LEGAL OPINION OF THE GENERAL COUNSEL

Executive Summary

Since the Defense Nuclear Facilities Safety Board (DNFSB) began operations in late 1989, oversight of worker health and safety has been a part of the agency’s oversight mission. While the DNFSB, the Department of Energy (DOE), and other agencies commonly distinguish between “public” and “workers” when discussing the safety of nuclear facilities, the sections of the Atomic Energy Act of 1954 (AEA), as amended, that dictate the DNFSB’s jurisdiction refer only to “public health and safety.” Thus, the question has arisen whether the DNFSB’s jurisdiction includes worker health and safety.

The meaning of “public health and safety,” for the purpose of the AEA, consistent with the plain meaning of the word “public,” includes workers at DOE facilities. The purpose and structure of the AEA support this interpretation, as does the legislative history preceding the original AEA and subsequent amendments. Finally, since the creation of the DNFSB, both DNFSB and DOE have regularly reported to Congress that workers are included in the DNFSB’s “public health and safety” mission. Despite receiving such reports for nearly 30 years, Congress has refrained from disturbing that interpretation, even when crafting a clarifying mission statement for the DNFSB in 2012.

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I. Introduction and the DNFSB’s Enabling Legislation

In June of 2018, the Board tasked OGC with providing “a legal interpretation including the legislative history regarding the applicability of the Board’s jurisdiction over worker safety in the context of ‘public health and safety’ used throughout the Board’s enabling legislation and the Atomic Energy Act generally.”¹ This memorandum provides OGC’s response to this tasking.² While this memorandum will address whether workers are included within the meaning of the “public health and safety” jurisdiction of the DNFSB, it will not address the meaning of “adequate protection.”³ In addition, this memorandum will not address distinctions between radiological, industrial, chemical, and toxicological hazards and the extent to which non-radiological hazards are subject to DNFSB oversight.

The most appropriate starting point is the DNFSB’s enabling legislation. The legislation that created the DNFSB, the National Defense Authorization Act, Fiscal Year 1989 (NDAA), added several new sections to the AEA.⁴ These sections are codified in Title 42 of the United States Code (USC). When referencing the AEA, this memorandum cites to the relevant sections of the USC, and not to the section numbers of the AEA. Thus, all section references are to Title 42 unless otherwise noted. The same citation format is used to refer to sections of subsequent atomic energy legislation: e.g., the Energy Reorganization Act of 1974 (Reorg Act) and the Department of Energy Organization Act (DOE Act). Like the AEA, the Reorg Act and DOE Act are codified in Title 42.

The first reference to public health and safety in the DNFSB’s enabling legislation comes in Section 2286a. The DNFSB’s mission statement, added in 2012,⁵ states that:

> The mission of the Board shall be to provide independent analysis, advice, and recommendations to the Secretary of Energy to inform the Secretary, in the role of the Secretary as operator and regulator of the defense nuclear facilities of the Department of Energy, in providing adequate protection of public health and safety at such defense nuclear facilities.⁶

² OGC previously addressed this question and others in a memorandum dated May 14, 2013, Board Jurisdiction Over Worker Safety, by David S. Jonas, General Counsel. This memorandum is not restricted by the conclusions in the former memo, and constitutes a fresh look at whether workers are included in the public health and safety standard.
³ The meaning of adequate protection was explored in a memorandum dated March 31, 2015, The Legal Framework of Adequate Protection, by John G. Batherson, Acting General Counsel.
⁶ 42 U.S.C. § 2286a(a); that this section was added in 2013, after more than 20 years of the DNFSB regularly reporting to Congress that its jurisdiction included workers, is indicative that Congress approved the existing DNFSB interpretation of public health and safety. This concept is addressed in more detail below in the discussion of congressional acquiesce. See e.g., First Annual Report, at 37 (The various provisions of the [NDAA] and their attendant legislative history indicate that Congress generally intended the phrase “public health and safety” to be
Subsequent references come in clauses detailing recommendations, investigations, design and construction, standards, special studies, and imminent or severe threat. Nowhere within the DNFSB’s enabling legislation or the AEA generally is there a definition for “public health and safety,” nor any constituent word of that phrase. In addition, the general definition section for the USC, Section 1, does not define public, health, or safety.

II. Plain Meaning of “Public Health and Safety”

To determine what individuals are included within the meaning of “public health and safety,” the most appropriate starting point is the plain meaning of the words in the AEA. As recently observed by the Supreme Court of the United States, “[w]here a statute’s language carries a plain meaning, the duty of an administrative agency is to follow its commands as written, not supplant those commands with others it may prefer.” Of the words within “public health and safety,” the word public is the one that describes a category of individuals. Therefore, we begin with the plain meaning of the word public to determine whether it includes workers at defense nuclear facilities and associated sites.

To find the plain meaning of an undefined word within a statute, it is appropriate to consult a dictionary. Webster’s Third New International Dictionary defines public as the people of an organized community. Similarly, Merriam-Webster.com describes public as “the people as a whole” or “a group of people having common interests or characteristics.” None of the definitions in Webster’s, Dictionary.com, Merriam-Webster.com, or Black’s Law Dictionary include a definition for public that excludes public employees, civil servants, or any other kind of government workers or contract employees. While there are variations among the definitions

7 42 U.S.C. § 2286a(b)(5).
9 42 U.S.C. § 2286a(b)(4).
10 42 U.S.C. § 2286a(b)(1).
11 42 U.S.C. § 2286b(i).
15 Webster’s Third New International Dictionary 1836 (Philip Babcock Gove et al. eds., 1993).
offered in these sources, all refer to the *public* as the members of some community, polity, country, or nation.¹⁹

Thus, the plainest interpretation of the word *public* in the context of a law prescribing atomic energy policy for the United States, is to include all individuals in the United States, with no carve-out for public employees, contract employees, individuals within the site boundary, or other individuals associated with defense nuclear facilities. This does not mean that the same standards should apply to individuals who work at defense nuclear facilities and those outside the site boundary, but it does mean that *some* level of protection is afforded to all individuals within the country under the AEA. Indeed, as detailed below, there are other provisions in the AEA, both predating and following the NDAA, that lend additional support to this interpretation.


In 1987, Senator John Glenn introduced the Nuclear Protections and Safety Act of 1987 (S. 1085) “to create an independent oversight board to ensure the safety of United States government nuclear facilities, to apply the provisions of OSHA to certain Department of Energy nuclear facilities, to clarify the jurisdiction and powers of government agencies dealing with nuclear wastes, to ensure independent research on the effects of radiation on human beings, and for other purposes.” A portion of this legislation would pass Congress the following year as part of the NDAA, thus creating the DNFSB.

The hearing record for S. 1085 in the Committee on Government Affairs is replete with concern for workers at DOE sites.²⁰ In his opening statement, Senator Glenn articulated the “basic reasons why” he introduced the act:

> Today we are proceeding with a task long left undone: creating an oversight board responsible for safety in DOE defense facilities. It is essential that these facilities be run safely, *that the health and safety of those who work there and live in the communities nearby be protected*, that the land, air and water around these sights not be poisoned or polluted with harmful radioactive material and that studies involving the effects of radiation on humans be independent.²¹

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¹⁹ The word “public” when used as an adjective may also be used to distinguish between common or “public” interests and “private,” i.e., non-governmental and not held by the whole community. However, the purpose of the memorandum is to determine what individuals are within the reach of the DNFSB health and safety mission, rendering this meaning of “public” inapplicable. An attempt to apply this meaning of “public” to “public health and safety” would render the DNFSB mission to *only* cover public employees or and not individuals outside the site boundaries. There is not any support for this interpretation in the text of the AEA, case law, legislative history, or past DNFSB practice.


²¹ S. Hrg. 100-513, at 3 (emphasis added).
Senator Glenn later went on to explain that the U.S. Government Accountability Office (GAO) had found that “DOE was not adequately monitoring and enforcing its health and safety standards for workers at the facilities it examined.” Senator Glenn elaborated that,

I think in the past it is fair to say that production has had the priority over safety concerns. We have had in the civilian sector, over in the electrical generating plants that are nuclear powered, we have had an emphasis on safety far more strict with regard to the workers and the people in the communities surrounding those plants we have had far more emphasis on safety in those areas than we have had in the DOE-run plants.

The subsequent Committee report indicates that one purpose of the new safety board would be to improve the safety and health of workers at DOE sites. The report described the DNFSB’s role as to “recommend to the Department of Energy changes in operating procedures or health and safety standards to improve the safety of its facilities or reduce the radiation exposure of workers or the public and issue periodic unclassified reports on its recommendations.”

Concern for worker health and safety remained evident when the Committee on Armed Services took up the bill. During the Committee on Armed Services’ hearing, Senator Glenn described how the DNFSB would function: “What the Board would do is point out safety concerns and if those could not be met by the Secretary, then the Board, in the interest of safety for the people and the workers, would say that this goes to the President.” In addition, Senator Wirth described compliance with standards associated with worker exposure to beryllium as one of the things the DNFSB could undertake as a special study. Senator Wirth later returned to this same point, emphasizing that “[the DNFSB’s] facility reviews should be prioritized to ensure that those facilities with higher potential to endanger the health and safety of workers or the general public should be reviewed first.”

22 S. Hrg. 100-513, at 39.
23 S. Hrg. 100-513, 46. During an earlier March 1987 Senate hearing on “Reactor Safety Issues at Department of Energy Facilities,” Senator Glenn would hit upon this same theme, stating:

“[I]t has been our impression from what the staff has done here and what GAO has done that we have set two different standards, one for DOE to operate production facilities across the country, and quite another that we expect commercial facilities to come up to different standards. I do not think we can afford different standards any longer. It is safety and health of our people and workers, and that is just as much a hazard from a DOE plant as it is from an NRC plant.”


24 S. Rept. 100-173, pg 7. (emphasis added).

25 Safety Oversight for Department of Energy Nuclear Facilities: Hearings before the Subcommittee on Strategic Forces and Nuclear Deterrence of the Committee on Armed Services, 100th Cong. S. Hrg. 100-560, at 152 (emphasis added). Note that the version then under consideration required presidential review of DNFSB recommendations.

26 S. Hrg. 100-560 at 105-106.

27 S. Hrg. 100-560 at 111.
It is important to highlight that the version of S. 1085 under consideration during the 1987 Senate hearings included the same “public health and safety” jurisdictional language for the DNFSB that eventually passed as part of the NDAA.\(^\text{28}\) The Committee on Armed Services dropped the portions of S. 1085 that would have subjected DOE facilities to OSHA oversight, and noted that DOE had a strong safety record for DOE employees.\(^\text{29}\) However, the Committee report recognized that a “safety board is needed to ensure that meeting production requirements does not overshadow the need for safe production.”\(^\text{30}\) The Committee acknowledged in the report that the “advisory board structured by the Committee satisfies all the criteria established by the GAO and the National Academy of Sciences.”\(^\text{31}\) One such criteria, provided in a GAO statement to the Senate, is that any such advisory board be truly independent from DOE to avoid historical circumstances in which DOE contractor management “emphasized production over worker safety and health concerns.”\(^\text{32}\)

The Committee went on to describe the safety standards that would guide the DNFSB’s recommendations as adequate protection of public health and safety “as set forth in the Atomic Energy Act and in Nuclear Regulatory Commission Regulations.”\(^\text{33}\) As described below, standards promulgated following passage of the AEA included exposure limits for workers at licensee facilities under the ambit of public health and safety.

IV. Public Health and Safety in the Atomic Energy Act of 1954, as Amended

To understand the meaning of a particular provision, it is well settled that one may look to the broader statutory construct instead of analyzing the provision in isolation.\(^\text{34}\) Therefore, to find what group of individuals is encompassed within the public, we turn to the entirety of the AEA (i.e., beyond the portions of the AEA specifically applicable to the DNFSB) for guidance. Absent some indicia that the term has different meanings in different sections of the AEA, the term “public health and safety” must be given consistent meaning throughout the statutory scheme created by the AEA.\(^\text{35}\) As explained below, use of “public health and safety” throughout the

\(^{28}\) S. Rept. 100-173.
\(^{29}\) S. Rept. 100-232, pg. 8.
\(^{30}\) Id. at 9.
\(^{31}\) Id. at 21.
\(^{32}\) "Key Elements of Effective Independent Oversight of DOE's nuclear Facilities," statement of J. Dexter Peach before the Armed Services Subcommittee on Strategic Forces and Nuclear Deterrence, October 22, 1987.
\(^{33}\) S. Rept. 100-232, pg. 20.
\(^{35}\) See, Pereira v. Sessions, 138 S. Ct. 2105, 2115 (2018) (“it is a normal rule of statutory construction that identical words used in different parts of the same act are intended to have the same meaning”).
AEA supports the interpretation that the plain meaning of public is the broad definition detailed above.\textsuperscript{36}

The first reference to public health and safety is in a section that enumerates congressional findings.\textsuperscript{37} That section declares that “the processing and utilization of . . . special nuclear material must be regulated in the national interest . . . to protect the health and safety of the public.” This provision indicates that the public broadly encompasses those individuals comprising the nation, i.e., the United States, since the national interest is the purpose served by regulations that protect the health and safety of the public.\textsuperscript{38} Subsequent sections of the AEA are replete with references to “public health and safety” or similar formulations\textsuperscript{39} describing the rules that would govern various aspects of the atomic enterprise under the AEA. None of these provisions limit applicability to individuals off-site.

In passing the AEA, Congress enacted “a regulatory scheme which is virtually unique in the degree to which broad responsibility is reposed in the administering agency, free of close prescription in its charter as to how it shall proceed in achieving its statutory objectives.”\textsuperscript{40} The core of the Atomic Energy Commission’s (AEC) regulatory authority was contained in section 2201 that empowered it to “promulgate . . . such rules and regulations as may be necessary to carry out the purposes of the [AEA].” The “purposes of the [AEA]” are described in section 2013, Purpose, and include the creation of a “program to encourage widespread participation in the development and utilization of atomic energy . . . consistent with . . . the health and safety of the public.” In addition, Section 2201 empowered the AEC to “prescribe such regulations as it may deem necessary to govern any activity authorized pursuant to [the AEA] . . . in order to protect health and minimize danger to life or property.” Similarly, the same section authorized the AEC to “establish by rule, regulation, or order, such standards . . . to govern the possession and use of special nuclear material, source material, and byproduct material as the [AEC] may deem necessary . . . to protect health or minimize danger to life or property.”\textsuperscript{41} While the last two regulatory authorities do not contain the word “public” to describe the persons protected, “public health and safety” is applied to the requirements for licenses for commercial facilities, research facilities, and all three kinds of nuclear material (source, byproduct, and special nuclear).\textsuperscript{42}

\textsuperscript{36} See, Nat’l Envt/ . Dev. Assoc.’s Clean Air Project v. Envtl. Prot. Agency, 891 F.3d 1041, 1049 (D.C. Cir. 2018) (“The plainness or ambiguity of statutory language must be measured with reference to, among other things, the specific context in which that language is used, and the broader context of the statute as a whole.”).

\textsuperscript{37} 42 U.S.C. § 2012.

\textsuperscript{38} Whether individuals outside the United States are within the scope of the public protected by the AEA is outside the scope of this memorandum.

\textsuperscript{39} While “public health and safety” is the most common and succinct way to describe the health and safety mission in the AEA, the AEA contains some slightly different formulations. Several sections, e.g. 2012, 2017, and 2111, refer to “health and safety of the public.” Section 2113 refers to “public health, safety, or welfare.” These formulations are similar in that all describe the public as the group of persons protected and are substantially similar for the purposes of this memorandum.

\textsuperscript{40} Siegel v. AEC, 400 F.2d 778, 783 (D.C. Cir. 1968).

\textsuperscript{41} 42 U.S.C. § 2201(b).

\textsuperscript{42} See 42 U.S.C. §§ 2073(b), 2093(b), 2111(b), 2133, 2134(a).
References to “public health and safety,” or similar formulations outside of the general rulemaking authority in Section 2201, are related to specific requirements that the AEC develop regulations specifying criteria for the issuance of licenses by the AEC. These requirements are without further limitation on the scope of persons afforded protection. For example, the AEC was required to develop “minimum criteria for the issuance of . . . licenses for the distribution of special nuclear material depending upon the degree of importance to . . . the health and safety of the public.” In addition, the AEC was empowered to create public health and safety conditions upon which commercial licenses are contingent, and issue commercial licenses “subject to such conditions as the [AEC] may by rule or regulation establish to effectuate the purposes and provisions of [the AEA].” In these specific sections, and in the general regulatory authority granted in Section 2201, there is no specific exception for workers or persons off-site; all persons are swept up in the general charge to the commission to protect the “public health and safety.”

Similarly, the sections assigning specific powers to the DNFSB related to “public health and safety” include no restrictive language that would limit the scope of the public to a class of individuals different than all those comprising the entire nation. This is consistent with the AEA’s sections requiring AEC licensure for facilities and the production, transfer, and use of special nuclear material, source material, and byproduct material. While references to “public health and safety” are thus written broadly, there are some sections in the AEA where Congress added limiting factors to other health and safety provisions.

The AEA contains sections where Congress chose different formulations to describe persons or individuals subject to certain health and safety provisions, i.e., not using the “public health and safety” formulation. In one instance, Congress explicitly chose to limit applicability to individuals located off-site. The definition for “extraordinary nuclear occurrence” applies to events that result in “damages to persons off-site.” If the protection of “public health and safety” referenced in the findings section, and throughout the AEA, was only related to off-site consequences, Congress should have arguably chosen to use “public health and safety” again for extraordinary nuclear occurrences without the explicit restriction to off-site consequences.

In another section, Congress required regulations for design basis threats that considered “the adequacy of planning to protect the public health and safety at and around nuclear facilities.” In contrast to extraordinary nuclear occurrences that encompass damage to all off-site persons, this

43 42 U.S.C. § 2073(b).
44 42 U.S.C. § 2133(a); in similar fashion, section 2234 required the AEC to issue licenses for research and development while imposing the minimum regulation necessary to “protect the health and safety of the public.” See 42 U.S.C. § 2134.
45 42 U.S.C. §§ 2073(b), 2093(b), 2011(a).
47 Russello v. United States, 464 U.S. 16, 23, 104 S. Ct. 296, 300, 78 L. Ed. 2d 17 (1983), quoting from United States v. Wong Kim Bo, 472 F.2d 720, 722 (5th Cir. 1972) (“Where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.”)
48 42 U.S.C. § 2210e.
requirement involves consideration of public health and safety “at or around nuclear facilities.” The plain meaning of “at and around” would include individuals located on the site and the immediate environs. This contrasts with the rest of the references to “public health and safety” throughout the AEA that contain no language restricting the “public” to geographic areas, either on or off-site. Thus, in the section for design basis threats and for extraordinary nuclear occurrences, Congress restricted specific provisions to persons in specific geographic ranges when it was appropriate to do so. In addition, these provisions of the AEA indicate that there is some component of “public health and safety” at the site.

In other words, the references to “extraordinary nuclear occurrence” and “design basis threat” demonstrate specific standards that are more restrictive than the broader category of “public health and safety” referenced throughout the AEA. Taken together, the general charge given to the AEC to protect “public health and safety” is one of great breadth, without restrictions on the individuals to be protected, either by their relationship with or proximity to the site.

V. Breadth is Not Indicative of Ambiguity

Thus, the meaning we can derive from the context of the AEA is that “public health and safety,” consistent with the dictionary definitions of public described above, includes all individuals within the United States, both on and off-site, workers and non-workers. Like the requirements that the AEC develop regulations to govern various activities related to the atomic enterprise, none of the sections directly applicable to DNFSB contain any limitation on the scope of the public to be protected, and thus it is the whole public.

That this ambit is broad does not make it ambiguous. The Supreme Court has “consistently instructed that statutes written in broad, sweeping language should be given broad, sweeping application.” The breadth in the "public health and safety" mandate for the DNFSB is reinforced by the congressional purpose section of the AEA; this section demonstrates congressional concern for the safety and health of the whole public, without caveat, carve-out, or qualification, and demonstrates the congressional purpose of ensuring “public health and safety” that is reinforced throughout the AEA.

In addition, interpreting the public to be restricted to individuals beyond the site boundary would cause some incongruous results with the requirements in the licensure provisions. The licensure requirement for medical and research and development facilities required the AEC to “impose the minimum amount of regulation consistent with its obligations under [the AEA] to . . . protect

49 Webster's Third New International Dictionary defines “around” as along the outer edge or boundary of, or on all sides of. “At” is defined as used as a function word to indicate presence in or near.
52 See 42 U.S.C. §§ 2013(d), 2133(a) (“. . . subject to such regulation as the [AEC] may by rule or regulation establish to effectuate the purposes and provisions of [the AEA]”), 2201 (“. . . make, promulgate, issue rescind, and amend such rules and regulations as may be necessary to carry out the purposes of this Act”).
the health and safety of the public." The "minimum" amount of regulation necessary to protect the public beyond the site boundary would not necessarily protect on-site workers, unless said workers were necessary to protect the offsite public. However, the minimum regulation necessary, as eventually decided by the AEC and discussed in more detail below, included exposure limits for employees at facilities licensed under that section of the AEA.54

Finally, the inclusion of on-site workers within the "public health and safety" standard is consistent with treatment of the term public when referencing public rights and responsibilities in other areas of federal law. Absent some explicit language limiting the applicability, the term public typically includes all individuals within the country. For instance, it is a prohibited personnel practice to engage in reprisal against a federal employee who makes a protected disclosure that the employee reasonably believes evidences "a substantial and specific danger to public health or safety."55 This includes dangers to government personnel.56 Furthermore, while individuals eligible to submit public comments in federal rulemaking are expansively defined in the Administrative Procedures Act to include all individuals (i.e., individual government employees) or organizations other than an agency,57 this process is described in other statutes as "public comment."58 Thus, within the AEA, for "public health and safety" to exclude on-site individuals or workers, there would need to be some limiting language, e.g., a definition, that explicitly limited the term's applicability to offsite individuals. For example, such a definition may be found in the Surface Mining Control and Reclamation Act of 1977.59

VI. Legislative History of the Atomic Energy Act of 1954

While the plain meaning of the term "public health and safety" is unambiguous and broad, the legislative history of the AEA provides further support for the breadth of the regulatory powers of the AEC. While the proper statutory scheme for the development of nuclear power and nuclear weapons was continually evaluated in Congress following passage of the Atomic Energy Act of 1946, a message from President Eisenhower began the formal process of creating the AEA. Eisenhower's message noted the importance of encouraging investment into nuclear power "with careful regulation to protect the national security and the public health and safety."60 To this end, the message included as one of the main changes to the 1946 legislation that the AEC have the power to "establish minimum safety and security regulations to govern the use and

55 5 U.S.C. § 2302
57 5 U.S.C. §§ 551(2), 553(c).
58 See e.g. 42 U.S.C. §§ 6992i, 1395hh, 766a; 49 U.S.C. § 5117.
59 The Surface Mining Control and Reclamation Act of 1977 defines "imminent danger to the health and safety of the public" as conditions that pose a danger "to persons outside the permit area." The "permit area" is the mining site. 30 U.S.C. § 1291(8).
60 H. Doc. 328, 83d Cong., 2nd Sess. at 6-7.
possession of fissionable material.”\textsuperscript{61} This language regarding “public health and safety” found its way into the first version of the bill printed in the Joint Committee on Nuclear Energy (hereinafter “Joint Committee”) in April of 1954.

While regulatory authority for “public health and safety” was present in the AEA from the very first version through to final passage, there is scant reference to what class of persons that Congress may have considered as constituting the \textit{public}. The references we do have come not from representatives or senators, but from industrial sources providing feedback to the Joint Committee while discussing draft versions of the bill. While not conclusive, such references imply a general understanding that the “public health and safety” standards envisioned by the bill would include workers at facilities regulated by the AEC.

For example, the National Association of Manufacturers (NAM) stated in prepared remarks that one of the first things the AEC should do is “promptly set up a safety code in this field, comparable to the existing Boiler Safety Code in industry, because of its importance bearing on public safety . . . ”\textsuperscript{62} One purpose of the ASME Boiler and Pressure Vessel Code is the protection of workers in the vicinity of the vessel.\textsuperscript{63}

In 1959, Congress amended the AEA to allow for state regulation of source, byproduct, and special nuclear material. Following an agreement between a state and the AEC, the AEC would relinquish regulatory authority for the materials located within the state, but not including regulation or licensure of construction and operation of production or utilization facilities.\textsuperscript{64} The amendment specified that the “State shall have authority to regulate the materials covered by the agreement for the protection of the \textit{public health and safety} from radiation hazards.”\textsuperscript{65}

Despite the 1959 amendment’s language only referring to the “public health and safety,” the hearing record preceding passage shows that responsibility was shifted to the states for the protection of workers associated with source, byproduct, and special nuclear materials.\textsuperscript{66} A representative from the AFL-CIO protested that allowing for state regulation of radiation safety of workers would weaken protections.\textsuperscript{67} A representative from the New York State Department

\textsuperscript{61} H. Doc. 328, 83d Cong., 2nd Sess. at 7.

\textsuperscript{62} S. 3323 and H.R. 8802, To Amend the Atomic Energy Act of 1946: Hearings Before the Joint Comm. on Atomic Energy, 83rd Cong. at 2099 (1954) (statement of C.G. Suites, Chairman, Committee on Research of the National Association of Manufacturers) (Representative Holifield subsequently agreed to the need for a safety code).


\textsuperscript{64} An Act to amend the Atomic Energy Act of 1954, as amended, with respect to cooperation with States. Pub. Law. No. 86-373, 73 Stat. 688.

\textsuperscript{65} \textit{Id.} (emphasis added).


\textsuperscript{67} \textit{Id.}
of Labor noted the variation between different jurisdictions’ standards and codes, and that they “do not significantly reduce the radiation protection provided to the worker.”

Usage of “public health and safety” as the descriptor of the AEC and successor agencies’ mission would continue with the Energy Reorg Act and the DOE Act, both of which amended the AEA. Both these acts describe their purpose as including protection of “public health and safety.”

**VII. Public Health and Safety: The Atomic Energy Commission**

In 1955, the AEC promulgated its first regulations (10 C.F.R. Part 20, Standards for Protection Against Radiation) following passage of the AEA in 1954. In the proposed rule, unchanged in the final rule and all the updates since, the purpose of the standards was described as protecting against radiation resulting from “activities licensed by the Atomic Energy Commission.” The scope section elaborated on the persons to whom the rules applied: “all persons who receive, possess, use or transfer byproduct material, source material, or special nuclear material under a general or specific license issued by the Commission.” The authority statement for this rule cited Section 2201(b), described above, permitting the AEC to issue regulations governing use of byproduct, source, and byproduct material to “protect health or to minimize danger to life or property.”

While the first rulemaking cited the AEC’s rulemaking authority codified in Section 2201, the rules themselves applied to persons holding licenses issued pursuant to sections 2073, 2093, and 2111 for special nuclear, source, and byproduct material, respectively. All three of these sections require that the AEC apply the “public health and safety” standard in the issuance of licenses. The rules specified exposure limits to persons off-site and those within “restricted areas” of a license-holder’s facility, i.e. the off-site public and on-site workers. The AEC’s process for issuing said licenses was already promulgated at 10 C.F.R. Part 50.

The Part 50 regulations demonstrated the importance of the Part 20 radiation standards for protection of public health and safety. Following passage of the AEA, the AEC undertook a major revision of Part 50. The new Part 50, published in 1955, applied to all persons who own or operate a production or utilization facility, including research facilities to be licensed under Section 2134 and commercial facilities to be licensed under Section 2133. As part of the

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68 [Id at 250.](#)
69 42 U.S.C. §§ 5801(a), 7112(13); but see, National Nuclear Security Administration Act, § 3211(c)(2), codified at 50 U.S.C. 2401 (charging the NNSA with protection of “the safety and health of the public and of the workforce of the [NNSA]) (discussed in more detail below).
71 10 C.F.R. § 20.1002.
72 [Id. The regulations have since been updated to also apply explicitly to holders of licenses to operate production. However, to actually operate a production or utilization facility, a person would also need a license to hold the material. 10 C.F.R. § 20.1002.](#)
description of the facility, applicants for a license were required to describe the design of the facility in sufficient detail to allow for “evaluation of the adequacy of the various means proposed to minimize the probability of danger from radioactivity to persons both on and offsite.” In addition, the rule made licenses contingent on “all valid rules, regulations, and orders of the [AEC],” e.g., including the Part 20 exposure limits. The Part 50 rule was subsequently updated in 1956 to make this incorporation more explicit.

Thus, following passage of the AEA, the AEC developed a comprehensive set of regulations covering the issuance of licenses for commercial and research facilities that would protect both the off-site public and onsite workers at the facilities. That this is how the AEC executed its mission to protect “public health and safety” is reflected in early communications from the Commissioners to the Joint Committee. In a statement from 1960, the AEC described its execution of the public health and safety mission:

In adopting the Atomic Energy Act of 1954, Congress placed upon the Atomic Energy Commission the responsibility for regulating private atomic energy activities through a system of licensing so as to protect the health and safety of the public. The principle safety consideration with respect to the use of atomic energy is protection against excessive exposure to ionizing radiation. The existence and fundamental nature of radiation hazards were well understood when the Act was adopted and the need to protect against such hazards was emphasized throughout the Act.

It thus became necessary for the Commission to translate the knowledge and experience gained from its own operations and that of others into regulatory standards which would govern the licensing program for protection of atomic workers and the public.

This interpretation was asserted once again the following year. In a prepared statement before the Joint Committee, the Acting Director of Regulation at the AEC described the purpose of the licensure requirements:

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74 Id at 2488.
75 The Commissioners themselves confirmed this view, “The principle purpose of the licensing procedure is to enable the Commission to make a determination that the applicant will be able to comply with applicable regulations including, in particular, Part 20.” Joint Committee on Atomic Energy, 86th Congress, Selected Materials on Radiation Protection Criteria and Standards: Their Basis and Use, Chapter 4, Statement of the Atomic Energy Commission, at 520 (1960).
76 21 Fed. Reg. 358 (Jan. 18, 1956); 10 C.F.R. § 50.40 (In determining that a license will be issued to an applicant, the Commission will be guided by the following considerations: [processes, equipment, and procedures that provide] reasonable assurance that the applicant will comply with the regulations in this chapter, including the regulations in Part 20, and that the health and safety of the public will not be endangered); Harold P. Green, The Law of Reactor Safety, 12 Yale L. Rev. 115, 125 (1958).
The basic purpose of the licensing requirement is to provide reasonable assurance, before the licensee embarks on an activity, that he will conduct the proposed activity in compliance with the Commission’s regulations and in such a manner as to protect public health and safety, including the health and safety of employees.  

Thus, worker protection has been an integral part of the AEC’s protection of public health and safety since the first days following passage of the AEA. The AEC reiterated this view in a 1967 decision regarding the Turkey Point Nuclear facility. In the course of granting a construction permit, despite an intervenor’s request that the AEC consider intentional efforts to damage the facility, the AEC described its public health and safety mission stemming from the AEA, consistent with the previous representations described above:

We have considered the public health and safety standard to refer to the overall qualifications of the applicant and the design of the facility to protect plant employees and the public against accidents and their consequences. . . . This implementation of the subject standards has been based upon our understanding of the intent of Congress as expressed in the various provisions of the Atomic Energy Act which pertain to the licensing of reactors and of the legislative concerns which gave rise to those provisions.  

Following issuance of the construction permit for the Turkey Point units, the intervenors took their effort to force the AEC to consider industrial attack or sabotage to federal court. In Siegel v. AEC, the Court of Appeals for the DC Circuit agreed with the views expressed by the commission in granting the construction permit. In Siegel, the court noted that the congressional “preoccupation was with industrial accidents and the dangers they presented to employees and the neighboring public.”

This interpretation continues to be in effect under the NRC. A relatively recent rulemaking makes NRC’s interpretation explicit: “The Atomic Energy Act (AEA) gives the NRC the statutory responsibility to protect public health and safety, which includes worker radiological health and safety, in the use of source, byproduct, and special nuclear materials.”

VIII. The Energy Reorganization Act of 1974 and Abnormal Occurrence Reports

In 1974, Congress passed the Reorg Act to bifurcate the atomic energy promotion, research, regulation, and licensing responsibilities of the AEC into the newly created Energy Research and

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79 In the Matter of Florida Power & Light Company (Turkey Point Nuclear Generating Units No. 3 and No. 4), 4 A.E.C. 9, 13 (1967).

80 Siegel v. Atomic Energy Comm’n, 400 F.2d 778, 784 (D.C. Cir. 1968)

81 Id.

Development Administration (ERDA) and NRC. Rather than create new regulatory responsibilities, the Reorg Act divided the responsibilities of the AEA between the two new agencies. The Reorg Act largely did not include new health and safety regulatory requirements or powers, but Congress did declare that its purpose was, in part, to “assure public health and safety.”

While the general scheme of the Reorg Act was of bifurcation of existing AEC powers and responsibilities, there was one new requirement related to “public health and safety.” The NRC was obligated in Section 5848 to report to Congress each quarter on abnormal occurrences determined by the Commission to be “significant from the standpoint of public health and safety.” Following passage of the Reorg Act, the NRC issued a policy statement in 1977 describing how the Commission would decide what events are significant to public health and safety. The NRC indicated that the criteria “reflect a range of health and safety concerns and are applicable to events involving a single occupational worker as well as those having an overall impact on the general public.” Subsequent versions of this policy statement do not include this language, but abnormal occurrences still include occupational doses at NRC licensed facilities.

IX. NRC Regulation of DOE Facilities Pursuant to “Public Health and Safety”

Since the passage of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (1999 NDAA), the NRC has exercised regulatory jurisdiction over the Mixed Oxide Fuel Fabrication Facility (MOX) at the Savannah River Site. The 1999 NDAA amended the Reorg Act by providing that NRC would exercise regulatory jurisdiction over MOX pursuant to chapters 6, 7, 8, and 10 of the AEA. Notably, these chapters do not include the NRC’s general regulatory authority captured in Section 2201 that provide the general power to regulate for the purposes of health and safety.

The chapters cited by the 1999 NDAA are the licensure provisions for special, byproduct, and source nuclear material, commercial facilities, and research facilities. All of these provisions, as noted above, include “public health and safety” among the requirements for NRC regulation. The NRC licensure procedures were conducted pursuant to 10 C.F.R. Part 70, Domestic Licensing of Special Nuclear Material. Among the Part 70 licensure provisions are ones specifically related to worker safety. For example, 10 C.F.R. § 70.61, applicable to all licensees authorized to

83 42 U.S.C. § 5801.
84 42 U.S.C. § 5801.
87 The first criteria is “[a]ny unintended radiation exposure to an adult (any individual 18 years of age or older).” For fuel cycle facilities, the policy statement also includes “high-consequence events”, described in a footnote as “those that could seriously harm the worker or a member of the public.” 82 Fed. Reg. 45,907 (Oct. 2, 2017).
88 42 U.S.C. § 5842(5).
possess greater than a critical mass of special nuclear material, requires each applicant to evaluate the risk of an event that results in certain levels of worker exposure. Of course, the exposure limits for on-site workers captured in Part 20 are applicable to all persons who hold a license for special nuclear material as well.

Similarly, the AEA gives NRC regulatory authority over some DOE facilities as a result of the Energy Policy Act of 1992 (Energy Policy Act). The Energy Policy Act amended the AEA to provide for regulation over DOE’s gaseous diffusion uranium enrichment facilities. The Energy Policy Act accomplished this by adding Section 2297f to the AEA directing NRC to “establish by regulation such standards as are necessary to govern the gaseous diffusion uranium enrichment facilities of [DOE] in order to protect the public health and safety from radiological hazard”. The following year, DOE’s final rule for Part 835, Occupational Radiation Protection, acknowledged that the Energy Policy Act had the effect of removing worker radiological health and safety from DOE’s system of internal regulation by explicitly removing them from the scope of the new regulation. NRC’s resulting regulations are found in Part 76, and were explicitly written for the purpose of “public health and safety,” and include provisions explicitly for the protection of workers. The rules in Part 76 also incorporate the Part 20 exposure limits by reference, thus including the occupational dose limits.

X. DOE Regulations Defining “Member of the Public”

Under the AEA, DOE has broad authority to promulgate rules to carry out its statutory responsibilities. Pursuant to this authority, DOE has issued regulations at 10 C.F.R. Part 835 defining “member of the public” for the purposes of a rule regarding occupational radiation exposure. The NRC has issued a similar regulatory definition in Part 20. As previously noted, the DOE regulations do not apply to gaseous diffusion facilities regulated by the NRC.

90 10 C.F.R. § 70.61.
91 10 C.F.R. § 20.1002.
93 Id. The Energy Policy Act also contains language almost identical to the obligations to DNFSB found in Section 2286c of the AEA, (see 42 U.S.C. § 2297f(c)(4)(B)).
94 42 U.S.C. § 2297f(a) (emphasis added).
96 10 C.F.R. § 76.1.
97 10 C.F.R. § 76.9(e), (h), (j).
98 10 C.F.R. § 76.60(d).
100 10 C.F.R. § 835.2.
101 10 C.F.R. § 20.1003; see also 56 Fed. Reg. 23,360, 23,389 (May 21, 1991) (NRC noting that its new revisions to Part 20 that include a definition for “member of the public” would “provide a substantial increase in overall protection of public health and safety both for workers and for members of the general public.” [emphasis added])
pursuant to “public health and safety.” The definition within these rules apply only for the purposes of that Part and do not limit DNFSB oversight to persons off-site. Moreover, Part 835 itself only applies to DOE activities with the potential to produce radiological harm to workers (i.e., not individuals located off-site).

Part 835, for the purposes of that part, defines a member of the public as “an individual who is not a general employee” and further elaborates that “an individual is not a ‘member of the public’ during any period in which the individual receives an occupational dose.” Similarly, Part 20 defines a member of the public as “any individual except when that individual is receiving an occupational dose.” “Occupational Dose” is defined in both sets of regulations to broadly include radiation doses received as a consequence of working for DOE or NRC licensees. Both definitions explicitly exclude from occupational doses background radiation, medical radiation, and other doses received for reasons other than their employment with the operator of a nuclear facility.

Part 835 only applies to DOE activities with the potential to “result in an occupational exposure of an individual to radiation.” The definition for “member of the public” serves to distinguish between DOE employees and members of the public who are on-site and are exposed to radiation, so the standard can apply a different dose limit to each group. Part 835 contains no explicit protections for persons off-site, does not purport to provide a dose limit for such individuals, and contains no descriptive language for the wider public who might be subject to such a definition.

The policy in Part 835 to require one exposure limit for occupational doses and another for members of the public in controlled areas reflects a DOE judgment pursuant to the adequate protection standard in the AEA. The AEA requires that applicants for a licensure to use nuclear material demonstrate to the NRC’s satisfaction that they can provide “adequate protection to the health and safety of the public.” This adequate protection standard was deliberately incorporated as the one for DNFSB oversight and is reflected in DOE regulations. This standard allows for the judgment of the AEC and its successors to promulgate different levels of

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103 Note that NRC’s definition for occupational dose explicitly describes workers as a subset of the public. See 20 C.F.R. § 1003 (occupational doses exclude those received by workers “as a member of the public.”)


105 10 C.F.R. §§ 835.1(a), 835.2(a).

106 See 10 C.F.R. § 835.208 (dose limit for “members of the public” applies only to those in controlled areas, i.e. a DOE site).

107 These exposure rules themselves are subject to DNFSB oversight. See 41 U.S.C. § 2286a(b)(1) (Requiring DNFSB review and evaluation of DOE orders, regulations, and requirements related to defense nuclear facilities).


110 See 10 C.F.R. Part 830.
protection for workers, non-workers on the site, and members of the public off the site.\textsuperscript{111} Similarly, the DNFSB is statutorily authorized to interpret the adequate protection standard as it applies to workers, non-workers on the site, and members of the public off the site. Thus, the definitions within Part 835 are in service of that categorization for on-site individuals, not an exhaustive description of the “public” for the purposes of the AEA.

Moreover, Part 835 applies only to certain DOE activities, and does not impact the scope of DNFSB oversight, as specified in the AEA.\textsuperscript{112} In other words, the definition of “member of the public” in Part 835 only applies for the purposes of Part 835.\textsuperscript{113} Part 835 contains no terms applying its definitions or requirements to other agencies or regulatory contexts. The only regulations describing the scope of DNFSB oversight activities are those promulgated by the DNFSB in Part 1708. The Part 1708 regulations governing safety investigations apply to any event or practice at defense nuclear facilities that may affect public health and safety.\textsuperscript{114} The Preamble to the Proposed Rule for Part 1708 clarifies that this incorporates the broad, unambiguous meaning of “public.”\textsuperscript{115}

\section*{XI. The National Nuclear Security Administration Act}

In 1999, Congress passed the National Nuclear Security Administration Act (NNSA Act) as part of the National Defense Authorization Act for Fiscal Year 2000.\textsuperscript{116} The purpose of the NNSA act was to create a semi-autonomous entity within DOE to be responsible for nuclear weapons development, naval nuclear propulsion, defense nuclear nonproliferation, and fissile material disposition.\textsuperscript{117} Among the duties assigned to the newly created Administrator of the NNSA was to “ensure that all operations and activities of the [NNSA] are consistent with the principles of...[s]afeguarding the safety and health of the public and of the workforce of the Administration.”\textsuperscript{118}

Application of the broad, plain meaning of “public” discussed in prior sections of this memo renders inclusion of “workforce” in the NNSA Act provision as superfluous. This is because the NNSA Act language quoted above seems to identify the public health and safety and the

\begin{itemize}
  \item \textsuperscript{111} See Union of Concerned Scientists v. NRC, 880 F.2d 552 (D.C. Cir. 1989).
  \item \textsuperscript{112} See 10 C.F.R. § 835.1(a) (“The rules in this part establish radiation protection standards, limits, and program requirements for protecting individuals from ionizing radiation resulting from the conduct of DOE activities”); see Ruling Concerning 10 C.F.R. Parts 830 (Nuclear Safety Management) and 835 (Occupational Radiation Protection), DOE Office of General Counsel, 61 Fed. Reg. 4,209 (Feb. 5, 1996) (“The requirements in Parts 830 and 835 cover all activities under DOE’s auspices with the potential to cause radiological harm” [emphasis added]).
  \item \textsuperscript{113} 10 C.F.R. § 835.2(a) (introducing the regulatory definitions with “[a]s used in this part:”)
  \item \textsuperscript{114} 10 C.F.R. § 1708.101(a).
  \item \textsuperscript{115} 77 Fed. Reg. 44,174 (July 27, 2012) (“The proposed rule will ensure a more efficient investigative process, and promote uniformity in the investigation of events or practices that have adversely affected, or may adversely affect, health and safety of the public and workers at DOE defense nuclear facilities.” [emphasis added])
  \item \textsuperscript{117} H. Rept 106-301, at 927.
  \item \textsuperscript{118} 50 U.S.C. § 2401(c)(2) (emphasis added).
\end{itemize}
workforce health and safety as two distinct items. A general cannon of statutory interpretation is the rule against “surplusage”, i.e., a court will usually interpret a statute in a way that gives meaning to each word. Application of this rule would likely lead to an interpretation of “public,” for the purposes of the NNSA Act, to mean some class of individuals excluding the workforce of the NNSA.

However, it is not necessary for us to decide whether to apply the rule against surplusage or to resolve the associated ambiguity potentially created in this clause of the NNSA Act. The NNSA Act is not part of the AEA, and therefore public may have a different meaning in the NNSA Act than in the provisions of the AEA applicable to the DNFSB. Moreover, in the course of passing the NNSA Act, the Chairmen of the House and Senate Armed Services Committees, in a letter to the National Governor’s Association, directly addressed the effect of the NNSA Act on DNFSB oversight:

Concern has been raised that the external oversight role of the Defense Nuclear Facilities Safety Board (DNFSB) will be impaired by the [NNSA Act] language. This concern is without merit, since [the NNSA Act] makes no change to the existing authority or role of the DNFSB. While there was some discussion during the conference of possibly expanding the role of the DNFSB to enhance external environmental and health oversight, this proposal was eventually dropped resulting in no change to the existing authority of the DNFSB.120

As we will see in more detail below, the context of this statement was regular reports from both DNFSB and DOE indicating that DOE workers are within the public health and safety mission of DNFSB.

XII. Congressional Acquiescence

Action or inaction by Congress following an agency’s interpretation of a given statute may lend additional authority to the agency’s interpretation.121 This doctrine is known as congressional acquiescence. As articulated by the Supreme Court in Red Lion Broadcasting Co. v. FCC, “construction of a statute by those charged with its execution should be followed unless there are compelling indications that it is wrong, especially when Congress has refused to alter the administrative construction.”122 While a later Congress’s inaction cannot control the interpretation of the NDAA or the AEA itself, congressional acquiescence may inform the meaning


of the earlier statutes when Congress has amended the statutes without making any relevant changes.\textsuperscript{123}

Since the first reports following creation of the DNFSB, the agency’s reports to Congress have explicitly included workers within its public health and safety mission. For example, the first annual report, issued in 1991, stated that both Congress and the DNFSB “have interpreted the public to include workers at defense nuclear facilities.”\textsuperscript{124} The fifth annual report, issued in 1995, indicated that the DNFSB would “take action as needed to help to ensure the protection of public health and safety of workers.”\textsuperscript{125} The sixth annual report, issued in 1996, described the DNFSB role as to assure the public that DOE was implementing a program that provides “reasonable assurance of no undue risk to the workers and the public.”\textsuperscript{126} Subsequent reports continued to include workers within descriptions of the DNFSB mission.\textsuperscript{127}

DOE reports to Congress have also indicated that DOE interpreted the DNFSB mission to include worker health and safety. In addition to noting DOE’s acceptance of recommendations covering worker safety,\textsuperscript{128} these reports note the DNFSB and DOE shared commitment to worker safety. For example, the annual report issued by DOE in 1996 described the shared mission: “The Department shares with the Board the common goal of ensuring adequate protection at its defense nuclear facilities of public and worker health and safety and the environment.”\textsuperscript{129} The same language was repeated almost verbatim in the DOE annual reports for 2001, 2002, 2003, 2004 and 2005.\textsuperscript{130} The 2007 Annual Report said that DOE “interacts with the Board and its staff . . . to further ensure adequate protection of public and worker health and safety.”\textsuperscript{131} The Fiscal Year 2011 report noted that the relationship with the DNFSB fully supports the health and well-

\begin{footnotesize}


\textsuperscript{131} 2007 Annual Report to Congress; Department of Energy; May 2008, at iv, IV-1.
\end{footnotesize}
being of DOE’s workers. Finally, the Fiscal Year 2012, 2013, and 2014 annual reports noted “our shared goal of protecting workers.”

In addition, DOE has accepted numerous recommendations from DNFSB related to worker health and safety. Pursuant to Section 2286d(e), DOE is obligated to report to Congress on the acceptance of DNFSB recommendations. Notable recommendations accepted by DOE include: Recommendation 2012-2, Hanford Tank Farms Flammable Gas Safety Strategy; Recommendation 2012-1, Savannah River Site Building 235-F; and Recommendation 2010-1, Safety Analysis Requirements for Defining Adequate Protection for the Public and Workers.

It was in the context of year in, year out reports from both DNFSB and DOE that Congress wrote the DNFSB mission statement in late 2012. In the 2013 NDAA, Congress amended the AEA to describe the DNFSB’s mission as to “provide independent analysis, advice, and recommendations to the Secretary of Energy . . . in providing adequate protection of public health and safety.” According to the conference report accompanying the 2013 NDAA, the purpose of this mission statement was to “clarify” the role of DNFSB to provide advice, and the role of DOE as operator and regulator. The mission statement retained the public health and safety standard applicable to the DNFSB since its creation, and declined to remove worker safety or on-site radiological consequences from DNFSB oversight.

XIII. Conclusion

The mission of the DNFSB is to provide independent analysis, advice, and recommendations regarding public health and safety. The meaning of “public health and safety” in the AEA, consistent with the plain meaning of the word “public,” includes workers at DOE facilities. The purpose and structure of the AEA support this interpretation, as does the legislative history preceding the original AEA and subsequent amendments. Finally, since the creation of the DNFSB, both DNFSB and DOE have regularly reported to Congress that workers are included in the DNFSB’s “public health and safety” mission. Despite receiving such reports for nearly 30 years, Congress has refrained from disturbing that interpretation, even when crafting a clarifying mission statement for the DNFSB in 2012.

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134 Recommendation 2010-1 was only partially accepted; the portions not accepted were not based on whether workers are included within public health and safety.


136 H. Rept. 112-705, at 1000.

137 42 U.S.C. § 2286a(a).