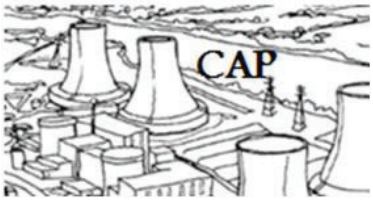

TMI Unit-2 Community Advisory Panel

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David J. Allard, Chairperson
TMI Unit-2 CAP
P.O. Box 6
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August 31, 2026

Jody C. Martin
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Mail Stop O-16 B33
Washington, DC 20555-0001

Re: Petition related to the proposed Radiation Protection Framework, Docket ID NRC-2025-1140

Dear NRC Secretary Martin,

On behalf of the Three Mile Island Unit-2 Community Advisory Panel, I submitted the attached Petition as comments to the US NRC regarding the proposed Radiation Protection Framework rulemaking published in the Federal Register on July 15th, Docket ID NRC-2025-1140. This formal Petition recommends NRC halt all proposed radiation protection (RP) regulatory updates until they are vetted by the federal Interagency Steering Committee on Radiation Standards (ISCORS), with a complete review of all federal agency RP regulations related to worker, patient and public radiation exposure, and environmental releases. Given the following facts:

- NRC has failed to consult with the EPA, DOE and DoD as directed by EO14300, Sec. 5(b),
- The ALARA radiation protection practice and LNT construct are science-based,
- Radioactive material and ionizing radiation provide great benefits to society,
- Exposure to radiation at high levels is known to be harmful to humans,
- And effects at low levels are observed through epidemiological studies,
- The proposed RP regulatory updates will provide no improvement as drafted,
- NRC has grossly underestimated the cost to states and regulated community to implement,
- Simple lower limits and well defined guidance on implementing ALARA is what industry needs,
- ISCORS should be directed to review all federal RP regulations for uniformity and compliance with current national and international standards and recommendations.

As members of the public who live and work near TMI, with legal standing, and great concern for the local community, Commonwealth's, and nation's health and safety – we compel the NRC to broaden their view and reevaluate its approach for updating the entire federal government's RP regulatory framework.

Respectfully submitted,

David J. Allard *(e-signature)*

David J. Allard, MS, CHP, FHPS

cc: CAP Members

Attachments

PETITION

TO: THE US NUCLEAR REGULARTORY COMMISSION

FROM: THE THREE MILE ISLAND UNIT-2 COMMUNITY ADVISORY PANEL

(TMI Photo: Wikipedia)

REQUIRING: THE U.S. NRC HALT ANY RECENTLY PROPOSED REGULATORY CHANGES INVOLVING PUBLIC AND WORKER RADIATION DOSE LIMITS, LNT, ALARA, ENVIRONMENTAL RELEASES OF RADIOACTIVE MATERIAL AND REPORTING, AND, IMDEDIATELY CONSULT WITH OTHER FEDERAL AND STATE AGENCIES FOR AN UPDATE TO ALL RADIATION PROTECTION RELATED STATUTES, REGULATIONS, STANDARDS, RECOMMENDATIONS, AND ANY RELATED GUIDANCE IN THE USA TO ENSURE CONFORMANCE WITH CURRENT SCIENTIFIC CONSENSUS AND COMPLETE INTERAGENCY UNIFORMITY; AND,

AS THIS PETITION
RELATES TO: The overdue need for updated, uniform, and science-based national Radiation Protection (RP) Regulations, Standards and Guidance in the USA, for this issue has been a major concern of the RP practitioner community for decades, and was recently distorted in a 2025 Presidential Executive Orders (EO), in particular, EO 14300, Section 5(b) referenced below (R1), as well as the NRC's response in their proposed regulations posted in the FR on July 15, 2026 (R30);

DOCKET ID: NRC-2025-1140; and,

WHEREAS: Wilhelm Conrad Roentgen discovered X rays in November of 1895; and,

WHEREAS: Soon after Henri Becquerel discovered natural radioactivity emitted from uranium ore in March of 1896; and,

WHEREAS: Subsequently Marie and Pierre Curie discovered radioactive polonium and radium in the late 1890s; and,

WHEREAS: Very soon after, applications of X rays and radioactivity in medicine, scientific research and industry were initiated; and,

WHEREAS: Exposure to radiation and radioactivity were quickly recognized to be potentially harmful to humans; and,

WHEREAS: These facts are well documented by P. Brown in a book describing 'Martyrs to Roentgen Rays' (R2); and,

WHEREAS: More recently, C. Clark documents in a book on the 'Radium Girls,' the circa 1925 radium poisoning of watch dial and military gauge painters, and failings of government and industry to protect workers (R3); and,

WHEREAS: In the late 1920s, international and national committees were established to develop recommendations to protect workers from the harmful effects of X rays, radium and radiation; and,

WHEREAS: Beginning in the early 1900s, scientific research with X rays, radium, radioactivity and various forms of radiation, has led to many significant discoveries, including the first man-made nuclear reactor in 1942; and,

WHEREAS: This work supported the development and use of the first Atomic Bombs that ended WWII; and,

WHEREAS: Radiation effects in tens of thousands of A-bomb survivors in Japan have been studied for decades; and,

WHEREAS: The USA and former Soviet Union produced thousands of nuclear weapons during the Cold War; and,

WHEREAS: That effort required mining of vast quantities of uranium, causing significantly increased numbers of lung cancer among uranium miners due to elevated occupational radon exposure; and,

WHEREAS: The fabrication of plutonium for nuclear weapons, and their testing in the 1950s and 1960s, has caused related worker, military and public radiation exposure, with documented and potential health effects; and,

WHEREAS: Man-made radioactive fallout from above ground weapons testing by the US, Soviet Union, UK, France and China in the 50s through the 70s has caused environmental contamination and possible health effects in the USA and worldwide; and,

WHEREAS: The use of X rays and RAM* in medicine and industry during the early 20th century has been an enormous benefit to society, but has caused radiation-related health effects in radiology staff and patients; and,

WHEREAS: Such health effects are well documented in national and international studies and reports (R4,5,6); and,

WHEREAS: Despite the potential negative effects of radioactivity and radiation exposure, applications of ionizing radiation are a very useful and necessary part of our modern technology advanced world; and,

WHEREAS: Continued and increasing use of X rays and RAM in the world include countless applications in areas of: medicine, dentistry, industry, energy, agriculture, security, and basic scientific/academic research; and,

WHEREAS: Facility locations using radiation sources include: hospitals/medical/dental clinics, accelerators, colleges/universities, energy production plants, industrial sites; and,

WHEREAS: The US NRC regulations an extremely small fraction of the sources of radiation exposure in the USA; and,

WHEREAS: Since the terrorist attacks of September 11, 2001, protection of the homeland involves enhanced radioactive source security, vigilance during transport, and radiological emergency response capabilities; and,

WHEREAS: Non-medical X-ray security screening devices for personnel, baggage and packages have been, and continue to be, utilized on the public, workers and inmates in airports, jails and prisons; and,

WHEREAS: Above sea-level and enhanced cosmic rays with secondary radiations can cause increased radiation exposure to the public, aircraft and spacecraft crew; and,

WHEREAS: Man-made and concentrated natural radioactivity (i.e., NORM and TENORM) from oil & gas and mining operations can cause occupational and public exposure, as well as environmental contamination; and,

WHEREAS: Elevated levels of natural radioactive radon gas can cause worker and public exposure in homes, daycare facilities, schools and workplaces; and,

WHEREAS: Both natural and man-made RAM has been, and continues to be, incorporated into consumer products (e.g., smoke detectors) causing low-level public radiation exposure in homes, schools and workplaces; and,

WHEREAS: Radiation protection organizations were formed in the late 1920s to develop the earliest X ray and radium radiation protection standards, with the ICRP and NCRP tracing their origins to these committees (R7); and,

WHEREAS: Due to continued development of nuclear technology in the 40s and 50s, the U.S. and other international governments began to pass related laws and codified radiation protection standards in regulations (R7); and,

WHEREAS: The standards of the ICRP and NCRP have continued to evolve from the studies of the radium dial painters, early X ray users, A-bomb survivors, uranium miners, nuclear reactor and other highly exposed cohorts; and,

WHEREAS: UNSCEAR and the NAS' BEIR committees have regularly reviewed radiation effects since the 1950s, concluding the 'linear non-threshold' (LNT) model for cancer induction, from radiation exposure data in epidemiological evidence and sound science, is a practical and ethical protection approach (R4,5,6); and,

WHEREAS: The ICRP, NCRP, and other radiation protection professionals have developed and utilized for decades - the established safety philosophy of 'as low as reasonably achievable' (ALARA) with respect to reducing radiation exposure to workers and the public; and,

WHEREAS: The standards in ICRP Publications No.1&2 (c1960), No.26&30 (c1976), No.60 (1990), and No.103 (2007) have been the basis of RP regulations in the U.S. and around the world for decades (R8); and,

WHEREAS: These regulations form a system of radiation protection focused on justification, optimization and limitation of radiation exposure for existing conditions, planned scenarios, and emergencies; and,

WHEREAS: Various radiation protection standards have been utilized over the decades to codify U.S. regulations, internal Orders, and recommendations within the: DoD (i.e., Army, Navy, Air Force and USACE), DOE, DOT, EPA, FAA, FDA, NASA, NRC, OSHA, as well as virtually all related State agencies; and,

WHEREAS: Past Presidents of the United States have directed federal agencies over several decades to update their radiation protection regulations; and,

WHEREAS: EO 10831, the Atomic Energy Act (as amended), and federal Reorganization Plan No. 3 of 1970 charged the Administrator of the EPA to "… advise the President with respect to radiation matters, directly or indirectly affecting health, including guidance for all federal agencies in the formulation of radiation standards and establishment and execution of programs of cooperation with States" (R9); and,

WHEREAS: Prior to EO 14300 and other EOs currently under review, President Reagan was the last to Order an update to radiation protection regulations in 1987 (R9); and,

WHEREAS: Some federal agencies (e.g., NRC and DOE) completed that task by the early 1990s, with OSHA [notably] having never completed an update of their RP regulations; and,

WHEREAS: Functionally, if no federal or state agency regulates a worker's exposure to radiation or radon, OSHA's circa 1972 regulations, that are linked to circa 1972 NRC regulations [thus c1960 standards], shall apply; and,

WHEREAS: The FAA does not regulate the occupational exposure to cosmic radiation of airline cockpit or flight crew, with the concern that female crew may exceed fetal dose limit guidance during a declared pregnancy; and,

WHEREAS: Many developed nations now require tracking of airline flight crew's cosmic radiation exposure, however the FAA only has exposure guidance, and, has yet to mandate such a radiation tracking requirement (R10); and,

WHEREAS: Despite the FAA not regulating cosmic radiation exposure to airline crew, they potentially receive as much occupational radiation exposure as a nuclear medicine or radiologic technologist in a medical facility; and,

WHEREAS: "FAA continues to recommend (radiation exposure) limits that essentially combine the ICRP and NCRP recommendations…;" (pg. 14-15 of R11); and,

WHEREAS: OSHA, as a federal regulator, has extremely outdated RP regulations that apply to worker radiation exposure to X rays, RAM, TENORM in the oil & gas industry, or clean-up after a radiological terrorism event; and,

WHEREAS: As recently as late 2024, OSHA inspected a Pennsylvania hospital, cited and fined them for using the 2 dosimeter 'under and over the lead apron' method for determining effective whole body dose for physicians and other medical staff performing life-saving X-ray fluoroscopy procedures (R12); and,

WHEREAS: Despite published guidance from the CRCPD, state Radiation Control Programs (including Pennsylvania), and NRC, who all accept the 2 dosimeter approach, OSHA continues to maintain their outdated regulatory definition of 'whole body' in their regulations as stated in a 1999 letter to the AANC (R13); and,

WHEREAS: In June 2020, the CRCPD and other organizations formally communicated to the Secretary of Labor, noting OSHA's Ionizing Radiation Standard regulations in 29 CFR 1910.1096 are inadequate for ensuring safe and healthful working conditions because they do not protect employees from exposures to cancer-causing radon in workplaces (A1); and,

WHEREAS: In August 2020, the CRCPD [again] formally communicated to OSHA noting their regulations 'are not consistent with NRC and state regulations' (A2); and,

WHEREAS: OSHA never responded to concerns raised in these two letters (A1, A2); and,

WHEREAS: OSHA's radiation protection regulations would be applicable to non-radiation workers during an emergency response to a nuclear or radiological accident or incident; and,

WHEREAS: FEMA has the responsibility and regulatory authority to establish policy and procedures for review and approval of State and local emergency plans and preparedness for the offsite effects of a radiological emergency which may occur at a commercial nuclear power plant facility; and,

WHEREAS: FEMA's guidance to state and local emergency responders is to utilize the EPA's published radiation 'protective action guides' or PAGs that have public dose limits for the public in the event of an accident; and,

WHEREAS: FEMA and various other federal agencies, RP organizations and professionals provide scientific expertise, training, support, coordination and information to national and international communities regarding prevention of, response to, and recovery from radiation accidents or incidents; and,

WHEREAS: The EPA states in its 2017 PAG Manual "incident commanders should make every effort to employ the "as low as reasonably achievable" (ALARA) principle after an incident" and,

WHEREAS: For nearly 70 years, the vast majority of States have entered a formal Agreement with the NRC for the regulation of radioactive material use and related radiation protection practices; and,

WHEREAS: Those NRC Agreements with each State require regulatory "compatibility," and often strict conformance, with NRC RP regulations; and,

WHEREAS: In the USA, NRC directly regulates only a very small fraction of the tens of thousands of RAM licensees, and none of the hundreds of thousands medical, dental, and non-medical X-ray equipment users; and,

WHEREAS: The NRC began to update their RP regulations several years ago, but halted that process (R14,15,16); and,

WHEREAS: NRC received 3 formal petitions in February 2015 to abandon the LNT model for radiation protection; and,

WHEREAS: After several years of extensive research and review of ICRP, IAEA, and (most importantly) NCRP recommendations, the NRC recently made an extremely significant decision, and denied those 3 LNT related petitions and published their lengthy analysis in the Federal Register [R17]; and,

WHEREAS: Based on international studies, in January 2017 the NCRP recommended the lowering of the allowed radiation dose to the lens of the eye to prevent cataract induction from radiation exposure (R18), but no federal agency has yet to address this recommendation and initiate a regulatory update; and,

WHEREAS: Thousands of Radiation Protection Professionals within government, industry, medical, educational, and private entities, serve as sources of information and facilitate the benefits of X rays, radiation and radioactivity to the public, while optimizing and keeping ALARA the hazards of radiation exposure; and,

WHEREAS: Traditionally, the vast majority of these professionals have embraced and implemented the ALARA philosophy for worker, public and environmental radiation protection, and the 'optimization' for delivery of diagnostic or therapeutic X rays, radiation, or RAM to patients; and,

WHEREAS: Again, the EPA has the responsibility, that was once empowered to the Federal Radiation Council (FRC) during the 1960s, to recommend updates to radiation protection regulations; and,

WHEREAS: EPA also has the responsibility to monitor national and international radiation protection recommendations and standards, and work internally within the agency, as well as with other federal and state agencies, to update national RP regulations and guidance; and,

WHEREAS: In that EPA and NRC continued to have conflicting RP site/facility clean-up standards and regulations, at the urging of [then] Senator John Glenn (R19), these two agencies and others formed the ISCORS in 1995; and,

WHEREAS: Because of ongoing conflicting RP regulations, radiological clean-up standards, and radioactive waste disposal standards of the EPA and NRC, the GAO recommended in 2000 – that these agencies develop a consensus on the issues (R20,21); and,

WHEREAS: These conflicting and overlapping regulation of radioactive sources and radiation protection standards were reported 20 years prior, and publicized in national media a few months after the Three Mile Island Unit-2 accident in March 1979 (R22); and,

WHEREAS: Traditionally, with the input from NRC, DOE and other federal agencies, the EPA has been tasked with making recommendations to the President regarding RP regulations in the U.S.A.; and,

WHEREAS: The current federal RP regulations have not been updated in a routine manner, the U.S. regulations are now based on RP recommendations ranging in time from circa 1960 to 2007, and are (thus) outdated, non-uniform, and (potentially) not protective of the public, patients and their families, workers and environment; and,

WHEREAS: The following examples (only) of such outdated, non-uniform, but LNT-modelled and/or ALARA-based federal radiation protection regulations, standards, and guidance now require a prompt review by the EPA (via ISCORS) for update include:

NRC - regulations in and guidance respective to: 10CFR 20.1101 related to licensees having programs to achieve occupational and public doses ALARA;10CFR 20.1201 thru 20.1208 relating to 5,000 mrem/yr WB, 50,000 mrem/yr extremity and 15,000 mrem/yr lens of eye occupational dose limits including ALARA, and 500 mrem/yr dose to the embryo/fetus; 10CFR 20.1301 thru 20.1302 relating to 100 mrem/yr public dose limit; 10CFR 20.1401 thru 20.1403 relating to facility radiological release criteria and dose limits for unrestricted and restricted release including ALARA; 10CFR 20.1601 relating to access control of high radiation areas and ALARA; 10CFR 20.1702 relating to an ALARA analysis for use of engineering controls versus respirators; 10CFR 20.2002 relating to waste disposal and ensuring that doses are maintained ALARA; 10CFR 20.2105 relating to planned special exposures and records describing how doses were maintained ALARA; 10CFR 34.42 relating to qualifications, training, and experience for RSOs for industrial radiography and establishing and overseeing all operating, emergency, and ALARA procedures;10CFR 50 Appendix I stating a 3 mrem/yr total body and 10 mrem/yr any organ public dose limits from NPPs with them being ALARA and ALAP; 10CFR 60.136 relating to pre-closure dose limits from release of radioactivity from HLW disposal sites and ; 10CFR 63.311 public dose limits [same as EPA's 40CFR197.25]; 10CFR 61.41 relating to public dose limits from release of radioactivity from LLRW disposal sites including ALARA; 10CFR 71.47 relating to 2, 10, 200 mrem/hr dose rate limits [respective] to the public from transported RAM in vehicle occupied space, vehicle outer surface and package surface; and,

DOE - regulations in and guidance related to: 10CFR835 on Occupational Radiation Protection, and DOE Order 458.1, Change 5, on Radiation Protection of the Public and the Environment, such as 10CFR835.101 noting "each RPP shall be commensurate with the nature of the activities performed and shall include… the ALARA process," 10CFR835.204(d)(3) noting written consent for a planned special exposure include "measures to be taken to keep the dose ALARA," 10CFR835.901(c) noting radiation safety training shall include the following topics "measures implemented at the facility to manage doses and maintain doses ALARA," 10CFR835.1001(a) noting for design and control "measures shall be taken to maintain radiation exposure in controlled areas ALARA through engineered and administrative controls," 10CFR835.1002(a) noting for design and modification "Optimization methods shall be used to assure that occupational exposure is maintained ALARA in developing and justifying facility design and physical controls," 10CFR835.1003(b) noting for workplace controls "the ALARA process is utilized for personnel exposures to ionizing radiation," Order 458.1 notes the "Requirement" in 4(b) for "Public Dose Limit… comply with ALARA" 4(d) "a documented ALARA process must be implemented to optimize control and management of radiological activities so that doses to members of the public (both individual and collective) and releases to the environment are kept ALARA," 4(f)(1) ""radiological activities must be conducted in a manner such that the release of radioactive material to the atmosphere will… be evaluated using the ALARA process;" and,

EPA – regulations in: 40CFR Chapter 1, Subchapter D, Part 132, Appendix C defines the 'Linearized multi-stage model, (as) a conservative mathematical model for cancer risk assessment, this model fits linear dose-response curves to low doses, it is consistent with a no-threshold model of carcinogenesis, i.e., exposure to even a very small amount of the substance is assumed to produce a finite increased risk of cancer;' and EPA has used this cancer risk model in numerous RP dose limits and secondary RAM concentration limits throughout various regulatory 40CFR Parts such as 40CFR141.66 that limits radionuclides in drinking water to protect public health to 4 mrem/yr, the 40CFR61 NESHAPS 10 mrem/yr public dose limit for radon-222 from underground uranium mining and DOE facilities, Subpart T of 40CFR61 limits radon-222 emissions from uranium mill tailings piles that are no longer operational to 20 picocuries per square meter per second, 40CFR190 limits radiation releases and doses to the public from the normal operations of nuclear power plants and other uranium fuel cycle facilities to 25 mrem to the whole body, 75 mrem to the thyroid and 25 mrem to any other organ, 40CFR190 limits radiation releases for members of the public in the general environment around Yucca Mountain from the management and storage of SNF and HLRW to 15 mrem per year for the first 10,000 years after disposal and then 100 mrem per year out to a million years, 40CFR197.25 establishes the 15 mrem/yr (up to 10,000 yr) and 100 mrem/yr (after 10,000 yr) radiological release public dose limits for HLRW and SNF disposal criteria; and,

USACE – was given the directive by Congress to administer and executed cleanup of pre-AEA facilities at eligible FUSRAP sites pursuant to the provisions of the Energy and Water Development Appropriations Act, 1998, (Title I, Public Law 105-62, 111 Stat. 1320, 1326), the Energy and Water Development Appropriations Act, 1999, (Title I, Public Law 105-245, 112 Stat. 1838,1843), and in accordance with, and subject to regulation under CERCLA as amended, 42 U.S.C. 9601 et seq., and the NCP, 40 C.F.R., Chapter 1, Part 300, and both DOE and USACE have acknowledged that DOE does not have regulatory responsibility or control over the FUSRAP activities of USACE or their contractors for radiation protection of workers, the public and environment, therefore, the radiological clean-up standards and radiation active waste disposal criteria for these FUSRAP sites are based on EPA cancer risk estimates for low-level radiation exposure and state solid waste disposal criteria; and,

DoD – the Army's goal as stated in Regulation 385-10 [24July2023] is to 'keep radiation exposures ALARA to soldiers, civilians, contractors, and the general public in accordance with 10CFR20.1003 and 29CFR1910.1096 while meeting applicable environmental requirements,' 'the ALARA concept is the basis of ARSOHP regarding exposure to radiation,' 'develop a formal ALARA program with occupational personnel dose equivalent investigational levels as specified in this regulation,' 'determine the proper radiological controls to assure ALARA,' 'use eye dose limits to determine if the head-and-neck badge dose limit requires an ALARA investigation,' 'use the TEDE dose limit to determine the whole-body dose that will require an ALARA investigation,' 'recommended set point for self-reading alarming electronic dosimeters should be ALARA investigation level,' 'declared pregnant woman will make efforts to maintain the monthly occupational radiation exposure rate ALARA and relatively uniform,' 'maintain radiation exposure control measures to ensure anticipated and actual occupational doses are maintained ALARA and do not exceed the limits,' 'always reduce radioactive contamination to ALARA levels,' the Navy states in their Occupational Radiation Exposure Report NT-24-3 [dated May 2024] they 'keep exposure ALARA,' 'control of radiation exposure has always been based on the assumption that any exposure, no matter how small, may involve risk,' 'therefore, work is planned and executed in a manner that minimizes total personnel exposure as much as reasonably achievable,' the Navy states in their Radiation Health Protection Manual NAVMED P-5055 [2Dec2022] 'exposure to personnel from ionizing radiation shall be reduced to levels ALARA,' 'underlying principle for these controls is that the storage, handling, transportation and disposal of radioactive material and use of devices that generate ionizing radiation will be controlled so that personnel will not be exposed to radiation unnecessarily and that any exposures received will be maintained ALARA;' and,

OSHA - regulations in 29CFR1910.1096(b)(1)(2) 'Exposure of individuals to radiation in restricted areas,' 29CFR1910.1096(b)(1) 'no employer shall possess, use, or transfer sources of ionizing radiation in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter from sources in the employer's possession or control a dose in excess of the limits specified in Table G-18: Whole Body 1.25 rem per quarter, Hands & Forearms or Feet & Ankles 18.75 rem per quarter, Skin of the Whole Body 7.5 rem per quarter,' 29CFR1910.1096(b)(2)(i) 'during any calendar quarter the dose to the whole body shall not exceed 3 rems, and,' 29CFR1910.1096(b)(2)(ii) 'the dose to the whole body, when added to the accumulated occupational dose to the whole body, shall not exceed 5 (N-18) rems, where "N" equals the individual's age in years at his last birthday,' OSHA states on their website related to Radiation Emergency Preparedness and Response 'radiation doses should be kept to a level that is ALARA,' 'in these later phases, standard worker protections, including the 1.25 rem per quarter occupational dose limit normally apply,' 'in all cases, reasonably achievable actions should be taken to minimize doses, i.e., maintain doses ALARA;' and,

FEMA – regulations in 44CFR350.1 states 'the purpose of the regulation in this part is to establish policy and procedures for review and approval by FEMA of state and local emergency plans and preparedness for the offsite effects of a radiological emergency which may occur at a commercial nuclear power facility,' 'review and approval of these plans and preparedness involves preparation of findings and determinations of the adequacy of the plans and capabilities of state and local governments to effectively implement the plans,' 'both the planning and preparedness standards and related criteria contained in NUREG-0654/ FEMA-REP-1, Rev. 1 are to be used by FEMA and the NRC in reviewing and evaluating State and local government radiological emergency plans and preparedness,' that document contains 'evaluation criteria for each planning standard of 10CFR50.47(b) and 44CFR350.5(a) that provide specific guidance for developing radiological emergency plans,' and FEMA's REP Program Manual [dated December 2019] states they provide radiological preparedness support and oversight for state, local, tribal, and territorial governments surrounding nuclear power plants, and the use of 'quality health physics practices and the philosophy of ALARA indicate that the plans / procedures provide for decontamination of individuals, vehicles, service animals, and pets found to be contaminated during the monitoring process;' and,

DOT – regulations in 49CFR appear to be relatively up to date and in harmony with the IAEA standards for national and international transport of RAM, but do require a review with respect to the 2025 edition of IAEA *Regulations for the Safe Transport of Radioactive Material* published in March 2026; and,

FAA – recommendations in DOT/FAA/AM-21/8 (pg. 14-15) appear to be conforming to ICRP Publication 103, and note limiting air crew radiation exposure to 2 rem per year averaged over 5 years, with no year above 5 rem, and dose limit to a conceptus of a declared pregnant women to 0.050 rem in any month and a total of 0.1 rem during the remainder of the pregnancy (R11); however, the NAS recently recommended FAA codify these recommendations (R31); and,

FDA – regulations in 21CFR892.2100, relating radiological acquisition and/or optimization guidance systems and upholding the ALARA principle with associated device controls/options, and FDA's website states with respect to balancing benefits and risk 'while the benefit of a clinically appropriate X-ray imaging exam generally far outweighs the risk, efforts should be made to minimize this risk by reducing unnecessary exposure to ionizing radiation,' 'to help reduce risk to the patient, all exams using ionizing radiation should be performed only when necessary to answer a medical question, treat a disease, or guide a procedure,' 'if there is a medical need for a particular imaging procedure and other exams using no or less radiation are less appropriate, then the benefits exceed the risks, and radiation risk considerations should not influence the physician's decision to perform the study or the patient's decision to have the procedure,' 'however, the ALARA principle should be followed when choosing equipment settings to minimize radiation exposure to the patient,' and regulations in 21CFR900 state 'the average glandular dose delivered during a single cranio-caudal view of an FDA accepted phantom simulating a standard breast shall not exceed 300 millirad per exposure;' and,

WHEREAS: There is a 'Million Person Study' of biological effects of radiation well underway by the NCRP, and the ICRP is performing a 'Fit For Purpose' review of all their radiation protection recommendations (R23,24); and,

WHEREAS: The late Lauriston Taylor, one of the world's most respected health physicists and founding member of the ICRP, NCRP and HPS noted of the early development of RP regulations - "radiation protection is not only a matter for science, it is a problem of morality, and of philosophy, and the utmost wisdom" (R25); and,

WHEREAS: The U.S. President has issued EO 14154 on January 20, 2025, and EO 14300 on May 23, 2025, with reference to Section 3(a) of EO 14154 stating "The heads of all agencies shall review all existing regulations, orders, guidance documents, policies, settlements, consent orders, and any other agency actions (collectively, agency actions) to identify those agency actions that impose an undue burden on the identification, development, or use of domestic energy resources - with particular attention to oil, natural gas, coal, hydropower, biofuels, critical mineral, and nuclear energy resources…" and Section 5(b) of EO 14300 stating "Adopt science-based radiation limits. In particular, the NRC shall reconsider reliance on the linear no-threshold (LNT) model for radiation exposure and the 'as low as reasonably achievable' standard, which is predicated on LNT. Those models are flawed, as discussed in Section 1 of this order. In reconsidering those limits, the NRC shall specifically consider adopting determinate radiation limits, and in doing so shall consult with the Department of Defense (DoD), the Department of Energy (DOE), and the Environmental Protection Agency;" and,

WHEREAS: Under the Charter of the TMI Unit-2 CAP to communicate cleanup concerns to the site licensee, public and government agencies, as well as the need to support all workers and Radiation Protection Professionals in the Commonwealth remediating the Unit-2 radiological contamination (R26); and,

WHEREAS: The CAP are community representatives in frequent contact with state and federal agencies who have the duty to protect workers, patients, the public and environment from the hazards associated with ionizing radiation and radioactivity; and,

WHEREAS: CAP members live in the community where the radioactive releases from TMI Unit-1 (if restarted) will expose the public and environment to potential hazards associated with ionizing radiation and radioactivity; and,

WHEREAS: Despite frequent calls over the past decade by the CAP Chairperson and countless others requesting all federal officials and agencies to improve and remedy this clear lack of RP regulatory uniformity, asking for action to update all radiation protections regulations and guidance in the U.S.A. (R27); and,

WHEREAS: The LNT and ALARA radiation exposure construct and philosophy (respectively) have been a longstanding approach for regulation of low-level radiation protection, with continued support by scientific organizations such as the U.S. Congressionally chartered NCRP, the ICRP, IAEA and UNSCEAR (R28,29); and,

WHEREAS: No practical alternative(s) to the LNT and ALARA construct and philosophy have been proposed by those in opposition that would cover all age groups, sex, or genetically sensitive members of the public; and,

WHEREAS: The use of LNT and ALARA in RP regulations and guidance is science-based, but reviewed and debated for appropriateness since first proposed, and was recently noted in a 'Project 2025' report (R32); and,

WHEREAS: The NRC has grossly underestimated the level of effort and cost to the states and regulated community for the proposed removal of 'ALARA' from its regulations and implementing procedures, vs. providing well-defined guidance and lower dose limit for applying ALARA to occupational and public radiation exposure; and,

WHEREAS: Under the U.S. Constitution, as Amendment I states, "Congress shall make no law… abridging the freedom of speech, or of the press, [and] to petition the Government for a redress of grievances," in addition, the administrative rules of the NRC in Title 10 CFR Part 2.803 allow such action; therefore,

WE NOW PETITION:

The Chairman of the NRC to: instruct staff to halt drafting, proposing, reviewing and implementing of any radiation protection regulation related to worker, public, clean-up and environmental dose limits; RAM releases from licensed facilities; continue the use of the LNT construct and ALARA approach in RP; contact the Secretary of the Department of Labor to request OHSA's RP regulations be rescinded immediately (and if needed) to incorporate NRC's current related RP regulations by reference; formally consult with the Administrator of the EPA and Secretary of Energy to (collectively) direct the ISCORS with all Federal and State agencies officially represented (e.g., DHS, DOE, DOT, FDA, OSHA, et al.) as well as those not officially represented on the ISCORS (e.g., DoD's US Navy, FAA, FEMA, NASA, NIST, et al.) having ionizing radiation protection regulations or recommendations with public, worker, patient, and environmental RP dose limits, (to) review all such regulations in 6 months via a cross-walk of the existing regulations and requirements for inter-agency conflicts and conformance with current national and international science-based recommendations of the NCRP, ICRP and IAEA; and,

MAY IT BE FURTHER RESOLVED AND PETITIONED:

The NRC Chairman shall formally contact EPA Administrator within 2 weeks of docketing of this Petition, to officially task the ISCORS [as outlined above], and report the Committee's regulatory review findings within 30 days of completion to all federal agencies involved, within 15 days publish these ISCORS findings and recommendations in the FR for a 90 day comment period, and within that 30 day initial FR publication period, report them at an ISCORS public meeting, and after a full subsequent public review and comment resolution, within an additional 30 days deliver the ISCORS recommendations to the President, and if approved for implementation by the President, shall ensure all applicable agencies develop a timeline for promptly developing a full revision of their federal radiation protection regulations within 6 months; and (when complete) all proposed final draft regulations and statutory reform (with background information) shall be published in the FR by all federal agencies for a 90 day public comment period prior to finalization and implementation.

David J. Allard ***(e-signature)***

David J. Allard, MS, CHP, FHPS
Chairperson, TMI Unit-2 Community Advisory Panel

TMI Unit-2 CAP
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Note: this *Petition* was researched and crafted by the Chairperson, with drafts distributed to, and discussed with, the TMI Unit-2 CAP Members. No member opposed on submitting it to the NRC.

Copies with cover letter to:
US NRC Chairman and Commissioners
Interagency Steering Committee on Radiation Standards
Department Secretaries and Head Administrators for: DOE, EPA, DoD, DOL, OSHA, FDA, DHS, FEMA, DOT, NASA, NIST
National Governors Association
Governor of the Commonwealth of Pennsylvania
Secretary of the Pennsylvania Department of Environmental Protection
Presidents, Boards, and members of: HPS, CRCPD, AAPM, OAS, LLW Forum, NCRP, ICRP, IAEA, ASRT, RSNA, ANS, NEI
Various Media Organizations

Attachments:
(A1) CRCPD Letter to OSHA, June 2020
(A2) CRCPD Letter to OSHA, August 2020

References:

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*** Abbreviations, Acronyms and Initials:**

AANC - American Association for Nuclear Cardiology

AAPM - American Association of Physicists in Medicine

ALARA - as low as reasonably achievable

ALAP - as low as practicable

ANS - American Nuclear Society

ARSOHP – Army Radiation Safety and Occupational Health Program

ASRT – American Society of Radiologic Technologist

BEIR – (NAS committee on the) Biological Effects of Ionizing Radiation

CAP – Community Advisory Panel

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act of 1980

CFR – Code of Federal Regulations

CRCPD - Conference of Radiation Control Program Directors, Inc.

DHS - Department of Homeland Security

DoD – Department of Defense

DOE – Department of Energy

DOT – Department of Transportation

EPA – Environmental Protection Agency

FAA – Federal Aviation Administration

FDA – Food and Drug Administration

FEMA – Federal Emergency Management Agency

FR – Federal Register

FUSRAP – Formerly Utilized Sites Remedial Action Program

GAO – Government Accountability Office

HLW or HLRW – High Level (Radioactive) Waste

HPS – Health Physics Society

IAEA – International Atomic Energy Agency

ICRP – International Commission on Radiological Protection

ISCORS – Interagency Steering Committee on Radiation Standards

LNT - Linear No-Threshold

NAS – National Academy of Sciences

NASA – National Aeronautics and Space Administration

NBS - National Bureau of Standards

NCP – National Oil and Hazardous Substances Pollution Contingency Plan

NESHAPS – National Emission Standards for Hazardous Air Pollutants

NIST - National Institute of Standards and Technology

NORM – Naturally Occurring Radioactive Material

NCRP – National Council on Radiation Protection and Measurements

NPP – nuclear power plant

NRC – Nuclear Regulatory Commission

OAS – Organization of Agreement States

OSHA – Occupational Safety and Health Administration

PAG – Protective Action Guide

RAM – Radioactive Material

RNSA – Radiological Society of North American

RP – Radiation Protection

RPP – Radiation Protection Program

RSO – Radioactive Safety Officer

SNF – Spent Nuclear Fuel

TEDE – Total Effective Dose Equivalent

TENORM - Technologically Enhanced Naturally Occurring Radioactive Material

TMI – Three Mile Island Nuclear Power Plant Site

USACE – U.S. Army Corps of Engineers

UNSCEAR – United Nations Scientific Committee on the Effects of Atomic Radiation

WB – Whole Body

June 10, 2020

The Honorable Eugene Scalia
Secretary of Labor
200 Constitution Ave NW
C-2318
Washington, DC 20210
executivesecretariat@dol.gov

Re: OSHA 29 CFR 1910.1096, Ionizing Radiation

Dear Secretary Scalia:

We are writing to inform you that OSHA's Ionizing Radiation Standard (IRS) at 29 CFR 1910.1096 is inadequate in ensuring safe and healthful working conditions because it does not protect employees from exposures to cancer-causing radon in workplaces. Specifically, the current standard's provisions are:

(1) insufficiently protective of individuals employed in those workplaces that have some risk associated with radioactive materials because the employer possesses, uses, or transfers radioactive material in the conduct of business and

(2) not relevant to individuals employed in everyday workplaces such as schools, stores and offices where the employer does not possess, use, or transfer radioactive material in the conduct of business.

Pursuant to 29 USC 655(b)(1) [i], we respectfully request that a revised rule and/or supplemental rule be promulgated to address this problem.

Background: Radon

Radon is the leading source of naturally occurring radiation exposure to the average US citizen. Radon is the second leading cause of lung cancer in the US. According to the US Environmental Protection Agency, these cancer cases produce an estimated 21,000 deaths from residential exposure every year. Occupational exposures cause additional risk. There are numerous studies, policies, and statutes that stipulate to radon's presence in the indoor environment and the need to prevent exposure from buildings.

Background: Exposure Limits

The IRS was issued in 1971 as 29 CFR 1910.96 (OSHA 1971). In 1996, OSHA re-designated the standard as 29 CFR 1910.1096 (OSHA1996), the current designation. When OSHA issued the IRS in 1971, it referenced 10 CFR 20 (Atomic Energy Commission Regulations). The Energy Reorganization Act of 1974 transferred the regulatory functions of the AEC to the new Nuclear Regulatory Commission (NRC), and the NRC revised 10 CFR Part 20 regulations most recently in 2014.

The IRS is based on the International Council on Radiation Protection (ICRP) number 2, Permissible Dose for Internal Radiation, 1959 and references AEC's 1971 regulations and tables that are over 50 years old – sixteen times. The 1971 AEC standard for radon-222 of 3,700 Bq/m^3 (100 pCi/L) was intended to protect employees who are potentially exposed to radiation as part of their jobs and was revised by the NRC to 1,110 Bq/m^3 (30 pCi/L) in 1976 – 44 years ago.

If we include the Environmental Protection Agency's Action Level, there are three separate radiation standards/guidelines from three federal agencies:

1) OSHA exposure limit of 3,700 Bq/m^3 (100 pCi/L)
2) NRC exposure limit of 1,110 Bq/m^3 (30 pCi/L)
3) EPA action level of 150 Bq/m^3 (4 pCi/L)

Background: Scope

To complicate matters further, these standards are applied differently and are duplicative for employee populations.

- OSHA regulates exposure to "employees" who may be exposed to natural background radiation and employees may be exposed to variable concentrations of machine-produced radiation such as x rays as part of their jobs.
- NRC regulates exposures to "persons licensed" who are potentially exposed to radiation as part of their jobs, such as nuclear power plant workers or medical personnel using licensed radioactive material. NRC occupational exposure is specifically from licensed material. This type of occupational exposure does not include exposure to natural background radiation or machine-produced radiation, such as x rays.
- EPA has established an Action Level for all buildings. EPA recommends to consumers that homes be fixed if the radon level is 4 pCi/L (picocuries per liter) or more, and consider fixing homes for radon levels between 2 pCi/L and 4 pCi/L. While this benchmark is not a federal regulatory requirement, the Action Level is used in state laws, building codes and voluntary consensus standards as the maximum acceptable level of radon in the buildings subject to each type of policy.

Summary of the Issues and Recommendations

1. The IRS was clearly derived from legacy atomic energy policy to extend protections for atomic energy / nuclear workplaces to the universe of workplaces that possess, use or transfer radioactive material. The standard presents an array of safeguards well-suited to high-risk workplaces where radon levels are dangerously variable. However, the reference for the average concentration limit is outdated and should match the NRC standard. For example, persons running x-ray equipment should not be exposed to radon levels more than three times the limit in a nuclear power plant. **OSHA should revise the IRS to reference the current NRC standard for those persons licensed in accordance with NRC regulations and clarify that it applies to protection of workers whose employers possess, use, or transfer radioactive material in the conduct of business.**

2. The application of an exposure limit suited to workplaces that must follow additional requirements for restricted, radiation, and high radiation areas, to indoor workplaces that lack any real safeguards is highly problematic. Decisions on radon reduction in public buildings such as schools, stores, and offices are made based on the 3,700 Bq/m^3 (100 pCi/L) standard, leaving workers at risk. **OSHA should establish in the IRS a separate exposure limit for those workplaces where no radiation exposure exists except for daily continuous exposure to naturally occurring background radiation (or place this exposure limit in a separate standard per below). This limit should reference the EPA Action Level of 150 Bq/m^3 (4 pCi/L) which is already in federal policy and applies to all buildings.**[ii]
3. The IRS contains 13 subsections with prohibitions, safeguards and documentation requirements. While this array of policies is appropriate for facilities that possess, use, or transfer radioactive material in the conduct of business, it is not appropriate for the hundreds of thousands of schools, libraries, restaurants, banks, office buildings, grocery stores, and other workplaces where the only form of radioactivity present is naturally occurring radon. Those who own such workplaces and their employees should be provided a federal occupational safety and health standard relevant to radon, and not simply advised to prohibit, monitor, and warn against individual exposure. The established means of addressing radon in buildings are engineering controls: test the building's air for radon and mitigate the radon if the radon level is above the EPA action level. There are national consensus standards that clearly present the methods and parameters of measuring and mitigating radon, and private certification programs and state licensing programs to ensure qualified persons perform the work. **OSHA should either create a new subsection of the IRS or create a new standard for naturally occurring background radiation, i.e. radon, in workplaces.**

Again, pursuant to 29 USC 655(b)(1), we respectfully request that a revised rule and/or supplemental rule be promulgated to address these issues.

Please don't hesitate to contact Jane Malone at 410-708-8963 or nationalpolicy@aarst.org should further information be desired. We stand ready to assist DOL and OSHA in correcting this situation.

Thank you for your prompt and thorough attention to this matter.

Sincerely,

American Lung Association
American Association of Radon Scientists and Technologists
AARST Consortium on Radon Standards
Cancer Survivors against Radon (CanSAR)
Citizens for Radioactive Radon Reduction
Conference of Radiation Control Program Directors

cc: Patrick Breysse, Director, National Center for Environmental Health, US CDC / HHS
Jon Edwards, Director, Office of Indoor Air and Radiation, US EPA
Michelle Miller, Acting Director, Office of Lead Hazard Control and Healthy Homes, US HUD

Table 1: Applicability of the Ionizing Radiation Standard (29CFR1910.1096)

Subsection	Applicability
(a) Definitions	General
(b) Exposure of individuals to radiation in restricted areas	Persons in restricted areas
(c) Exposure to airborne radioactive material	Persons in restricted areas
(d) Precautionary procedures and personal monitoring	Radiation hazards incident to production, use, release, disposal or presence of radiation; Restricted areas and high radiation areas
(e) Caution signs, labels, and signals	Restricted areas, high radiation areas, airborne radioactive areas
(f) Immediate evacuation warning signal	All affected persons
(g) Exceptions from posting requirements	Radiation level $\leq$ 5 millirem/hour
(h) Exemptions for radioactive materials packaged for shipment	Inside containers labelled
(i) Instruction of personnel, posting	Radiation area
(j) Storage of radioactive materials	Secure against unauthorized removal
(k) Waste disposal	Transfer to authorized recipient or per NRC
(l) Notification of incidents	Any individual exposed to 5 or more rems
(m) Reports of overexposure and excessive levels and concentrations	Any exposure
(n) Records	Employees subject to personal monitoring
(o) Disclosure to former employee of individual employee's record	Employees subject to personal monitoring
(p) Nuclear Regulatory Commission licensees, contractors, State licensees / registrants	NRC licensees, contractors, registrants

[i] Whenever the Secretary, upon the basis of information submitted to him in writing *by an interested person, a representative of any organization of employers or employees, a nationally recognized standards-producing organization, the Secretary of Health and Human Services, the National Institute for Occupational Safety and Health, or a State or political subdivision*, or on the basis of information developed by the Secretary or otherwise available to him, determines that a rule should be promulgated in order to serve the objectives of this Act, the Secretary may request the recommendations of an advisory committee appointed under section 7 of this Act. The Secretary shall provide such an advisory committee with any proposals of his own or of the Secretary of Health and Human Services, together with all pertinent factual information developed by the Secretary or the Secretary of Health and Human Services, or otherwise available, including the results of research, demonstrations, and experiments. An advisory committee shall submit to the Secretary its recommendations regarding the rule to be promulgated within ninety days from the date of its appointment or within such longer or shorter period as may be prescribed by the Secretary, but in no event for a period which is longer than two hundred and seventy days…

[ii] If a numeric level must be specified in the standard, OSHA should set this limit no higher than the EPA Action Level of 150 Bq/m^3 (4 pCi/L) and should consider the World Health Organization reference level of 100 Bq/m^3 (2.7 pCi/L).

Conference of Radiation Control Program Directors, Inc.

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August 10, 2020

Joseph Coble, ScD CIH
Director, Office of Technological Feasibility
Directorate of Standards and Guidance
Occupational Safety and Health Administration
US Department of Labor
(202) 693-2266
Coble.joe@dol.gov

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 (OHSA) 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.

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[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

NRCExecSec Resource

From: David J. Allard, CHP <tmiu2cap@gmail.com>
Sent: Monday, August 31, 2026 9:58 PM
To: NRCExecSec Resource
Cc: Chairman Resource; CMRWright Resource; CMRCrowell Resource; CMRMarzano Resource; CMRWeaver Resource
Subject: [External_Sender] TMI U-2 CAP's Petition related to proposed RP Framework, Docket ID NRC-2025-1140
Attachments: Petition-to-NRC_re-RP-regs_CAP-cvr-ltr_31Aug2026.pdf; Rad-Protection-Regulations-Standards_Petition_fnl-rev_31Aug2026.pdf; Letter-to-DOL-OSHA-re-Radon-Ionizing-Rad-Std_CRCPD-et-al_10Jun2020.pdf; Letter-to-DOL-OSHA-re-Ionizing-Rad-Std_CRCPD_10Aug2020.pdf

To: Jody C. Martin
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Mail Stop O-16 B33
Washington, DC 20555-0001

Dear NRC Secretary Martin.

Attached please find a cover letter, formal Petition, and two attachments for the TMI U-2 CAP's Petition related to the proposed RP Framework update, Docket ID NRC-2025-1140. If you or others have any questions, please do not hesitate to contact me. It is hoped this Petition will be docketed and addressed promptly.

Sincerely,

David J. Allard, CHP

Chairperson, TMI Unit-2 CAP