



October 2020

NUCLEAR SAFETY

DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight

Accessible Version

GAO Highlights

Highlights of [GAO-21-141](#), a report to congressional committees

Why GAO Did This Study

Established by statute in 1988, DNFSB has broad oversight responsibilities regarding the adequacy of public health and safety protections at DOE defense nuclear facilities. In May 2018, DOE issued Order 140.1, a new order governing DOE's interactions with DNFSB. DNFSB raised concerns that the order could affect its ability to perform its statutory mandate.

Congressional committee reports included provisions for GAO to review DOE Order 140.1. This report examines (1) the extent to which the order was consistent with DNFSB's original enabling statute and with long-standing practices, as well as actions DOE has taken in light of changes to the statute outlined in the FY20 NDAA; and (2) outstanding areas of concern that DNFSB and DOE identified, and the potential effects of these concerns on how the two agencies cooperate. GAO reviewed legislation and agency documents; visited DOE sites; and interviewed DNFSB, DOE, and NNSA officials and contractor representatives.

What GAO Recommends

GAO is making a recommendation to DOE and DNFSB that they collaborate to develop a written agreement, and an additional two recommendations to DOE, including that it develop more robust training on Order 140.1A. DOE and DNFSB agreed to develop a written agreement. DOE agreed with one of the other two recommendations, but did not agree to provide more robust training. GAO maintains that the recommended action is valid.

View [GAO-21-141](#). For more information, contact Allison Bawden at (202) 512-3841 or bawdena@gao.gov.

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What GAO Found

The Department of Energy's (DOE) Order 140.1 included provisions inconsistent with the Defense Nuclear Facilities Safety Board's (DNFSB) original enabling statute—the statute in place when the order was issued—and with long-standing practices. For example, GAO found that Order 140.1 contained provisions restricting DNFSB's access to information that were not included in the statute. GAO also found Order 140.1 to be inconsistent with long-standing DNFSB practices regarding staff's access to certain National Nuclear Security Administration (NNSA) meetings at the Pantex Plant in Texas, where nuclear weapons are assembled and disassembled (see fig.). In December 2019, the National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA) amended DNFSB's statute to clarify and confirm DNFSB's authority and long-standing practices between the agencies. DOE replaced Order 140.1 with Order 140.1A in June 2020.

National Nuclear Security Administration's Pantex Plant, Located Near Amarillo, Texas



Source: Consolidated Nuclear Security, LLC (CNS). | GAO-21-141

DNFSB, DOE, and NNSA officials that GAO interviewed identified concerns with Order 140.1 that GAO found are not addressed under DOE's Order 140.1A. In particular, DOE's Order 140.1A was not part of a collaborative effort to address DNFSB's remaining concerns related to access to information and other regular interagency interactions. For example, DNFSB officials cited concerns that DOE could interpret a provision of DNFSB's statute authorizing the Secretary of Energy to deny access to information in a way that could limit DNFSB access to information to which it has had access in the past. GAO has previously recommended that agencies develop formal written agreements to enhance collaboration. By collaborating to develop an agreement that, among other things, incorporates a common understanding of this provision, DOE and DNFSB could lessen the risks of DNFSB being denied access to information important for conducting oversight. DOE and NNSA officials, as well as contractor representatives involved in operating the facilities, also raised concerns that insufficient training on Order 140.1 contributed to uncertainties about how to engage with DNFSB staff when implementing the order, a problem that GAO found could persist under Order 140.1A. Providing more robust training on Order 140.1A would help ensure consistent implementation of the revised order at relevant facilities.

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Abbreviations

DNF	defense nuclear facility
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
EM	Office of Environmental Management
FY20 NDAA	National Defense Authorization Act for Fiscal Year 2020
LANL	Los Alamos National Laboratory
MOU	memorandum of understanding
NES	nuclear explosive safety
NNSA	National Nuclear Security Administration
Pantex	Pantex Plant
SRS	Savannah River Site

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October 29, 2020

Congressional Committees:

Since its establishment by statute in 1988,¹ the Defense Nuclear Facilities Safety Board (DNFSB, or the Board) has provided independent analysis, advice, and recommendations to the Secretary of Energy regarding the adequacy of public health and safety protections at the Department of Energy's (DOE) defense nuclear facilities.² DNFSB is an independent establishment in the executive branch that has broad oversight responsibilities regarding these facilities, which are located at 10 active DOE sites across the United States.³ The activities that DNFSB typically oversees at DOE defense nuclear facilities are primarily conducted by DOE and National Nuclear Security Administration (NNSA)⁴ contractors that manage and operate DOE's sites and often entail high-consequence (although low-probability) risks to public health and safety.⁵ For example,

¹Pub. L. No. 100-456, div. A, tit. XIV, § 1441, 102 Stat. 1918, 2076-2085 (1988) (*codified as amended at 42 U.S.C. §§ 2286-2286i*).

²DNFSB's enabling statute defines "Department of Energy defense nuclear facility" as (1) a production facility or utilization facility under the control or jurisdiction of the Secretary of Energy and operated for national security purposes, and (2) certain nuclear waste storage facilities under the control or jurisdiction of the Secretary of Energy. The term does not include any facility or activity pertaining to the Naval nuclear propulsion program, any facility or activity involving the transportation of nuclear explosives or nuclear material, any facility that does not conduct atomic energy defense activities, or any facility owned by the United States Enrichment Corporation. 42 U.S.C. § 2286g.

³The 10 sites are: the Hanford Site, Washington; Idaho National Laboratory, Idaho; Lawrence Livermore National Laboratory, California; Los Alamos National Laboratory, New Mexico; Nevada National Security Site, Nevada; Oak Ridge National Laboratory/Y-12 National Security Complex, Tennessee; Pantex Plant, Texas; Sandia National Laboratories, New Mexico; Savannah River Site, South Carolina; and the Waste Isolation Pilot Plant, New Mexico.

⁴NNSA is a separately organized agency within DOE. It was created by Title 32 of the National Defense Authorization Act for Fiscal Year 2000, Pub. L. No. 106-65, §§ 3201–3299, 113 Stat. 512, 953-971 (1999) (*codified as amended at 50 U.S.C. §§ 2401-2484*). NNSA has responsibility for the nation's nuclear weapons, nonproliferation, and Naval reactor programs.

⁵Different DOE offices, including the Offices of Environmental Management, Nuclear Energy, and Science, as well as NNSA, oversee the contractors that manage and operate DOE's sites. Management and operating contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or government-controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting federal agency. 48 C.F.R. § 17.601.

some of the work conducted at these facilities involves the handling of radioactive and hazardous materials, such as plutonium and radioactive wastes that, if not handled safely, could cause nuclear accidents or expose workers, the public, and the environment to heavy doses of radiation. Other work that DNFSB monitors at these sites is also inherently dangerous, such as the production, handling, and testing of certain explosive materials that are essential to the operation of U.S. nuclear weapons.

DNFSB also reviews and evaluates the content and implementation of standards relating to the design, construction, operation, and decommissioning of defense nuclear facilities and investigates any event or practice at defense nuclear facilities that the Board determines has adversely affected, or may adversely affect, public health and safety. DNFSB seeks to use informal interactions with DOE to resolve safety issues that are of concern to the Board. DNFSB also uses formal communications, such as written recommendations, to address more substantial safety issues it identifies at a facility or site, as well as broader safety issues across DOE defense nuclear sites.

In the years following the establishment of DNFSB, DOE created the Office of the Departmental Representative to DNFSB, hereafter the Office of the Departmental Representative, for the purposes of coordinating departmental interactions with the Board. DOE also issued a set of guidelines to departmental staff and contractors that provided direction for engaging with the Board and its staff. Prior to May 2018, interactions between DOE and the Board were guided by DOE Manual 140.1-1B, the first version of which was developed in collaboration with DNFSB in 1996.⁶ DOE Manual 140.1-1B included requirements and guidance on how to interact and cooperate with the Board and its staff; address requests for information; establish departmental commitments in order to resolve Board-identified safety issues; and respond to Board recommendations, among other things.

⁶Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Manual 140.1-1B (Washington, D.C.: Mar. 30, 2001). DOE issued the first version of this manual in December 1996. It was subsequently revised and reissued as DOE Manual 140.1-1A in January 1999.

In May 2018, after taking steps to reassess its relationship with DNFSB, DOE replaced Manual 140.1-1B with Order 140.1.⁷ According to the DOE Deputy Secretary of Energy's testimony at an August 2018 DNFSB public hearing about Order 140.1, DOE stated that the manual was outdated and had contributed to a blurring of the distinction between DOE's responsibilities to own and operate defense nuclear facilities and to self-regulate them, and those of the department's external advisors, such as DNFSB.⁸ The Deputy Secretary further indicated that DOE had determined it was necessary to reform the department's engagement with DNFSB so as to clarify each agency's role, with DOE serving as the owner and regulator responsible for ensuring the safety of its workers, the public, and the environment, and DNFSB serving as the independent agency providing advice, analysis, and recommendations to assist DOE in overseeing its defense nuclear facilities. Consequently, DOE took steps to develop an order that would more clearly distinguish DOE's roles and responsibilities from those of DNFSB and further clarify how DOE would cooperate with the Board. According to DOE officials, while DOE incorporated some comments it received from DNFSB in its new order, DOE did not collaborate with DNFSB when developing this order, in part because DOE considered its order to be an internal departmental document.

Soon after DOE issued Order 140.1, DNFSB expressed concerns about the order. In a September 2018 letter from the DNFSB Chairman to the Secretary of Energy, the Chairman stated that Order 140.1 "wrongly attempts to diminish the Board's ability to perform its statutory mandate under the Atomic Energy Act of 1954, as amended."⁹ According to the Chairman's letter, DOE Order 140.1 claims to exempt on-site individuals and workers from the Board's oversight and included provisions that improperly limit timely access to information, personnel, and facilities that DNFSB considers necessary to carry out its responsibilities. Senior DOE leadership subsequently responded to DNFSB's concerns. For example, during a November 2018 DNFSB public hearing held with senior DOE officials that focused on Order 140.1, DOE's Assistant Secretary for the

⁷Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1 (Washington, D.C.: May 14, 2018).

⁸*First Public Hearing on the Department of Energy's Interface with the Defense Nuclear Facilities Safety Board*, Defense Nuclear Facilities Safety Board (Aug. 28, 2018) (statement of DOE Deputy Secretary of Energy Dan Brouillette).

⁹DNFSB's enabling statute is part of the amended Atomic Energy Act of 1954.

Office of Environmental Management (EM) stated that the order provides direction to DOE, and not DNFSB, personnel.¹⁰ Moreover, in a December 2018 letter to the DNFSB Chairman, the Secretary of Energy stated that Order 140.1 did not hinder DOE's cooperation with DNFSB or prevent DNFSB from conducting its independent safety oversight mission.

Subsequent to the disagreements between DNFSB and DOE regarding Order 140.1, in December 2019, the National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA) amended DNFSB's original enabling statute.¹¹ Among other things, the amendments modified DNFSB's mission to include providing independent analysis, advice, and recommendations to provide for adequate protection of the health and safety of employees and contractors at defense nuclear facilities as well as clarified when the Secretary of Energy may deny DNFSB access to facilities, personnel, or information. In addition, the explanatory statement accompanying the Further Consolidated Appropriations Act, 2020, directed DOE to "collaborate with the DNFSB to address the Board's specific concerns with Order 140.1" in order to ensure that DNFSB can continue to meet its statutory oversight responsibilities.¹² In light of the changes to DNFSB's enabling statute, DOE revised and replaced Order 140.1 with Order 140.1A in June 2020.¹³

The June 2019 committee report accompanying a bill for the FY20 NDAA included a provision that GAO review DOE Order 140.1.¹⁴ In addition, the committee report accompanying DOE's fiscal year 2020 appropriation act included a provision that GAO evaluate the impact to public and worker

¹⁰Second Public Hearing on the Department of Energy's Interface with the Defense Nuclear Facilities Safety Board, Defense Nuclear Facilities Safety Board (Nov. 28, 2018) (statement of DOE Assistant Secretary for the Office of Environmental Management Ann White).

¹¹Pub. L. No. 116-92, tit. XXXII, 133 Stat. 1198, 1963-1966 (2019). DNFSB's enabling statute was enacted in 1988 and subsequently amended several times before 2018; however, for the purposes of our report, we refer to the version in effect in 2018 as the "original enabling statute" in order to simplify the comparison between the 2018 and 2019 versions.

¹²165 Cong. Rec. H11061, H11249 (Dec. 17, 2019). Section 4 of the Further Consolidated Appropriations Act, 2020, provides that the explanatory statement shall have the same effect as if it were a joint explanatory statement of a committee of conference.

¹³Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1A (Washington, D.C.: June 15, 2020).

¹⁴S. Rep. No. 116-48, at 390 (2019).

safety of Order 140.1 and whether the order prevents DNFSB access to information required to carry out its congressionally mandated responsibilities.¹⁵ In response to these provisions, we examined (1) the extent to which DOE Order 140.1 was consistent with DNFSB's original enabling statute and long-standing practices, as well as the actions DOE has taken in light of the changes to the Board's enabling statute outlined in the FY20 NDAA; and (2) outstanding areas of concern that DNFSB and DOE have identified, and the potential effects of these concerns on the ways in which the two agencies cooperate.

To determine the extent to which DOE Order 140.1 was consistent with DNFSB's original enabling statute and long-standing practices,¹⁶ we reviewed and compared DOE Order 140.1 to DNFSB's enabling statute in order to identify any inconsistencies. As part of our efforts to identify long-standing practices between DOE and DNFSB regarding the activities the Board and its staff conduct to provide independent safety oversight of DOE defense nuclear facilities, we reviewed DOE Manual 140.1-1B; DNFSB and DOE annual reports to Congress; DNFSB recommendations to DOE and DOE's responses; DNFSB weekly site reports; and legal interpretations by DNFSB's and DOE's Offices of the General Counsel. In addition, we reviewed documents related to the DOE integrated project team's effort to convert DOE Manual 140.1-1B into Order 140.1, including a crosswalk that compared the manual with legislation and current DOE practices. We interviewed the DNFSB Chairman and Board members, as well as officials from DNFSB's Office of the General Counsel and Office of the Technical Director. We also interviewed DOE and NNSA officials, including officials from the Office of the Departmental Representative and DOE's and NNSA's Offices of the General Counsel, as well as members from the integrated project team that developed Order 140.1.

To determine the actions being taken by DOE in light of the changes made to DNFSB's enabling statute by the FY20 NDAA, we compared DOE Order 140.1 to DNFSB's amended statute to identify any inconsistencies between the order and the changes made to DNFSB's

¹⁵H. Rep. No. 116-83, at 127 (2019). The explanatory statement accompanying the Further Consolidated Appropriations Act, 2020, said that language in House Report 116-83 shall be complied with unless specifically addressed to the contrary in the accompanying bill or explanatory statement. 165 Cong. Rec. H11061, H11198 (Dec. 17, 2019).

¹⁶Agencies are free to change their existing policies as long as they provide a reasoned explanation for the change. *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

statute. We reviewed DOE's February 2020 draft revisions to Order 140.1 and compared the revisions to both the order, as issued, and DNFSB's amended enabling statute. We also reviewed correspondence from DNFSB to DOE in response to the amendments made to DNFSB's enabling statute. Moreover, we reviewed Order 140.1A after it was issued on June 15, 2020, and compared it to both the previous version of the order and DNFSB's amended enabling statute. In addition, we interviewed DOE and NNSA officials in response to the changes made to DNFSB's enabling statute, including staff from the Office of the Departmental Representative and DOE's and NNSA's Offices of the General Counsel.

To determine any outstanding areas of concern that DNFSB and DOE have and the potential effects these concerns may have on the ways in which in the two agencies cooperate, we reviewed DOE Order 140.1A, DOE Order 140.1 and its accompanying guidance document,¹⁷ and DNFSB and DOE documents that identified concerns related to how the two agencies interact. For example, we reviewed correspondence between DNFSB, DOE, and NNSA about DNFSB staff being denied access to certain nuclear explosive safety (NES) evaluation meetings at the Pantex Plant (Pantex) in Texas.¹⁸ In addition, we analyzed data from the Savannah River Site (SRS) to determine when document requests from DNFSB staff were received and fulfilled.

We also reviewed the FY20 NDAA to understand how the amendments made to DNFSB's enabling statute may affect the two agencies' cooperation. We also interviewed relevant DNFSB, DOE, and NNSA officials, and contractor representatives about DOE Order 140.1; its implementation; and the impacts it had on the agencies' interactions regarding their responsibilities for ensuring the safety of workers, the

¹⁷DOE's reference document supporting Order 140.1 outlines the approaches DOE considers acceptable for interacting with and responding to DNFSB and its staff. The reference document also describes suggested nonmandatory approaches for meeting requirements in the order as well as routine interactions with the Board and its staff.

¹⁸NES evaluations qualitatively assess the adequacy of measures in meeting DOE NES standards and other NES criteria specified in DOE orders. Specifically, NES evaluations examine nuclear explosive operations and supporting procedures, facilities, equipment, people, and management systems to uncover gaps or weaknesses in safety measures. There are multiple types of NES evaluations, including NES studies and NES master studies. The observation of a NES evaluation by DNFSB staff often entails sitting in on the various activities related to conducting an NES study, which include briefings; demonstrations; and deliberations, followed by the development of a final report.

public, and the environment. In particular, we interviewed DNFSB resident inspectors, DOE and NNSA officials, and contractor representatives at the five DOE sites where DNFSB resident inspectors are present.¹⁹ These included in-person interviews with DNFSB resident inspectors, DOE and NNSA officials, and contractor representatives at three sites: Los Alamos National Laboratory (LANL), Pantex, and SRS. We visited these sites to better understand the working relationship between DNFSB resident inspectors and local DOE, NNSA, and contractor staff following DOE's issuance of Order 140.1. We selected these sites because either DOE or NNSA is located at each site; the DNFSB resident inspectors had experience working at the sites under Manual 140.1-1B and Order 140.1; and there were existing examples where DNFSB indicated that DOE, NNSA, or contractor staff had denied or used Order 140.1 as a means to delay providing DNFSB resident inspectors with requested information. From our interviews across multiple sites, we identified examples of the impacts Order 140.1 had on the agencies' interactions and compared them to previous practices between DOE and DNFSB, such as those outlined in DOE Manual 140.1-1B, as well as federal standards for internal control²⁰ and key considerations for implementing interagency collaborative mechanisms.²¹ See appendix I for additional information on our objectives, scope, and methodology.

We conducted this performance audit from August 2019 to October 2020, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹⁹The Board is authorized by statute to assign staff to be stationed at any DOE defense nuclear facility to carry out the functions of the Board. 42 U.S.C. § 2286b(h). Pursuant to this authority, DNFSB's resident inspectors are present at five sites: the Hanford Site, Los Alamos National Laboratory, Oak Ridge National Laboratory/Y-12 National Security Complex, Pantex Plant, and Savannah River Site.

²⁰GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

²¹GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, [GAO-12-1022](#) (Washington, D.C.: Sept. 27, 2012).

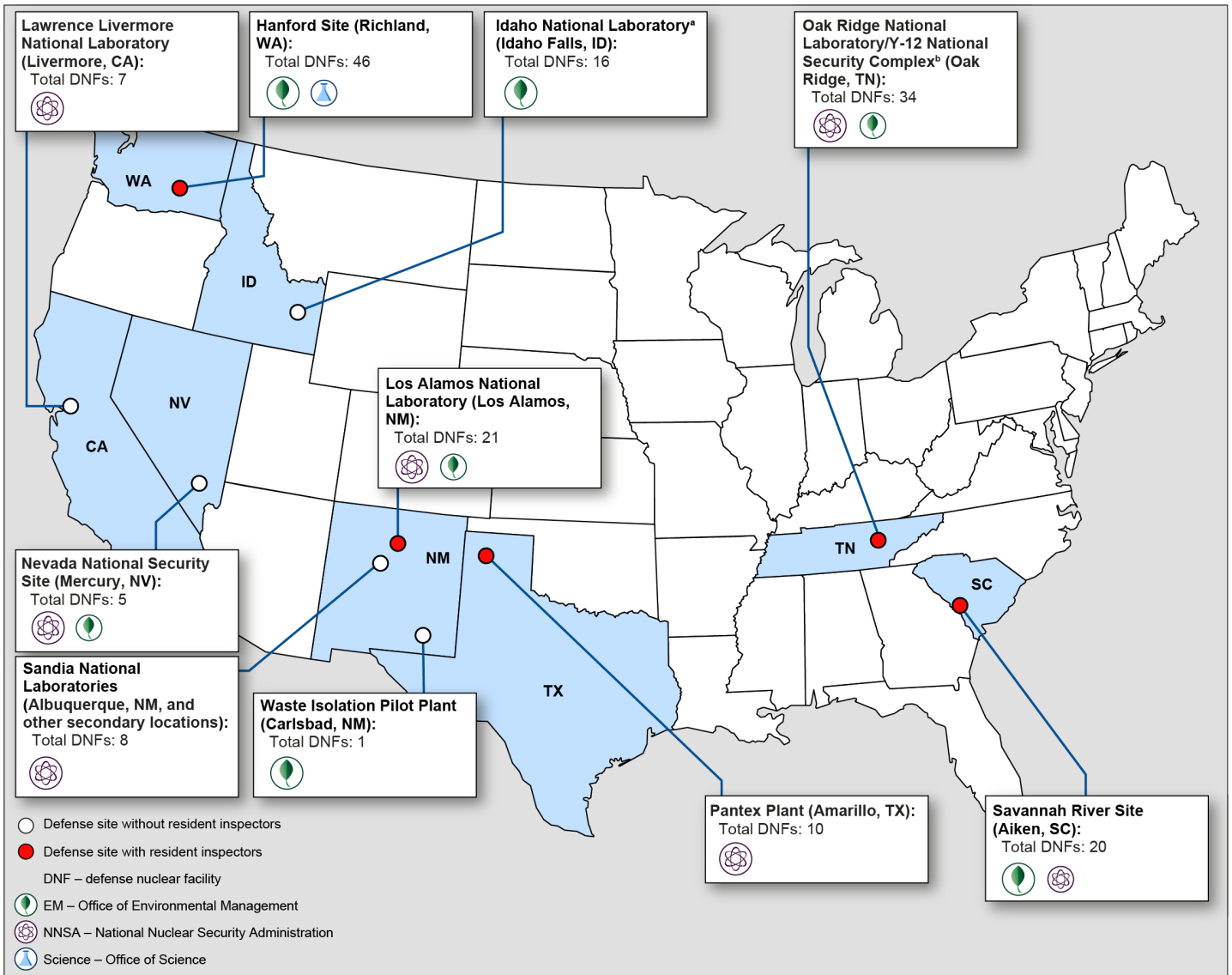
Background

This section provides an overview of (1) DNFSB's establishment and mission, (2) DOE's Office of the Departmental Representative's establishment and role, (3) DOE's previous manual governing the department's interactions with DNFSB, (4) DOE's justifications for replacing Manual 140.1-1B with Order 140.1, and (5) DNFSB's initial concerns about Order 140.1 and DOE's response.

DNFSB's Establishment and Mission

DNFSB was established by statute in September 1988 as an independent establishment in the executive branch. DNFSB's mission is to provide independent analysis, advice, and recommendations to the Secretary of Energy—to inform the Secretary in the Secretary's role as operator and regulator of DOE's defense nuclear facilities—in providing adequate protection of public health and safety at these facilities. DNFSB is the only government agency that provides independent scientific and technical safety oversight of DOE's defense nuclear facilities. Specifically, according to DNFSB data as of July 2020, the Board and its staff provide safety oversight at over 150 defense nuclear facilities located at 10 active DOE sites across the United States (see fig. 1). These facilities predominantly support the missions of DOE's EM and NNSA and, to a lesser extent, DOE's Office of Science.

Figure 1: Map of the Department of Energy’s (DOE) 10 Active Defense Nuclear Sites, Where Defense Nuclear Facilities Safety Board (DNFSB) Resident Inspectors Are and Are Not Present



Sources: Analysis of DOE, NNSA, and DNFSB documents and Map Resources (map). | GAO-21-141

Data for Figure 1: Map of the Department of Energy’s (DOE) 10 Active Defense Nuclear Sites, Where Defense Nuclear Facilities Safety Board (DNFSB) Resident Inspectors Are and Are Not Present

Site Name	With or without inspector	Main Field Office	Count of DNFs	Field Offices on Site
Lawrence Livermore National Laboratory	Without	NNSA	7	NNSA
Hanford Site	with	EM	46	EM, Science
Idaho National Laboratory ^a	Without	EM	16	EM
Oak Ridge National Laboratory/Y-12 National Security Complex ^b	with	NNSA	34	NNSA, EM
Los Alamos National Laboratory	with	NNSA	21	NNSA, EM
Nevada National Security Site	Without	NNSA	5	NNSA, EM
Sandia National Laboratories	Without	NNSA	8	NNSA
Waste Isolation Pilot Plant	Without	EM	1	EM
Pantex Plant	with	NNSA	10	NNSA
Savannah River Site	with	EM	20	NNSA, EM

Legend:

- Defense Site Without Resident Inspectors - White
- Defense Site With Resident Inspectors - red
- Abbreviations:
 - DNF – defense nuclear facility
 - EM – Office of Environmental Management - leaf
 - NNSA – National Nuclear Security Administration - atom
 - Science – Office of Science - beaker

Notes: The total number of defense nuclear facilities at each site is according to DNFSB data as of July 2020. In addition, the symbols included in this figure denote the DOE and NNSA program offices with which DNFSB staff interact. In those cases where two program offices are shown, the larger symbol represents the program office with the greatest presence at the site. For example, NNSA has a larger presence than DOE’s Office of Environmental Management (EM) at the Los Alamos National Laboratory.

^aThe Idaho National Laboratory is managed by a contractor for DOE’s Office of Nuclear Energy. However, DNFSB staff predominantly engage with DOE staff and contractors at the EM defense nuclear facilities also located at the site.

^bThe Oak Ridge National Laboratory, one of 10 DOE Office of Science laboratories, also supports missions carried out by DOE EM. DNFSB staff predominantly engage with DOE EM and NNSA staff and contractors because there are no defense nuclear facilities associated with the Office of Science at this site.

DNFSB’s original enabling statute stated that the Board’s functions included (1) reviewing and evaluating the content and implementation of the standards relating to the design, construction, operation, and decommissioning of DOE defense nuclear facilities; (2) investigating any event or practice at these facilities that it determines has adversely affected or may adversely affect public health and safety; (3) analyzing

design and operational data, including safety analysis reports from these facilities; (4) reviewing the design of new defense nuclear facilities and monitoring construction; and (5) making recommendations to the Secretary of Energy as the Board determines necessary to ensure adequate protection of public health and safety, considering the technical and economic feasibility of implementing them.

However, DNFSB does not have regulatory or enforcement authorities and, therefore, neither establishes requirements for defense nuclear facilities nor imposes penalties for noncompliance with DOE's regulations. Instead, the Board is authorized to make recommendations to and establish reporting requirements for the Secretary of Energy.²² By statute, the Secretary of Energy must respond in writing to DNFSB's recommendations, and the reporting requirements that DNFSB establishes are binding on the Secretary.²³

DNFSB consists of a five-member Board, as well as technical, legal, and administrative staff. Most of the work of the Board is conducted at DNFSB's headquarters, located in Washington, D.C., by the Office of the Technical Director. The office is divided into three groups: (1) nuclear programs and analysis, (2) nuclear weapon programs, and (3) nuclear materials processing and stabilization. In fiscal year 2019, approximately 65 of DNFSB's 90 staff members worked in the Office of the Technical Director, accounting for over 72 percent of DNFSB's payroll costs for the year. Other DNFSB headquarters staff are divided between the General Counsel's office, which provides legal advice, and the General Manager's office, which plans, directs, and evaluates the agency's executive and

²²The Board may establish reporting requirements for the Secretary of Energy, which shall be binding upon the Secretary. 42 U.S.C. § 2286b(d). In the past, DNFSB has reported that the Board's recommendation authority has been used most fruitfully for gaining DOE response to broad, cross-cutting matters that affect much of the defense nuclear complex, whereas a mandatory reporting requirement has been an effective tool for ensuring that DOE responds in a more expeditious manner to important safety issues. Defense Nuclear Facilities Safety Board, *Thirteenth Annual Report to Congress* (Washington, D.C.: Feb. 21, 2003).

²³The Secretary's response must accept or reject DNFSB's recommendations, in whole or in part. The Secretary must also publish the response to the recommendation in addition to the reasoning for that response, in the *Federal Register* and submit to specified congressional committees a written report containing the response and reasoning.

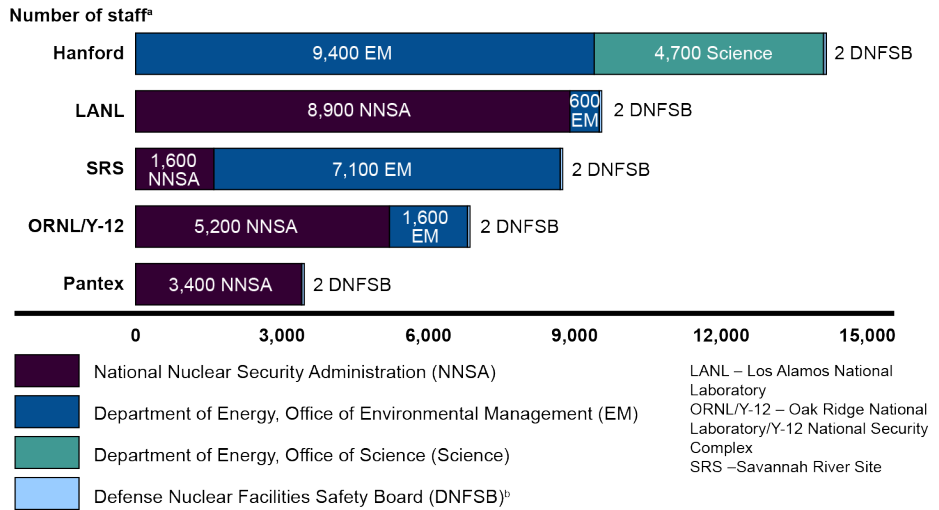
administrative operations.²⁴ As of October 2020, DNFSB is statutorily capped at 130 full-time staff.

In addition to the DNFSB headquarters staff, there are also 10 staff—known as resident inspectors—stationed at the five DOE and NNSA sites: the Hanford Site, LANL, Oak Ridge National Laboratory/Y-12 National Security Complex, Pantex, and SRS.²⁵ DNFSB’s resident inspectors provide day-to-day observations of nuclear operations at the sites and, among other responsibilities, record their observations in weekly reports to the Board. The resident inspectors also act as DNFSB’s liaison with local DOE, NNSA, and contractor management; state and local agencies; elected officials and their staff; the media; and the public. As can be seen in figure 2, the resident inspectors provide DNFSB field oversight to a significant number of DOE, NNSA, and contractor personnel at these five sites.

²⁴The FY20 NDAA established an Executive Director of Operations position at DNFSB. According to a DNFSB document, the Board intends to fill this executive position during fiscal year 2020.

²⁵As of October 2020, there are two DNFSB resident inspectors at four of the five DOE sites, with one inspector at the fifth site following the departure of the second inspector earlier in the year. According to DNFSB’s fiscal year 2021 budget request, the Board has authorized adding one additional resident inspector position at each of the Hanford, LANL, and SRS sites.

Figure 2: Approximate Number of Staff at Department of Energy (DOE) Defense Nuclear Sites Where DNFSB Resident Inspectors Are Present, by Site and Program Office



Sources: DOE, NNSA, and DNFSB staff data, by site. | GAO-21-141

Data table for Figure 2: Approximate Number of Staff at Department of Energy (DOE) Defense Nuclear Sites Where DNFSB Resident Inspectors Are Present, by Site and Program Office

	NNSA	EM	Science	DNFSB
Hanford	0	9400	4700	2
LANL	8900	600	0	2
SRS	1600	7100	0	2
ORNL/Y-12	5200	1600	0	2
Pantex	3400	0	0	2

^aThe site-by-site staff totals listed for EM, NNSA, and Science are rounded to the nearest hundred and reflect only the total number of each site’s federal staff and management and operating contractor employees as of May 2020. Not all staff at each site may directly interact with DNFSB resident inspectors or be subject to DNFSB’s oversight, particularly those who do not work in defense nuclear facilities.

^bFor illustration purposes, the increment of the stacked bar representing the number of DNFSB staff is larger than the actual number of staff, which typically consists of only two resident inspectors at each site. As of October 2020, there was only one resident inspector at Pantex, following the departure of the second inspector earlier in the year. According to DNFSB’s fiscal year 2021 budget request, DNFSB plans to add one additional resident inspector position at each of the Hanford, LANL, and SRS sites.

DOE's Office of the Departmental Representative's Establishment and Role

On November 27, 1991, the Secretary of Energy approved the creation of the Office of the Departmental Representative. The office was established to provide coordination between DOE and DNFSB and to represent the Secretary in regular and continuing interactions with the Board chair and members. The office, which originally reported directly to the Secretary, now reports to the Deputy Associate Undersecretary for Environment, Health, and Safety within DOE's Office of the Associate Undersecretary for the Office of Environment, Health, Safety and Security.²⁶

DOE documents state that the Office of the Departmental Representative, in its role as DOE's primary liaison to DNFSB, seeks to ensure effective cross-organizational leadership and coordination to resolve any technical and management issues identified by DNFSB. According to one DOE document, among other things, the office

- advises the Secretary and other senior DOE leadership on DNFSB priorities, concerns, actions, and plans;
- manages the department's interactions with DNFSB and provides direction and advice to DOE staff on DNFSB-related matters;
- coordinates with cognizant DOE offices when responding to DNFSB recommendations, correspondence, or other DNFSB issues;
- facilitates communication and cooperation between DOE staff and DNFSB and its staff; and
- maintains and provides guidance on DOE's order for interacting with DNFSB to departmental points of contact and support personnel.

In addition, the Office of the Departmental Representative holds a number of routine meetings with DNFSB staff. For example, the Director and relevant staff from the Office of the Departmental Representative meet weekly with the Director of DNFSB's Office of the Technical Director to

²⁶The Office of the Associate Undersecretary for the Office of Environment, Health, Safety and Security is DOE's central organization with enterprise-level responsibilities for health, safety, environment, and security. The office provides corporate-level leadership and strategic vision to establish, sustain, coordinate, and integrate such programs and is also responsible for policy development and technical assistance. In addition, the office establishes collaboration between DNFSB; the DOE Chief of Nuclear Safety; DOE field elements; and program secretarial offices, including NNSA, on matters concerning nuclear safety across the DOE complex.

discuss and coordinate not only on Board-related issues, such as requests for information, upcoming public hearings, Board member visits and meetings, but also on DOE-related issues, such as departmental responses to DNFSB requests for information and reviews of draft DNFSB recommendations. The Office of the Departmental Representative also issues an internal weekly status report covering DNFSB topics and issues, including a summary of meetings and interactions with DNFSB, relevant correspondence, and the status of ongoing DOE responses to DNFSB requests for information. Moreover, and similar to DNFSB, the office also routinely posts correspondence between the two agencies, as well as other key oversight and reporting documents on a publicly available website so that the agencies' oversight actions and corrective measures are transparent to the public.

DOE's Previous Manual Governing the Department's Interactions with DNFSB

The previous DOE manual governing the department's interactions with DNFSB, Manual 140.1-1B, was issued in March 2001. DOE's manual highlighted that DOE and DNFSB share a common goal of ensuring adequate protection of public and worker health and safety and the environment at DOE defense nuclear facilities. According to Manual 140.1-1B, to accomplish this goal, DOE would, among other things, fully cooperate with DNFSB and provide access to information necessary for the Board to accomplish its responsibilities.

DOE Manual 140.1-1B also detailed the roles and responsibilities of DOE's senior leadership and staff, including employees from NNSA. For example, as stated in the manual, one of the responsibilities of the Secretary of Energy was to provide full cooperation with the Board, including ready access to departmental facilities, personnel, and information. Similarly, Manual 140.1-1B instructed DOE and NNSA staff to provide full cooperation with the Board and to promptly notify local departmental management of any conflict that arises with DNFSB staff. The manual also clarified that there would be specific departmental points of contact representing DOE management on day-to-day Board-related issues and interactions with staff from the Office of the Departmental Representative, other DOE program offices, and DNFSB.

DOE's Justifications for Replacing Manual 140.1-1B with Order 140.1

According to DOE documents and officials, there were two primary justifications for the department's decision to replace Manual 140.1-1B with Order 140.1. In particular, DOE's decision to develop Order 140.1 was based on

- **a long-standing internal effort to update DOE Manual 140.1-1B.** Developing Order 140.1 was seen as part of a long-standing internal effort to revise and update Manual 140.1-1B. According to our review of DOE documents and interviews with department officials, DOE considered Manual 140.1-1B to be outdated and also inconsistent with existing legislation, most notably the Atomic Energy Act of 1954, as amended, as well as existing departmental policies. For example, according to a DOE document from July 2018 identifying examples of inconsistencies between Manual 140.1-1B, existing legislation, and current DOE practices, the manual stated that the Board has the authority to accept or reject DOE implementation plans, an authority found nowhere in DNFSB's enabling statute.²⁷ As a result of these and other inconsistencies, between 2006 and 2007, DOE staff began an effort to draft an order to replace Manual 140.1-1B. DOE also undertook similar efforts to convert the manual into a new order in 2009 and 2011.²⁸ These efforts did not result in updates to the manual

²⁷DNFSB's enabling statute requires the Secretary of Energy to prepare a plan for the implementation of each Board recommendation, or part of a recommendation, that is accepted by the Secretary's final decision. 42 U.S.C. § 2286d(f). According to one DOE document, an implementation plan must convey to DNFSB the Secretary of Energy's best judgement on how to address those issues identified in an accepted DNFSB recommendation, within the context of DOE's overall nuclear safety program.

²⁸Under DOE Order 251.1A, *Directives System*, which was in effect at the time Manual 140.1-1B was issued in March 2001, DOE required directives, which included manuals, to undergo biennial review to determine whether they should be continued without change, updated or revised, or canceled. DOE replaced the order with Order 251.1B, *Departmental Directives Program*, in August 2006, and changed the review requirement so that directives were to be reviewed and certified for accuracy and continued relevance every 4 years. In January 2009, DOE issued a new iteration, Order 251.1C, and announced that department manuals would begin to be phased out over time. DOE issued another iteration, Order 251.1D, in January 2017, and stated that manuals were being phased out and canceled, or converted to or incorporated into orders, as appropriate. Order 251.1D further stated that department manuals would not be revised, and no new manuals would be created.

or produce a new order, but contributed to subsequent DOE efforts that led to the issuance of Order 140.1 in 2018; and

- **a regulatory reform effort initiated by DOE in 2017.** According to DOE documents and officials, DOE also sought to develop a departmental order to replace Manual 140.1-1B as part of a broader departmental regulatory reform effort initiated in 2017.²⁹ As part of this effort, in May 2017, DOE established an internal reform working group to review the department's engagement with DNFSB.³⁰ The working group proposed revisions to certain aspects of DOE's relationship with DNFSB. Consequently, on September 1, 2017, the DOE Deputy Secretary of Energy authorized a realignment of DOE's engagement with DNFSB, with the goal of improving laboratory efficiency and decreasing cost while maintaining accountability and contractor performance standards. Following this decision, DOE tasked an integrated project team to evaluate how to convert DOE Manual 140.1-1B into a departmental order. The integrated project team commenced its work in October 2017 and coordinated with a variety of internal DOE stakeholders, including DOE's Directives Review

²⁹DOE began this regulatory reform effort in response to Executive Order 13777, *Enforcing the Regulatory Reform Agenda*, which was issued on February 24, 2017. Executive Order 13777 directed federal agencies to establish regulatory reform task forces for the purposes of evaluating existing regulations and making recommendations to agency heads regarding their repeal, replacement, or modification, consistent with applicable law. Under the Executive Order, regulations are an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or to describe the procedure or practice requirements of an agency. According to DOE documents about the development of Order 140.1, DOE treated Manual 140.1-1B as a regulation under Executive Order 13777.

³⁰The DOE internal reform working group focused on the department's engagement with DNFSB was informed, in part, by an April 26, 2017, report from the National Laboratory Directors' Council. According to the report, DOE had allowed DNFSB to become the *de facto* regulator across all DOE operations, including those that have no relevance to nuclear activities associated with the nation's national security. The report recommended that DOE no longer apply DNFSB recommendations for high-hazard defense nuclear facilities to non-defense-related facilities and clearly define in policy the facilities to which DNFSB recommendations should and should not apply. The National Laboratory Directors' Council, which is organized under a memorandum of understanding among DOE's 17 national laboratories, engages with DOE management on strategic and operational issues and functions as a forum for information exchange, consensus building, and coordination of matters that affect all of the national laboratories.

Board, to draft an order.³¹ DOE, however, did not collaborate with DNFSB while developing the order and did not seek to obtain comments from DNFSB until the NNSA Administrator provided the DNFSB Chairman with a copy of the draft order on April 26, 2018, shortly before DOE issued Order 140.1 on May 14, 2018.³²

Additional information regarding DOE's justifications for replacing Manual 140.1-1B with Order 140.1 is provided in appendix II.

DNFSB's Initial Concerns about Order 140.1, and DOE's Response

In September 2018, following a DNFSB public hearing with senior DOE officials regarding Order 140.1, the DNFSB Chairman sent a letter to the Secretary of Energy stating that the order "wrongly attempts to diminish the Board's ability to perform its statutory mandate under the Atomic Energy Act of 1954, as amended." The DNFSB Chairman's letter also outlined the Board's four concerns about the order. In particular, as figure 3 shows, the Board expressed concerns that DOE Order 140.1 claimed to exempt on-site individuals and workers from the Board's oversight and included provisions that improperly limit timely access to information, personnel, and facilities that DNFSB considers necessary to carry out its responsibilities.

³¹The Directives Review Board is charged with ensuring that the DOE Departmental Directives Program issues directives that enhance DOE's ability to achieve its mission goals in a safe, secure, and cost-effective manner. In particular, the Directives Review Board advises, as well as concurs, on individual directives before their approval for release for DOE-wide comment and final issuance.

³²On May 7, 2018, the DNFSB Chairman responded to the NNSA Administrator with "informal suggestions for consideration." The DNFSB Chairman stated in his email that the informal suggestions did "not represent an official act or viewpoint of the Board." According to an NNSA document, NNSA accepted some of the suggested revisions but did not accept suggested revisions to the draft order related to restrictions on DNFSB's access to facilities with certain hazard categories or the limiting of public health and safety to those individuals beyond site boundaries, a limitation that DNFSB characterized as inconsistent with long-standing legal interpretations of the Atomic Energy Act of 1954, as amended.

Figure 3: The Defense Nuclear Facilities Safety Board's (DNFSB, or the Board) September 2018 Concerns with the Department of Energy's (DOE) Order 140.1

U.S. Department of Energy
Washington, DC

ORDER

DOE O 140.1

Approved: 05-14-2018

SUBJECT: INTERFACE WITH THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Section 3(c)(2) states that this order does not apply to DOE Nuclear Hazard Category 3 or Below Hazard Category 3 facilities, as defined in DOE guidance.

Section 3(c)(3) states that this order does not apply to nuclear facilities or activities at DOE defense nuclear facilities that do not adversely affect or have the potential to adversely affect public health and safety.

regulatory commitment is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.

DNFSB's September 2018 concerns with the identified section(s) from Order 140.1

These sections include exemptions that improperly state that DOE, not DNFSB, shall determine which defense nuclear facilities—particularly Hazard Category 3 and Below Hazard Category 3 facilities—adversely affect public health and safety.^a

Section 4(b)(1) states that Departmental elements must cooperate with DNFSB and provide DNFSB with ready access to such facilities, personnel, and information as necessary to carry out its statutory responsibilities.

Energy for DOE Defense Nuclear Facilities," as defined in this Order, shall be consistent with 42 U.S. Code (U.S.C.) § 2286a, *Mission and Functions of Board*, which states, "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

This section excludes certain statutory language in a way that implies that DOE, not DNFSB, has the power to determine what access DNFSB needs to carry out its responsibilities.

Section 4(b)(2)(c) states that the Secretary of Energy, or the Secretary's designee, may deny DNFSB access if the request is for predecisional or otherwise privileged records...or to participate in deliberative meetings or discussions supporting the development of predecisional or other process draft documents that have not been approved for release.

disapproved by the Secretary.

This section allows DOE to deny DNFSB requests related to deliberative documents, predecisional documents, and deliberative meetings, when no such limitations to the Board's access to such information are contained in the Atomic Energy Act of 1954, as amended.

b. DOE Contractors. Except for the equivalencies/exemptions contained in paragraph 3 c., the CRD (see Attachment 1 of this Order) sets forth requirements of this Order that will apply to contracts that include the CRD. The CRD, or its

Section 7(h) defines public health and safety as the "health and safety of individuals located beyond the site boundaries of DOE sites with DOE Defense Nuclear Facilities."

processed in accordance with DOE O 251.1, *Departmental Directives Program*, current version.

This section defines "public health and safety" in a manner inconsistent with the Atomic Energy Act of 1954, as amended, and long-standing precedence between the two agencies that did not exempt on-site individuals and workers from the Board's oversight.

AVAILABLE ONLINE AT:
www.directives.doe.gov

INITIATED BY:
Office of Environment, Health, Safety and Security

Sources: DOE Order 140.1, *Interface with the Defense Nuclear Facilities Safety Board* (2018), and DNFSB documents (2018). | GAO-21-141

Text for Figure 3: The Defense Nuclear Facilities Safety Board’s (DNFSB, or the Board) September 2018 Concerns with the Department of Energy’s (DOE) Order 140.1

Number	Text from DOE Order 140.1	DNFSB’s September 2018 concerns with the identified section(s) from Order 140.1
1	Section 3(c)(2) states that this order does not apply to DOE Nuclear Hazard Category 3 or Below Hazard Category 3 facilities, as defined in DOE guidance.	These sections include exemptions that improperly state that DOE, not DNFSB, shall determine which defense nuclear facilities—particularly Hazard Category 3 and Below Hazard Category 3 facilities—adversely affect public health and safety. ^a
2	Section 4(b)(1) states that Departmental elements must cooperate with DNFSB and provide DNFSB with ready access to such facilities, personnel, and information as necessary to carry out its statutory responsibilities.	This section excludes certain statutory language in a way that implies that DOE, not DNFSB, has the power to determine what access DNFSB needs to carry out its responsibilities.
3	Section 4(b)(2)(c) states that the Secretary of Energy, or the Secretary’s designee, may deny DNFSB access if the request is for predecisional or otherwise privileged records...or to participate in deliberative meetings or discussions supporting the development of predecisional or other process draft documents that have not been approved for release.	This section allows DOE to deny DNFSB requests related to deliberative documents, predecisional documents, and deliberative meetings, when no such limitations to the Board’s access to such information are contained in the Atomic Energy Act of 1954, as amended.
4	Section 7(h) defines public health and safety as the “health and safety of individuals located beyond the site boundaries of DOE sites with DOE Defense Nuclear Facilities.”	This section defines “public health and safety” in a manner inconsistent with the Atomic Energy Act of 1954, as amended, and long-standing precedence between the two agencies that did not exempt on-site individuals and workers from the Board’s oversight.

^aDOE regulations (10 C.F.R. pt. 830, subpt. B, appx. A) define four categories of nuclear facilities based on their potential for significant radiological consequences in the event of a nuclear accident: (1) Hazard Category 1 facilities, which are those that have the potential for significant off-site consequences; (2) Hazard Category 2 facilities, which are those that have the potential for significant on-site consequences beyond localized consequences; (3) Hazard Category 3 facilities, which are those that have the potential for only local significant consequences; and (4) Below Hazard Category 3 facilities, which are those that have the potential for only consequences less than those that provide a basis for categorization as a Hazard Category 1, 2, or 3 nuclear facility.

In December 2018, the Secretary of Energy issued a letter to the DNFSB Chairman that sought to refute the concerns outlined by the Board. In particular, the Secretary argued that DOE Order 140.1 expressly states that the Secretary is to ensure cooperation with DNFSB in support of DNFSB’s enabling legislation. According to the Secretary’s letter, Order 140.1 is consistent with, among other things, the Atomic Energy Act of 1954, as amended, and the legislative history of its enactment with respect to differentiating between radiation exposures to “members of the public” and occupational exposures to “workers.” Moreover, the Secretary reiterated DOE’s position that Order 140.1 does not diminish the Board’s legal authority and does not hinder DOE’s cooperation with DNFSB or prevent DNFSB from conducting its independent safety oversight mission.

Nonetheless, DNFSB continued to raise concerns about Order 140.1. For example, in April 2019, the DNFSB Chairman testified that the Board held

the unanimous view that Order 140.1 is in direct conflict with a plain reading of the Atomic Energy Act of 1954, as amended.³³ Moreover, the Chairman stated that some of the changes outlined in Order 140.1 could prevent DNFSB from overseeing important DOE and NNSA programs, such as those related to criticality safety, which the Chairman claimed would be a clear departure from well-established past practices by Board staff.³⁴ According to a December 2019 DNFSB document we reviewed, this concern became manifest in May 2018, after a senior NNSA official sent an email to the DNFSB Technical Director stating that DNFSB staff would no longer be provided access to certain NES evaluation meetings at Pantex because the meetings were deliberative in nature.³⁵ Additional information about DNFSB's initial concerns regarding Order 140.1 and DOE's response is included in appendix III.

DOE Order 140.1 Included Provisions Inconsistent with DNFSB's Original Enabling Statute, as well as Long-Standing Practices, but Was Revised in June 2020

Our analysis found that DOE Order 140.1 included several provisions that were inconsistent with DNFSB's original enabling statute and long-standing practices, but DOE revised the order in response to changes

³³*Fiscal Year 2020 Priorities for Atomic Energy, Defense, Nonproliferation, Safety, and Environmental Management*, before the House Committee on Armed Services, Subcommittee on Strategic Forces, 116th Cong., 1st sess. (Apr. 9, 2019) (statement of Defense Nuclear Facilities Safety Board Chairman Bruce Hamilton).

³⁴Criticality is a condition in which a nuclear fission chain reaction becomes self-sustaining. Criticality safety programs seek to (1) ensure that operations at nonreactor nuclear facilities with fissionable material in a form and amount sufficient to pose a potential for criticality remain subcritical, or of insufficient size to sustain a chain reaction, under all normal and credible abnormal operations; (2) identify applicable nuclear criticality safety standards; and (3) describe how the program meets applicable nuclear criticality safety standards.

³⁵In June 2019, the DNFSB Chairman sent a letter to the Secretary of Energy stating that NNSA had denied DNFSB staff access to NES evaluation deliberative meetings since March 2018. According to DNFSB officials, this message was conveyed to DNFSB staff by an official responsible for managing some of the NES evaluations at Pantex and marked the first time that DNFSB staff were told that NNSA had decided that they would no longer be allowed to observe the deliberative meetings, though no such meetings were planned until June. Nonetheless, for the purposes of our report, we use the May 2018 date when referring to when NNSA began denying DNFSB staff access to NES evaluation deliberative meetings.

made to the statute by the FY20 NDAA. In particular, we found that Order 140.1 included provisions regarding DNFSB's access to certain documents, facilities, and information that did not appear in DNFSB's original enabling statute and were not consistent with long-standing practices between the two agencies regarding the activities the Board and its staff conduct to provide independent safety oversight of DOE defense nuclear facilities. DOE revised its order in June 2020 to make it consistent with revisions made to DNFSB's enabling statute by the FY20 NDAA that clarify and confirm DNFSB's original statutory authority and long-standing practices between the two agencies.

DOE Order 140.1 Included Provisions Inconsistent with DNFSB's Original Enabling Statute and Long-Standing Practices

We found that Order 140.1, when it was issued in May 2018, included several provisions that were inconsistent with DNFSB's original enabling statute and with long-standing practices of the two agencies regarding the activities the Board and its staff conduct to provide independent safety oversight of DOE defense nuclear facilities.³⁶ Based on our analysis, the provisions in the order that were inconsistent with DNFSB's enabling statute were related to DNFSB's access authorities and the scope of DNFSB's authority (see table 3 in app. IV for a crosswalk of these identified inconsistencies). Specifically, the provisions that were inconsistent include

- **access authorities in general.** Order 140.1 included a provision describing DNFSB's general access authorities that was inconsistent

³⁶In commenting on a draft of this report, DOE stated that the report provides no bases for concluding that several provisions of Order 140.1 were inconsistent with DNFSB's authorizing statute. As discussed below, the basis for these findings is that certain provisions of Order 140.1 directly conflicted with, or do not appear in, the language of the statute. DOE also stated that it had provided GAO with a legal basis for Order 140.1, which the report did not acknowledge. As noted in appendix IV, DOE provided a draft legal opinion interpreting "public health and safety" to exclude workers based on the Atomic Energy Act's definition of "public liability" and an analysis of a portion of the DNFSB's authorizing statute's legislative history. The draft legal opinion does not provide, as required, an explanation for why DOE changed its position regarding DNFSB's authority to oversee matters involving worker safety. The draft legal opinion also did not discuss the inconsistencies we identified between Order 140.1 and DNFSB's authorizing statute; DOE provided no other legal analysis of how Order 140.1 was consistent with the DNFSB authorizing statute.

with DNFSB's original enabling statute. At the time Order 140.1 was issued, DNFSB's enabling statute required the Secretary of Energy to fully cooperate with the Board and provide the Board with "ready access to such facilities, personnel, and information as the Board considers necessary to carry out its responsibilities."³⁷ Thus, the original enabling statute identified DNFSB as the entity responsible for determining the facilities, personnel, and information to which DNFSB needed access to fulfill its responsibilities. However, the provision in Order 140.1 regarding DOE's cooperation with DNFSB omitted "as the Board considers necessary," thereby making DOE—not DNFSB—the entity responsible for determining the facilities, personnel, and information to which DNFSB needs access in order to carry out its responsibilities;³⁸

- **access to predecisional or deliberative information.** Order 140.1 included provisions allowing DOE to deny DNFSB access to predecisional or deliberative information, but such restrictions were not in DNFSB's original enabling statute.³⁹ When DOE issued Order 140.1, DNFSB's enabling statute did not restrict DNFSB's access to information considered to be predecisional or part of the deliberative process. Instead, DNFSB's enabling statute included two reasons the Secretary of Energy could deny access to information provided to the Board to any person: (1) The person has not been granted an appropriate security clearance or access authorization by the Secretary, or (2) The person does not need such access in connection with the duties of such person.⁴⁰ However, Order 140.1 said the Secretary may deny DNFSB access to requested information if the requests were for predecisional or otherwise privileged records

³⁷42 U.S.C. § 2286c(a) (2018).

³⁸Section 4(b)(1) of Order 140.1 said, "Departmental elements must cooperate with the DNFSB and provide the DNFSB with ready access to such facilities, personnel, and information as necessary to carry out its statutory responsibilities."

³⁹DOE officials told us that the department had asserted or raised concerns regarding access to predecisional or deliberative information in response to DNFSB requests prior to the issuance of Order 140.1.

⁴⁰42 U.S.C. § 2286c(b) (2018).

not approved for release⁴¹ and that access to such documents should be considered on a case-by-case basis;

- **access to and oversight of facilities.** Order 140.1 exempted certain defense nuclear facilities from DNFSB oversight and restricted DNFSB access to those facilities based on DOE hazard categorizations, but these exemptions and restrictions were not included in DNFSB's original enabling statute. DNFSB's original enabling statute defined the term "Department of Energy defense nuclear facility" but did not distinguish between categories or facilities or limit DNFSB's access or authority to certain types of facilities.⁴² However, Order 140.1 stated that it does not apply to DOE nuclear Hazard Category 3 or Below Hazard Category 3 facilities, as defined in DOE guidance.⁴³ DOE officials we interviewed said that Order 140.1 exempted these facilities from DNFSB oversight because such facilities only have the potential to affect the health and safety of on-site workers, and DNFSB does not have authority to oversee worker health and safety. Nonetheless, we found that DNFSB's original enabling statute did not include restrictions on DNFSB's authority to oversee or access facilities based on DOE hazard categorizations; and
- **access to information subject to the Privacy Act.** Order 140.1 also said DOE could deny DNFSB access when it requested information, the release of which would violate the Privacy Act of 1974, as

⁴¹Section 4(b)(2)(c) of Order 140.1 said the Secretary, or the Secretary's designee, may deny DNFSB access if "the request is for predecisional or otherwise privileged records, for example, attorney-client, attorney work product, procurement-sensitive, or deliberative process draft documents that have not been approved for release; or to participate in deliberative meetings or discussions supporting the development of predecisional or other process draft documents that have not been approved for release."

⁴²DNFSB's enabling statute defines "Department of Energy defense nuclear facility" as (1) a production facility or utilization facility under the control or jurisdiction of the Secretary of Energy and operated for national security purposes, and (2) certain nuclear waste storage facilities under the control or jurisdiction of the Secretary of Energy. The term does not include any facility or activity pertaining to the Naval nuclear propulsion program; any facility or activity involving the transportation of nuclear explosives or nuclear material; any facility that does not conduct atomic energy defense activities; or any facility owned by the United States Enrichment Corporation. 42 U.S.C. § 2286g.

⁴³DOE Order 140.1's exemption related to Hazard Category 3 or Below Hazard Category 3 facilities also stated that, if requested, DNFSB shall be provided access to the information that led to the DOE determination that a facility is less than Hazard Category 2 to allow DNFSB oversight into that determination.

amended,⁴⁴ but this exception was not in DNFSB's original enabling statute, which was enacted 14 years after the Privacy Act.⁴⁵ As previously noted, DNFSB's original enabling statute included two reasons the Secretary could deny access, and neither concerned the Privacy Act. Therefore, DNFSB's original enabling statute did not provide the Secretary with the authority to deny DNFSB access to information that DOE considered subject to the Privacy Act.

We also found that DOE Order 140.1 included provisions regarding DNFSB's authority that were inconsistent with long-standing DOE and DNFSB interpretations of DNFSB's enabling statute and practices regarding DNFSB staff's access to certain NNSA meetings (see table 4 in app. IV for a crosswalk of these identified inconsistencies).⁴⁶ In particular, these provisions included

- **worker health and safety.** DNFSB's mission under its original enabling statute was to provide independent analysis, advice, and recommendations to inform the Secretary of Energy in providing adequate protection of public health and safety at defense nuclear facilities.⁴⁷ The statute, however, did not define the term "public." Nonetheless, DNFSB has long interpreted its responsibilities to protect "public health and safety" to include the health and safety of workers. For example, in DNFSB's first annual report to Congress in February 1991, DNFSB stated that both Congress and the Board interpreted the term "public" to include workers at defense nuclear

⁴⁴The Privacy Act of 1974, as amended, generally prohibits agencies from disclosing records about an individual maintained by a federal agency unless an exception is met or the individual to whom the record pertains provides prior written consent or makes a written request for the record. DOE Manual 140.1-1B, issued in March 2001, previously stated that DOE and the Office of Personnel Management have established routine uses under the Privacy Act that permit disclosure of personnel and radiation exposure documents maintained in certain systems of records. Thus, the manual said the department may transmit these types of records to the Board in accordance with the Privacy Act when the Board deems that the records are necessary to satisfy the Board's statutory obligations.

⁴⁵Section 4(b)(2)(d) of Order 140.1 said the Secretary, or the Secretary's designee, may deny DNFSB access if the release of the requested information would violate the Privacy Act (5 U.S.C. § 552a).

⁴⁶Agencies are free to change their existing policies as long as they provide a reasoned explanation for the change. *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). DOE did not provide a reasoned explanation for discarding these long-standing practices and replacing them with Order 140.1.

⁴⁷42 U.S.C. § 2286a(a) (2018).

facilities.⁴⁸ Similarly, from February 1992 to June 2015, DOE routinely discussed DNFSB’s worker health and safety mission in its annual reports to Congress. In addition, since 1990, DNFSB issued at least seven recommendations to address issues related to worker health and safety; DOE accepted all seven recommendations and raised no objections to DNFSB’s authority for oversight of worker health and safety.⁴⁹ Nonetheless, DOE defined public health and safety in Order 140.1 to mean the “health and safety of individuals located beyond the site boundaries of DOE sites with DOE defense nuclear facilities.”⁵⁰ In doing so, DOE’s definition deemed workers—including contractors who comprise the majority of workers—at defense nuclear sites as being outside of DNFSB’s purview; and

- **access to NES evaluation deliberations at Pantex.** According to our review of DOE and DNFSB documents and interviews with DNFSB officials, DNFSB staff have long attended the deliberative meetings that are part of NNSA’s NES evaluation process at Pantex. For example, from 1993 to 2018, DOE and DNFSB reports mentioned that DNFSB staff attended or observed NES evaluation meetings, including NES evaluation deliberations. However, contrary to long-standing practices for engaging with DNFSB, Order 140.1 authorized DOE to deny DNFSB access to participate in deliberative meetings or discussions supporting the development of predecisional or other process draft documents that had not been approved for release. Consequently, according to a December 2019 DNFSB document we reviewed, in May 2018, NNSA began denying DNFSB staff access to

⁴⁸According to DNFSB’s report, the various provisions of the Board’s enabling statute and their attendant legislative history indicate that Congress generally intended the phrase “public health and safety” to be construed broadly. Defense Nuclear Facilities Safety Board, *Annual Report to Congress* (Washington, D.C.: Feb. 8, 1991).

⁴⁹Even though DOE routinely discussed DNFSB’s worker health and safety mission in its annual reports to Congress and accepted prior DNFSB recommendations related to worker health and safety, in August 2020, DOE officials stated that the department has a lengthy history of expressing differing interpretations of some of the terms and provisions contained in DNFSB’s enabling statute, including disagreement with the Board’s contention that Congress intended protection of the public to include workers.

⁵⁰DOE appeared to begin moving in this direction in September 2012, when DOE’s Deputy General Counsel, in commenting on a proposed rule by DNFSB, wrote that DNFSB does not have the authority to investigate practices that affect health and safety of workers at DOE defense nuclear facilities. In addition, following the issuance of Order 140.1, DOE’s Office of the General Counsel drafted, but did not finalize, a legal opinion interpreting the meaning of “public” as excluding workers at DOE defense nuclear sites.

NES evaluation deliberation meetings at Pantex.⁵¹ Additional information about DNFSB's involvement with NES evaluations, including deliberative meetings, at Pantex, is presented in appendix V.

DOE Revised Order 140.1 in Response to Changes Made to DNFSB's Enabling Statute by the FY20 NDAA

On June 15, 2020, DOE replaced Order 140.1 with Order 140.1A in response to changes made to DNFSB's enabling statute by the FY20 NDAA.⁵² The FY20 NDAA, which became law on December 20, 2019, made a number of amendments to DNFSB's enabling statute, including

- clarifying that DNFSB's mission includes oversight of health and safety of employees and contractors at defense nuclear facilities;
- clarifying that the only reasons the Secretary of Energy can deny a person access to information are for (1) not having appropriate security clearance or access authorization and (2) not needing access in connection with a person's duties;
- requiring the Secretary of Energy to provide the Board with "prompt and unfettered access" to facilities, personnel, and information, instead of "ready access;"
- clarifying that DNFSB has access to facilities, information, and personnel regardless of the hazard or risk category assigned to a facility by the Secretary; and
- confirming that DNFSB has access to deliberative information.

In addition, the FY20 NDAA added a requirement that DNFSB and DOE report to congressional defense committees instances where the Secretary of Energy denies DNFSB access to information based on one of the reasons specified in the statute for which the Board submitted a written request. The reports are required to identify each request for access to information submitted to the Secretary in writing during the

⁵¹On April 23, 2020, the NNSA Administrator sent the DNFSB Chairman a letter indicating that DNFSB staff would, as part of a trial, be allowed to attend the NES deliberative meetings but stressed that the DNFSB staff act strictly as observers. The Administrator further noted that NNSA would reserve the right to restrict personnel outside the NES study group itself, including other departmental personnel, from attending certain NES deliberations at the request of the NES study group Chairman.

⁵²Pub. L. No. 116-92, tit. XXXII, 133 Stat. 1198, 1963-1966 (2019).

preceding 6-month period that the Secretary denied, and the Secretary's report is to identify the reason for the denial.⁵³

In light of the changes made to DNFSB's enabling statute, in February 2020, DOE began revising Order 140.1 to make it consistent with DNFSB's amended enabling statute. DOE, however, did not collaborate with DNFSB on these revisions as directed in the explanatory statement accompanying the Further Consolidated Appropriations Act, 2020.⁵⁴ Instead, DOE drafted revisions to the order based on the amendments made to DNFSB's statute and then provided DNFSB with a copy of a draft Order 140.1A on February 26, 2020. Nonetheless, subsequent to DNFSB's review of the draft Order 140.1A, on February 28, 2020, the DNFSB Chairman sent a letter to the Secretary of Energy stating that the revised order, if approved as is currently drafted, will "satisfactorily resolve the statutory concerns" that the Board expressed. Following additional internal review and approval, DOE completed its revisions to Order 140.1 and issued Order 140.1A on June 15, 2020. DOE's Order 140.1A does not include the provisions we identified as inconsistent with DNFSB's enabling statute.

DOE and DNFSB Officials and Contractor Representatives Identified Concerns about How the Two Agencies Will Cooperate That Are Not Addressed in DOE's Revised Order

DNFSB and DOE officials and contractor representatives we interviewed identified a number of outstanding concerns with Order 140.1 that we found are not addressed under DOE's Order 140.1A. These concerns could continue to affect how the two agencies cooperate and DNFSB's ability to fulfill its oversight responsibilities. Specifically, DNFSB officials we interviewed raised concerns that DOE could potentially interpret section 2286c(b) of DNFSB's enabling statute, the provision that authorizes the Secretary of Energy to deny persons access to

⁵³42 U.S.C. § 2286c(b)(2)(B) (2019). The reports are due not later than January 1 and July of each year, beginning in 2020.

⁵⁴Specifically, the explanatory statement directed DOE to "collaborate with the DNFSB to address the Board's specific concerns with Order 140.1" in order to ensure that DNFSB can continue to meet its statutory oversight responsibilities.

information, in a way that could restrict DNFSB access to important information. Moreover, DNFSB and DOE officials and contractor representatives raised additional concerns related to Order 140.1 that could affect how the agencies cooperate and DNFSB's ability to conduct oversight. These concerns include (1) certain other provisions in Order 140.1 and its accompanying guide not addressing many regular interactions between DOE and DNFSB,⁵⁵ (2) the sufficiency of DOE training about how the order could affect DOE's engagement with DNFSB staff, and (3) inconsistencies in implementing the order across DOE sites that contributed to some delays in responding to DNFSB document requests.

DNFSB Officials Have Expressed Concerns That DOE's Interpretation of a Provision in DNFSB's Enabling Statute May Affect DNFSB's Access to Information

DNFSB and DOE do not have a common understanding of a provision in DNFSB's enabling statute, and DNFSB officials have raised concerns about how DOE may interpret that provision. Specifically, DNFSB officials raised concerns that the statutory provision authorizing the Secretary of Energy to deny access to information to any person who does not need access to it in connection with their duties could be interpreted in a way that would restrict DNFSB access to information that the Board believes is necessary to fulfill its oversight responsibilities.

According to DNFSB officials we interviewed, section 2286c(b) of DNFSB's enabling statute could be broadly interpreted in a manner that could deny the Board access to information. Section 2286c(b) states that the Secretary may deny access to information only to any person who (1) has not been granted an appropriate security clearance or access authorization by the Secretary, or (2) does not need such access in connection with the duties of such person.⁵⁶ In a March 2020 memorandum to DNFSB staff, the Board stated that pursuant to this provision, the Secretary is only permitted to deny access to individuals, and not the agency as a whole, based on the particular individual's

⁵⁵DOE's guidance document supporting Order 140.1 outlines the approaches DOE considers acceptable for interacting with and responding to DNFSB and its staff. The guidance document also describes suggested nonmandatory approaches for meeting requirements in the order as well as routine interactions with the Board and its staff. In July 2020, DOE issued a revised guidance document that aligns with Order 140.1A.

⁵⁶42 U.S.C. § 2286c(b) (2019).

security clearance and need-to-know. The Board also stated that section 2286c(b) should not be used by DOE as an outright excuse to deny information or access requests made by the Board.

Based on our review of Order 140.1 and its replacement, Order 140.1A, both documents repeat the language from section 2286c(b) but do not provide DOE's understanding of the provision. Moreover, according to NNSA's General Counsel, the department has no written interpretation of section 2286c(b). However, some DOE and NNSA General Counsel staff we interviewed suggested that the language allows the Secretary to deny access to information for reasons beyond a standard need-to-know basis.⁵⁷ Without a shared understanding of how DOE could use section 2286c(b) to deny DNFSB access to certain information, DNFSB may be hindered in its ability to conduct its oversight responsibilities.

We have previously reported that agencies can strengthen their commitment to working collaboratively by establishing formal agreements, in part, because articulating a clear and compelling rationale for working together can help agencies overcome points of disagreement.⁵⁸ While not all collaborative arrangements need to be documented with formal agreements and guidance, articulating common goals, roles, and responsibilities in a written document can be a powerful tool for agency collaboration. We have previously recommended that agencies develop a formal written agreement, such as a memorandum of understanding (MOU), in order to enhance collaboration.

As discussed above, DOE officials acknowledged that Order 140.1 was developed without collaborating with DNFSB because it was an internal document providing direction to DOE, and not DNFSB, personnel. Furthermore, because Order 140.1 was revised to focus solely on addressing the changes to DNFSB's enabling statute, its replacement, Order 140.1A, does not address the potential concerns that DNFSB raised about how DOE may interpret section 2286c(b). Developing an MOU between DOE and DNFSB that, among other things, incorporates a common understanding of section 2286c(b) would lessen the risks of DNFSB being denied access to information important to fulfilling its oversight responsibilities.

⁵⁷DOE and NNSA staff did not define what a "broader interpretation" could entail.

⁵⁸[GAO-12-1022](#).

Additional Concerns That DNFSB and DOE Officials and Contractor Representatives Raised about Order 140.1 May Persist under Order 140.1A If Not Addressed

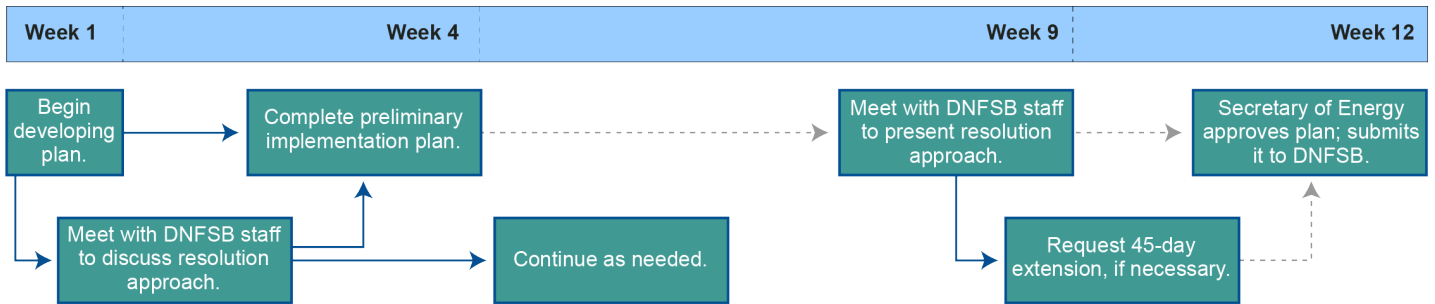
Some DNFSB and DOE officials and contractor representatives we interviewed said that because DOE Order 140.1 and its accompanying guide did not address many of the regular interactions between the two agencies, some contractor and other DOE staff experienced confusion in how to interact with DNFSB resident inspectors and other DNFSB staff. Based on our review of Order 140.1A, the concerns that these agency officials and contractor representatives raised about Order 140.1 have not been addressed, in part because DOE did not address issues beyond the amendments made to DNFSB's enabling statute. In addition, DOE, NNSA, and contractor representatives we interviewed stated that they received little training regarding Order 140.1 and some DOE and contractor staff also had uncertainties about how to engage with DNFSB staff. Nonetheless, DOE officials stated that the department did not plan to provide additional training on Order 140.1A, as they believe it is already well understood by the appropriate staff at DOE's sites. Further, DNFSB officials raised concerns that inconsistencies in the implementation of Order 140.1 had created increased delays in responding to DNFSB requests at some DOE sites, a problem that may persist under Order 140.1A.

Concerns about Order 140.1 and Its Accompanying Guide Not Addressing Many Regular Interactions between DOE and DNFSB Are Not Resolved in Order 140.1A

Under Order 140.1, DNFSB and DOE did not have documented collaborative procedures for many regular interactions between the two agencies, a problem not resolved by DOE's Order 140.1A and its accompanying guide. According to DNFSB officials, an NNSA official, and a contractor representative we interviewed about Order 140.1, unlike the guidance document previously used for cooperating with DNFSB, DOE Manual 140.1-1B, the order did not cover or clearly define many of the routine interactions between DOE and DNFSB staff. Further, we found that the guidance document DOE issued to accompany Order 140.1 addressed some, but not all, of these interagency interactions. For example, DOE Manual 140.1-1B included direction for DOE and NNSA

staff on how and when to interact with DNFSB when developing an implementation plan to respond to a Board recommendation (see fig. 4).⁵⁹

Figure 4: Department of Energy (DOE) Manual 140.1-1B Implementation Plan Steps for Addressing a Defense Nuclear Facilities Safety Board (DNFSB) Recommendation



----- Indicates intervening steps included in Manual 140.1-1B are not shown

Source: GAO analysis of DOE Manual 140.1-1B (March 2001). | GAO-21-141

Text for Figure 4: Department of Energy (DOE) Manual 140.1-1B Implementation Plan Steps for Addressing a Defense Nuclear Facilities Safety Board (DNFSB) Recommendation

- Begin developing implementation plan.
- Meet with DNFSB staff to discuss resolution approach.
- Continue as needed.
- Complete preliminary draft plan.
- Meet with DNFSB staff to present resolution approach.
- Request 45-day extension if needed.
- Secretary of Energy approves plan; submits it to DNFSB.

DNFSB officials we interviewed said that this was valuable guidance, as it outlined multiple opportunities for DOE to coordinate with DNFSB staff. In particular, these DNFSB officials said that such coordination helped to ensure that DOE fully understood the Board’s recommendations and that DOE’s proposed resolution actions would satisfy the intent of the Board’s recommendations. However, such direction and guidance for how and

⁵⁹DNFSB’s enabling statute does not require DOE to engage with DNFSB when developing a plan for the implementation of a Board recommendation, or part of a recommendation, accepted by the Secretary of Energy. Nonetheless, it was DOE’s practice to do so under Manual 140.1-1 (1996); Manual 140.1-1A (1999); and Manual 140.1-1B, which was in place from March 2001 through May 14, 2018.

when DOE and NNSA staff should coordinate with DNFSB staff during the development of an implementation plan was not included in Order 140.1. The DOE guidance document accompanying Order 140.1 included language stating that when responding to a DNFSB recommendation, DOE staff may seek discussions with one or more Board members to fully understand the Board's views regarding the underlying safety issues and potential resolution approaches.⁶⁰ Nonetheless, unlike Manual 140.1-1B, the DOE guidance document also did not provide specific direction for how and when DOE and NNSA staff should coordinate with DNFSB staff throughout the process to develop an implementation plan. Moreover, based on our review of Order 140.1A and its accompanying guide, we found that such direction and guidance are also not included.

DNFSB officials said that the absence of such guidance contributed to disagreements between the Board and DOE over DOE's plan to address DNFSB Recommendation 2019-1 at Pantex.⁶¹ The officials said that unlike the process under DOE Manual 140.1-1B, DOE did not communicate with DNFSB staff while developing its implementation plan. After receiving DOE's plan, DNFSB staff reviewed it and found that it did not satisfy the needs underlying DNFSB's recommendation. This resulted in the Board reiterating its recommendation and holding a public meeting in December 2019, which resulted in DOE agreeing to develop a new implementation plan that would better address the intent of the Board's recommendation.⁶² According to an NNSA official we interviewed at Pantex in January 2020, it would have been helpful to have involved DNFSB staff during the development of the implementation plan, like

⁶⁰The DOE guidance document also states that DOE staff supporting the development and implementation of the department's response to a DNFSB recommendation should consider the Board's ideas and technical advice but reserve the right to make implementation decisions based on the department's sound technical expertise and risk analysis.

⁶¹DNFSB Recommendation 2019-1, *Uncontrolled Hazard Scenarios and 10 CFR 830 Implementation at the Pantex Plant*, was issued in February 2019. It concerned the safety basis for nuclear explosive operations at Pantex, as well as other safety procedures.

⁶²On September 16, 2020, DNFSB responded to previous correspondence from NNSA regarding the revised implementation plan. DNFSB indicated that the revised implementation plan addressed the Board's concerns with the original plan. DNFSB also highlighted how frequent and constructive staff-level interactions during the revision process greatly facilitated productive discussion and resulted in a product that addressed the Board's safety recommendations. DNFSB noted such interactions as a best practice, with the Board hoping to see such interactions become more prevalent in the future, particularly during the development of implementation plans for Board recommendations.

what was done in the past, to allow for earlier feedback and to minimize the amount of work needed to revise the plan later in the process.

Moreover, senior DNFSB officials said that while DOE Manual 140.1-1B had been a collaborative document agreed upon by both agencies, DOE Order 140.1 was developed without DNFSB consultation. Contractor representatives said the absence of these previously agreed-upon collaborative guidelines resulted in confusion for some staff regarding how to interact with DNFSB resident inspectors and other DNFSB staff. For example, DNFSB resident inspectors, as well as contractor representatives at LANL, SRS, and Pantex, told us that following the issuance of DOE Order 140.1, it was not clear as to whether contractor staff could interact independently with DNFSB staff or whether they could do so only with DOE or NNSA officials present.

As discussed above, agencies that articulate their agreements in formal documents can strengthen their commitment to work collaboratively, in part, because agencies can overcome significant differences where there exists a clear and compelling rationale to work together.⁶³ We found that different agencies participating in any collaborative mechanism bring diverse organizational cultures to it. Accordingly, it is important to address these differences to enable a cohesive working relationship and to create the mutual trust required to enhance and sustain the collaborative effort. We also found that MOUs can provide an agreed-upon reference for definitions and procedures, improving the efficiency and trust of participants. Unlike the previous coordination between DOE and DNFSB in developing Manual 140.1-1B, DOE developed Order 140.1 unilaterally.

Furthermore, DOE officials stated that Order 140.1 was revised to focus solely on addressing the changes to DNFSB's enabling statute. Consequently, we found that the revisions included in Order 140.1A do not address the types of potential concerns that DNFSB, DOE, and NNSA officials and contractor representatives we interviewed raised. Moreover, while DOE also revised the guidance document accompanying Order 140.1 to align with Order 140.1A, the guidance document was an internal DOE document and did not require mutual agreement between the agencies before DOE approved its issuance. By developing and agreeing to an MOU, DOE and DNFSB may be able to improve their communication and standardize interactions between the agencies. This may help to ensure more uniform cooperation for DOE and NNSA staff at

⁶³[GAO-12-1022](#).

headquarters and in the field, as well as for contractor staff at the facilities that fall under DNFSB's oversight.

Concerns That DOE Officials and Contractor Representatives Expressed about the Level of Training Received for Order 140.1 Could Persist Under Order 140.1A

DOE and NNSA officials and contractor representatives we interviewed expressed concerns about the level of training they received for Order 140.1 that we found could persist under Order 140.1A. In particular, these DOE and NNSA officials and contractor representatives told us that the training they received for DOE Order 140.1 was minimal. For example, some of the agency officials and contractor representatives explained that their training consisted of participating in a headquarters-led videoconference, which some contractor representatives said provided more of a high-level walk-through presentation outlining what the new order included rather than in-depth training. Also, some contractor representatives we talked with at Hanford, SRS, and Pantex told us that they were not aware of, or had not been included, in the videoconference training.

According to DOE officials, training on Order 140.1 was generally targeted at the individuals responsible for interacting with DNFSB staff as local subject-matter experts, such as DOE, NNSA, and contractor site liaisons to DNFSB.⁶⁴ However, during the course of our review, we found variance in the level of training some liaisons received. For example, some contractor site liaisons to DNFSB told us that they received an overview of Order 140.1 but did not characterize the overview as formal training, and others stated that they did not receive any training. In another instance, one NNSA site liaison to DNFSB indicated that DOE headquarters may have provided some training but could not supply further details because the training would have been provided to the previous liaison, who has since retired. There was also variance in the level of the site liaisons' initial awareness of Order 140.1. For example, even though DOE issued the order in May 2018, in one case, a contractor site liaison to DNFSB at Hanford we interviewed in January 2020 told us that they had only recently become aware of DOE Order 140.1. Finally, in another case, a different contractor liaison to DNFSB at Hanford told us in

⁶⁴At those sites with defense nuclear facilities, DOE, NNSA, and contractor liaisons to DNFSB participate in day-to-day DNFSB-related issues and interactions with DNFSB staff, among other things.

January 2020 that the contractor was not yet operating under DOE Order 140.1 because the order was not yet part of the contractor's contract.⁶⁵ According to DOE officials at Hanford, the federal staff who directly interact with DNFSB received rollout-related training on Order 140.1, but such training had not yet been provided to the contractors because Manual 140.1-1B remained in the contract.

Based on our review, the absence of in-depth training contributed to DOE and contractor staff confusion about how to implement Order 140.1 at their sites. For example, one DOE official at SRS stated that even with the issuance of Order 140.1, there were mixed messages from the department about DNFSB's role in overseeing worker safety issues; as a result, the official planned to continue to interact with DNFSB staff on issues that may include worker safety. This confusion also led to some contractor staff uncertainties about how to engage with DNFSB staff. For example, a contractor representative at the Y-12 National Security Complex said that they experienced difficulty in drafting changes to their local procedures to match DOE Order 140.1 when the order implied greater changes to their cooperation with the Board and its staff than implied by senior DOE leadership during public hearings. Finally, DNFSB officials described how, after DOE Order 140.1 was issued, they had multiple interactions with contractor staff where the contractors stated that they were no longer certain if they could speak with Board staff without a DOE liaison present.

Nonetheless, in July 2020, DOE officials we interviewed said that the department did not have any plans for new training following the issuance of Order 140.1A even though there have been changes to DNFSB's enabling statute and in Order 140.1A. According to the officials, additional training was not warranted because the revisions were made to an existing DOE order. Moreover, the DOE officials stated that because the process undertaken at headquarters to revise Order 140.1 involved a number of discussions with relevant staff in the field, Order 140.1A was well understood and would not need further training for site implementation.

Federal standards for internal control state that management should continually assess the agency's knowledge, skills, and abilities so that the

⁶⁵In July 2020, DOE officials stated that Order 140.1A, which revised Order 140.1, was currently in force at every site, even if it has not yet been incorporated into every contractor's contract.

agency is able to obtain a workforce that has the required knowledge, skills, and abilities to achieve organizational goals.⁶⁶ The federal standards for internal control further state that training is aimed at developing and retaining employee knowledge, skills, and abilities to meet changing organizational needs. In light of the confusion generated by the minimal training DOE and NNSA officials and contractor representatives received for Order 140.1 and the changes to DNFSB's enabling statute reflected in Order 140.1A, clearer and more robust training on DOE's revised order would help mitigate any remaining misunderstandings from the order's previous rollout as well as enable DOE, NNSA, and contractor staff to more consistently implement the revised order at DOE's defense nuclear sites.

DNFSB Officials Expressed Concerns Over Document Request Delays Related to the Inconsistent Implementation of Order 140.1 That Could Persist Under Order 140.1A

DNFSB officials we interviewed expressed concerns over the inconsistent implementation of Order 140.1, which contributed to some increased delays in receiving requested documents, including those which the Board stated are relevant for ongoing safety oversight. They noted that some of these concerns could persist under Order 140.1A. More specifically, DNFSB resident inspectors we interviewed at LANL and SRS told us that they had experienced the inconsistent implementation of Order 140.1 between program offices at the sites. At both sites, staff from DOE's EM and NNSA stated they had implemented Order 140.1 in line with DOE guidelines. However, the implementation of Order 140.1 differed among field offices, resulting in challenges for DOE, NNSA, contractor, and Board staff, particularly with respect to document requests from DNFSB to the site field offices.⁶⁷ In particular,

- at Los Alamos, EM staff described how, while operating under Order 140.1, the EM field office created a process for responding to DNFSB document requests that we found created an administrative burden on its staff. This process required that all documents that DNFSB

⁶⁶[GAO-14-704G](#).

⁶⁷The initial stages of a document request generally are based off of a form that was originally included in DOE Manual 140.1-1B. The document request form is filled out by Board staff and then sent to relevant DOE, NNSA, or contractor staff. These relevant staff typically serve as the DOE, NNSA, and contractor liaisons to DNFSB at the site but can also include other staff familiar with the requested documents.

requested be reviewed and approved by a single central authority before being transmitted to the Board. According to DNFSB officials, the document request requirements that the EM field office established resulted in a slowdown in EM's response to such requests at LANL.⁶⁸ In contrast, NNSA officials at LANL said that as part of their implementation of Order 140.1, they did not develop a requirement that each document request from DNFSB be reviewed and approved by a single central authority. Instead, the NNSA officials said that contractor staff are allowed to respond directly to any DNFSB requests unless the contractor had any concerns about sharing a document and wanted to receive confirmation from NNSA staff that the document could be shared;⁶⁹ and

- at SRS, the DNFSB resident inspectors explained that DNFSB faced similar challenges when requesting documents, only with the requirements set by NNSA and EM reversed. According to the resident inspectors and contractor staff, it was NNSA's SRS field office that created an administrative burden on its staff, while EM's SRS field office had developed a more efficient process. Specifically, an EM official at SRS described a process similar to the one that NNSA's LANL field office used, where contractor staff are allowed to respond directly to DNFSB document requests as long as EM is made aware of the response. However, according to one NNSA official at SRS, as well as SRS contractor representatives, NNSA's document request process requires that all requested documentation be reviewed by five senior managers, including the NNSA site manager, before it can be transmitted off-site to DNFSB headquarters. According to not only the DNFSB resident inspectors but also contractor staff, NNSA's document request process has added a significant administrative burden on even simple requests, as getting approval from multiple managers can take some time.

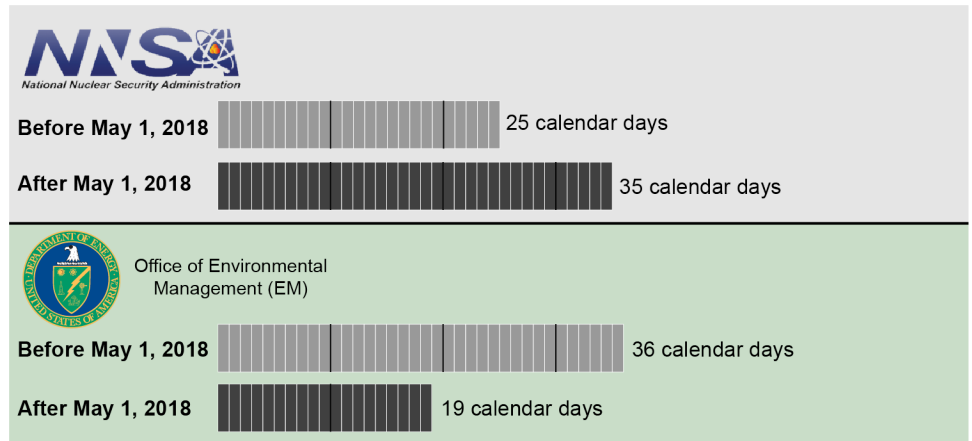
According to DOE officials, the department maintains an efficient process for responding to DNFSB document requests. For example, they stated that since the issuance of DOE Order 140.1 in May 2018, until June 2020,

⁶⁸EM officials we interviewed at LANL said that they had hired an additional contractor to assist with and expedite the process; however, according to DNFSB resident inspectors, it is too early to tell if this will help reduce response times.

⁶⁹According to the NNSA LANL contractor's requirements for interacting with DNFSB and its staff, all information request responses transmitted to DNFSB are also transmitted to the NNSA LANL field office.

DOE provided over 4,000 documents in response to DNFSB requests.⁷⁰ Nonetheless, we found that the inconsistent processes used under Order 140.1 when responding to DNFSB requests for documents at LANL and SRS—two of the five DOE sites with DNFSB resident inspectors—had contributed to some delays, sometimes for months, in responding to DNFSB requests. For example, at SRS there has been a large divergence in median time to fulfill a document request between EM and NNSA, with a notable increase in NNSA’s response time from May 1, 2018, to July 1, 2020 (see fig. 5). Moreover, based on our review of the total number of document requests DNFSB made to EM and NNSA at SRS from January 5, 2017, to July 1, 2020, we found that although EM received about 3,700 requests, its office was able to respond to and process the vast majority of DNFSB’s requests. On the other hand, the NNSA office at SRS, which implemented a more burdensome process than the one used by EM, received far fewer DNFSB document requests—about 550—yet experienced a greater median increase in the number of days taken to fulfill a DNFSB request.

Figure 5: Comparison of Median Response Times to Defense Nuclear Facilities Safety Board Document Requests between EM and NNSA at the Savannah River Site (SRS), from January 5, 2017, to July 1, 2020



Source: GAO analysis of SRS documents. | GAO-21-141

⁷⁰In DOE’s technical comments on our draft report, DOE officials also said that individual DNFSB requests for information typically involve at least 10 documents, with some requests occasionally involving hundreds of documents, and that DOE routinely communicates with DNFSB about the status of fulfilling these requests.

Data table for Figure 5: Comparison of Median Response Times to Defense Nuclear Facilities Safety Board Document Requests between EM and NNSA at the Savannah River Site (SRS), from January 5, 2017, to July 1, 2020

	Before May 1, 2018	After May 1, 2018
National Nuclear Security Administration	25 calendar days	35 calendar days
Office of Environmental Management	36 calendar days	19 calendar days

Note: This figure provides a comparison of the median response times to Defense Nuclear Facilities Safety Board (DNFSB) document requests between the Department of Energy's (DOE) EM and the National Nuclear Security Administration (NNSA) at the Savannah River Site (SRS). According to our analysis, there has been a large divergence in median time to fulfill a DNFSB document request between EM and NNSA, with a notable increase in NNSA's response time from May 1, 2018, to July 1, 2020.

In addition, the Board elevated some of the document request delays experienced by the DNFSB resident inspectors under Order 140.1 with both the EM LANL field office and the NNSA SRS field office in letters sent to the Secretary of Energy. According to DNFSB officials, the Board's involvement was necessary because certain document requests made through the normal request process were not being addressed in a timely manner. For example, in a January 2020 letter concerning EM at LANL, the Board identified five requests for information that EM had not yet fulfilled, with some of the requests originating from September 2019. Shortly after the letter was sent, EM provided most of the requested information to DNFSB. The Board sent a similar letter to the Secretary in May 2020 concerning the NNSA SRS field office, in which the Board identified 10 requests for information, all from April 2020, that had yet to be fulfilled. DNFSB officials said that similar to EM's response, NNSA's SRS field office provided all of the requested information shortly after transmission of the Board's letter.

Senior DOE and NNSA officials we interviewed said that they were unaware of these delays. For example, they told us they had not been informed of any significant delays at the sites prior to the Board's January 2020 letter to the Secretary. Moreover, according to these officials, DNFSB officials did not express concerns about delays in obtaining requested information from these sites during regular weekly meetings between DNFSB and DOE's Office of the Departmental Representative. However, according to DNFSB documents and officials, DNFSB did raise its concerns about the delays at LANL and SRS with DOE officials.

According to federal standards for internal control, management should communicate internally the necessary quality information to achieve the

entity's objectives.⁷¹ In addition, DOE Order 251.1D, *Departmental Directives Program*, states that departmental directives are meant to promote operational consistency throughout the DOE complex and to foster sound management.⁷² While acknowledging that different sites and offices will have differing needs and procedures, providing clearer and more standardized guidance on how to respond to DNFSB document requests under Order 140.1A would enable a more uniform and efficient document request process across DOE's various sites and reduce the frequency of significant delays when responding to DNFSB requests.

Conclusions

DNFSB plays an important role in providing oversight and offering advice to DOE to help ensure the protection of public health and safety at DOE's defense nuclear facilities. For DNFSB to continue to conduct effective oversight of DOE's defense nuclear facilities, it is important that the Board and DOE have a shared understanding of DNFSB's role and access to facilities and certain information. When DOE replaced the manual governing its relationship with DNFSB with Order 140.1, it included a number of provisions that were inconsistent with DNFSB's enabling statute and long-standing practices of DNFSB and DOE. These inconsistencies raised concerns about the order's effect on DNFSB's ability to carry out its statutory responsibilities. DOE's replacement of Order 140.1 with Order 140.1A in June 2020 aligns the order with the changes to DNFSB's enabling statute made by the National Defense Authorization Act for Fiscal Year 2020.

However, DOE and DNFSB have not developed a common understanding of one of the changes made by the FY20 NDAA. Specifically, the agencies do not have a common understanding of section 2286c(b) of DNFSB's enabling statute, the provision that authorizes the Secretary of Energy to deny access to information to people in certain situations. According to DNFSB officials, a broad interpretation of this provision could potentially limit DNFSB from accessing information necessary to conduct its oversight responsibilities.

⁷¹[GAO-14-704G](#).

⁷²Department of Energy, *Departmental Directives Program*, DOE Order 251.1D, Chg. 1 (Washington, D.C.: Nov. 8, 2019).

Other concerns related to Order 140.1 may continue to affect how the agencies cooperate and DNFSB's ability to conduct oversight, even after the issuance of Order 140.1A. According to some DNFSB and DOE officials and contractor representatives, Order 140.1 did not address many of the regular interactions between DOE and DNFSB. Specifically, there were no jointly agreed-upon norms for many interagency interactions to create consistency for engagement between the agencies. This created uncertainties for some DOE, NNSA, and contractor staff about how and when to interact with DNFSB resident inspectors and other DNFSB staff. Based on our review, these concerns were not addressed when DOE replaced Order 140.1 with Order 140.1A. Developing an MOU between DOE and DNFSB that incorporates a common understanding of section 2286c(b) would reduce the risk of DNFSB being denied access to information important for conducting oversight. It could also help DOE and DNFSB to improve their communication and standardize their interactions, which may help to ensure more consistent engagements among DOE, NNSA, and contractor staff at facilities under DNFSB's oversight.

In addition, concerns about the adequacy of training could persist following the issuance of DOE Order 140.1A. Clearer and more robust training on Order 140.1A from DOE headquarters could help mitigate any remaining misunderstandings and ensure that DOE, NNSA, and contractor staff more consistently implement the revised order at DOE's defense nuclear sites.

Finally, there are outstanding concerns related to the inconsistent implementation of Order 140.1 that contributed to some increased delays in receiving requested documents at DOE sites. These concerns could persist, if not addressed, following the issuance of DOE Order 140.1A. Clearer guidance on how to respond to DNFSB document requests would help ensure that DOE and NNSA staff have a more consistent and efficient document request process when responding to DNFSB requests.

Recommendations for Executive Action

We are making a total of four recommendations, including three to DOE and one to DNFSB.

- The Secretary of Energy, in collaboration with the Chairman of DNFSB, should develop a formal written agreement, such as a memorandum of understanding, that could be used to, among other

things, establish a common understanding of how DOE will implement section 2286c(b) of DNFSB's enabling statute regarding denial of DNFSB staff access to information, and clarify procedures for regular interactions between DOE and DNFSB related to each agency's responsibilities for ensuring the adequacy of public health and safety protections at DOE's defense nuclear facilities. (Recommendation 1)

- The Chairman of DNFSB, in collaboration with the Secretary of Energy, should develop a formal written agreement, such as a memorandum of understanding, that could be used to, among other things, establish a common understanding of how DOE will implement section 2286c(b) of DNFSB's enabling statute regarding denial of DNFSB staff access to information, and clarify procedures for regular interactions between DOE and DNFSB related to each agency's responsibilities for ensuring the adequacy of public health and safety protections at DOE's defense nuclear facilities. (Recommendation 2)
- The Secretary of Energy, in coordination with the Office of the Departmental Representative to DNFSB, should develop clearer and more robust training on Order 140.1A for DOE sites to ensure that DOE, NNSA, and contractor staff have a uniform understanding of the order and that those staff interacting with DNFSB implement the order more consistently. (Recommendation 3)
- The Secretary of Energy, in coordination with the Office of the Departmental Representative to DNFSB, should develop clearer and more standardized guidance on how to respond to DNFSB document requests under Order 140.1A to ensure a more uniform and efficient document request process at DOE sites with defense nuclear facilities. (Recommendation 4)

Agency Comments and Our Evaluation

We provided a draft of this report to DOE, NNSA, and DNFSB for review and comment. DOE and NNSA provided us with consolidated written comments, reproduced in appendix VI, as well as technical comments, which we incorporated in the report as appropriate. DNFSB provided us with written comments, reproduced in appendix VII, but did not provide any additional technical comments.

In its written comments, DOE concurred with two recommendations and did not concur with one recommendation. DOE concurred with our report's first recommendation that the department collaborate with DNFSB to develop a formal written agreement to, among other things,

clarify procedures for regular interactions between DOE and DNFSB. DOE noted that in an August 26, 2020, letter to DNFSB, the Deputy Secretary of Energy agreed with DNFSB that a foundation for mutual communication, transparency, and information sharing would be beneficial to both agencies and that DOE would coordinate with DNFSB to develop a memorandum of agreement or understanding.

DOE also concurred with our report's fourth recommendation that the department develop clearer and more standardized guidance on how to respond to DNFSB document requests under Order 140.1A. DOE indicated that following the development of a memorandum of agreement or understanding with DNFSB, the department would update its guidance to reflect the agreement with DNFSB as pertains to responding to document requests.

DOE did not concur with our report's third recommendation that the department develop clearer and more robust training on Order 140.1A for DOE sites to ensure that DOE, NNSA, and contractor staff have a uniform understanding of the order and that those staff interacting with DNFSB implement the order more consistently. According to its comments, DOE concluded that the department maintains adequate communication and training for DOE and NNSA staff regarding interactions with DNFSB. Moreover, DOE stated that the previous training for Order 140.1 generally targeted individuals responsible for interactions with DNFSB and noted that these individuals represent a small fraction of the employees who work at DOE's defense nuclear facilities. DOE further noted that DOE and NNSA sites developed site-specific procedures pertaining to interactions with DNFSB and Order 140.1 and shared them with DNFSB staff.

In our report, we describe examples where DOE and NNSA officials and contractor representatives we interviewed expressed concerns about the level of training they received for Order 140.1 and how this affected their implementation of the order and their engagement with DNFSB staff. In particular, we note that the absence of in-depth training contributed to confusion about how to implement Order 140.1 at DOE sites with defense nuclear facilities, as well as to some contractor staff uncertainties about how to engage with DNFSB staff. For example, a contractor representative at the Y-12 National Security Complex told us that they encountered difficulties when drafting changes to their site-specific procedures to match Order 140.1 because the order implied greater changes to their cooperation with the Board and its staff than implied by senior leadership during public hearings.

Moreover, during our review, DNFSB's enabling statute was amended, which led DOE to issue an updated Order 140.1A in June 2020 and a revised guidance document to accompany the updated order in July 2020. In light of the confusion experienced by DOE, NNSA, and contractor staff—issues some of these staff experienced after receiving DOE training on Order 140.1—as well as the changes to DNFSB's enabling statute and DOE's order and accompanying guidance document, we continue to believe that developing and providing clearer and more robust training on Order 140.1A is warranted.

In its written comments, DNFSB concurred with the report's second recommendation to collaborate with DOE to develop a formal written agreement and reiterated the Board's commitment to collaborating with DOE to develop a written agreement. DNFSB also described actions that it continues, or intends, to take in response to our recommendation.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, the Administrator of NNSA, the Acting Chairman of DNFSB, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or bawdena@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VIII.



Allison Bawden
Director, Natural Resources and Environment

List of Committees

The Honorable James M. Inhofe
Chairman

The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Lamar Alexander
Chairman

The Honorable Dianne Feinstein
Ranking Member
Subcommittee on Energy and Water Development
Committee on Appropriations
United States Senate

The Honorable Adam Smith
Chairman

The Honorable Mac Thornberry
Ranking Member
Committee on Armed Services
House of Representatives

The Honorable Marcy Kaptur
Chairwoman

The Honorable Mike Simpson
Ranking Member
Subcommittee on Energy and Water Development, and Related Agencies
Committee on Appropriations
House of Representatives

Appendix I: Objectives, Scope, and Methodology

The June 2019 committee report accompanying a bill for the National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA)¹ included a provision for GAO to review the Department of Energy's (DOE) Order 140.1.² In addition, the committee report accompanying DOE's fiscal year 2020 appropriation act included a provision for GAO to evaluate the impact to public and worker safety of Order 140.1 and whether the order prevents the Defense Nuclear Facilities Safety Board (DNFSB, or the Board) access to information required to carry out its congressionally mandated responsibilities.³ In response to these provisions, we examined (1) the extent to which DOE Order 140.1 was consistent with DNFSB's original enabling statute and long-standing practices, as well as the actions DOE has taken in light of the changes made to the Board's enabling statute outlined in the FY20 NDAA; and (2) outstanding areas of concern that DNFSB and DOE have identified, and the potential effects of these concerns on the ways in which the two agencies cooperate.

To determine the extent to which DOE Order 140.1 was consistent with DNFSB's original enabling statute and long-standing practices,⁴ we reviewed and compared DOE Order 140.1 to DNFSB's enabling statute in order to identify any inconsistencies.⁵ As part of our efforts to identify

¹S. Rep. No. 116-48, at 390 (2019).

²Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1 (Washington, D.C.: May 14, 2018).

³H. Rep. No. 116-83, at 127 (2019). 165 Cong. Rec. H11061, H11249 (Dec. 17, 2019). Section 4 of the Further Consolidated Appropriations Act, 2020, provides that the explanatory statement shall have the same effect as if it were a joint explanatory statement of a committee of conference.

⁴Agencies are free to change their existing policies as long as they provide a reasoned explanation for the change. *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

⁵Pub. L. No. 100-456, div. A, tit. XIV, § 1441, 102 Stat. 1918, 2076-2085 (1988) (*codified as amended at 42 U.S.C. §§ 2286-2286f*). DNFSB's enabling statute was enacted in 1988 and subsequently amended several times before 2018; however, for the purposes of our report, we refer to the version in effect in 2018 as the "original enabling statute" in order to simplify the comparison between the 2018 and 2019 versions.

long-standing practices between DOE and DNFSB regarding the activities the Board and its staff conduct to provide independent safety oversight of DOE defense nuclear facilities, we reviewed DOE Manual 140.1-1B,⁶ DNFSB and DOE annual reports to Congress, DNFSB recommendations to DOE and DOE's responses, DNFSB weekly site reports, and legal interpretations by DNFSB's and DOE's Offices of the General Counsel. In addition, we reviewed documents related to the DOE integrated project team's effort to convert DOE Manual 140.1-1B into Order 140.1, including a crosswalk that compared the manual with legislation and current DOE practices. In addition, we interviewed the DNFSB Chairman and Board members, as well as officials from DNFSB's Office of the General Counsel and Office of the Technical Director. We also interviewed officials from DOE and the National Nuclear Security Administration (NNSA), including officials from the Office of the Departmental Representative to DNFSB and DOE's and NNSA's Offices of the General Counsel, as well as members from the integrated project team that developed Order 140.1.

To determine the actions being taken by DOE in light of the changes made to DNFSB's enabling statute by the FY20 NDAA, we compared DOE Order 140.1 to DNFSB's amended statute to identify any inconsistencies between the order and the changes made to DNFSB's statute. We reviewed DOE's February 2020 draft revisions to Order 140.1 and compared the revisions to both the order, as issued, and DNFSB's amended enabling statute. We also reviewed correspondence from DNFSB to DOE in response to the amendments made to DNFSB's enabling statute. Moreover, we reviewed Order 140.1A after it was issued on June 15, 2020, and compared it to both the previous version of the order and DNFSB's amended enabling statute.⁷ In addition, we interviewed DOE and NNSA officials in response to the changes made to DNFSB's enabling statute and the revised order, including staff from the Office of the Departmental Representative to DNFSB and DOE's and NNSA's Offices of the General Counsel.

⁶Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Manual 140.1-1B (Washington, D.C.: Mar. 30, 2001). DOE issued the first version of this manual in December 1996. It was subsequently revised and reissued as DOE Manual 140.1-1A in January 1999.

⁷Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1A (Washington, D.C.: June 15, 2020).

To determine any outstanding areas of concern that DNFSB and DOE have and the potential effects of these concerns on the ways in which the two agencies cooperate, we reviewed DOE Order 140.1A, DOE Order 140.1 and its accompanying guide,⁸ and DNFSB and DOE documents that identified concerns related to how the two agencies interact. For example, we examined correspondence between DNFSB, DOE, and NNSA about DNFSB staff being denied access to certain nuclear explosive safety (NES) evaluation meetings at the Pantex Plant (Pantex) in Texas.⁹ In addition, we obtained document request data from the DOE Office of Environmental Management (EM) and NNSA field offices at the Savannah River Site (SRS) for the purposes of analyzing when document requests from DNFSB staff were received and fulfilled. Based on our analysis, we determined the data are sufficiently reliable for our purposes of reporting on the median time taken by SRS's EM and NNSA field offices to fulfil DNFSB document requests since May 2018. We also reviewed the FY20 NDAA to understand how the amendments made to DNFSB's enabling statute could affect the agencies' cooperation.

In addition, we interviewed relevant DNFSB, DOE, and NNSA officials, and contractor representatives, about DOE Order 140.1, its implementation, and the impacts DOE Order 140.1 had on the agencies' interactions regarding their responsibilities for ensuring the safety of workers, the public, and the environment. We also interviewed DNFSB headquarters staff, including the DNFSB Chairman, Board members, and officials from the Office of the Technical Director and the Office of the General Counsel. Similarly, we interviewed DOE and NNSA headquarters officials, including those from DOE's Office of the Departmental Representative to DNFSB and DOE's and NNSA's Offices of the General Counsel. We also interviewed senior NNSA officials about NNSA's May

⁸DOE's guidance document supporting Order 140.1 outlines the approaches DOE considers acceptable for interacting with and responding to DNFSB and its staff. The guidance document also describes suggested nonmandatory approaches for meeting requirements in the order as well as routine interactions with the Board and its staff. In July 2020, DOE issued a revised guidance document that aligns with Order 140.1A.

⁹NES evaluations qualitatively assess the adequacy of measures in meeting DOE NES standards and other NES criteria specified in DOE orders. Specifically, NES evaluations examine nuclear explosive operations and supporting procedures, facilities, equipment, people, and management systems to uncover gaps or weaknesses in safety measures. There are multiple types of NES evaluations, including NES studies and NES master studies. The observation of a NES evaluation by DNFSB staff often entails sitting in on the various activities related to conducting an NES study, which include briefings; demonstrations; and deliberations, followed by report generation.

2018 decision to begin denying DNFSB staff access to certain NES evaluation meetings at Pantex.¹⁰

We also interviewed DNFSB resident inspectors, DOE and NNSA officials, and contractor representatives at the five DOE sites where DNFSB resident inspectors are present.¹¹ We conducted phone interviews with DNFSB resident inspectors, DOE and NNSA officials, and contractor representatives at the Hanford and the Oak Ridge National Laboratory/Y-12 National Security Complex sites. We conducted in-person interviews with DNFSB resident inspectors, DOE and NNSA officials, and contractor representatives at the remaining three sites: Los Alamos National Laboratory (LANL), Pantex, and SRS. We visited these sites to better understand the working relationship between DNFSB resident inspectors and local DOE, NNSA, and contractor staff following DOE's issuance of Order 140.1. We selected these sites because either DOE or NNSA is located at each site; the DNFSB resident inspectors had experience working at the sites under Manual 140.1-1B and Order 140.1; and there were existing examples where DNFSB indicated that DOE, NNSA, or contractor staff had denied or used Order 140.1 as a means to delay providing DNFSB resident inspectors with requested information. During our site visits, we also conducted tours of a number of defense nuclear facilities, such as the Radioactive Liquid Waste Treatment Facility at LANL; certain bays and cells where specific nuclear explosives work is performed at Pantex; and the Tritium Extraction Facility at SRS.

The information and communication component of internal controls found in *Standards for Internal Control in the Federal Government*—management's use of effective information and communication to achieve its objectives—was significant to our report's second objective, along with the related principle that management should internally communicate the

¹⁰On April 23, 2020, the NNSA Administrator sent the DNFSB Chairman a letter indicating that DNFSB staff would, as part of a trial, be allowed to attend the NES deliberative meetings but stressed that the DNFSB staff act strictly as observers. The Administrator further noted that NNSA would reserve the right to restrict personnel outside the NES study group itself, including other departmental personnel, from attending certain NES deliberations at the request of the NES study group Chairman.

¹¹The Board is authorized by statute to assign staff to be stationed at any DOE defense nuclear facility to carry out the functions of the Board. 42 U.S.C. § 2286b(h). Pursuant to this authority, DNFSB's resident inspectors are present at five sites: Hanford, Los Alamos National Laboratory (LANL), Oak Ridge National Laboratory/Y-12 National Security Complex, Pantex, and SRS.

necessary quality information to achieve the entity's objectives.¹² Also significant to the second objective was the control activities component—the actions management establishes through policies and procedures to achieve objectives and respond to risks in the internal control system—specifically, the design of appropriate types of control activities around human capital management with regard to training. From our interviews with DOE, NNSA, and DNFSB officials and contractor representatives across multiple sites, we identified examples to determine whether there had been quality information reported from DOE headquarters to field staff and whether appropriate training had occurred. We also assessed the results of those interviews against previous practices between DOE and DNFSB, such as those outlined in Manual 140.1-1B, and key considerations for implementing interagency collaborative mechanisms.¹³

We conducted this performance audit from August 2019 to October 2020, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹²GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

¹³GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, [GAO-12-1022](#) (Washington, D.C.: Sept. 27, 2012).

Appendix II: Time Line of Illustrative Examples of Events Related to DOE's Justifications for Replacing Manual 140.1-1B with Order 140.1

From March 2001 to May 2018, the Department of Energy (DOE), including the National Nuclear Security Administration (NNSA), and its contractors relied upon DOE Manual 140.1-1B for requirements and guidance on how to interact with the Defense Nuclear Facilities Safety Board (DNFSB, or the Board) and its staff.¹ During this period, DOE attempted, or considered attempting, several efforts to either revise and update Manual 140.1-1B or replace it with a new order. However, it was not until May 2018 when, after taking steps to reassess its relationship with DNFSB, DOE replaced Manual 140.1-1B with Order 140.1.² Table 1 provides a time line of illustrative examples of events related to DOE's justifications for replacing Manual 140.1-1B with Order 140.1.

Table 1: Time Line of Illustrative Examples of Events Related to the Department of Energy's (DOE) Justifications for Replacing Manual 140.1-1B with Order 140.1

Date	Details
March 30, 2001	DOE issued Manual 140.1-1B for the purposes of detailing the process to be used when interacting with the Defense Nuclear Facilities Safety Board (DNFSB, or the Board) and its staff. DOE's manual highlighted that the department and DNFSB share the common goal of ensuring adequate protection of public and worker health and safety and the environment at DOE defense nuclear facilities. ³ According to Manual 140.1-1B, to accomplish this goal, DOE's policy was to, among other things, fully cooperate with DNFSB, provide access to information necessary for DNFSB to accomplish its responsibilities, and thoroughly consider the recommendations and other safety information provided by DNFSB.

¹Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Manual 140.1-1B (Washington, D.C.: Mar. 30, 2001). DOE issued the first version of this manual in December 1996. It was subsequently revised and reissued as DOE Manual 140.1-1A in January 1999. On July 26, 2005, DOE issued an errata sheet for Manual 140.1-1B for the purposes of removing an expiration date that was not required.

²Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1 (Washington, D.C.: May 14, 2018).

**Appendix II: Time Line of Illustrative Examples
of Events Related to DOE's Justifications for
Replacing Manual 140.1-1B with Order 140.1**

Date	Details
January 2002	DOE performed a review of Manual 140.1-1B and concluded that the manual was necessary in its current form because it implemented requirements from legislation in a consistent and efficient manner. The review recommended that no changes be made to the manual and that the manual continue to undergo a biennial review in accordance with the department's established directives procedures.
March 27, 2006	In a memorandum to DOE staff, the Deputy Secretary of Energy highlighted two important principles in the Secretary of Energy's efforts to improve management of the department: (1) line accountability and (2) clear roles and responsibilities. The Deputy Secretary informed staff that upon reviewing a previously issued departmental policy related to the process that DOE undertook when corresponding with DNFSB, it was determined that the policy inadvertently blurred the distinction between the roles and responsibilities of DOE and those of external reviewers, such as DNFSB. To prevent such blurring of responsibilities and to prevent possible confusion, the Deputy Secretary subsequently rescinded the policy.
May 9, 2006	The Secretary of Energy issued a memorandum to DOE department staff to clarify the distinction between DOE's responsibilities and DNFSB's role. According to the Secretary, DNFSB's responsibility is to provide high-quality, technically competent external advice by, among other things, reviewing and evaluating standards, conducting investigations, and making recommendations. On the other hand, the Secretary stressed that it is DOE's responsibility to carry out the department's mission in a safe, secure, and environmentally responsible way. The Secretary further stated that blurring the distinction between DOE's responsibilities and the role of external reviewers both reduces DNFSB's independence and effectiveness and weakens DOE's line responsibility. As a result, the Secretary stated that while it is the expectation that the department pay attention to the advice of DNFSB and its staff, DOE must never confuse advice with authority and accountability.
October 5, 2006	DOE notified DNFSB that the department planned to examine an in-progress draft manual intended to update Manual 140.1-1B to determine if another approach could be developed so as to better enhance the agencies' working relationship. According to DOE, the sheer volume of the process details in the current draft manual may, among other things, cloud the agencies' common objective for improving and maintaining health and safety at DOE's defense nuclear facilities.
March 2009	DOE's Office of the General Counsel exchanged communications with DNFSB's Office of the General Counsel about DOE's effort to replace Manual 140.1-1B.
January 14, 2011	In response to both DOE's decision to require the conversion of manuals into orders and an effort started in 2010 to revise the department's safety and security directives, DOE issued a notice of intent to convert Manual 140.1-1B into a new order. According to the notice, the revised directive would more concisely specify goals and requirements and condense certain procedural sections of the manual into an overview of the types of interactions with DNFSB. ^b
September 26, 2012	DOE's Deputy General Counsel provided comments to DNFSB on a rule proposed by the Board suggesting that DNFSB strike the words "and workers" from the phrase "health and safety of the public and workers at DOE defense nuclear facilities" because investigations into worker health and safety exceed DNFSB's statutory authority.
October 28, 2015	The Commission to Review the Effectiveness of the National Energy Laboratories' report noted that while DNFSB's scope is limited to defense nuclear facilities, DNFSB is perceived among defense and nondefense laboratories as a continuous driver of overly strict and rigid requirements across the DOE complex. ^c According to the report, the root of this perception and the drive to develop new requirements may be the adjudication process and overreaction to the safety issues DNFSB identified. Moreover, the commission found that there is confusion between DNFSB "recommendations" and suggestions or observations. In particular, according to the report, sometimes certain DNFSB facility updates can be misconstrued as formal recommendations from the Board, which results in laboratories following the suggestions and contributes to conservatism at DOE and the laboratories.

**Appendix II: Time Line of Illustrative Examples
of Events Related to DOE's Justifications for
Replacing Manual 140.1-1B with Order 140.1**

Date	Details
February 24, 2017	Executive Order 13777, <i>Enforcing the Regulatory Reform Agenda</i> , was issued. The Executive Order directed federal agencies to establish Regulatory Reform Task Forces to evaluate existing regulations and make recommendations to the agency head regarding their repeal, replacement, or modification. Under the order, regulations are agency statements of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or to describe the procedure or practice requirements of an agency. According to DOE documents about the development of Order 140.1, DOE treated Manual 140.1-1B as a regulation under Executive Order 13777.
April 26, 2017	<p>The National Laboratory Directors' Council issued its report, <i>Regulatory Reform Proposal</i>.^d According to the report, the National Laboratory Directors' Council identified six critical areas where management and operations of the laboratory complex could be improved in a manner that creates savings and extends the value of every dollar invested at the national laboratories.</p> <p>One of the report's proposals focused on reforms for enhancing productivity related to worker safety and nuclear safety. According to the report, the manner in which DOE has responded to DNFSB recommendations has expanded DNFSB's influence well outside its assigned scope. The report further noted that the unintended negative consequences of applying DNFSB recommendations more broadly across the DOE enterprise has created inefficiencies and unnecessarily complex work practices in the national laboratories most conducive to innovation and discovery. The report therefore suggested that DOE stop applying DNFSB recommendations that are intended for high-hazard defense nuclear facilities to non-defense-related facilities and more clearly define, in policy, where DNFSB recommendations should and should not apply.</p>
May 25, 2017	<p>The DOE Regulatory Reform Task Force issued a memorandum directing that a working group be established to realign the department's engagement with DNFSB in response to Executive Order 13777. According to the memorandum, DOE's Regulatory Reform Task Force tasked this and other internal reform working groups with reviewing issues that (1) are specific to laboratory operations; (2) require input from multiple program and laboratory representatives to provide recommendations to the DOE Regulatory Reform Task Force that incorporate concerns and positions across the complex; and (3) are matters that can be addressed through quick, internal action or are of significantly critical concern across the laboratory complex.</p> <p>The memorandum also stated that all working groups are to focus on reducing DOE interpretive regulations and directives to their initial, underlying statutory intent.^e As such, the DNFSB-focused working group was directed to present recommendations to align DNFSB's scope and roles with the original congressional intent, including, according to the memorandum, limiting DNFSB recommendations to high-hazard defense nuclear facilities and eliminating DOE requirements that extend DNFSB recommendations to non-defense-related facilities. Further, the internal reform working group was tasked with developing revisions to reduce laboratory and DOE administrative burdens, while maintaining laboratory performance standards.</p>
August 2017	The DOE Regulatory Reform Task Force was reviewing the department's relationship with DNFSB as well as Manual 140.1-1B.

**Appendix II: Time Line of Illustrative Examples
of Events Related to DOE's Justifications for
Replacing Manual 140.1-1B with Order 140.1**

Date	Details
September 1, 2017	<p>The DOE Deputy Secretary of Energy approved a decisional memorandum authorizing changes to realign the department's engagement with DNFSB for the purposes of further developing actions that may achieve the goal of improving laboratory efficiency and decreasing costs, while maintaining an appropriate level of DOE oversight. Among other things, the Deputy Secretary tasked</p> <ul style="list-style-type: none"> • the Directives Review Board^f to work with the Office of Environment, Health, Safety and Security^g and all affected elements of the department to quickly finalize and promulgate a Secretarial Policy Memorandum regarding DOE internal expectations for working with DNFSB; • the Office of Environment, Health, Safety and Security, via the Directives Review Board, to codify the resulting secretarial memorandum into a DOE policy and to address the issues raised as part of DOE's reform effort in a DOE order, replacing DOE Manual 140.1-1B; and • the Office of Environment, Health, Safety and Security and the Office of the Departmental Representative to DNFSB^h to develop a messaging and response strategy for communicating DOE positions on future responses and engagements with DNFSB and Board staff.
September 25, 2017	<p>In response to the Deputy Secretary of Energy's September 1, 2017, memorandum, DOE's Directives Review Board tasked an integrated project team for the purposes of evaluating DOE Manual 140.1-1B and establishing a basis for revising and converting the manual into a departmental order. The integrated project team included members from across DOE and NNSA, including some of the national laboratories, and the National Laboratory Directors' Council. Further, according to the memorandum, the integrated project team was directed to submit a draft of the new order to the Directives Review Board no later than December 1, 2017.</p>
October 13, 2017	<p>The DOE Deputy Secretary of Energy issued a memorandum, <i>Relationship with the Defense Nuclear Facilities Safety Board</i>, to all DOE department heads. According to the Deputy Secretary, DOE may have at various times in the past, either through the department's actions or lack thereof, blurred the distinction between DOE's roles and responsibilities and those of external advisors, such as DNFSB. The Deputy Secretary further noted the necessity for clear roles and responsibilities between the department and DNFSB.</p>
December 15, 2017	<p>An early draft version of the order was sent to DOE's Directives Review Board for review and comment.</p>
December 18, 2017	<p>DNFSB submitted a formal document request to DOE for the order being drafted; however, as DOE acknowledged in August 2018, the department did not formally provide the draft order to DNFSB.</p>
February 7, 2018	<p>The integrated project team completed its review of comments on the draft order that the Directives Review Board provided to the team and planned to provide an updated draft of the order to the Directives Review Board for review by the end of February.</p>
February 22, 2018	<p>The integrated project team sent the Directives Review Board the updated draft of the order for review and comment.</p>
March 7, 2018	<p>Members of the Directives Review Board had no further outstanding issues with the draft order that the integrated project team developed and approved the draft order.</p>
April 26, 2018	<p>The NNSA Administrator provided the DNFSB Chairman with a copy of draft DOE Order 140.1.</p>
May 7, 2018	<p>The DNFSB Chairman emailed the NNSA Administrator informal suggestions for revising draft DOE Order 140.1 in light of several concerns that the Board identified. In particular, DNFSB highlighted how several provisions within the draft order appeared to be inconsistent with DNFSB's enabling statute or seemed to imply that DNFSB did not have access to certain facilities or information. As a result, the Chairman's email suggested that certain provisions be deleted or revised to provide additional clarity. According to an NNSA document, NNSA accepted some of the suggested revisions but did not accept suggested revisions to the draft order related to restrictions on DNFSB's access to facilities with certain hazard categories or the limiting of public health and safety to those individuals beyond site boundaries, a limitation that DNFSB characterized as inconsistent with long-standing legal interpretations of the Atomic Energy Act of 1954, as amended.</p>

**Appendix II: Time Line of Illustrative Examples
of Events Related to DOE’s Justifications for
Replacing Manual 140.1-1B with Order 140.1**

Date	Details
May 14, 2018	DOE issued DOE Order 140.1, as well as an accompanying guidance document to support the order. In addition, DOE prepared an information and training presentation to be used with staff when discussing the new order.

Source: GAO analysis of documents from DNFSB, DOE, and NNSA, as well as Executive Order 13777, *Enforcing the Regulatory Reform Agenda* (Feb. 24, 2017), and the National Laboratory Directors’ Council, *Regulatory Reform Proposal* (Apr. 26, 2017). | GAO-21-141

Notes: This time line is not intended to be all encompassing but rather to provide illustrative examples of events related to DOE’s decision to replace Manual 140.1-1B with Order 140.1 in May 2018.

^aDNFSB’s enabling statute defines the term “Department of Energy defense nuclear facility” as (1) a production facility or utilization facility under the control or jurisdiction of the Secretary of Energy and operated for national security purposes; and (2) certain nuclear waste storage facilities under the control or jurisdiction of the Secretary of Energy. The term does not include any facility or activity pertaining to the Naval nuclear propulsion program; any facility or activity involving the transportation of nuclear explosives or nuclear material; any facility that does not conduct atomic energy defense activities; or any facility owned by the United States Enrichment Corporation. 42 U.S.C. § 2286g.

^bDOE’s 2011 effort to convert Manual 140.1-1B into a new order resulted in the development of a draft order. The draft order significantly streamlined content from Manual 140.1-1B. There were also plans to transfer the more specific procedural information not included in the draft order into a technical standard handbook for the purposes of supporting the draft order. However, the draft order did not receive final approval, and Manual 140.1-1B remained in effect.

^cSection 319 of the Consolidated Appropriations Act, 2014 (Pub. L. No. 113-76) directed the Secretary of Energy to establish the Commission to Review the Effectiveness of the National Energy Laboratories. The commission was charged with, among other things, reviewing the efficiency and effectiveness of DOE’s 17 national laboratories, including assessing overhead costs and the impact of DOE’s oversight and management approach. Commission to Review the Effectiveness of the National Energy Laboratories, *Securing America’s Future: Realizing the Potential of the Department of Energy’s National Laboratories* (Washington, D.C.: Oct. 28, 2015).

^dThe National Laboratory Directors’ Council includes the laboratory directors from each national laboratory and is an independent body that coordinates initiatives and advises DOE and other national laboratory stakeholders.

^eAccording to DOE Order 251.1D, *Departmental Directives Program*, which was in effect at the time of DOE’s May 25, 2017, memorandum directing that a working group be established to realign the department’s engagement with DNFSB in response to Executive Order 13777, manuals were a type of DOE directive.

^fThe DOE Directives Review Board is chaired by the Director of the Office of Management and advises, as well as concurs on, individual directives before their approval by the DOE Operations Committee for release for DOE-wide comment and final issuance. In doing so, the Directives Review Board seeks to ensure that DOE’s program for departmental directives contains directives that enhance DOE’s ability to achieve its mission goals in a safe, secure, and cost-effective manner.

^gDOE’s Office of Environment, Health, Safety and Security is the department’s central organization with enterprise-level responsibilities for health, safety, environment, and security. Among other things, the office is responsible for policy development and technical assistance, safety analysis, and corporate safety and security programs.

^hDOE’s Office of the Departmental Representative to DNFSB falls under the Office of Environment, Health, Safety and Security and aims to provide coordination between DNFSB and DOE and NNSA on matters concerning nuclear safety across the DOE complex.

Appendix III: Illustrative Examples of Concerns DNFSB Raised about Order 140.1, DOE's Responses, and Amendments Made to DNFSB's Enabling Statute

In May 2018, after taking steps to reassess its relationship with the Defense Nuclear Facilities Safety Board (DNFSB, or the Board), the Department of Energy (DOE) replaced Manual 140.1-1B with Order 140.1.¹ Subsequent to the issuance of DOE Order 140.1, DNFSB began to publicly express concerns about the wording of certain provisions in the order and whether implementing the order, as issued, would affect the Board's ability to carry out its statutory responsibilities. DOE, however, did not agree with DNFSB's concerns. For example, in a December 2018 letter to DNFSB, the Secretary of Energy stated that DOE Order 140.1 does not diminish the Board's legal authority and does not hinder DOE's cooperation with DNFSB or prevent DNFSB from conducting its independent safety oversight mission.

Nonetheless, in February 2020, DOE began revising Order 140.1 in response to amendments made to DNFSB's enabling statute by the National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA) that sought to clarify and confirm DNFSB's statutory authorities and long-standing practices between DOE and DNFSB regarding the activities the Board and its staff conduct to provide independent safety oversight of DOE defense nuclear facilities. DOE provided DNFSB with a copy of a draft Order 140.1A on February 26, 2020. DNFSB reviewed the draft Order 140.1A and subsequently informed the Secretary of Energy that the changes contained in the revised order would "satisfactorily resolve the statutory concerns" that the Board expressed. Following additional

¹Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Manual 140.1-1B (Washington, D.C.: Mar. 30, 2001); and *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1 (Washington, D.C.: May 14, 2018).

**Appendix III: Illustrative Examples of Concerns
DNFSB Raised about Order 140.1, DOE's
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internal review and approval, DOE replaced Order 140.1 with Order 140.1A on June 15, 2020.² Table 2 provides a time line of illustrative examples of the concerns that DNFSB raised about Order 140.1, DOE's responses, and the amendments to DNFSB's enabling statute in December 2019 that led to the issuance of revised Order 140.1A.

²Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1A (Washington, D.C.: June 15, 2020).

**Appendix III: Illustrative Examples of Concerns
DNFSB Raised about Order 140.1, DOE's
Responses, and Amendments Made to
DNFSB's Enabling Statute**

Table 2: Time Line of Illustrative Examples of the Concerns That DNFSB Raised about Order 140.1, DOE's Responses, and the Amendments Made to DNFSB's Enabling Statute

Date	Details
May 14, 2018	The Department of Energy (DOE) issued DOE Order 140.1. In addition, DOE prepared an accompanying guidance document to support the order as well as an information and training presentation to be used with staff when discussing the new order.
August 28, 2018	The Defense Nuclear Facilities Safety Board (DNFSB, or the Board) held its first public hearing on DOE Order 140.1 in Washington, D.C., to discuss the Board's concerns and obtain testimony from senior DOE officials, including the Deputy Secretary of Energy, about the provenance and objectives of the new order.
September 17, 2018	<p>Partly in response to the testimony that the Deputy Secretary of Energy and other DOE senior officials at the Board's August public hearing provided, DNFSB sent the Secretary of Energy a letter stating that DOE Order 140.1 wrongly attempts to diminish the Board's ability to perform its statutory mandate under the Atomic Energy Act of 1954, as amended. The letter also articulated DNFSB's primary concerns with Order 140.1. Specifically, according to DNFSB, the order</p> <ul style="list-style-type: none"> • includes exemptions that improperly state that DOE, not DNFSB, shall determine which facilities may adversely impact public health and safety; • defines "public health and safety" in a manner that is inconsistent with the Atomic Energy Act of 1954, as amended, and long-standing precedence between the two agencies; • excludes certain statutory language in a way that implies that DOE, not DNFSB, has the power to determine what access DNFSB needs to carry out its responsibilities; and • allows DOE to deny DNFSB requests related to deliberative documents, predecisional documents, or deliberative meetings, when there are no such limitations to the Board's access to this type of information in the Atomic Energy Act of 1954, as amended.
November 28, 2018	<p>DNFSB held in Washington, D.C., the second of three public hearings that the Board planned for the purposes of gathering information regarding the objectives and proposed implementation of DOE Order 140.1 from DOE leadership. In particular, the Board sought to obtain information on the Board's access to information, facilities, and personnel and on any potential impacts to the Board's resident inspector program.^a DOE staff that participated in the public hearing included the Assistant Secretary for the Office of Environmental Management and the manager of the Oak Ridge Office of Environmental Management.</p> <p>During the hearing, the Assistant Secretary stated DOE's position that Order 140.1 is consistent with governing legislation and does not hinder cooperation with the Board or prevent the Board from providing independent analysis, advice, and recommendations to the Secretary. Moreover, the Assistant Secretary stated that the order provides direction to DOE personnel and not the Board's personnel, meaning that Order 140.1 cannot act to limit the Board's access and how it performs its responsibilities.</p>
December 13, 2018	The Secretary of Energy responded to DNFSB's September 2018 letter. The Secretary disagreed with the concerns that DNFSB raised and stressed the department's stance that DOE Order 140.1 does not diminish the Board's legal authority and also does not hinder DOE's cooperation with DNFSB or prevent DNFSB from conducting its independent safety oversight mission.
December 21, 2018	DNFSB responded to the Secretary of Energy's letter and reaffirmed that the Board remained concerned that certain written provisions in Order 140.1 were inconsistent with the Atomic Energy Act of 1954, as amended. The Board further stated that implementing Order 140.1 could challenge DOE's long-standing policy to continue a strong and productive relationship with DNFSB and its staff as a valued external and independent reviewer.

**Appendix III: Illustrative Examples of Concerns
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Date	Details
February 21, 2019	DNFSB held its third public hearing on DOE Order 140.1 in Albuquerque, New Mexico, to gather additional information regarding the objectives and implementation of Order 140.1. In particular, the Board sought to gather information from DOE field offices regarding the implementation of the order and to hear from interested members of the public. The Board heard testimony from the managers of the National Nuclear Security Administration's (NNSA) Los Alamos and Sandia field offices as well as the manager from the DOE Office of Environmental Management's Los Alamos Field Office and members of the public.
April 1, 2019	DNFSB issued its <i>29th Annual Report to Congress</i> for calendar year 2018. Among other things, DNFSB noted that DOE Order 140.1 incorporated major changes, including new restrictions and protocols regarding the Board's access to information, facilities, and personnel that could diminish the Board's ability to effectively perform its statutory mandate under the Atomic Energy Act of 1954, as amended. According to DNFSB, DOE Order 140.1, as written, could limit Board oversight of many defense nuclear facilities and also affect the long-standing, strong, and productive relationship between the Board and DOE.
April 9, 2019	The DNFSB Chairman testified at a hearing before the House Armed Services Committee. During the hearing, the Chairman said that he saw very little direct risk to DNFSB's ability to access facilities, information, and people, because DNFSB does not fall under DOE orders. However, the Chairman stressed that he was concerned that DNFSB may need to use some of its stronger tools, such as subpoena powers, to ensure that the Board maintains its ability to access information, which would slow the Board's ability to do its job. Furthermore, the Chairman reiterated that parts of DOE Order 140.1 directly contradict plain language in the Atomic Energy Act of 1954, as amended.
May 2019	DOE issued its report to Congress on departmental activities relating to DNFSB for fiscal year 2018. In the report, DOE stated the department developed Order 140.1 to establish a set of uniform requirements, including DOE federal and contractor roles and responsibilities consistent with applicable law and to ensure consistent and predictable interactions with DNFSB. DOE also acknowledged that the department had received feedback from DNFSB, Congress, and public interest groups expressing concerns that DOE had limited DNFSB's statutory oversight responsibility to ensure the safety of the public and workers at DOE's defense nuclear facilities. DOE reiterated the department's position that Order 140.1 does not challenge DNFSB's legal authority and that the order governs how DOE operates and does not apply to, or change, how the Board operates under its enabling statute.
June 12, 2019	DNFSB notified the Secretary of Energy that NNSA has, since March 2018, denied DNFSB staff access to nuclear explosive safety (NES) study deliberations at the Pantex Plant in Texas. ^b According to the Board's letter, DNFSB requires access to all phases of the NES study process so that DNFSB staff can assess DOE's implementation of its directives governing safe nuclear explosive operations. DNFSB further stated that the compromise that NNSA offered—using briefings to provide an after-the-fact overview of the deliberative process—was an insufficient substitute for DNFSB observation of NES study group deliberations.
August 9, 2019	The NNSA Administrator responded to the Board's concerns regarding DNFSB access to all phases of the NES study group process. According to the NNSA Administrator, NES study group deliberations demand free and open communications, and neither DOE nor NNSA senior leadership participate in the deliberations during that specific phase of the overall NES study group process. NNSA offered to provide DNFSB's staff a briefing following any NES study group deliberations in lieu of allowing DNFSB staff to attend the deliberative meetings.
October 11, 2019	DNFSB notified the Secretary of Energy of the Board's disagreement with the justification that NNSA offered for the continued exclusion of DNFSB staff from NES study deliberations. Furthermore, the Board concluded that independent analysis is not possible if its staff only has access to reiterations of others' characterization of activities, as these reiterations are insufficient substitutes for independent observation of NES study group deliberations. As a result, the Board restated its position that access to NES study deliberations is necessary to evaluate the safety of nuclear explosive operations and directed its staff to attend all phases of the NES study process.

**Appendix III: Illustrative Examples of Concerns
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Date	Details
December 17, 2019	The explanatory statement accompanying the Further Consolidated Appropriations Act, 2020, directed DOE to “collaborate with the DNFSB to address the Board’s specific concerns with Order 140.1” in order to ensure that DNFSB can continue to meet its statutory oversight responsibilities. ^c
December 20, 2019	The National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA) ^d made a number of amendments to DNFSB’s enabling statute, including <ul style="list-style-type: none"> • clarifying that DNFSB’s mission includes oversight of the health and safety of employees and contractors at defense nuclear facilities; • clarifying that the only reasons the Secretary of Energy can deny a person access to information are for (1) not having appropriate security clearance or access authorization and (2) not needing access in connection with a person’s duties; • requiring the Secretary of Energy to provide the Board with “prompt and unfettered access” to facilities, personnel, and information instead of “ready access”; • clarifying that DNFSB has access to facilities, information, and personnel regardless of the hazard or risk category assigned to a facility by the Secretary of Energy; • adding requirements for biannual reports to congressional defense committees by the Board and Secretary of Energy regarding the Secretary’s denials of DNFSB written requests for information based on one of the reasons specified in the statute; and • confirming that DNFSB has access to deliberative information.
January 16, 2020	DNFSB sent the new Secretary of Energy a letter highlighting what the Board believes are the key challenges the Secretary faces with respect to DOE’s defense nuclear facilities. One of the key challenges that the Board identified pertained to resolving differences between DOE Order 140.1 and the related language in the FY20 NDAA.
January 27, 2020	DNFSB sent a letter to the Secretary of Energy seeking information that the Board had requested, but not yet received, from the DOE Office of Environmental Management’s Los Alamos Field Office. ^e According to DNFSB’s letter, the requests that DNFSB staff made occurred between September 2019 and January 2020.
February 7, 2020	DOE responded to DNFSB’s January 27, 2020, letter and indicated that the items requested had already been provided or were resolved. Specifically, according to DOE’s letter, the Office of Environmental Management’s Los Alamos Field Office had either provided the requested information or resolved the requests made during the period from January 24 to January 29, 2020.
February 11, 2020	DNFSB transmitted to congressional committees a report identifying each request for access to information that was submitted in written form to, and denied by, the Secretary of Energy, during the period from July 1, 2019, to December 31, 2019. In its report, DNFSB identified one case where the Secretary denied the Board access to information related to nuclear explosive safety at the Pantex Plant and noted that the situation remained unresolved. DNFSB also reported that the Board had experienced a number of delays in obtaining access to information over the 6-month reporting period. According to DNFSB, delays in access to information affect the Board’s ability to perform field oversight activities in a timely manner, and such delays remain a concern.
February 21, 2020	DOE transmitted to congressional committees its report detailing the department’s response to information that DNFSB requested and that the Secretary subsequently denied during the period from July 1, 2019, to December 31, 2019. DOE acknowledged DNFSB’s request for access to all phases of the NES process, particularly NES deliberations, and restated that in response to DNFSB’s June 2019 request, NNSA would continue to provide DNFSB staff with a briefing following NES deliberations. DOE also reiterated that NNSA management does not attend NES deliberations because of the concern that it would inhibit the candid exchange of views and opinions by the subject matter experts attending these meetings. According to the report, NNSA and DNFSB were still working together to resolve this issue.
February 26, 2020	DOE provided DNFSB with a copy of a draft Order 140.1A for review and comment.

**Appendix III: Illustrative Examples of Concerns
DNFSB Raised about Order 140.1, DOE's
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Date	Details
February 28, 2020	DNFSB notified DOE that the draft Order 140.1A, if approved as currently worded, would satisfactorily resolve the statutory concerns the Board expressed to the Secretary of Energy in September 2018. Moreover, DNFSB stated that the Board remained committed to working with the Secretary to establish a bilateral memorandum of understanding between DNFSB and DOE so as to resolve operational issues between the two agencies that will not be resolved through the order.
March 17, 2020	DNFSB submitted its <i>30th Annual Report to Congress</i> for calendar year 2019. According to its report, DNFSB attributed a deterioration in the level of DOE cooperation with the Board and its staff to DOE's publication of Order 140.1, which was issued in May 2018 without formal input from the Board. Moreover, DNFSB noted that changes were made to the Board's enabling statute in December 2019 and that the Board was committed to working with DOE to clarify and resolve any issues that negatively affect cooperation between the agencies.
March 19, 2020	<p>DNFSB released a memorandum, <i>The National Defense Authorization Act for Fiscal Year 2020 and the Board's Interface with the Department of Energy</i>, to provide guidance to DNFSB leadership and staff in light of the amendments made to DNFSB's enabling statute. According to DNFSB, the amendments</p> <ul style="list-style-type: none"> • clarified that the Board's jurisdiction for DOE defense nuclear facilities is without regard to the DOE hazard or risk category assigned to a facility; • confirmed Congress's intent that the Board's mission to provide adequate protection of public health and safety includes public employees and contractors at DOE defense nuclear facilities; • replaced the requirement for "ready access" with "prompt and unfettered access," thereby clarifying and strengthening two essential elements of the Board's access authorities: (1) that the access to information be without unreasonable temporal delays and (2) that the access be without restriction and unencumbered by unreasonable bureaucratic processes within DOE; • made explicit that the only reason the Secretary may deny access to a Board employee is on the basis of individual need-to-know or access authorization, meaning that the Secretary is only permitted to deny access to individuals and not the agency as a whole, based on the particular individual's security clearance and need-to-know; and • recognized that the Board will receive—and not publicly disclose—information that is otherwise protected from disclosure by law, including deliberative process information, in the normal course of business. <p>Moreover, the Board reiterated its desire to establish a memorandum of understanding or other mechanism to further define DNFSB's engagement with DOE.</p>
April 16, 2020	The DNFSB Chairman sent a letter to the Secretary of Energy after an NNSA official, citing a decision based on compliance with Order 140.1, denied a resident inspector access to observing deliberations for a NES change evaluation. ^f
April 23, 2020	The NNSA Administrator sent a letter to DNFSB stating that, given the Board's oversight and advisory role, NNSA supports the Board's involvement in the NES evaluation process. The Administrator indicated that DNFSB staff would, as part of a trial, be allowed to attend the deliberations but stressed that DNFSB staff act strictly as observers. The Administrator further noted that NNSA would reserve the right to restrict personnel outside the NES study group itself, including other departmental personnel, from attending certain NES deliberations at the request of the NES study group Chairman.
May 15, 2020	According to DOE officials, the DOE Directives Review Board was in the process of reviewing the draft Order 140.1A for approval. ^g
May 21, 2020	DNFSB sent a letter to the Secretary of Energy regarding information that had been requested, but not yet received, from NNSA's Savannah River Site Field Office. According to the letter, DNFSB's staff made the document requests made over the time period from April 20 to April 24, 2020.
June 15, 2020	DOE replaced Order 140.1 with Order 140.1A.

Source: GAO analysis of documents from DNFSB, DOE, and NNSA, as well as the explanatory statement accompanying the Further Consolidated Appropriations Act, 2020, and the National Defense Authorization Act for Fiscal Year 2020. | GAO-21-141

**Appendix III: Illustrative Examples of Concerns
DNFSB Raised about Order 140.1, DOE's
Responses, and Amendments Made to
DNFSB's Enabling Statute**

Notes: This time line is not intended to be all encompassing but rather to provide illustrative examples of the concerns that DNFSB raised about DOE Order 140.1, DOE's responses, and the amendments to DNFSB's enabling statute in December 2019 that led to DOE replacing Order 140.1 with Order 140.1A in June 2020.

^aThe Board is authorized by statute to assign staff to be stationed at any DOE defense nuclear facility to carry out the functions of the Board. 42 U.S.C. § 2286b(h). Pursuant to this authority, DNFSB resident inspectors are present at five DOE and NNSA sites: the Hanford Site, Los Alamos National Laboratory, Oak Ridge National Laboratory/Y-12 National Security Complex, Pantex Plant, and Savannah River Site.

^bNES study deliberations are an element of an NES evaluation. NES evaluations qualitatively assess the adequacy of measures in meeting DOE NES standards and other NES criteria specified in DOE orders. Specifically, NES evaluations examine nuclear explosive operations and supporting procedures, facilities, equipment, people, and management systems to uncover gaps or weaknesses in safety measures. There are multiple types of NES evaluations, such as NES studies and NES master studies. The observation of an NES evaluation by DNFSB staff often entails attending various activities of an NES study, which include briefings; demonstrations; and deliberations, followed by report generation.

^c165 Cong. Rec. H11061, H11249 (Dec. 17, 2019).

^dPub. L. No. 116-92, tit. XXXII, 133 Stat. 1198, 1963-1966 (2019).

^eAccording to DNFSB's records, a request for the Board to take action and transmit this letter to the Secretary of Energy was made on January 16, 2020. The action was subsequently approved on January 17, 2020.

^fAn NES change evaluation is a type of NES evaluation. Evaluations are performed to determine if approved nuclear explosive operations will continue to meet DOE's NES standards and other NES criteria after implementation of a proposed change or response to emerging information. The scope of NES change evaluations is generally limited to aspects of operations, activities, or programs affected by the proposed change or emerging information that has the potential to affect NES.

^gThe DOE Directives Review Board is chaired by the Director of the Office of Management and advises, as well as concurs on, individual directives before their approval by the DOE Operations Committee for release for DOE-wide comment and final issuance. In doing so, the Directives Review Board seeks to ensure that DOE's program for departmental directives contains directives that enhance DOE's ability to achieve its mission goals in a safe, secure, and cost-effective manner.

Appendix IV: Inconsistencies GAO Identified between Enabling Statute, Manual 140.1-1B, Order 140.1, Changes to Enabling Statute, and Long-Standing Practices

From March 2001 to May 2018, the Department of Energy (DOE), including the National Nuclear Security Administration (NNSA) and its contractors, relied upon Manual 140.1-1B for requirements and guidance on how to interact with the Defense Nuclear Facilities Safety Board (DNFSB, or the Board) and its staff.¹ In May 2018, after taking steps to reassess its relationship with DNFSB, DOE replaced Manual 140.1-1B with Order 140.1.² When DOE issued Order 140.1, it included several provisions that were inconsistent with DNFSB's original enabling statute³ and long-standing practices of DOE and DNFSB regarding the activities the Board and its staff conduct to provide independent safety oversight of DOE defense nuclear facilities.⁴ The National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA), which became law on December 20, 2019, made a number of amendments to DNFSB's enabling statute.⁵ On

¹Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Manual 140.1-1B (Washington, D.C.: Mar. 30, 2001). DOE issued the first version of this manual in December 1996. It was subsequently revised and reissued as DOE Manual 140.1-1A in January 1999. On July 26, 2005, DOE issued an errata sheet for Manual 140.1-1B for the purposes of removing an expiration date that was not required.

²Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1 (Washington, D.C.: May 14, 2018).

³DNFSB's enabling statute was enacted in 1988 and subsequently amended several times before 2018. We refer to the version of the statute in effect in 2018 as the "original statute" in order to simplify the comparison between the 2018 and 2019 versions.

⁴Agencies are free to change their existing policies as long as they provide a reasoned explanation for the change. *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

⁵Pub. L. No. 116-92, tit. XXXII, 133 Stat. 1198, 1963-1966 (2019).

**Appendix IV: Inconsistencies GAO Identified
between Enabling Statute, Manual 140.1-1B,
Order 140.1, Changes to Enabling Statute, and
Long-Standing Practices**

June 15, 2020, DOE replaced Order 140.1 with Order 140.1A in response to the changes made to DNFSB's enabling statute.⁶

Table 3 provides a crosswalk of the inconsistencies GAO identified between DNFSB's enabling statute, DOE Manual 140.1-1B, DOE Order 140.1, and the amendments made to DNFSB's enabling statute in the FY20 NDAA.

⁶Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1A (Washington, D.C.: June 15, 2020).

**Appendix IV: Inconsistencies GAO Identified
between Enabling Statute, Manual 140.1-1B,
Order 140.1, Changes to Enabling Statute, and
Long-Standing Practices**

Table 3: Crosswalk of Inconsistencies Identified between the Defense Nuclear Facilities Safety Board’s (DNFSB, or the Board) Enabling Statute, Manual 140.1-1B, Order 140.1, and the Amendments Made to DNFSB’s Statute by the National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA)

Area of inconsistency	DNFSB enabling statute, in effect at the time of Department of Energy (DOE) Order 140.1’s issuance (original statute) ^a	DOE Manual 140.1-1B (2001)	DOE Order 140.1 (2018)	Amendments made to DNFSB’s enabling statute in the FY20 NDAA (2019)
Access: generally	<p>42 U.S.C. § 2286c(a) required the Secretary of Energy to fully cooperate with the Board and provide the Board with “ready access” to such facilities, personnel, and information “as the Board considers necessary to carry out its responsibilities.”</p> <p>42 U.S.C. § 2286c(b) authorized the Secretary of Energy to deny access to information provided to the Board to any person who has not been granted an appropriate security clearance or access authorization by the Secretary or does not need such access in connection with the duties of such person.</p>	<p>Chapter I(3)(a) says the Secretary of Energy’s responsibility includes providing full cooperation with the Board, including ready access to departmental facilities, personnel, and information.</p> <p>Chapter VII(2)(c)(1) repeats the statutory language of 42 U.S.C. § 2286c(b).</p>	<p>Section 4(b)(1) says departmental elements must cooperate with DNFSB and provide DNFSB with ready access to such facilities, personnel, and information as necessary to carry out its statutory responsibilities.</p> <p>Section 4(b)(2) identifies five reasons the Secretary may deny DNFSB access, including those listed in the statute as well as requests for information that does not have a reasonable relationship to DNFSB’s statutorily enumerated functions.</p>	<p>Section 3202(c)(1)(B) of the act replaces “ready access” with “prompt and unfettered access.”</p> <p>Section 3202(c)(1)(A) of the act clarifies that the only reasons the Secretary of Energy may deny access to DNFSB are because the person has not been granted an appropriate security clearance or access authorization by the Secretary or does not need such access in connection with the duties of such person.</p>

**Appendix IV: Inconsistencies GAO Identified
between Enabling Statute, Manual 140.1-1B,
Order 140.1, Changes to Enabling Statute, and
Long-Standing Practices**

Area of inconsistency	DNFSB enabling statute, in effect at the time of Department of Energy (DOE) Order 140.1's issuance (original statute) ^a	DOE Manual 140.1-1B (2001)	DOE Order 140.1 (2018)	Amendments made to DNFSB's enabling statute in the FY20 NDAA (2019)
Access: predecisional or deliberative process information	42 U.S.C. § 2286c(b) says the Secretary of Energy may deny access to information provided to the Board to any person who has not been granted an appropriate security clearance or access authorization by the Secretary or does not need such access in connection with the duties of such person. The statute did not restrict DNFSB access to DOE information that was predecisional or deliberative process.	Chapter VII(2)(c)(1) repeats the statutory language of 42 U.S.C. § 2286c(b). Chapter VI(1)(c)(2) says that understanding the department's responsibilities for "ready access," the cognizant manager should clearly characterize the status of in-process or draft documentation whenever it is requested or provided. If the cognizant manager has clearly characterized the status of the requested documentation and the Board requestor still maintains that the documentation is necessary to facilitate the performance of their duties, the point of contact should provide the requested documentation along with the characterization of its status.	Section 4(b)(2) identifies five reasons the Secretary may deny DNFSB access. These reasons include those listed in the statute and requests for predecisional or otherwise privileged records that have not been approved for release. The order further states that such documents should be considered on a case-by-case basis.	Section 3202(c)(1)(A) of the act clarifies that the only reasons the Secretary of Energy may deny access to DNFSB are because the person has not been granted an appropriate security clearance or access authorization by the Secretary or does not need such access in connection with the duties of such person. Section 3202(c)(2) confirms DNFSB's access to deliberative process information by prohibiting the Board from publicly disclosing information provided by DOE if it is otherwise protected from disclosure by law, including deliberative process information.
Access: facilities	The statute defined "Department of Energy defense nuclear facility" but does not limit DNFSB access or authority to certain types of those facilities or distinguish between categories of facilities.	The manual does not distinguish between categories of defense nuclear facility categories.	Section 3(c)(2) exempts DOE Nuclear Hazard Category 3 or Below Hazard Category 3 facilities, as defined in DOE guidance, from the order. ^b	Section 3202(c)(1)(C) of the act clarifies that DOE must provide the Board access to defense nuclear facilities, personnel, and information without regard to the hazard or risk category assigned to a facility by the Secretary.

**Appendix IV: Inconsistencies GAO Identified
between Enabling Statute, Manual 140.1-1B,
Order 140.1, Changes to Enabling Statute, and
Long-Standing Practices**

Area of inconsistency	DNFSB enabling statute, in effect at the time of Department of Energy (DOE) Order 140.1's issuance (original statute) ^a	DOE Manual 140.1-1B (2001)	DOE Order 140.1 (2018)	Amendments made to DNFSB's enabling statute in the FY20 NDAA (2019)
Access: information subject to the Privacy Act of 1974, as amended	42 U.S.C. § 2286c(b) says the Secretary of Energy may deny access to information provided to the Board to any person who has not been granted an appropriate security clearance or access authorization by the Secretary or does not need such access in connection with the duties of such person. The statute did not restrict DNFSB access to DOE information that is protected by the Privacy Act.	Chapter VII(2)(c)(1) repeats the statutory language of 42 U.S.C. § 2286c(b). Chapter VI(1)(a)(4) says the department and the Office of Personnel Management have established routine uses under the Privacy Act to permit disclosure of personnel and radiation exposure documents maintained in certain systems of records to the Board. Thus, the department may transmit these records to the Board in accordance with the Privacy Act when the Board deems that the records are necessary to satisfy the Board's statutory obligations.	Section 4(b)(2) identifies five reasons the Secretary may deny DNFSB access, including those listed in the statute and requests for information whose release would violate the Privacy Act.	Section 3202(c)(1)(A) of the act clarifies that the only reasons the Secretary of Energy may deny access to DNFSB are because the person has not been granted an appropriate security clearance or access authorization by the Secretary or does not need such access in connection with the duties of such person.

Source: GAO analysis of DNFSB's enabling statute 42 U.S.C. §§ 2286-2286f (2018); DOE Manual 140.1-1B, *Interface with the Defense Nuclear Facilities Safety Board* (2001); DOE Order 140.1, *Interface with the Defense Nuclear Facilities Safety Board* (2018); and Section 3202 of the National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, tit. XXXII, § 3202, 133 Stat. 1198, 1963-1966 (2019). | GAO-21-141

^aDNFSB's enabling statute was enacted in 1988 and subsequently amended several times before 2018. We refer to the version of the statute in effect in 2018 as the "original statute" in order to simplify the comparison between the 2018 and 2019 versions.

^bDOE regulations (10 C.F.R. pt. 830, subpt. B, appx. A) define four categories of nuclear facilities based on their potential for significant radiological consequences in the event of a nuclear accident: (1) Hazard Category 1 facilities, which are those that have the potential for significant off-site consequences; (2) Hazard Category 2 facilities, which are those that have the potential for significant on-site consequences beyond localized consequences; (3) Hazard Category 3 facilities, which are those that have the potential for only local significant consequences; and (4) Below Hazard Category 3 facilities, which are those that have a potential for only consequences less than those that provide a basis for categorization as a Hazard Category 1,2, or 3 nuclear facility.

DOE Order 140.1 also included provisions regarding DNFSB's authority that were inconsistent with long-standing DOE and DNFSB interpretations of DNFSB's enabling statute and DNFSB staff's access to certain NNSA meetings. Table 4 provides a crosswalk of the inconsistencies we identified between the long-standing practices, DOE Manual 140.1-1B, DOE Order 140.1, and the amendments made to DNFSB's enabling statute by the FY20 NDAA.

**Appendix IV: Inconsistencies GAO Identified
between Enabling Statute, Manual 140.1-1B,
Order 140.1, Changes to Enabling Statute, and
Long-Standing Practices**

Table 4: Crosswalk of Inconsistencies Identified between Long-Standing Practices, Manual 140.1-1B, Order 140.1, and the Amendments Made to the Defense Nuclear Facilities Safety Board’s (DNFSB, or the Board) Statute by the National Defense Authorization Act for Fiscal Year 2020 (FY20 NDAA)

Area of inconsistency	Long-standing practice	DOE Manual 140.1-1B (2001)	DOE Order 140.1 (2018)	Amendments made to DNFSB’s enabling statute in the FY20 NDAA (2019)
Worker health and safety	<p>42 U.S.C. § 2286a(a) from DNFSB’s original statute^a says DNFSB’s mission is to inform the Secretary of Energy in providing adequate protection of public health and safety at defense nuclear facilities. The statute did not define “public.” The Department of Energy’s (DOE) Office of the General Counsel has not finalized a legal opinion interpreting the meaning of public but, in 2012, DOE’s Deputy General Counsel wrote that DNFSB does not have the authority to investigate practices that affect the health and safety of workers at DOE defense nuclear facilities.</p> <p>Nonetheless, from February 1992 to June 2015, DOE annual reports to Congress regarding DNFSB routinely mentioned DNFSB’s oversight authority for worker health and safety. Specifically, 18 of the 24 annual reports issued in that time frame mentioned such authority.</p> <p>Since 1990, DNFSB has issued at least seven recommendations to DOE that involve worker health and safety. DOE accepted all of them and did not object to DNFSB’s oversight authority for worker health and safety.</p>	<p>Chapter I(1)(c) says the department and Board share the common goal of ensuring adequate protection of public and worker health and safety and the environment at departmental defense nuclear facilities.</p>	<p>Section 3(c)(3) says the order does not apply to defense nuclear facilities or activities at such facilities that do not adversely affect or have the potential to adversely affect public health and safety.</p> <p>Section 7(h) defines public health and safety as the health and safety of individuals located beyond the site boundaries of DOE sites with DOE defense nuclear facilities. This definition excludes workers within the site boundaries.</p> <p>In 2018, after issuing Order 140.1, DOE’s Office of the General Counsel wrote a draft legal opinion interpreting public health and safety as excluding worker health and safety. The opinion had not been finalized as of August 2020.</p>	<p>Section 3202(b) clarifies that the Board’s mission is to inform the Secretary in providing adequate protection of public health and safety at defense nuclear facilities, including the health and safety of employees and contractors at such facilities.</p>

**Appendix IV: Inconsistencies GAO Identified
between Enabling Statute, Manual 140.1-1B,
Order 140.1, Changes to Enabling Statute, and
Long-Standing Practices**

Area of inconsistency	Long-standing practice	DOE Manual 140.1-1B (2001)	DOE Order 140.1 (2018)	Amendments made to DNFSB's enabling statute in the FY20 NDAA (2019)
Access: nuclear explosive safety (NES) ^b evaluation deliberations and other meetings	From 1993 to 2018, DOE and DNFSB reports regarding DNFSB and DNFSB site activity, such as at the Pantex Plant, mentioned that DNFSB staff attended or observed NES evaluation meetings.	The manual does not discuss DNFSB staff attendance at DOE meetings.	Section 4(b)(2)(c) says DOE may deny DNFSB access to participate in deliberative meetings or discussions supporting the development of predecisional or other process draft documents that have not been approved for release.	The FY20 NDAA does not specifically mention DNFSB access to DOE meetings.

Source: GAO analysis of DNFSB's enabling statute 42 U.S.C. §§ 2286-2286i (2018); DOE Manual 140.1-1B, *Interface with the Defense Nuclear Facilities Safety Board* (2001); DOE Order 140.1, *Interface with the Defense Nuclear Facilities Safety Board* (2018); Section 3202 of the National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, tit. XXXII, § 3202, 133 Stat. 1198, 1963-1966 (2019); and other DNFSB and DOE documents demonstrating long-standing practices established between the two agencies. | GAO-21-141

^aDNFSB's enabling statute was enacted in 1988 and subsequently amended several times before 2018. We refer to the version of the statute in effect in 2018 as the "original statute" in order to simplify the comparison between the 2018 and 2019 versions.

^bNES evaluations qualitatively assess the adequacy of measures in meeting DOE NES standards and other NES criteria specified in DOE orders. Specifically, NES evaluations examine nuclear explosive operations and supporting procedures, facilities, equipment, people, and management systems to uncover gaps or weaknesses in safety measures. There are multiple types of NES evaluations, including NES studies and NES master studies. The observation of an NES evaluation by DNFSB staff often entails attending various activities related to conducting an NES study, which include briefings; demonstrations; and deliberations, followed by report generation.

Appendix V: Time Line of Illustrative Examples of DNFSB Involvement with Nuclear Explosive Safety (NES) Evaluations at the Pantex Plant, from 1991 to 2020

In December 1991, the Defense Nuclear Facilities Safety Board's (DNFSB, or the Board) enabling statute was amended to, among other things, include the Department of Energy's (DOE) Pantex Plant (Pantex) within the Board's jurisdiction.¹ Located near Amarillo, Texas, Pantex is now part of the National Nuclear Security Administration (NNSA) Production Office. NNSA's primary mission at Pantex is the assembly, disassembly, in-process testing, and evaluation of nuclear explosives in support of the NNSA stockpile stewardship program. In addition, Pantex conducts the synthesis, manufacturing, and machining of insensitive and conventional high explosives for use in nuclear explosives; conducts research and development in conventional high explosives; and serves as an interim storage site for discontinued legacy materials.

In light of the need to ensure the safety of the nuclear explosive operations and other activities conducted at Pantex, DNFSB assigned two resident inspectors to provide day-to-day observations at the site and, among other responsibilities, record their observations in weekly reports to the Board.² The on-site oversight provided by DNFSB's resident inspectors is supplemented by DNFSB headquarters staff. One of the

¹National Defense Authorization Act for Fiscal Years 1992 and 1993, Pub. L. No. 102-190, § 3202(b), 105 Stat. 1290, 1582 (1991).

²DNFSB is authorized by statute to assign staff to be stationed at any DOE defense nuclear facility to carry out the functions of the Board. 42 U.S.C. § 2286b(h). DNFSB's resident inspectors are present at five sites, which, in addition to Pantex, include the Hanford Site, Washington; Los Alamos National Laboratory, New Mexico; Oak Ridge National Laboratory/Y-12 National Security Complex, Tennessee; and the Savannah River Site, South Carolina.

**Appendix V: Time Line of Illustrative Examples
of DNFSB Involvement with Nuclear Explosive
Safety (NES) Evaluations at the Pantex Plant,
from 1991 to 2020**

oversight activities long-performed by DNFSB's resident inspectors and headquarters staff is the observation of NES evaluations. NES evaluations qualitatively assess the adequacy of measures in meeting DOE NES standards and other NES criteria specified in DOE orders.³ Specifically, NES evaluations examine nuclear explosive operations and supporting procedures, facilities, equipment, people, and management systems to uncover gaps or weaknesses in safety measures. There are multiple types of NES evaluations, including NES studies, NES master studies, and NES change evaluations. The observation of an NES evaluation by DNFSB staff often entails attending various activities related to conducting an NES study, including briefings; demonstrations; and deliberations, followed by report generation.

In May 2018, DOE issued Order 140.1.⁴ According to Order 140.1, DOE could deny DNFSB access to participate in deliberative meetings or discussions supporting the development of predecisional or other process draft documents that have not been approved for release. Consequently, and contrary to the department's long-standing practice with DNFSB, NNSA began denying DNFSB staff access to NES evaluation deliberations, one of the last phases in the process before any potential NES deficiencies or other NES-related issues may be documented in a final report.⁵ The Board objected to NNSA's decision on June 12, 2019, and again on April 16, 2020. On April 23, the NNSA Administrator responded to DNFSB and indicated that the Board's staff would, as part of a trial, be allowed to attend the deliberations provided that the Board's staff act strictly as observers. On June 15, DOE replaced Order 140.1 with Order 140.1A.⁶ DOE Order 140.1A does not include any specific requirements or guidance related to NES evaluation activities or the involvement of DNFSB staff in observing such activities. Table 5 provides

³For example, see Department of Energy, *Nuclear Explosive and Weapon Surety Program*, DOE Order 452.1E (Washington, D.C.: Jan. 26, 2015), and *Nuclear Explosive Safety*, DOE Order 452.2E (Washington, D.C.: Jan. 26, 2015).

⁴Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1 (Washington, D.C.: May 14, 2018).

⁵NES deliberations are collaborative efforts among NES evaluation group members, technical advisors, senior technical advisors, project team, and subject matter experts to consider all sides of issues identified during NES evaluation preparation, training, briefings, and demonstrations. The focus of the deliberations are potential NES deficiencies and other NES-related issues that might warrant documentation in an NES evaluation report.

⁶Department of Energy, *Interface with the Defense Nuclear Facilities Safety Board*, DOE Order 140.1A (Washington, D.C.: June 15, 2020).

**Appendix V: Time Line of Illustrative Examples
of DNFSB Involvement with Nuclear Explosive
Safety (NES) Evaluations at the Pantex Plant,
from 1991 to 2020**

additional information about DNFSB’s involvement in NES evaluations at
Pantex.

Table 5: Time Line of Illustrative Examples of Defense Nuclear Facilities Safety Board (DNFSB, or the Board) Involvement with Nuclear Explosive Safety (NES) Evaluations at the Pantex Plant, 1991 – 2020

Year	Details
1991	DNFSB’s enabling statute was amended to, among other things, include the Pantex Plant (Pantex) within DNFSB’s jurisdiction. ^a
1993	In January, DNFSB issued Recommendation 1993-1, which, among other things, recommended that the Department of Energy (DOE) review their orders and directives related to nuclear safety and their applicability to NES procedures. DOE accepted and developed an Implementation Plan in response to this recommendation. DNFSB completed a 6-month review of the NES process, at that time outlined in DOE Order 5610.11, <i>Nuclear Explosive Safety</i> , and attended a majority of the studies performed at Pantex.
1994	DNFSB oversaw a majority of the NES studies performed at Pantex, with one focus being on field compliance with DOE Order 5610.11.
1995	In May, DNFSB observed the NES studies for the B61 bomb.
1996	In May, DNFSB observed the NES study for the W78 warhead. In September, DNFSB observed the NES study of the B83 strategic bomb.
1997	In February, DNFSB observed the NES study for the W69 warhead. ^b In June, DNFSB observed the NES study for the B61-7 strategic bomb.
1998	In February, DNFSB observed the NES study for the W79 warhead. ^b In June, DNFSB observed the NES study for the W62 warhead. ^b In September, DNFSB issued Recommendation 1998-2, which was focused on simplifying Pantex safety processes.
1999	In March, DNFSB closed out Recommendation 1993-1. In April, DNFSB observed the NES study for the B53 thermonuclear bomb. ^b In December, DNFSB observed the NES study for the W62 warhead. ^b
2000	In June, DNFSB observed the NES study for the B61 bomb. In August, DNFSB observed the lightning protection NES master study. ^c In November, DNFSB observed the NES study for the W88 warhead.
2001	In March, DNFSB observed the NES study for the W56 warhead. ^b
2003	In February, DNFSB observed the NES study for the restart of the W62 warhead Step 2 Disassembly and Inspection Process. ^b In August, DNFSB observed the NES study for the W88 warhead accelerated bay tooling.
2004	In April, DNFSB observed the NES process change control review for the W56 warhead dismantlement program. ^b
2005	In April, DNFSB staff observed NES study deliberations for the B83 strategic bomb.
2006	In February, DNFSB observed the NES study for the W87 warhead. In March, DNFSB observed the NES study meetings and demonstrations for the B61 bomb. In October, DNFSB observed the NES study for the W88 warhead Cell Operations Restart Project.

**Appendix V: Time Line of Illustrative Examples
of DNFSB Involvement with Nuclear Explosive
Safety (NES) Evaluations at the Pantex Plant,
from 1991 to 2020**

Year	Details
2007	In February, DNFSB observed the NES study for the W76-1 warhead. In April, DNFSB observed the NES study for the W76-1 assembly. From June through August, DNFSB observed the Bays and Cells NES master study. ^d In November, DNFSB observed the NES study for the W88 warhead that concerned bay and satellite operations.
2008	Throughout the year, DNFSB worked with the National Nuclear Security Administration (NNSA) to help revise DOE Orders 452.1C and 452.2C, both of which concerned NES evaluation directives. In December, DNFSB closed Recommendation 1998-2. In the closing letter, DNFSB identified shortcomings in the NES process that still needed to be addressed.
2009	Throughout the year, DNFSB observed multiple NES studies.
2010	During the year, DNFSB observed both the B53 thermonuclear bomb and W84 warhead NES studies. ^b
2011	In December, DNFSB observed the NES study for the B83 strategic bomb tooling upgrade.
2012	In March, DNFSB issued a letter to NNSA stating that the Board had concerns that certain nuclear explosive operations were conducted outside of defined safety controls. NNSA responded to address the identified areas of concern. In November, DNFSB staff observed NES study deliberations for the W80 warhead. ^e
2013	In June, DNFSB staff observed the Bays and Cells NES master study deliberations as well as the start of NES study deliberations for the W88 warhead.
2014	In February, DNFSB staff observed the deliberation phase of the NES W78 warhead study.
2015	In December, DNFSB staff observed the NES W87 warhead study, including deliberations.
2016	In December, DNFSB staff observed operations and deliberations for the NES B61 bomb study validation.
2017	In March, DNFSB staff observed NES study demonstrations and the start of deliberations for the W76 warhead. In June, DNFSB staff observed NES study deliberations on the W78 warhead repair project. In September, DNFSB staff observed both presentations and deliberations for the NES master study on electrical support equipment.
2018	In February, DNFSB staff observed NES master study deliberations on the Approved Equipment Program. In May, DOE issued Order 140.1, <i>Interface with the Defense Nuclear Facilities Safety Board</i> . That same month, NNSA informed DNFSB that they were no longer welcome to attend and observe NES study deliberations.
2019	DNFSB did not attend or observe any NES study deliberations in 2019. In June, the DNFSB Chairman sent a letter to the Secretary of Energy to request that DNFSB staff be granted access to all phases of the NES study process. In August, the NNSA Administrator responded by stating that NES study group deliberations require free and open communications and that in lieu of DNFSB attending and observing the deliberations, NNSA staff would provide briefings following the NES study deliberations. In October, the DNFSB Chairman reiterated in a letter to the Secretary of Energy DNFSB's concerns about NNSA's exclusion of DNFSB staff from NES study deliberations and stated that DNFSB access to such deliberations is necessary to evaluate the safety of nuclear explosive operations.

**Appendix V: Time Line of Illustrative Examples
of DNFSB Involvement with Nuclear Explosive
Safety (NES) Evaluations at the Pantex Plant,
from 1991 to 2020**

Year	Details
2020	<p>In April, the DNFSB Chairman sent a letter to the Secretary of Energy after an NNSA official, citing a decision based on compliance with Order 140.1, denied a resident inspector access to observing deliberations for an NES change evaluation.^f</p> <p>That same month, the NNSA Administrator responded to DNFSB, stating that, given the Board’s oversight and advisory role, NNSA supports the Board’s involvement in the NES evaluation process. The Administrator indicated that DNFSB staff would, as part of a trial, be allowed to attend the deliberations but stressed that the DNFSB staff act strictly as observers. The Administrator further noted that NNSA would reserve the right to restrict personnel outside the NES study group itself, including other departmental personnel, from attending certain NES deliberations at the request of the NES study group Chairman.</p> <p>In June, DOE replaced Order 140.1 with Order 140.1A. The revised order does not include any specific requirements or guidance related to NES evaluation activities or the involvement of DNFSB staff in observing such activities.</p>

Source: GAO analysis of documents from DNFSB, DOE, and NNSA. | GAO-21-141

Notes: This time line does not, and is not meant to, fully encompass all DNFSB activities that have occurred related to NES evaluations from 1991 to 2020. It represents illustrative examples that have occurred in that time period. NES evaluations qualitatively assess the adequacy of measures in meeting DOE’s NES standards and other NES criteria specified in DOE orders. Specifically, NES evaluations examine nuclear explosive operations and supporting procedures, facilities, equipment, people, and management systems to uncover gaps or weaknesses in safety measures. There are multiple types of NES evaluations, including NES studies and NES master studies. The observation of an NES evaluation by DNFSB staff often entails attending various activities related to conducting an NES study, which include briefings; demonstrations; and deliberations, followed by report generation.

^aNational Defense Authorization Act of Fiscal Years 1992 and 1993, Pub. L. No. 102-190, § 3202(b), 105 Stat.1290, 1582 (1991).

^bThis has been retired from the U.S. nuclear weapons stockpile.

^cAn NES master study must happen within 5 years of the previous master study. Master studies evaluate facilities, equipment, processes, and management programs common to multiple nuclear explosive operations.

^dBays and cells are specially designed facilities or work areas where most nuclear weapon assembly and disassembly operations at Pantex are conducted. Certain operations involving the physics package of nuclear explosives that contain high explosives are performed only in the cells.

^eMost mentions of DNFSB observing deliberations occur after 2011; however, DNFSB staff observed NES evaluation deliberations prior to this date, including in 2005. Many older public reports were written at a higher level and only mention “reviewed” and “observed” in the overall NES evaluation without specifically calling out deliberations, and original language was kept for accuracy.

^fAn NES change evaluation is a type of NES evaluation. These evaluations are performed to determine if approved nuclear explosive operations will continue to meet DOE’s NES standards and other NES criteria after implementation of a proposed change or response to emerging information. The scope of NES change evaluations is generally limited to aspects of operations, activities, or programs affected by the proposed change or emerging information that has the potential to affect NES.

Appendix VI: Comments from the Department of Energy



Department of Energy
Washington, DC 20585

October 9, 2020

Mr. Frank Rusco
Director
Natural Resources and Environment
441 G Street, N.W.
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Rusco:

Thank you for the opportunity to review the Government Accountability Office (GAO) Draft Report, "NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight" (GAO-21-141). The enclosures to this letter provide the Department of Energy, including the National Nuclear Security Administration's, consolidated response to the report's recommendations, as well as specific comments on the draft report to enhance clarity and provide added context. Context is necessary to appropriately reflect the Department's generally excellent, and years-long, collaborative relationship with the Defense Nuclear Facilities Safety Board (DNFSB or Board).

If you have any questions or need additional information, please contact me at (202) 586-6740.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Lapointe", is written over a horizontal line.

Todd N. Lapointe
Deputy Associate Under Secretary for Environment,
Health and Safety and Security

Enclosures:

Enclosure A: Management Response to Report Recommendations: NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight" (GAO-21-141).

Enclosure B: Specific Comments to GAO Draft Report

ENCLOSURE A: MANAGEMENT RESPONSE TO GAO DRAFT REPORT RECOMMENDATIONS

NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight (GAO-21-141)
October 9, 2020

Recommendation 1: The Secretary of Energy, in collaboration with the Chairman of DNFSB, should develop a formal written agreement, such as a memorandum of understanding, that could be used to, among other things, establish a common understanding of how DOE will implement section 2286c(b) of DNFSB's enabling statute regarding denial of DNFSB staff access to information, and clarify procedures for regular interactions between DOE and DNFSB related to each agency's responsibilities for ensuring the adequacy of public health and safety protections at DOE's defense nuclear facilities.

Management Response: Concur. In an August 26, 2020 letter to the DNFSB, the Deputy Secretary of Energy stated agreement with the DNFSB that a foundation for mutual communication, transparency, and information sharing would be beneficial in improving the operational and interface efficiencies of both agencies, and that DOE will coordinate with the DNFSB in developing a memorandum of agreement or understanding.

Estimated Completion Date: Fourth Quarter of FY 2021.

Recommendation 3: The Secretary of Energy, in coordination with the Office of the Departmental Representative to DNFSB, should develop clearer and more robust training on Order 140.1A for DOE sites to ensure that DOE, NNSA, and contractor staff have a uniform understanding of the order and that those staff interacting with DNFSB implement the order more consistently.

Management Response: Non-concur. Based on monthly discussions (sponsored by the Office of the Departmental Representative to the DNFSB) with DOE/NNSA Field Office Liaisons and Headquarters personnel, the Department concluded that it maintains adequate communication and training for DOE/NNSA staff regarding interactions with the DNFSB.

With respect to previous training for DOE O 140.1, such training was generally targeted at the individuals responsible for interactions with the DNFSB. The number of those individuals is a small fraction of the employees who work at the Department's defense nuclear facilities. The Department's training reaches the appropriate level and personnel. DOE, including NNSA, sites have developed site-specific implementation expectation and guidance documents pertaining to DNFSB interface and Order 140.1. These site-specific implementation documents have been shared with DNFSB staff.

Estimated Completion Date: N/A

Recommendation 4: The Secretary of Energy, in coordination with the Office of the Departmental Representative to DNFSB, should develop clearer and more standardized guidance

**Appendix VI: Comments from the Department
of Energy**

on how to respond to DNFSB document requests under Order 140.1A to ensure a more uniform and efficient document request process at DOE sites with defense nuclear facilities.

Management Response: Concur. In the letter to the DNFSB on August 26, 2020, the Deputy Secretary of Energy agreed with the DNFSB that a foundation for mutual communication, transparency, and information sharing would be beneficial in improving the operational and interface efficiencies of both agencies, and that DOE would coordinate with the DNFSB in developing a memorandum of agreement or understanding. As appropriate, DOE will update guidance to reflect the agreement with the DNFSB.

Estimated Completion Date: Fourth Quarter FY 2021

Data table for Appendix VI: Comments from the Department of Energy

Page 1

October 9, 2020

Mr. Frank Rusco Director

Natural Resources and Environment 441 G Street, N.W.

U.S. Government Accountability Office Washington, DC 20548

Dear Mr. Rusco:

Thank you for the opportunity to review the Government Accountability Office

(GAO) Draft Report, "NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight" (GAO-21-141). The enclosures to this letter provide the Department of Energy, including the National Nuclear Security

Administration's, consolidated response to the report's recommendations, as well as specific comments on the draft report to enhance clarity and provide added context. Context is necessary to appropriately reflect the Department's generally excellent, and years-long, collaborative relationship with the Defense Nuclear Facilities Safety Board (DNFSB or Board).

If you have any questions or need additional information, please contact me at (202) 586-6740.

Sincerely,

Todd N. Lapointe

Deputy Associate Under Secretary for Environment, Health and Safety and Security

Enclosures:

Enclosure A: Management Response to Report Recommendations: NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight” (GAO-21-141).

Enclosure B: Specific Comments to GAO Draft Report

Page 2

ENCLOSURE A: MANAGEMENT RESPONSE TO GAO DRAFT REPORT
RECOMMENDATIONS

NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight (GAO-21-141)

October 9, 2020

Recommendation 1:

The Secretary of Energy, in collaboration with the Chairman of DNFSB, should develop a formal written agreement, such as a memorandum of understanding, that could be used to, among other things, establish a common understanding of how DOE will implement section 2286c(b) of DNFSB’s enabling statute regarding denial of DNFSB staff access to information, and clarify procedures for regular interactions between DOE and DNFSB related to each agency’s responsibilities for ensuring the adequacy of public health and safety protections at DOE’s defense nuclear facilities.

Management Response: Concur.

In an August 26, 2020 letter to the DNFSB, the Deputy Secretary of Energy stated agreement with the DNFSB that a foundation for mutual communication, transparency, and information sharing would be beneficial in improving the operational and interface efficiencies of both agencies, and that DOE will coordinate with the DNFSB in developing a memorandum of agreement or understanding.

Estimated Completion Date: Fourth Quarter of FY 2021.

Recommendation 3:

The Secretary of Energy, in coordination with the Office of the Departmental Representative to DNFSB, should develop clearer and more robust training on Order 140.1A for DOE sites to ensure that DOE, NNSA, and contractor staff have a uniform understanding of the order and that those staff interacting with DNFSB implement the order more consistently.

Management Response: Non-concur.

Based on monthly discussions (sponsored by the Office of the Departmental Representative to the DNFSB) with DOE/NNSA Field Office Liaisons and Headquarters personnel, the Department concluded that it maintains adequate communication and training for DOE/NNSA staff regarding interactions with the DNFSB.

With respect to previous training for DOE O 140.1, such training was generally targeted at the individuals responsible for interactions with the DNFSB. The number of those individuals is a small fraction of the employees who work at the Department's defense nuclear facilities. The Department's training reaches the appropriate level and personnel. DOE, including NNSA, sites have developed site-specific implementation expectation and guidance documents pertaining to DNFSB interface and Order 140.1. These site-specific implementation documents have been shared with DNFSB staff.

Estimated Completion Date: N/A

Recommendation 4:

The Secretary of Energy, in coordination with the Office of the Departmental Representative to DNFSB, should develop clearer and more standardized guidance

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on how to respond to DNFSB document requests under Order 140.1A to ensure a more uniform and efficient document request process at DOE sites with defense nuclear facilities.

Management Response: Concur.

In the letter to the DNFSB on August 26, 2020, the Deputy Secretary of Energy agreed with the DNFSB that a foundation for mutual communication, transparency, and information sharing would be beneficial in improving the operational and interface efficiencies of both agencies, and that DOE would coordinate with the DNFSB in developing a memorandum of agreement or understanding. As appropriate, DOE will update guidance to reflect the agreement with the DNFSB.

Estimated Completion Date: Fourth Quarter FY 2021

Appendix VII: Comments from the Defense Nuclear Facilities Safety Board

**Appendix VII: Comments from the Defense
Nuclear Facilities Safety Board**

Thomas A. Summers, Acting Chairman
Jessie H. Roberson
Joyce L. Connery

**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**
Washington, DC 20004-2901



September 23, 2020

Ms. Allison B. Bawden
Director, Natural Resources and Environment
U.S. Government Accountability Office
Washington, D.C. 20548

Dear Ms. Bawden:

Thank you for the opportunity to provide the Defense Nuclear Facilities Safety Board (Board) comments to the Government Accountability Office (GAO) draft report GAO-21-141, NUCLEAR SAFETY: DOE and the Safety Board Should Collaborate to Develop a Written Agreement to Enhance Oversight. The Board appreciates GAO's review and accepts the recommendations for collaboration and a written agreement with the Department of Energy (DOE) on implementation of Order 140.1A.

With regard to the specific recommendation presented in the draft report for Board action (Recommendation 2), the Board is committed to this effort. The Board continues to have regular communication with DOE's Office of the Departmental Representative regarding how the Board and DOE will collaborate to develop a written agreement that outlines how DOE will provide the Board access to information, and clarifies procedures for regular interactions between DOE and the Board to ensure the adequacy of safety protections at DOE's defense nuclear facilities. We are also in the process of scheduling a meeting with DOE's Deputy Secretary for this purpose, and will keep GAO updated on our progress.

Thank you again for your review.

Yours truly,

Thomas A. Summers

Thomas A. Summers
Acting Chairman

c: Ned Woodward

Text of Appendix VII: Comments from the Defense Nuclear Facilities Safety Board

September 23, 2020

Ms. Allison B. Bawden

Director, Natural Resources and Environment

U.S. Government Accountability Office Washington, D.C. 20548

Dear Ms. Bawden:

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With regard to the specific recommendation presented in the draft report for Board action (Recommendation 2), the Board is committed to this effort. The Board continues to have regular communication with DOE's Office of the Departmental Representative regarding how the Board and DOE will collaborate to develop a written agreement that outlines how DOE will provide the Board access to information, and clarifies procedures for regular interactions between DOE and the Board to ensure the adequacy of safety protections at DOE's defense nuclear facilities. We are also in the process of scheduling a meeting with DOE's Deputy Secretary for this purpose, and will keep GAO updated on our progress.

Thank you again for your review.

Thomas A. Summers Acting Chairman

c: Ned Woodward

Appendix VIII: GAO Contact and Staff Acknowledgments

GAO Contact

Allison Bawden, (202) 512-3841 or bawdena@gao.gov

Staff Acknowledgements

In addition to the contact named above, Ned Woodward (Assistant Director), Kevin Remondini (Analyst-in-Charge), Ryan Braun, Pamela Davidson, John Delicath, Meeta Engle, Rich Johnson, Jeanette Soares, Sara Sullivan, and David Trimble made key contributions to this report.

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