford all stakeholders an opportunity to voice concerns and develop a workable solution.

Conclusion

Although there are areas where the potential hazard of a flash fire exists, PPE should not be the first line of defense as suggested by the OSHA guidance. Whether or not to require FRC should be based on the employer conducting a PPE hazard assessment and documenting when and where FRC is required. OSHA guidance should be formulated with input from industry, as experience has shown this approach to work effectively. Finally the decision to require blanket coverage of FRC should be left to the employer based on ease of implementation.

KIOGA and EKOGA respectfully request that OSHA withdraw this enforcement policy and seek further information and input from the industry through the rulemaking process.