



Conference of Radiation Control Program Directors, Inc.

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August 10, 2020

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Dear Director Coble:

The Conference of Radiation Control Program Directors, (CRCPD), would appreciate the opportunity to work with your agency to improve regulatory consistency and protection of employees with respect to sources of radiation in the workplace. As a key stakeholder in radiation protection, the CRCPD is a nonprofit professional organization whose membership consists of state and local radiation control officials and others interested in the work of radiation protection in the public interest. CRCPD's primary goal is to assure that radiation exposure to individuals is kept to the lowest practical level. The mission of CRCPD is "to promote consistency in addressing and resolving radiation protection issues, to encourage high standards of quality in radiation protection programs, and to provide leadership in radiation safety and education."

CRCPD recently signed on to letter to Secretary of Labor Scalia dated June 10, 2020 urging an update of Occupational Safety and Health Administration (OSHA) regulations to better address radon standards for protection of occupational workers. While reviewing this issue, CRCPD Board of Directors felt that the need for regulatory updates in 29 CFR 1910.1096 extends further into other radiation-related issues. The CRCPD director members represent their respective states' radiation protection authorities and are often called upon to address technical resolution of occupational radiation safety allegations and questions from businesses, employees, and state labor protection authorities. In attempting to answer these questions, our members are challenged to reconcile the current OSHA radiation protection standards in 29 CFR 1910.1096 with the radiation protection regulations and standards of other federal, most notably the U.S. Nuclear Regulatory Commission (NRC), and state radiation control programs as well as to apply these OSHA standards to workers exposed to radiation that is not regulated by state or other federal agencies. As a result, our members struggle to communicate with stakeholders who are often confused by the inconsistencies and apparent conflict in application within the established system of federal, local, state, and tribal radiation protection regulations. Specifically, we believe that action needs to be taken to:

- **Reduce Regulatory Burden by Improving Regulatory Consistency.** Occupational Safety and Health Administration (OSHA) regulations are not consistent with NRC and state regulations. The CRCPD publishes a set of Suggested State Regulations (SSRs) to provide model regulation and encourage consistency among states. These regulations are compatible with those of the NRC (10 CFR 20), which are consistent with the technical basis provided in International Council of Radiation Protection

(ICRP) Publications 26 (1977)¹ and 30 (1979)². However, OSHA radiation protection regulations (29 CFR 1901.1096) are based upon a different scientific basis, ICRP Publication 2 (1960)³. Both US NRC federal and CRCPD's SSRs incorporated the scientific basis in ICRP 26 and 30 into their regulations in 1990. OSHA radiation protection regulations were not changed at that time and remain inconsistent with the framework of the federal, tribal, state and local regulatory system. While 29 CFR 1910.1096(p)(1) provides for employers regulated by the Nuclear Regulatory Commission to be considered in compliance with OSHA regulations through compliance with 10 CFR 20 regulations, this does not allow other employers with radiation exposure considerations to use those same provisions.

- **Improve Regulatory Clarity to Employees and Employers.** OSHA regulations apply a single set of radiation protection limits to all employees. US NRC regulations and SSRs, however, apply a graded approach to radiation protection limits in which some employees may be held to dose limits that are the same for non-employed general public and others as occupational radiation workers depending on whether their assigned duties involve exposure to radioactive material or other sources of radiation. US NRC regulations and SSRs define the radiation received by employees who have been assigned duties involving sources of radiation as "occupational dose." However, based on the current language of 29 CFR 1096, employees in a workplace are not differentiated in this way and could lead to confusion between those employees allowed to receive the higher occupational dose versus those who should be limited to a lower radiation dose relative to that required for the general public. This can lead employers to believe that some of their employees without radiation-related job duties can receive more radiation than is permissible under US NRC and most state regulations.
- **Risk Inform Radiological Emergency Response.** OSHA regulations do not currently address the need for risk informed emergency worker radiation guidelines and clarification is needed on how employers may be allowed to adjust employee dose in these special circumstances. Special time critical actions (such as those necessary to protect life and safety of large populations) that may be necessary in the event of a significant emergency involving radiation (such as a nuclear detonation), may require Incident Commanders to authorize radiation doses in excess of OSHA limits to protect the life and safety of large populations. US Environmental Protection Agency (EPA) Protective Action Guidelines (PAGs) recognize this and provide guidance for emergency worker radiation exposure in such emergencies. In addition, large scale radiological disasters could require ancillary emergency workers not involved directly in mitigating the hazard (such as bus drivers, hospital workers, road crews, etc.) to receive a radiation dose in excess of doses typically expected for their routine job duties. It is not practical to define and, therefore train, these specific workers per OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations (29 CFR 1910.120) in the midst of time critical response where these workers may be vital in the initial response to a large scale radiological disaster.

¹ ICRP, 1977. Recommendations of the ICRP. ICRP Publication 26.

² ICRP, 1979. Limits for Intakes of Radionuclides by Workers. ICRP Publication 30.

³ ICRP, 1960. Report of Committee II on Permissible Dose for Internal Radiation. ICRP Publication 2. Pergamon Press, London.

- ***Ensure consistent protection of all workers from adverse effects of all radiation hazards.***
US NRC and the Agreement States regulate exposure specific to radioactive materials. States also regulate occupational exposure to ionizing radiation including occupational exposure to radiation sources that the NRC does not, including radiation-producing machines (e.g., X-ray machines, particle accelerators) and naturally occurring radioactive material (NORM). OSHA requires employers to protect all workers from exposure to all sources of ionizing radiation regardless of whether the agency regulates the employer for the radiation source. Current OSHA regulations would permit individuals exposed to radiation in the workplace to receive up to 12 rem of radiation exposure annually. US NRC regulations and SSRs would limit workers to 5 rem (if radiation workers) or 0.1 rem (for others exposed to radiation in workplace). Alignment with and recognition of the current regulatory structure for radiation protection would ensure that all employees are protected to the appropriate radiation protection standards and prevent excessive exposure to ionizing radiation.

Recognizing OSHA's critical role in protecting workers throughout the country, CRCPD urges OSHA to consider coordinating with CRCPD and its radiation regulation related resources and expertise to help improve the application of radiation protection standards in the workplace. In order to address these concerns, CRCPD encourages OSHA to consider revising its radiation regulations to ensure they are coordinated within the established and harmonized system of federal, local, state, and tribal radiation protection regulations. If this is not practical, CRCPD would like to work with OSHA to develop regulatory guidance to assist state and local regulators in the application and enforcement of OSHA regulations.

I look forward to the opportunity to collaborate in improving radiation safety. Please contact our Executive Director, Ruth McBurney, at rmcburney@crcpd.org or by telephone at 502-227-4543, extension 2222, to arrange for further discussions on this issue.

Sincerely,



Kimberly Steves
Chairperson

cc: Jonathan Edwards, US EPA, Vice-Chair, Interagency Steering Committee on Radiation Standards (ISCORS)
Vince Holahan, US NRC, Vice-Chair, ISCORS
Kathryn P. Held, President, National Council on Radiation Protection and Measurements
Director Members, CRCPD