NOT YET SCHEDULED FOR ORAL ARGUMENT

No. 20-1317 (consolidated with Nos. 20-1318, 20-1431, & 21-1009)

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

SIERRA CLUB, et al.,
Petitioners,

v.

U.S. DEPARTMENT OF TRANSPORTATION, et al.,
Respondents.

On Review of a Final Rule by the
Pipeline and Hazardous Materials Safety Administration

FINAL BRIEF FOR RESPONDENTS

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

A. Parties and Amici

Petitioners in No. 20-1317 are the Sierra Club, Center for Biological Diversity, Clean Air Council, Delaware Riverkeeper Network, Environmental Confederation of Southwest Florida, and Mountain Watershed Association.

Petitioners in No. 20-1318 are the States of Maryland, New York, California, Delaware, Illinois, Minnesota, New Jersey, Oregon, Rhode Island, Vermont, and Washington; the Commonwealths of Massachusetts and Pennsylvania; the People of the State of Michigan; and the District of Columbia.

Petitioner in Nos. 20-1431 and 21-1009 is The Puyallup Tribe of Indians.

Respondents are the Pipeline and Hazardous Materials Safety Administration (PHMSA); the United States Department of Transportation (DOT); Pete Buttigieg, U.S. Secretary of Transportation; Tristan Brown, Deputy Administrator of PHMSA; and the United States of America.

B. Rulings Under Review

Petitioners challenge PHMSA's regulation titled *Hazardous Materials: Liquefied Natural Gas by Rail*, 85 Fed. Reg. 44,994 (July 24, 2020) (Rule). Petitioner in No. 21-1009 also challenges PHMSA's November 13, 2020 decision denying Petitioner's administrative appeal of the Rule.

C. Related Cases

There are several petitions challenging the Rule, all of which were consolidated in this matter. *Sierra Club v. DOT*, No. 20-1317; *Maryland v. DOT*, No. 20-1318; *Damascus v. DOT*, No. 20-1387, which was dismissed on November 24, 2020; *Puyallup Tribe of Indians v. PHMSA*, No. 20-1431; and *Puyallup Tribe of Indians v. PHMSA*, No. 21-1009, which challenges PHMSA's denial of the Tribe's administrative appeal of the Rule.

/s/ *Rebecca Jaffe*
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GLOSSARY

APA	Administrative Procedure Act
DOT	Department of Transportation
LNG	Liquefied Natural Gas
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
PHMSA	Pipeline and Hazardous Materials Safety Administration

INTRODUCTION

The Hazardous Materials Transportation Act directs the U.S. Department of Transportation (DOT), acting through the Pipeline and Hazardous Materials Safety Administration (PHMSA), to promulgate regulations that ensure the safe transportation of hazardous materials. Over several decades, PHMSA has promulgated and revised the Hazardous Materials Regulations, a comprehensive set of regulations that govern the packaging, handling, and transportation of myriad hazardous materials.

In the rulemaking challenged here, PHMSA authorized the transportation of liquefied natural gas (LNG) by rail. *Hazardous Materials: LNG by Rail* (Rule), 85 Fed. Reg. 44,994 (July 24, 2020) (JA1-37). Before the Rule, LNG could already be shipped by other methods, such as truck or ship. The Rule added rail tank cars to the permissible methods of LNG shipment. LNG transportation by rail is subject not only to the Hazardous Materials Regulations' extensive requirements but also to specific safety measures the Rule prescribes.

The Puyallup Tribe of Indians and coalitions of states (State Petitioners) and environmental groups (Environmental Petitioners) each petitioned for review of the Rule. The Court should deny the petitions because PHMSA complied with the Hazardous Materials Transportation Act, the Administrative Procedure Act (APA),

the National Environmental Policy Act (NEPA), and any tribal-consultation obligation.

STATEMENT OF JURISDICTION

The Court has jurisdiction to review the Rule under the Hobbs Act, 28 U.S.C. §§ 2341 et seq., which grants courts of appeals exclusive jurisdiction to review "all final agency actions described in section 20114(c) of title 49." 28 U.S.C. § 2342(7). Section 20114(c), in turn, provides that a proceeding to review a final PHMSA action under the Hazardous Materials Transportation Act that is "applicable to railroad safety" "shall be brought in the appropriate court of appeals as provided in" the Hobbs Act. 49 U.S.C. § 20114(c). The Rule is such a final action.

Petitioners cite the mutually exclusive judicial-review provisions of the Hobbs Act, 28 U.S.C. § 2342(7), and the Hazardous Materials Transportation Act, 49 U.S.C. § 5127(a). Env. Br. 1; State Br. 2; Tribe Br. 1. The latter provision is inapplicable because it authorizes judicial review of certain DOT final actions "[e]xcept as provided in section 20114(c)." 49 U.S.C. § 5127(a). As explained above, Section 20114(c) provides for Hobbs Act review of the Rule.

PHMSA published the Rule on July 24, 2020. 85 Fed. Reg. at 44,994 (JA1). Petitioners all timely challenged the Rule on August 18, 2020. *See* 28 U.S.C. § 2344 (mandating 60-day statute of limitations).

Respondents do not challenge Petitioners' Article III standing but note that State Petitioners cannot establish standing based on "the health and safety of their residents." State Br. 11. "[A] State lacks standing as *parens patriae* to bring an action against the federal government." *Gov't of Manitoba v. Bernhardt*, 923 F.3d 173, 179 (D.C. Cir. 2019).

STATEMENT OF THE ISSUES

1. Whether the Rule complies with the Hazardous Materials Transportation Act by prescribing "safe transportation" of LNG by rail based on existing protections in the Hazardous Materials Regulations, existing protections in railroads' operating rules, and LNG-specific safety measures.

2. Whether the Rule is a logical outgrowth of the notice of proposed rulemaking, such that PHMSA satisfied the APA's notice-and-comment requirements.

3. Whether PHMSA complied with NEPA by providing for public participation, taking a hard look at potential impacts, and reasonably concluding that the Rule will not have significant impacts.

4. Whether, if PHMSA was required to consult with the Puyallup Tribe, it fulfilled that obligation by considering the Tribe's views and offering reasonable opportunities for consultation.

PERTINENT STATUTES AND REGULATIONS

Pertinent statutes and regulations are in the Addendum following this brief.

STATEMENT OF THE CASE

A. Statutory and regulatory background

1. Hazardous Materials Transportation Act and Hazardous Materials Regulations

Congress enacted the Hazardous Materials Transportation Act to "protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material" in commerce. 49 U.S.C. § 5101. A "key feature" of the Act is its "broad mandate" directing that DOT "shall prescribe regulations for the safe transportation, including security, of hazardous material" in commerce. *Am. Chemistry Council v. DOT*, 468 F.3d 810, 812 (D.C. Cir. 2006) (quoting 49 U.S.C. § 5103(b)(1)). DOT has delegated to PHMSA the authority to promulgate regulations for transporting hazardous materials. 49 C.F.R. § 1.97(b).

PHMSA has promulgated the Hazardous Materials Regulations, 49 C.F.R. parts 171-180, which govern the "transportation of hazardous material in commerce," including "[m]ovement of a hazardous material by rail car." 49 C.F.R. § 171.1(c)(1). Those regulations are "detailed and comprehensive." *Roth v. Norfalco LLC*, 651 F.3d 367, 377 (3d Cir. 2011). They list each material considered to be "hazardous"; specify requirements for classifying, packaging,

marking, and labeling hazardous materials; and mandate a series of training and security requirements for those who work with hazardous materials. *Id.* at 371.

Failure to comply with the Hazardous Materials Regulations can result in administrative sanctions, civil penalties, or criminal punishment. *See* 49 U.S.C. §§ 5121-24.

2. National Environmental Policy Act

NEPA facilitates informed decisionmaking by requiring agencies to consider the environmental impacts of their actions. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989). It "does not mandate particular results, but simply prescribes" procedures. *Id.* at 350. Agencies prepare different types of NEPA analyses, including environmental impact statements and environmental assessments, depending on the significance of the proposed action and its potential impacts. Agencies produce environmental impact statements for "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). Environmental assessments are concise documents that agencies use to determine whether an environmental impact statement is necessary or to comply with NEPA when an environmental impact statement is unnecessary, in which case the agency prepares a finding of no significant impact. 40 C.F.R. § 1508.9(a).[1]

[1] The NEPA regulations were amended in 2020 and 2022. *Update to the Regulations Implementing the Procedural Provisions of NEPA*, 85 Fed. Reg. 43,304 (July 16, 2020); *NEPA Implementing Regulations Revisions*, 87 Fed. Reg.

3. National Historic Preservation Act

The NHPA requires federal agencies to consider the effect of a proposed federal or federally assisted "undertaking" on any historic property. 54 U.S.C. § 306108. The term "undertaking" means "a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency," including "those requiring a Federal permit, license, or approval." *Id.* § 300320(3). The statute "requires that an agency consider the impacts of its undertaking and consult various parties, not that it necessarily engage in any particular preservation activities." *United Keetoowah Band v. FCC*, 933 F.3d 728, 734 (D.C. Cir. 2019) (cleaned up).

Section 106 of the NHPA, 54 U.S.C. § 306108, is a "'stop, look, and listen' provision; it requires federal agencies to take into account the effect of their actions on structures eligible for inclusion in the National Register of Historic Places." *Eagle Cnty., Colo. v. STB*, 82 F.4th 1152, 1189 (D.C. Cir. 2023) (cleaned up). The Section 106 process includes consultation with any Indian tribe that attaches religious and cultural significance to property that may be eligible for inclusion on the National Register. 54 U.S.C. § 302706(a), (b); *see also* 36 C.F.R. pt. 800.

23,453 (Apr. 20, 2022). Because PHMSA finished its NEPA analysis before the NEPA regulations were amended, PHMSA used—and this brief cites—the regulations in effect before the amendments.

B. Factual background

1. Liquefied natural gas

LNG is the liquid form of natural gas (methane). LNG is 600 times more compact than natural gas in its vapor state. *Hazardous Materials: LNG by Rail*, 84 Fed. Reg. 56,964, 56,965 (Oct. 24, 2019) (JA103) (proposed rule). Because LNG is so much more compact than natural gas in its vapor state, LNG can be economically stored and transported. *Id*. To keep the gas in liquid form, it must be refrigerated below minus 260 degrees (−260°) Fahrenheit. *Id*. This low boiling point means that LNG is a cryogenic liquid. *Id*.

Before PHMSA issued the Rule, the Hazardous Materials Regulations did not authorize LNG transport by rail tank car. 84 Fed. Reg. at 56,966 (JA104). LNG could only be transported by rail if shippers obtained a special permit from PHMSA or used a portable tank and obtained approval from the Federal Railroad Administration.[2] *Id*. The Hazardous Materials Regulations did, however, allow LNG transportation by truck. *Id*. LNG could also be exported from the United States by ship. 84 Fed. Reg. at 56,967 (JA105). LNG has been transported by trucks and ships for over 40 years in the United States. 85 Fed. Reg. at 44,995 (JA2).

[2] Portable tanks are designed to be loaded onto transport vehicles, such as flatbed rail cars. 49 C.F.R. § 171.8.

2. Notice of proposed rulemaking

PHMSA issued a notice of proposed rulemaking and draft environmental assessment in October 2019, soliciting comment on allowing LNG transportation by rail. PHMSA proposed allowing LNG transportation in a specific class of rail tank car called the DOT-113 class. 84 Fed. Reg. at 56,967 (JA105). DOT-113 cars are designed to transport cryogenic liquefied gases by rail. *Id*. PHMSA proposed authorizing LNG transportation in a specific model of tank car within the DOT-113 class: the DOT-113C120W car (120W car). *Id.* PHMSA had already allowed transportation by rail in 120W cars of ethylene, a flammable cryogenic liquid similar to LNG. *Id*. PHMSA solicited comment on potential safety or environmental impacts from authorizing LNG transportation by rail. 84 Fed. Reg. at 56,975 (JA113).

PHMSA planned to rely on the existing Hazardous Materials Regulations, as well as private industry standards that are not incorporated into the Hazardous Materials Regulations. 84 Fed. Reg. at 56,969 (JA107). PHMSA invited comment on that approach, asking commenters whether additional operational controls might be warranted and encouraging commenters to provide data regarding safety justifications or costs associated with any potential operational controls. *Id.*

PHMSA originally provided 60 days for the public to comment, 84 Fed. Reg. at 56,964 (JA102), and later extended the comment period by 21 days, 85

Fed. Reg. at 44,996 (JA3). PHMSA received 445 sets of comments. 85 Fed. Reg. at 45,010 (JA17).

3. PHMSA's efforts to consult with the Puyallup Tribe

During the rulemaking process, PHMSA made efforts to consult with the Puyallup Tribe. In the proposed rule, PHMSA noted that it did not expect the proposed rule would have substantial direct tribal implications, but it invited tribal governments to comment on any effects that the proposed rule might cause. 84 Fed. Reg. at 56,970 (JA108). The Tribe submitted extensive comments on the proposed rule. JA128-152. The Tribe also requested consultation with PHMSA. JA128, 130. PHMSA met with the Tribe in February 2020. JA579; JA431; JA584. Subsequently, PHMSA invited the Tribe to submit more information about the proposed rule's impacts on the Tribe and offered the Tribe additional opportunities for consultation. JA584; JA588-91; JA593-94. The Tribe did not respond to some of those communications and did not take PHMSA up on offers for more consultation.

4. Final Rule

In July 2020, PHMSA issued the Rule authorizing LNG transportation by rail in 120W cars. 85 Fed. Reg. at 44,994 (JA1). To provide additional safety and improve crashworthiness, PHMSA required that any 120W cars used to transport LNG have an outer tank that is thicker and made of higher-quality steel than

normal 120W cars. Cars complying with these more stringent requirements are called DOT-113C120W9 cars (120W9 cars). 85 Fed. Reg. at 44,995 (JA2). In addition, PHMSA prescribed enhanced braking requirements for trains transporting LNG, required remote pressure and location monitoring for each car containing LNG, and required carriers transporting LNG to use the practicable routes posing the least overall safety and security risk. *Id*.

Along with the Rule, PHMSA published a final environmental assessment analyzing the Rule's impacts under NEPA. PHMSA concluded that authorizing LNG transportation by rail would cause no significant environmental impacts. JA497.

After PHMSA issued the Rule, the Tribe filed an administrative appeal, which PHMSA denied. JA38-43.

C. Procedural background

This case consists of four petitions for review that the Court consolidated. Three petitions challenged the Rule. *Sierra Club v. DOT*, No. 20-1317; *Maryland v. DOT*, No. 20-1318; *Puyallup Tribe of Indians v. PHMSA*, No. 20-1431. The fourth petition challenged PHMSA's denial of the Tribe's administrative appeal of the Rule. *Puyallup Tribe of Indians v. PHMSA*, No. 21-1009.

At PHMSA's request, the Court placed this case into abeyance in March 2021, before merits briefing. In May 2023, Petitioners moved the Court to lift the

abeyance, PHMSA opposed their motion, and the Court lifted the abeyance in July 2023.

D. Developments after PHMSA issued the Rule

In January 2021, President Biden directed PHMSA to consider suspending, revising, or rescinding the Rule and various other actions of DOT and other federal agencies. Executive Order 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, 86 Fed. Reg. 7037 (Jan. 20, 2021); https://perma.cc/4CM3-UY4D.

In September 2023, PHMSA published a final regulation that suspended the Rule from October 31, 2023, until the earlier of June 30, 2025, or the date PHMSA completes a rulemaking to consider modified requirements for transporting LNG by rail. *Hazardous Materials: Suspension of HMR Amendments Authorizing Transportation of LNG by Rail*, 88 Fed. Reg. 60,356 (Sept. 1, 2023) (Suspension Rule). Thus, the Rule is presently suspended and does not currently authorize LNG transportation by rail. LNG has never been transported by rail tank car under the Rule. PHMSA has announced plans for, and is now working on, a rulemaking that would consider amending the Rule. https://perma.cc/3VW6-RBCR.

PHMSA suspended the Rule because uncertainties—e.g., regarding the near-term commercial viability of rail tank car LNG transportation, as well as potential safety and environmental benefits and risks of such transportation—had increased

since the Rule issued. 88 Fed. Reg. at 60,359. PHMSA explained that these uncertainties "cast[] doubt on the continued validity of the balance between potential benefits and public safety and environmental risks underpinning the [Rule]." 88 Fed. Reg. at 60,359 (cleaned up). The Suspension Rule (1) avoids potential risks to public health and safety or environmental consequences (including direct and indirect greenhouse-gas emissions) that PHMSA will evaluate in the companion amendment rulemaking; (2) allows PHMSA and the Federal Railroad Administration to complete ongoing testing and evaluation efforts and consider recommendations from technical experts at the National Academy of Sciences, Engineering, and Medicine; (3) assures an opportunity to develop potential mitigation measures and operational controls for rail transportation of LNG; (4) reduces potential economic burdens by ensuring that entities avoid ordering LNG cars compliant with current requirements when the companion rulemaking may adopt alternative requirements; and (5) enables potential opportunities for stakeholders and the public to be apprised of, and comment on, the results of ongoing testing and evaluation efforts. 88 Fed. Reg. at 60,357.

PHMSA and the Federal Railroad Administration have pursued research and testing through their joint LNG Task Force, established in 2020, that could inform potential future regulatory actions, as appropriate. 88 Fed. Reg. at 60,358. To identify tasks within that effort, the LNG Task Force used a risk-based framework

focused on knowing the risk, predicting the risk, reducing the risk, and preparing for the risk. *Id.* Using that framework, the LNG Task Force identified and undertook 15 tasks to synthesize ongoing research and outreach activities. *Id.* Those tasks included empirically reviewing international LNG transportation, assessing route safety and security risks, re-evaluating the costs and benefits of electronically controlled pneumatic brakes, and validating emergency responders' opinions and needs. *Id.* The LNG Task Force has completed most of its testing and evaluation activities (as modified in response to recommendations from the National Academy of Sciences, Engineering, and Medicine). 88 Fed. Reg. at 60,359.

SUMMARY OF ARGUMENT

1. The Rule does not violate the mandate in the Hazardous Materials Transportation Act to ensure the safe transportation of hazardous materials. PHMSA relied on three distinct elements to address safety.

First, the Hazardous Materials Regulations include detailed specifications for DOT-113 cars, which are used for transporting cryogenic liquefied gases. DOT-113 cars, including the 120W model, have a strong safety record and are designed to prevent explosions, including the Boiling Liquid Expanding Vapor Explosions highlighted by Environmental Petitioners. The Hazardous Materials Regulations also have extensive requirements for communication, training,

security, and operational controls. These operational controls include specifications for loading and unloading hazardous materials, for coupling and uncoupling cars containing hazardous materials, for placing cars containing hazardous materials in appropriate locations in trains, and for expediting transportation of hazardous materials.

Second, the industry has its own standards for safely transporting hazardous materials. These standards include speed limits, track inspection requirements, and minimum separation distances between hazardous-materials cars in railyards. Petitioners are correct that these standards are voluntary, but PHMSA and the Federal Railroad Administration confirmed that all railroads follow these standards and have incorporated them into their operating rules.

Third, because LNG might be transported in large quantities, the Rule mandates additional LNG-specific protections that exceed the safety requirements in the Hazardous Materials Regulations. LNG cars must have thicker outer tanks that are made from higher-quality steel. The enhanced outer tanks make LNG cars more puncture-resistant during accidents. PHMSA also mandated operational controls for LNG transportation.

The Rule further provides that trains with more than 20 continuous LNG cars or 35 LNG cars dispersed throughout the train must have enhanced braking systems. Railroad carriers must also have real-time location and pressure

monitoring for all cars carrying LNG. And railroad carriers must analyze the safety and security risks of potential routes and choose the practicable routes posing the least overall safety and security risk. Finally, PHMSA mandated that the maximum pressure under which a DOT-113 car can begin transporting LNG is 15 pounds per square inch.

PHMSA reasonably concluded, based on the record before the agency in 2020, that LNG could be safely transported by rail when the three safety elements—the existing Hazardous Materials Regulations, industry standards incorporated into railroads' operating rules, and the Rule's additional protections—are combined. State and Environmental Petitioners disagree with PHMSA's record-based safety conclusion, but that highly technical judgment is properly reserved to the expert safety agency.

2. The Rule is a logical outgrowth of the proposed rule. The proposed rule notified the public that PHMSA was considering authorizing LNG transportation by rail in 120W cars; in the final Rule, PHMSA authorized LNG transportation in 120W9 cars, a type of 120W car. In addition, PHMSA modified the Rule's filling-density requirement (which pertains to the amount of LNG that can be loaded into each car) after commenters urged PHMSA to depart from its proposal. PHMSA reasonably considered public comments and modified the Rule

in response, without running afoul of the APA's notice-and-comment requirements.

3. PHMSA complied with NEPA. PHMSA complied with NEPA's public-participation requirements by providing an opportunity for public comment on the draft environmental assessment. PHMSA did not need to provide additional opportunities for comment or to supplement its NEPA analysis based on the 120W9 car because the 120W9 car did not present a seriously different picture of potential environmental impacts. In particular, the record showed that the 120W9 car *reduced* the potential for significant environmental impacts relative to the 120W car that PHMSA initially proposed and analyzed.

PHMSA reasonably concluded that the Rule will not have significant environmental impacts and, thus, that an environmental impact statement was not required. PHMSA considered and disclosed potential environmental impacts, particularly in terms of safety, greenhouse-gas emissions, and environmental justice. PHMSA also analyzed the factors that indicate whether an action will have significant impacts. These factors include safety impacts, the degree to which effects may be highly controversial, and the extent to which the action involves uncertain or unknown risks. None of those factors indicated that the Rule would have significant impacts. PHMSA concluded that the safety risks were not uncertain, unknown, or controversial because it has a strong, decades-long safety

record overseeing the transportation of hazardous materials, including flammable cryogenic liquids. PHMSA reasonably concluded that the protections in the Hazardous Materials Regulations, along with the additional safeguards in the Rule for LNG transportation will mitigate any risks such that the Rule's impacts will not be significant.

4. PHMSA fulfilled any obligation to consult with the Puyallup Tribe. At the threshold, no commenter adequately raised with PHMSA whether the proposed rule was an "undertaking" subject to Section 106 of the NHPA. The Tribe referenced the NHPA in a single sentence buried in a footnote of its comments; even there, it did not assert that the Rule was an undertaking. That fleeting reference was insufficient to bring the issue to PHMSA's attention and give PHMSA a reasonable opportunity to consider the issue. Thus, the Tribe's NHPA claim is forfeited for failure to administratively exhaust the issue. And while the Tribe references other consultation requirements, those requirements are contained in an Executive Order and a DOT order, neither of which is enforceable in court.

Further, PHMSA did consult with the Tribe. PHMSA carefully considered the Tribe's comments on the proposed rule and met in person with the Tribe to hear its concerns. PHMSA offered the Tribe more opportunities to consult on the Rule, but the Tribe never took advantage of those invitations.

STANDARD OF REVIEW

In reviewing final agency actions (such as the Rule) under the Hobbs Act, courts use the standard of review set forth in the APA. *Bhd. of Locomotive Engineers & Trainmen v. Fed. R.R. Admin.*, 972 F.3d 83, 115 (D.C. Cir. 2020); *see also Eagle Cnty.*, 82 F.4th at 1174 (applying APA standards to NEPA and NHPA claims); *Lilliputian Sys., Inc. v. PHMSA*, 741 F.3d 1309, 1312 (D.C. Cir. 2014) (applying APA standards to a Hazardous Materials Transportation Act regulation).

Under the APA, a court may set aside agency action if the action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). The Court "is highly deferential to the agency's decision and presumes that the agency action is valid." *Am. Pub. Gas Ass'n v. U.S. Dep't of Energy*, 72 F.4th 1324, 1336 (D.C. Cir. 2023) (cleaned up). This scope of review "is narrow and a court is not to substitute its judgment for that of the agency." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983). When examining "scientific determination[s], . . . a reviewing court must generally be at its most deferential." *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983).

ARGUMENT

I. PHMSA complied with the Hazardous Materials Transportation Act.

The Rule authorized LNG transportation by rail subject to the general requirements of the Hazardous Materials Regulations, plus several LNG-specific requirements. PHMSA complied with its duty, under the Hazardous Materials Transportation Act, to prescribe regulations for the safe transportation of hazardous materials. 49 U.S.C. § 5103. Environmental Petitioners claim that PHMSA violated that Act by overlooking or underestimating certain risks of transporting LNG by rail. Env. Br. 21-36. But the administrative record shows PHMSA exercised its technical expertise and carefully analyzed potential safety risks based on the data available. PHMSA grounded its conclusion in three components. First, PHMSA relied on the existing protections within the Hazardous Materials Regulations. Second, PHMSA relied on existing protections from railroads' operating rules. And third, PHMSA imposed additional requirements—beyond the existing Hazardous Materials Regulations—for safely transporting LNG by rail.

A. PHMSA reasonably relied on existing protections from the Hazardous Materials Regulations.

The Hazardous Materials Regulations cover 435 million shipments of hazardous materials every year. 85 Fed. Reg. at 45,003 (JA10). Despite that large number, there are on average only 20 hazardous material incidents causing death or

serious injury each year, and most of those incidents are from highway transportation. *Id*. These regulations are robust, comprehensive, and protective.

The existing Hazardous Materials Regulations help ensure the safety of rail transportation of cryogenic flammable materials like LNG. Two categories of existing protections bear emphasis here: (1) the specifications for DOT-113 cars; and (2) the requirements for communication, training, security, and operational controls.

1. PHMSA rationally chose DOT-113 cars to transport LNG because of their design and safety record.

Environmental Petitioners contend (Br. 23-36) that the DOT-113 cars are unsafe for transporting LNG, but the record before PHMSA at the time of its action showed otherwise. DOT-113 cars, with their detailed design specifications and extensive safety record, are a core component of PHMSA's approach to safe LNG transportation by rail.

a. DOT-113 cars are designed to safely transport cryogenic liquefied gases like LNG.

Selecting proper packaging for hazardous materials is a critical component of the Hazardous Materials Regulations. 85 Fed. Reg. at 44,999 (JA6). The packaging must be chemically and physically compatible with the material being transported and able to withstand all conditions normally encountered during transportation, including humidity, pressure changes, shocks, and vibrations. *Id*.

DOT-113 cars are the packaging that PHMSA requires for cryogenic flammable materials transported by rail. *See* 49 C.F.R. § 173.319.

DOT-113 cars are built with a tank-within-a-tank design. 85 Fed. Reg. at 44,999 (JA6). The inner tank contains the cryogenic material. *Id*. The outer tank shields the inner tank from physical damage, exposure to the elements, and in-train forces,[3] while providing structural support. *Id*. The space between the inner and outer tanks is maintained as a vacuum with specific pressure requirements to provide thermal insulation. *Id*. This design ensures that the cryogenic material remains at the requisite cold temperatures to minimize pressure increases. *Id*.

The inner tanks of DOT-113 cars are constructed from steel that retains its strength at extreme low temperatures. *Id*., 85 Fed. Reg. at 45,004 (JA11). The steel is also resistant to corrosion and brittle failure.[4] 85 Fed. Reg. at 45,004 (JA11).

The outer surface of the inner tank is wrapped with high-grade insulation. 85 Fed. Reg. at 44,999 (JA6). The Hazardous Materials Regulations specify precise requirements—based on formulas evaluating heat transfer, evaporation,

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[3] In-train forces are the physical forces that act on the train cars as the train accelerates, decelerates, or goes around curves—basically train cars pushing and pulling on each other.

[4] Steel can become brittle when it is exposed to temperatures below those for which it is designed. Brittle steel is more likely to crack and fail.

and other factors—for the insulation used in cryogenic cars. 49 C.F.R. § 179.400-4. The insulation is designed to ensure that the heat transfer from the ambient air to the cryogenic material in the inner tank causes pressure increases less than three pounds per square inch per day. JA447. This insulation is several inches thick. JA453.

The Hazardous Materials Regulations mandate minimum thickness requirements for the inner and outer tanks, testing and inspection requirements, welding standards, and myriad other rigorous engineering standards for DOT-113 cars. 85 Fed. Reg. at 44,999 (JA6).

DOT-113 cars have two types of pressure-relief devices to vent cryogenic material in a controlled manner to prevent the inner tank from suffering a catastrophic failure or explosion. *Id*. The cars have pressure-relief valves (called reclosing pressure-relief valves) that operate temporarily to relieve pressure and can close after opening. *Id*. The cars also have vents called rupture discs that open at a higher pressure than the valves and remain open once the disc ruptures. *Id*. The rupture discs are a failsafe in case the valves do not operate properly. *Id*. Car owners must test pressure-relief valves every five years and replace rupture discs every 12 months. 49 C.F.R. § 173.319(e)(4)-(5).

The Hazardous Materials Regulations prohibit using a DOT-113 car if the average daily pressure rise in that car exceeded three pounds per square inch

during the prior shipment. 85 Fed. Reg. at 45,000 (JA7); 49 C.F.R. § 173.319(e)(1). In that circumstance, the tank's thermal integrity must be tested. 85 Fed. Reg. at 45,000 (JA7); 49 C.F.R. § 173.319(e)(1). If a tank fails the thermal integrity test, it cannot be used until it has been repaired and passes the test. 85 Fed. Reg. at 45,000 (JA7); 49 C.F.R. § 173.319(e)(3).

b. PHMSA reasonably selected the 120W model of DOT-113 cars for transporting LNG.

PHMSA selected the 120W model of DOT-113 cars for LNG transportation for two reasons. First, the construction specifications in the Hazardous Materials Regulations for 120W cars require the steel used for the inner tank to retain strength at −260° Fahrenheit, which is LNG's boiling point. 85 Fed. Reg. at 45,000 (JA7). In fact, this steel is also suitable for use at −423° Fahrenheit, the temperature of liquefied hydrogen, which is far lower than any temperatures the steel would be exposed to in LNG service. *Id*.

Second, 120W cars have a long history of safely transporting flammable cryogenic materials similar to LNG. 85 Fed. Reg. at 45,003 (JA10). In particular, 120W cars have been used for transporting ethylene for over 40 years. *Id*.

PHMSA explained that it used ethylene as a comparison for LNG because ethylene's cryogenic and hazardous properties are similar to LNG. JA447. In fact, ethylene has a greater ignition range than LNG. JA448; JA522. LNG vapors are flammable when mixed with air in vapor concentrations between five and 15

percent by volume. JA448. Outside of this range, LNG vapors will not burn. *Id*. By contrast, ethylene's ignition range is much broader, from 2.7 to 36 percent by volume. *Id*. Also, ethylene is more reactive and more energy-dense than LNG, which means that it is more likely to explode after igniting if vapors reach a confined space. *Id*.

Environmental Petitioners object to PHMSA's comparison of LNG to ethylene, arguing that liquid ethylene has different storage and ignition temperatures. Env. Br. 27-28. But the question is not whether ethylene is identical to LNG in all respects; the question is whether PHMSA permissibly used ethylene as a comparison to LNG when evaluating hazardous materials transportation. The comparison was reasonable on this record, particularly because PHMSA assessed ethylene's flammability limits, energy density, and ignition range. JA447-48. Evaluating the characteristics of hazardous materials is squarely within PHMSA's area of expertise, and "on such matters of technical expertise," the Court owes PHMSA "substantial deference." *CTS Corp. v. EPA*, 759 F.3d 52, 61 (D.C. Cir. 2014).

Environmental and State Petitioners emphasize that ethylene ships in smaller quantities than those expected for LNG. Env. Br. 28; State Br. 25. But PHMSA acknowledged that LNG may ship in larger quantities than ethylene. JA448. As

explained below, (pp. 36-38), that potential for larger shipments led PHMSA to mandate the Rule's additional safety protections.

c. DOT-113 cars have an excellent safety record.

Environmental and State Petitioners question the safety and crashworthiness of DOT-113 cars since DOT-113 cars have no history of carrying large volumes (many cars per train) of flammable, cryogenic gases. Env. Br. 33-34; State Br. 19, 21-23. But PHMSA reasonably explained that, for over 50 years, DOT-113 cars have been used to safely transport flammable cryogenic materials in the United States. 85 Fed. Reg. at 45,005 (JA12).

To be sure, the DOT-113 car fleet is small. 85 Fed. Reg. at 45,012 (JA19). There are 405 DOT-113 cars in North America, and 67 of those are 120W cars. JA118. But there have been over 100,000 shipments of cryogenic material in DOT-113 cars without any fatalities or serious injuries from releases of cryogenic material. 85 Fed. Reg. at 45,005, 45,012 (JA12, JA19). And DOT-113 cars have a lengthy service history. In 1963, the Interstate Commerce Commission Safety and Service Board (DOT's predecessor in regulating hazardous materials transportation) authorized transportation of liquefied hydrogen in DOT-113 cars, then called ICC-113 cars. 85 Fed. Reg. at 45,000 (JA7); *see also Miscellaneous Amendments*, 28 Fed. Reg. 4,495, 4,498 (May 4, 1963). In 1983, DOT authorized

the transportation of cryogenic liquid ethylene in DOT-113 cars, specifically 120W cars. *Cryogenic Liquids*, 48 Fed. Reg. 27,674 (June 16, 1983).

PHMSA acknowledged that DOT-113 cars have not been involved in many accidents, but it evaluated all available data on DOT-113 accidents. 85 Fed. Reg. at 45,013 (JA20). Since 1971, approximately 450 reports have been filed with PHMSA involving releases from DOT-113 cars and a similar car model called AAR204W, which also has a tank-within-a-tank design to carry cryogenic materials. *Id.*, JA449. PHMSA reviewed all these reports. 85 Fed. Reg. at 45,013 (JA20), JA449.

Nearly all incidents (99 percent) involved non-accidental releases of cryogenic material because of defective or improperly secured valves or fittings, not because of tank breaches. 85 Fed. Reg. at 45,013 (JA20), JA449. Despite this long history, there have only been two accidents when the inner tank of a DOT-113 car breached and released cryogenic material during an accident. 85 Fed. Reg. at 45,005 (JA12). Those accidents (discussed below at p. 67) did not cause any injuries or deaths from hazardous materials. JA449. PHMSA concluded that the Hazardous Materials Regulations' requirements for DOT-113 cars' design and materials, as well as the Hazardous Materials Regulations' operational controls, contributed to this strong safety history. 85 Fed. Reg. at 45,013 (JA20).

Before the Rule, carriers could transport LNG by rail with approval from the Federal Railroad Administration in T-75 UN portable tanks, which are comparable to DOT-113 cars because they have a tank-within-a-tank design for transporting cryogenic materials. 85 Fed. Reg. at 45,005 (JA12). The Federal Railroad Administration has granted two approvals for shipping LNG by rail in T-75 UN portable tanks, and the first approval was in 2015. JA508, JA526. PHMSA acknowledged that the history of LNG shipments in T-75 UN portable tanks was brief. 85 Fed. Reg. at 45,005 (JA12). Nonetheless, PHMSA had no record of any rail incidents involving T-75 UN portable tanks carrying LNG. *Id*; JA526.

PHMSA reasonably concluded that DOT-113 cars, and the 120W model in particular, have an established safety record of transporting cryogenic flammable materials similar to LNG. 85 Fed. Reg. at 45,000 (JA7). PHMSA "ma[de] the most of the available data," and the Court should defer to its analysis. *Blau v. Comm'r of Internal Revenue Serv.*, 924 F.3d 1261, 1276 (D.C. Cir. 2019).

d. PHMSA reasonably concluded that if a DOT-113 car derails, explosions are unlikely.

PHMSA reasonably determined based on the available data that explosions are unlikely if trains carrying LNG in DOT-113 cars derail. Petitioners emphasize the risks of explosions called Boiling Liquid Expanding Vapor Explosions. *E.g.*, Env. Br. 30. This type of explosion occurs when a container holding pressurized liquid is exposed to heat (such as a fire), the pressurized liquid reaches

temperatures higher than the liquid's boiling point, the container cannot hold the pressures, and an explosion ensues. PHMSA concluded based on the record that such explosions were unlikely.

In 2018, the Federal Railroad Administration conducted a live test involving a T-75 UN portable tank filled with liquid nitrogen exposed to a 200-minute fire. 85 Fed. Reg. at 45,012 (JA19).[5] The portable tank was on a flatbed rail car and there was a burning pool of propane below the rail car. JA456. The flatbed car bent from the fire's heat, but the portable tank had no significant damage. JA456-57. During this test, the pressure-relief devices operated properly, the container was not destroyed, and a Boiling Liquid Expanding Vapor Explosion did not occur. 85 Fed. Reg. at 45,012 (JA19).

PHMSA reasonably concluded, based on this test, as well as the over 50-year history of transporting flammable cryogenic materials in DOT-113 cars, that Boiling Liquid Expanding Vapor Explosions were highly unlikely. *Id*. In comments responding to the proposed rule, the International Association of Fire Chiefs supported PHMSA's proposal to use 120W cars and noted that DOT-113 cars are designed to prevent Boiling Liquid Expanding Vapor Explosions. JA205; 85 Fed. Reg. at 45,011 (JA18).

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[5] As noted above (p. 27), T-75 UN portable tanks have been used to transport LNG and they, like DOT-113 cars, have a tank-within-a-tank design. 85 Fed. Reg. at 45,012 (JA19).

Environmental Petitioners contend that PHMSA should have done more tests and dispute the validity of this live test, arguing that liquid nitrogen is not flammable, that wind conditions affected the test, and that the fire lasted only 200 minutes. Env. Br. 31, 35. But PHMSA acknowledged that wind conditions prevented the fire from completely engulfing the container. JA457. PHMSA reasonably concluded that the test provided relevant information in assessing the likelihood of a Boiling Liquid Expanding Vapor Explosion. *Id*.

Environmental Petitioners note that "limited data do not justify unlimited inferences," *Am. Petroleum Inst. v. EPA*, 862 F.3d 50, 70 (D.C. Cir. 2017); *see* Env. Br. 35. That is, of course, true, but PHMSA did not make unlimited inferences here. It reasonably concluded that Boiling Liquid Expanding Vapor Explosions were unlikely based on a live fire test performed on a packaging that has a comparable tank-within-a-tank design—the key feature of DOT-113 cars. The Court should "defer to [the agency]'s decision to proceed on the basis of imperfect scientific information, rather to invest the resources to conduct the perfect study." *Sierra Club v. EPA*, 884 F.3d 1185, 1201 (D.C. Cir. 2018) (cleaned up).

Environmental Petitioners cite two accidents in Spain involving LNG trucks where Boiling Liquid Expanding Vapor Explosions occurred. Env. Br. 31. PHMSA studied those incidents but found that neither incident undermined its

conclusions about DOT-113 cars. 85 Fed. Reg. at 45,012 (JA19). Neither accident involved a DOT-113 car; rather, both incidents involved containers with a single steel tank covered with foam and a thin aluminum jacket. *Id*. The containers were not tanks-within-tanks. Those containers held no vacuum, and the outer jackets were only 0.080 inches thick. *Id*. Neither the foam insulation nor the aluminum outer jackets were particularly fire resistant. *Id*.

By contrast, DOT-113 cars have a tank-within-a-tank design, the insulation system has multiple layers, both tanks are made of steel, and there is a vacuum between the tanks. *Id*. In other words, DOT-113 cars are much more robust than the containers involved in the incidents in Spain. *Id*. And the tank-within-a-tank design of the DOT-113 cars reduces the probability of cascading failures of other undamaged DOT-113 cars if a derailment occurs. *Id*.

PHMSA reasonably concluded that a DOT-113 car involved in a derailment was highly unlikely to experience a Boiling Liquid Expanding Vapor Explosion because of the car's design, the redundant pressure-relief systems, and the insulation systems. *Id.*, JA456. PHMSA's determination on this technical issue is entitled to deference. *Midwest Ozone Grp. v. EPA*, 61 F.4th 187, 192 (D.C. Cir. 2023) (cleaned up).

2. The Hazardous Materials Regulations' requirements for communication, training, security, and operational controls provide additional protection.

The Hazardous Materials Regulations prescribe extensive requirements for communication, training, security, and operational controls to ensure the safe transportation of hazardous materials. PHMSA reasonably relied on these requirements to ensure safe LNG transportation by rail.

First, communications requirements ensure that information about the type and location of hazardous materials is available to transportation employees, emergency responders, and the public. 85 Fed. Reg. at 45,000 (JA7). Cars containing hazardous materials must display placards on each side and each end of the cars. *Id*. The placards have different colors, symbols, and numbers that identify the types of hazardous material being transported. *Id*. In addition, cars carrying flammable gases, like LNG, must be marked on two sides with the name of the material being transported. *Id*. For LNG, the markings would read "Methane, refrigerated liquid" or "Natural gas, refrigerated liquid." *Id*.

Train crews must maintain documents identifying the position in the train of each car carrying hazardous material and emergency response information for each hazardous material carried in the train. *Id*. The response information must include information about immediate health hazards; fire or explosion risks; precautions to take if an accident occurs; methods for handling fires, spills, or leaks; first aid

measures; and emergency contacts for each hazardous material on the train. 85 Fed. Reg. at 45,000-01 (JA7-8).

Second, the Hazardous Materials Regulations also mandate training for all employees involved in transporting hazardous material. 49 C.F.R. § 172.704.

Third, the Hazardous Materials Regulations require carriers to develop security plans for hazardous materials if they are carrying over 3,000 liters of hazardous liquids in a single car. 49 C.F.R. § 172.800(b); *see also* 85 Fed. Reg. at 45,001, 45,017. This requirement applies to cars carrying LNG because those cars hold over 3,000 liters. *See* JA465 (explaining that LNG cars can carry up to 34,500 gallons). Security plans must include measures to prevent unauthorized people from accessing either hazardous materials or the equipment used to transport them. 49 C.F.R. § 172.802(a)(2). Carriers must also verify information provided by job applicants that will have access to or handle hazardous materials. 49 C.F.R. § 172.802(a)(1). Finally, security plans must assess and address security risks to hazardous materials en route from origin to destination. 49 C.F.R. § 172.802(a)(3).

Fourth, the Hazardous Materials Regulations mandate operational controls, including specific requirements for flammable cryogenic materials. 85 Fed. Reg. at 45,002 (JA9). These requirements include extensive specifications for loading and unloading hazardous material. *Id*. For example, there are instructions that

personnel must follow and specific provisions to prevent cars from moving while loading or unloading and to prevent other rail equipment from approaching cars that are loading or unloading. *Id*.

Operational controls also include special requirements for DOT-113 cars when carriers are assembling trains in railyards: the DOT-113 cars must be stationary and level when coupled or uncoupled to other cars and they cannot be coupled or uncoupled with more force than necessary. *Id*. These special handling requirements protect DOT-113 cars from unnecessary impacts. *Id*.

Operational controls also involve requirements for where cars carrying hazardous materials may be located within a train. 49 C.F.R. § 174.85. When train length permits, there must be at least five cars between cars carrying flammable gases (like LNG) and the engine. 49 C.F.R. § 174.85(d). If train length does not permit a separation distance of five cars, then cars with flammable gases must be near the middle of the train and no closer than the second car from an engine or occupied caboose. 49 C.F.R. § 174.85(d). These separation requirements protect train crews from hazardous material releases during accidents. 85 Fed. Reg. at 45,009 (JA16). PHMSA reviewed rail accidents that occurred between 2006 and 2015 where there was a release of hazardous materials near occupied locomotives. *Id*. It did not find any reported crew injuries. 85 Fed. Reg. at 45,009-10 (JA16-17).

Another operational control in the Hazardous Materials Regulations that PHMSA relied on is the requirement for expedited movement of hazardous materials. 85 Fed. Reg. at 45,002-03 (JA9-10). Carriers must forward shipments of hazardous materials promptly—within 48 hours of receiving the hazardous materials unless limited exceptions apply. 49 C.F.R. § 174.14(a). Flammable gases (like LNG) must have a final destination when shipped; carriers cannot meet the 48-hour requirement simply by forwarding the flammable gases onward. 49 C.F.R. § 174.14(b).

In sum, to ensure safe LNG transportation by rail, PHMSA reasonably relied on existing protections in the Hazardous Materials Regulations, particularly the DOT-113 car specifications and the communication, training, security, and operational control requirements.

B. PHMSA reasonably relied on railroads' operating rules.

In addition to relying on the Hazardous Materials Regulations, PHMSA reasonably relied on industry requirements that mitigate risk for trains transporting hazardous materials.

The Association of American Railroads, an industry trade group, has issued a document called Circular OT-55 that mandates myriad operational controls. Railroads must establish operating rules, and the most recent edition of the Circular has been incorporated into railroads' operating rules. 85 Fed. Reg. at 45,008

(JA15); *see also* 49 C.F.R. pt. 217 (requiring railroads to have operating rules). The Federal Railroad Administration regularly reviews railroads and their operating rules, and it was not aware of any instances in which a railroad failed to follow the Circular's requirements. 85 Fed. Reg. at 45,008 (JA15). The Circular's operational controls are thus an additional core component of mitigative measures that help ensure the safe LNG transportation by rail. 85 Fed. Reg. at 45,018-19 (JA25-26).

The Circular mandates that "key trains," which are trains transporting at least 20 cars of hazardous material, have a maximum speed of 50 miles per hour. 85 Fed. Reg. at 45,007 (JA14). If there are any potential defects in a rail car (flagged by automatic detectors along the tracks), then the maximum speed is 30 miles per hour until the car reaches a terminal for mechanical inspection. *Id*; JA600. Environmental Petitioners fault PHMSA for not imposing mandatory speed limits in the Rule, but the Circular imposes them. Env. Br. 24.

The Circular also addresses "key routes," which are tracks on which 10,000 carloads of hazardous material or 4,000 carloads of flammable gas (such as LNG) travel over one year. 85 Fed. Reg. at 45,007 (JA14); JA444. The Circular mandates additional inspection and equipment requirements for key routes. 85 Fed. Reg. at 45,007 (JA14). For example, main tracks on key routes must be inspected at least twice a year by inspection cars that use technology to find any

internal defects and to assess track surfaces and alignment. 85 Fed. Reg. at 45,007-08 (JA14-15). At least once a year, these inspection cars must also inspect sidings, which are short tracks on the side of main tracks that allow trains to pass each other. 85 Fed. Reg. at 45,008 (JA15). Main tracks and sidings must also have periodic visual track inspections to identify defects. *Id*. The Circular also requires detectors at least every 40 miles on key routes along the tracks to detect defective bearings in train wheels. *Id*.

In addition, the Circular prescribes operating practices at railyards. JA601. It provides minimum separation distances between cars carrying hazardous materials when they are being loaded, unloaded, or stored. JA601. And it describes best practices for coupling or uncoupling cars carrying hazardous materials. JA601.

Environmental Petitioners emphasize that the Circular is only voluntary. *E.g.*, Env. Br. 24. But PHMSA did not need to incorporate the Circular into the Hazardous Materials Regulations because railroads have incorporated it into their operating rules, and no record evidence indicated that railroads do not comply with it. 85 Fed. Reg. at 45,008, 45,018 (JA15, JA25).

C. PHMSA mandated additional safety measures to ensure the safe transportation of large quantities of LNG by rail.

PHMSA found that the existing Hazardous Materials Regulations, along with the Circular, provided robust protection against accidents involving trains

with small numbers of cars carrying hazardous materials. 85 Fed. Reg. at 45,008 (JA15). Currently, trains carrying ethylene have one to three ethylene cars per train. 85 Fed. Reg. at 45,005, 45,016 (JA12, JA23). PHMSA recognized, however, that as the number of cars carrying flammable cryogenic materials increases, there is a higher probability that a car carrying flammable cryogenic material could be involved in an accident. 85 Fed. Reg. at 45,005 (JA12).

PHMSA could not predict the number of LNG cars that the market would support. But PHMSA had received an application from a company seeking a special permit to transport LNG on trains with at least 80 cars of LNG. 85 Fed. Reg. at 44,998, 45,005 (JA5, JA12).[6] PHMSA thus recognized the possibility that large numbers of cars could be involved in LNG transportation by rail. 85 Fed. Reg. at 45,005 (JA12).

To ensure safe transportation regardless of the number of LNG cars, PHMSA prescribed additional safety measures in the Rule beyond the existing requirements in the Hazardous Materials Regulations and the Circular. 85 Fed. Reg. at 45,008 (JA15). Petitioners argue that PHMSA failed to address the dangers of transporting LNG in large quantities. Env. Br. 29-34; *see also* State Br.

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[6] PHMSA granted the special permit in December 2019. 85 Fed. Reg. at 44,998 (JA5). The company did not transport LNG under the special permit, and the permit expired in November 2021. The company applied to renew its permit, but PHMSA denied the renewal. *Hazardous Materials: Notice of Actions on Special Permits*, 88 Fed. Reg. 24,844, 24,845 (Apr. 24, 2023).

24-26. But the possibility of LNG being shipped in large quantities is precisely why PHMSA included additional safety measures in the Rule. These measures—enhanced outer tanks, operational controls, and maximum pressures—will reduce the likelihood and impact of any derailment. 85 Fed. Reg. at 45,008 (JA15).

1. PHMSA required thicker outer tanks made from higher-quality steel to prevent punctures.

PHMSA required that shippers transporting LNG use 120W cars with enhanced outer tanks. 85 Fed. Reg. at 45,013 (JA20). These cars have the suffix "9" to denote those enhancements, making them 120W9 cars. 85 Fed. Reg. at 45,004 (JA11). Specifically, 120W9 cars have a minimum outer tank thickness of 9/16 inch compared to 7/16 inch for other 120W cars. *Id*. In addition, the outer tanks of 120W9 cars must be made from TC-128 Grade B steel, which is a high-strength steel. *Id*. TC-128 Grade B steel is normalized (heated to 1600° Fahrenheit and then air cooled), which significantly improves its performance during impacts. *Id*. It can withstand higher impact forces than the steel that is normally used for DOT-113 cars (81,000 pounds per square inch compared to 70,000 pounds per square inch). JA442, JA478. These enhancements improve a 120W9 car's resistance to puncture and reduce the likelihood of tank failure during a derailment. 85 Fed. Reg. at 45,004 (JA11).

PHMSA noted that TC-128 Grade B steel does not maintain its strength at cryogenic temperatures, but this fact was not a safety concern because TC-128

Grade B steel is for the outer tank, not the inner tank that actually holds the cryogenic material. *Id*. The steel used to construct the outer tanks of other tank-within-a-tank cryogenic packages, including other 120W cars, is also not resistant to cryogenic temperatures. *Id*; JA442-43. In an accident, an inner tank can only puncture if the outer tank is breached, in which case any LNG released from the inner tank would be released into the environment even if the outer tank were designed to withstand cryogenic temperatures. 85 Fed. Reg. at 45,004 (JA11).

PHMSA did not change the requirements for the inner tanks of 120W9 cars, and the safety features, including the vent requirements, remained the same as other 120W cars. 85 Fed. Reg. at 45,005 (JA12). The 120W and 120W9 cars are identical except that 120W9 cars have enhanced outer tanks to increase crashworthiness. *Id*.

PHMSA based these outer tank requirements for 120W9 cars on solid data available at the time. In 2015, PHMSA issued a regulation to reduce and mitigate accidents involving trains called high-hazard flammable trains that transport large quantities of certain flammable liquids, such as crude oil and ethanol. *Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains*, 80 Fed. Reg. 26,644 (May 8, 2015). In its analysis for that regulation, which involved single-tank cars rather than tank-within-a-tank cars, PHMSA determined that there was a reduction in punctures when cars were 9/16

inch thick and made of TC-128 Grade B steel, instead of 7/16 inch thick. 80 Fed. Reg. at 26,673. Modeling showed this reduction in punctures from increased tank thickness at all speeds evaluated (30, 40, and 50 miles per hour) and with any braking system. JA523. In the 2015 regulation, PHMSA required that cars for high-hazard flammable trains be 9/16 inch thick and made from TC-128 Grade B steel. 80 Fed. Reg. at 26,715. In the Rule, PHMSA included those same requirements for 120W9 cars. 85 Fed. Reg. at 45,005 (JA12). PHMSA reasonably concluded, based on the analysis in the 2015 regulation, that those requirements would provide similar safety benefits to LNG transportation.

PHMSA and the Federal Railroad Administration also compared data from three derailments that involved cars with different tank thicknesses. 85 Fed. Reg. at 45,005-06 (JA12-13). The three derailments were in Guernsey, Saskatchewan in 2020; Casselton, North Dakota in 2013; and Arcadia, Ohio in 2011. *Id*. The cars in the Casselton and Arcadia derailments had outer shells that were 7/16 inch thick, while the cars in the Guernsey derailment had outer shells that were 9/16 inch thick. 85 Fed. Reg. at 45,005 (JA12). The cars in the Guernsey derailment had 5 shell punctures out of 32 derailed cars—62 percent fewer punctures than the Casselton cars (13 shell punctures out of 20 derailed cars) and 69 percent fewer than the Arcadia cars (16 shell punctures out of 32 derailed cars). 85 Fed. Reg. at 45,005-06 (JA12-13). This data validated PHMSA's determination that requiring

outer tanks to be 9/16 inch thick would provide substantial safety benefits. 85 Fed. Reg. at 45,005 (JA12).

PHMSA and the Federal Railroad Administration also conducted extensive modeling and simulations of impacts and derailments for different car specifications. 85 Fed. Reg. at 45,006 (JA13). They used a program called Finite Element Models that tests the effects of stresses on equipment. *Id*. In November 2019, the Federal Railroad Administration also conducted a full-scale impact test of a 120W car. *Id*. The data from that test, as well as the Finite Element Model results, led PHMSA and the Federal Railroad Administration to anticipate that increasing outer tank thickness from 7/16 inch to 9/16 inch would reduce punctures during accidents by 20 to 30 percent. *Id.*; JA526-27.

State and Environmental Petitioners observe that this derailment data does not show that the 120W9 car's thicker outer shell will "eliminate" the risk of tank punctures in accidents. State Br. 23; *see also* Env. Br. 24, 32. But PHMSA did not claim that the enhanced outer tank for the 120W9 cars would *eliminate* all risks; it said that the enhanced outer tank would provide a "substantial safety benefit." 85 Fed. Reg. at 45,005 (JA12). In the Hazardous Materials Transportation Act, Congress recognized the "risks to life, property, and the environment that are inherent in the transportation of hazardous material." 49 U.S.C. § 5101. PHMSA's mission is to provide for the safe transportation of hazardous materials,

but it cannot eliminate all risks. PHMSA reasonably concluded that the 120W9 cars' outer tank enhancements would improve safety.

Environmental Petitioners contend that the thicker outer tank will increase car weights, exceed weight limits in the Hazardous Materials Regulations, and thus create other kinds of safety risks. Env. Br. 24-27. But Environmental Petitioners ignore both PHMSA's weight analysis and PHMSA's implementation of the Federal Railroad Administration's requirements for heavier cars.

PHMSA recognized that the 9/16-inch-thick outer shell would increase the weight of 120W9 cars by approximately 11,050 pounds. 85 Fed. Reg. at 45,015 (JA22). The Hazardous Materials Regulations limit each car's gross weight (measured as the weight of the car itself plus the contents) to 263,000 pounds. 85 Fed. Reg. at 45,007 (JA14). PHMSA anticipated that using 9/16-inch-thick outer shells would not cause cars to exceed the gross weight limit of 263,000 pounds. *Id*. An empty 120W9 car would weigh approximately 138,050 pounds and the LNG would add approximately 108,000 pounds, leading to a gross weight of 246,050 pounds—still within the 263,000-pound limit. 85 Fed. Reg. at 45,015 (JA22).

PHMSA acknowledged that some carriers might select designs that cause cars to exceed 263,000 pounds gross weight. 85 Fed. Reg. at 45,007 (JA14). In 2011, the Federal Railroad Administration issued a notice that cars can weigh up to

286,000 pounds gross weight if those cars are built according to an Association of American Railroads standard called S-286 and are built with TC-128 Grade B steel. *Operating Certain Railroad Tank Cars in Excess of 263,000 Pounds Gross Rail Load; Approval*, 76 Fed. Reg. 4,250, 4,253 (Jan. 25, 2011). Standard S-286 sets forth industry-tested practices for designing, building, and operating rail cars at gross weights over 263,000 pounds and up to 286,000 pounds. 76 Fed. Reg. at 4,251. The Federal Railroad Administration has determined that cars built to meet standard S-286 are *at least* equivalent in safety to cars that weigh no more than 263,000 pounds gross weight. *Id.*

PHMSA ensured that the Rule's requirements were consistent with the Federal Railroad Administration's standards. 85 Fed. Reg. at 45,007 (JA14). PHMSA mandated that any LNG car weighing over 263,000 pounds gross weight must (1) weigh no more than 286,000 pounds, (2) be constructed in accordance with Association of American Railroads standard S-286, and (3) be built with TC-128 Grade B steel. *Id*.

To challenge PHMSA's weight analysis, Environmental Petitioners cite a white paper from 1999 that is not in the record and that the Court should disregard. Env. Br. 25-27. The Federal Railroad Administration relied on this white paper when it issued its 2011 notice regarding requirements for cars up to 286,000 pounds gross weight. 76 Fed. Reg. at 4,251. Environmental Petitioners assert that

this white paper shows that PHMSA failed to mandate necessary requirements for cars that weigh more than 263,000 pounds and that the white paper requires analytical and test evidence before cars weighing up to 286,000 pounds can be approved. Env. Br. 25-27. But in 2011, the Federal Railroad Administration concluded that cars may weigh up to 286,000 pounds gross weight if the cars are constructed in accordance with standard S-286 and constructed of TC-128 Grade B steel. 76 Fed. Reg. at 4,253. It did not require any additional evidence so long as cars are built in accordance with those two requirements. 76 Fed. Reg. at 4,253. PHMSA reasonably followed the Federal Railroad Administration's requirements.

2. PHMSA required LNG-specific operational controls to mitigate risks.

In the proposed rule, PHMSA proposed to rely on the existing operational controls in the Hazardous Materials Regulations for flammable cryogenic materials. 84 Fed. Reg. at 56,969 (JA107). In the final Rule, however, PHMSA required additional operational controls for safely transporting LNG: requirements for braking, pressure and location monitoring for each car, and route security planning. 85 Fed. Reg. at 45,007 (JA14). State and Environmental Petitioners overlook these measures, which reduce safety risks.

First, PHMSA mandated that trains with 20 continuous LNG cars or 35 LNG cars dispersed throughout the train must have enhanced braking systems, either two-way end-of-train devices or distributed power systems. *Id*. Two-way

end-of-train devices have two pieces of equipment linked by radio; the front unit in the lead locomotive initiates emergency brake commands and the unit at the rear of the train activates within one second. 80 Fed. Reg. at 26,650. Two-way end-of-train devices are slightly more effective than conventional brakes because the rear brakes receive emergency brake commands more quickly. 80 Fed. Reg. at 26,650. Distributed power systems use multiple locomotives to distribute braking effort throughout the train and create more uniform braking than conventional brakes. 80 Fed. Reg. at 26,650.

These enhanced braking systems reduce the likelihood and severity of any derailments. 85 Fed. Reg. at 45,008 (JA15). They quickly slow trains to either avoid accidents altogether or decrease impacts if accidents do occur. *Id*. They are more effective than conventional brakes because they provide emergency braking from the front and rear of trains, which can reduce stopping distances and lessen in-train forces that can cause derailments or make derailments more severe. 85 Fed. Reg. at 45,009 (JA16). For example, data from simulations involving DOT-117 cars (a different class than DOT-113 cars that does not have the tank-within-a-tank design) showed that a train with 100 cars that derails while traveling at 50 miles per hour would likely have 9.7 punctures with conventional brakes and 8.2 punctures with either distributed power or a two-way end-of-train device. JA479-80, JA58.

PHMSA decided on the threshold of 20 continuous LNG cars or 35 LNG cars dispersed throughout the train because it established that threshold for high-hazard flammable trains and the record showed that requirement had proven effective. 85 Fed. Reg. at 45,008 (JA15). LNG trains and high-hazard flammable trains have similar risk profiles. 85 Fed. Reg. at 45,016 (JA23). In addition, data showed that distributed power or two-way end-of-train devices do not reduce punctures in shorter trains where latent transmission time in communicating braking signals between train cars has less effect. For example, the simulations with DOT-117 cars showed that trains with 50 or 20 cars would have the same number of punctures with conventional brakes or enhanced braking systems (distributed power or two-way end-of-train devices). JA479-80, JA58.

Second, each car containing LNG must have real-time location and inner-tank pressure monitoring. 85 Fed. Reg. at 45,007 (JA14). The Hazardous Materials Regulations do not require real-time pressure and location monitoring for other cryogenic, flammable materials, but PHMSA required this monitoring for LNG cars. The location monitoring will decrease the possibility of LNG cars becoming lost during transport. 85 Fed. Reg. at 45,008 (JA15). The pressure-monitoring requirement mandates that carriers must be notified if the pressure rise in any LNG car exceeds three pounds per square inch in a 24-hour period. 85 Fed.

Reg. at 45,023 (JA30). With pressure monitoring, carriers will be able to identify adverse conditions and prevent LNG releases. 85 Fed. Reg. at 45,009 (JA16).

Third, carriers transporting LNG must comply with the route-planning requirements in Section 172.820 of the Hazardous Materials Regulations to ensure that railroads use the safest practicable routes. 85 Fed. Reg. at 45,007-08 (JA14-15). Section 172.820 requires carriers transporting particular materials, such as explosives or poisonous materials, to analyze safety and security risks for their routes. 49 C.F.R. § 172.820(a)-(b). Carriers must consider 27 different factors, including the volume of hazardous material being transported, environmentally sensitive or significant areas, population density, and emergency response capabilities along the route. 49 C.F.R. pt. 172 App'x D § D. Carriers must select the practicable routes posing the least overall safety and security risk. 49 C.F.R. §§ 172.820(d), 172.820(e). Section 172.820 also requires carriers to develop safety and security plans that mitigate risks to population centers. 49 C.F.R. § 172.820(h).

These route-planning requirements will reduce the severity of any potential effects from derailments. 85 Fed. Reg. at 45,008 (JA15). The Federal Railroad Administration regularly evaluates railroads' route risk assessments to ensure adherence to these requirements. 85 Fed. Reg. at 45,009 (JA16).

PHMSA reasonably concluded that these additional operational controls would add a greater margin of safety to LNG transportation by rail. 85 Fed. Reg. at 45,007 (JA14).

3. PHMSA imposed maximum-pressure requirements to increase the safety of LNG transportation.

In the Rule, PHMSA mandated that the maximum pressure under which DOT-113 cars can begin transporting LNG is 15 pounds per square inch. 85 Fed. Reg. at 45,010 (JA17). Pressures increase as cryogenic materials are transported. Pressure-release valves in LNG cars begin opening at pressures of 75 pounds per square inch. 85 Fed. Reg. at 45,010 (JA17); *see also* 49 C.F.R. § 179.401-1. So LNG cars have a 60 pound-per-square-inch range of pressure before venting occurs. 85 Fed. Reg. at 45,010 (JA17). The second pressure-relief device—the rupture disc—ruptures and begins venting at 120 pounds per square inch. 49 C.F.R. § 179.401-1. The inner tanks of 120W cars are built to withstand pressures up to at least 300 pounds per square inch before bursting, which means that pressure-relief devices begin venting well below the pressures that the tanks can withstand. 49 C.F.R. § 179.401-1. PHMSA does not permit venting of LNG vapor during normal transportation, but the pressure-relief devices are an important safety protection for non-normal situations, like accidents. JA447.

On average, DOT-113 cars have a daily pressure increase of 0.75 to 1.5 pounds per square inch. 85 Fed. Reg. at 45,010 (JA17). The Rule mandates that

carriers must be notified if the pressure rise in any car carrying LNG exceeds three pounds per square inch in a 24-hour period. 85 Fed. Reg. at 45,023 (JA30). Although the Hazardous Materials Regulations do not limit the time that cars can spend in transit, shippers must notify the Federal Railroad Administration if a car transporting flammable cryogenic material has not reached its destination within 20 days. 85 Fed. Reg. at 45,014 (JA21). The Federal Railroad Administration closely monitors any situation when a flammable, cryogenic material is in rail transit for more than 20 days. *Id*. Its experience is that carriers expedite such cars to their destinations or take swift action to reduce pressures if necessary. *Id*. In addition, within that 20-day period, LNG cars would see only a 15 to 30 pounds-per-square-inch increase, meaning that there would still be a 45 to 30 pounds-per-square-inch buffer before any venting occurs. 85 Fed. Reg. at 45,010 (JA17).

To sum up, contrary to Petitioners' assertions, PHMSA considered the risks of transporting LNG by rail in large quantities. It addressed those risks based on record evidence available at the time, by imposing additional safety measures—enhanced outer tanks, operational controls, and maximum-pressure requirements—to ensure that LNG could be transported safely by rail even in large quantities.

* * *

PHMSA satisfied its obligation, under the Hazardous Materials Transportation Act, to prescribe regulations for safe LNG transportation.

II. PHMSA satisfied the APA's notice-and-comment requirements.

PHMSA complied with the APA's notice-and-comment requirements. Environmental Petitioners incorrectly contend that they had no notice of two provisions in the Rule: the 120W9 car and the filling-density requirement (which pertains to the amount of material that can be loaded into the car). Env. Br. 36-39. PHMSA provided notice that it was contemplating authorizing LNG transportation by rail in 120W cars, and the 120W9 car is a type of 120W car—albeit a safer type with a more puncture-resistant outer tank. PHMSA changed the filling-density requirement in response to comments, but the final requirement is a logical outgrowth of the proposed requirement.

The APA requires agencies to provide notice and an opportunity to comment on rulemakings. 5 U.S.C. § 553. The notice must provide "either the terms or substance of the proposed rule or a description of the subjects and issues involved." 5 U.S.C. § 553(b)(3). To comport with notice-and-comment requirements, a final rule must be a "logical outgrowth" of the version in the proposed rule. *Brennan v. Dickson*, 45 F.4th 48, 68-69 (D.C. Cir. 2022). A final rule is a logical outgrowth of the proposed rule "if interested parties should have anticipated that the change was possible," for example, "where the [proposed rule] expressly asked for comments on a particular issue or otherwise made clear that the agency was contemplating a particular change." *CSX Transp., Inc. v. STB*, 584

F.3d 1076, 1081 (D.C. Cir. 2009) (cleaned up). But "the APA does not require that rules be subjected to multiple cycles of notice and comment until the version adopted as final is identical to the last notice of proposed rulemaking." *Brennan*, 45 F.4th at 69. "[T]he very premise of agencies' duty to solicit, consider, and respond appropriately to comments is that rules evolve from conception to completion." *Id.*

A. The 120W9 car is a logical outgrowth of the proposed 120W car.

The proposed rule notified the public that PHMSA was contemplating allowing LNG transportation in 120W cars and, in the final Rule, PHMSA required a type of 120W car (the 120W9 car).

The 120W9 car is a 120W car, with the 120W car's inner-tank pressure, pressure-relief device, construction, and insulation requirements. 85 Fed. Reg. at 45,005 (JA12). But the 120W car used for transporting LNG must have an enhanced outer tank. The suffix "9" indicates the enhancements PHMSA required for 120W cars used to transport LNG. 85 Fed. Reg. at 44,994 (JA1).

Petitioners insist that the 120W9 car is "a wholly new tank car design." *E.g.*, Env. Br. 37. But as PHMSA explained, it authorized LNG transportation "in DOT-113C120W specification rail tank cars with enhanced outer tank requirements. . . . The enhancements to the outer tank are indicated by the new specification suffix '9' (DOT-113C120W9)." 85 Fed. Reg. at 44,994 (JA1). The

Hazardous Materials Regulations establish *minimum* thickness requirements for DOT-113 cars, and manufacturers have always been allowed to build outer tanks that are thicker than the minimum requirements. 85 Fed. Reg. at 45,015 (JA22). As discussed above (pp. 39-41), outer shells that are 9/16 inch thick had fewer punctures when PHMSA compared derailment data, so PHMSA reasonably required that thickness for LNG cars. 85 Fed. Reg. at 45,005-06 (JA12-13). The thicker outer shell requirement does not morph the 120W9 car into a completely different car; it simply makes the car safer. "The whole rationale of notice and comment rests on the expectation that the final rules will be somewhat different and improved from the rules originally proposed by the agency." *City of Stoughton, Wis. v. EPA*, 858 F.2d 747, 753 (D.C. Cir. 1988) (cleaned up). That is what PHMSA did here; it improved the Rule in response to comments (including from Petitioners) questioning the safety of transporting large quantities of LNG by rail.

Environmental Petitioners claim that PHMSA violated the APA's notice-and-comment requirements with the 120W9 car because PHMSA declined to consider a different car, the DOT-113C140W (140W) car, without further review, thus showing that the 120W9 car was not a logical outgrowth. Env. Br. 37. This argument misses the mark. PHMSA has never approved 140W cars for transportation of any hazardous materials. 85 Fed. Reg. at 45,015 (JA22).

PHMSA's reasonable decision not to select a new tank car for LNG transportation is entirely distinguishable from its decision to select 120W9 cars, which are a type of 120W car.

In January 2017, the Association of American Railroads petitioned PHMSA to authorize LNG transportation by rail in 120W and 140W cars. JA47. The Rule did not authorize 140W cars because, unlike 120W cars, 140W cars are not currently authorized in the Hazardous Materials Regulations. 85 Fed. Reg. at 45,015 (JA22). PHMSA concluded that 140W cars required an engineering review before PHMSA could authorize them. *Id*. 140W cars are designed to handle test pressures of 140 pounds per square inch, whereas 120W cars are designed for test pressures of 120 pounds per square inch.[7] *Id*. Inner tanks designed for test pressures up to 140 pounds per square inch would need thicker walls and would have different pressure-relief features. *Id*. PHMSA concluded that 140W cars' pressure-relief devices and thermal performance would need to be tested extensively. *Id*.

By contrast, the outer tank enhancements that PHMSA required for 120W9 cars do not require the extensive additional engineering review required for 140W cars, which have different inner-tank pressures, inner-tank walls, pressure-relief

[7] Test pressures are the pressures under which cars are tested during the manufacturing process. 49 C.F.R. § 179.400-18(a) (test pressure process); 49 C.F.R. § 179.401-1 (test pressure for 120W cars).

devices, and thermal performance. *Id*. This determination—that 120W9 cars are a type of 120W car and that they do not require the extensive engineering review that 140W cars would require—is within PHMSA's realm of technical expertise, and the Court "gives an extreme degree of deference to [an agency] when it is evaluating scientific data within its technical expertise." *ATK Launch Sys., Inc. v. EPA*, 669 F.3d 330, 336 (D.C. Cir. 2012) (cleaned up).

PHMSA did not make any changes to the 120W car other than enhancing the outer tank. Environmental Petitioners say that they would have made various suggestions for further modifications, such as redesigning the insulation or adding additional pressure-relief devices. Env. Br. 39. But they did not share those suggestions in response to the proposed rule.[8] PHMSA clearly announced in the proposed rule that it was considering authorizing LNG transportation by rail in 120W cars, *e.g.*, 84 Fed. Reg. at 56,964 (JA102), and it solicited comment on "all relevant aspects of this [proposed rule]," 84 Fed. Reg. at 56,966 (JA104). If commenters had concerns about the 120W car's specifications, or suggestions for modified specifications, they should have shared them during the comment period.

Insofar as Environmental Petitioners complain about the additional weight of the 120W9 car's outer tank enhancements (Br. 39), PHMSA expected that most

[8] Environmental Petitioners can share their suggestions in comments on PHMSA's impending rulemaking that will consider modifying the Rule.

120W9 cars would be within the Hazardous Materials Regulations' standard gross weight limit of 263,000 pounds and prescribed additional requirements in accordance with the Federal Railroad Administration's rules for cars weighing up to 286,000 pounds. *See supra* pp. 42-44.

B. The filling-density requirement is a logical outgrowth of the proposed rule.

Environmental Petitioners also complain that PHMSA changed filling-density requirements between the proposed rule and the final Rule. Env. Br. 38. Filling-density requirements prevent carriers from overloading cars; they limit the amount of product with which carriers can fill the car.[9] The Hazardous Materials Regulations prohibit cars from exceeding a capacity of 34,500 gallons of cryogenic material. 49 C.F.R. § 179.13. Filling-density requirements specify how much of that capacity carriers can use in each car.

These requirements ensure that there is sufficient "outage," which is the space between the liquid and the intakes for the pressure-relief devices. Having sufficient outage means that cars have room for cryogenic material to expand and that, even if pressure-relief devices begin venting, they will vent only vapors, not

[9] The term "filling density" means the percent ratio of the weight of material in the tank to the weight of water that the tank will hold. 49 C.F.R. § 173.319(d)(1). So if a tank car filled with water would weigh 10,000 pounds, and the filling-density requirement for a specific material is 50%, then the tank car can hold 5,000 pounds of that particular material.

liquid material. Typically, the Hazardous Materials Regulations mandate a minimum 0.5 percent outage for cars transporting flammable cryogenic liquids, which means that at least 0.5 percent of the tank's capacity below the pressure-relief-device intakes remains empty. 49 C.F.R. § 173.319(b)(1).

In the proposed rule, PHMSA proposed to allow LNG transportation in cars with a maximum filling density of 32.5 percent. 84 Fed. Reg. at 56,968 (JA106). Three different commenters, including the Railway Supply Institute Committee on Tank Cars, a railroad car industry trade group, and the Association of American Railroads objected to the 32.5 percent filling density. 85 Fed. Reg. at 45,014 (JA21). The Committee on Tank Cars said that a 32.5 percent maximum filling density would create a 15 percent outage, rather than the standard 0.5 percent outage for other flammable cryogenic materials. *Id.*; JA157. The Committee on Tank Cars also noted that limiting LNG to a maximum filling density of 32.5 percent would require approximately 13 percent more cars to move the same volume of LNG, which could increase transportation risks. JA157-58. In addition, a 32.5 percent filling-density limit would be inconsistent with Canada's regulations, which impose a 37.3 percent maximum filling density for cars carrying LNG by rail. JA158.

PHMSA agreed with these commenters and imposed a 37.3 percent filling-density limit in the final Rule. 85 Fed. Reg. at 45,014 (JA21). PHMSA calculated

filling densities for cryogenic material in different containers, using ethylene and hydrogen for comparison. *Id*. It determined that 37.3 percent was the appropriate filling density. *Id*. That filling density would ensure a two percent outage, which means that LNG will remain below the pressure control devices even when pressures increase to the point that the devices begin discharging vapors. *Id*. The two-percent-outage level is more protective than the 0.5-percent-outage level that the Hazardous Materials Regulations prescribe for other cryogenic flammable gases. JA445; *see also* 49 C.F.R. § 173.319(b)(1).

In addition, a 37.3 percent maximum filling density is consistent with the outages determined to be safe for LNG in other packages, such as T-75 UN portable tanks. JA445. Those other packages have different filling densities, but they have the same outage percentages that LNG rail cars will have.

PHMSA reasonably responded to comments objecting to the proposed rule's 32.5 percent filling density and suggesting 37.3 percent instead. "[T]he [proposed rule] and the final rule need not be identical." *CSX Transp.,* 584 F.3d at 1079. Nor must PHMSA engage in endless rounds of notice-and-comment until the proposed rule is identical to the final Rule. *Brennan*, 45 F.4th at 69.

Environmental Petitioners argue that the higher filling density will substantially increase the weight of cars carrying LNG. Env. Br. 24. But as explained above, PHMSA considered the gross weight of LNG cars, expected that

most of them would be within the standard Hazardous Materials Regulations limit of 263,000 pounds, and prescribed requirements for cars that exceed that limit. *Supra* pp. 42-44.

* * *

PHMSA satisfied the APA's notice-and-comment requirements because the final Rule is a logical outgrowth of the proposed rule.

III. PHMSA complied with NEPA.

PHMSA fulfilled NEPA's requirements. It satisfied NEPA's public-participation requirements and reasonably did not prepare a supplemental environmental analysis. PHMSA also considered and disclosed the Rule's potential impacts, including impacts related to safety, greenhouse-gas emissions, and environmental justice. And PHMSA reasonably determined that the Rule would not have significant impacts and, thus, that an environmental impact statement was not warranted.

A. PHMSA satisfied NEPA's public-participation requirements.

State Petitioners claim that PHMSA's decision to require 120W cars with enhanced outer tanks violated NEPA's public-participation requirements. State Br. 14-16. This argument lacks merit. First, PHMSA satisfied NEPA's public-participation requirements by providing the draft environmental assessment for public comment. Second, PHMSA then analyzed its decision to approve 120W

cars with enhanced outer tanks in the final environmental assessment, and NEPA does not require anything more.

1. PHMSA provided opportunity for public comment.

PHMSA satisfied NEPA's public-participation requirements when it solicited comment in the proposed rule *and* provided a draft environmental assessment for comment.

When agencies prepare environmental assessments, they must involve the public "to the extent practicable." 40 C.F.R. § 1501.4(b). Agencies "need not include the public in the preparation of every [environmental assessment]," and they have "significant discretion in determining when public comment is required with respect to [environmental assessments]." *Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497, 519 (D.C. Cir. 2010) (cleaned up). This Court has upheld an agency's efforts to provide for public participation in environmental assessments when the agency posted notices about the proposed action without "suppl[ying] any specific environmental information." *Id.*

In the proposed rule, PHMSA included a draft environmental assessment considering the proposed rule and assessing three alternatives. 84 Fed. Reg. at 56,970-75 (JA108-13). Alternative 1 was the no action alternative where PHMSA would not allow LNG transportation by rail. 84 Fed. Reg. at 56,971 (JA109). Alternative 2 would allow LNG transportation by rail in 120W and 140W cars. *Id.*

Alternative 3 would allow LNG transportation by rail in 120W cars only. *Id*. PHMSA then explained the hazards of transporting LNG by rail and the characteristics of DOT-113 cars. 84 Fed. Reg. at 56,971-73 (JA109-11).

In the final environmental assessment, PHMSA considered the same alternatives except Alternative 3—the preferred alternative—discussed the safer 120W9 cars. JA441. PHMSA also analyzed LNG's characteristics, ways in which LNG could be released into the environment, risks in different derailment scenarios, and past derailments involving DOT-113 cars. JA447-61. And it responded to comments. JA473-97.

PHMSA satisfied NEPA's public-participation requirements with the proposed rule, the draft environmental assessment that it provided for comment, and the final environmental assessment, which responded to comments. Unlike the cases that State Petitioners cite, this was not a situation where the agency evinced "a complete failure to involve or even inform the public about an agency's preparation of an [environmental assessment]." *Citizens for Better Forestry v. U.S. Dep't of Agric.*, 341 F.3d 961, 970 (9th Cir. 2003); *see* State Br. 15 (citing *Citizens for Better Forestry*, 341 F.3d at 970).

2. PHMSA did not need to supplement its NEPA analysis because the 120W9 car did not substantially change potential environmental impacts.

State Petitioners contend that PHMSA should have provided additional opportunities for public comment because it selected the 120W9 car. State Br. 14-16. But as explained above, NEPA does not require an agency to always provide an opportunity for public comment on an environmental assessment, and in any event PHMSA did so here.

Petitioners also err in relying on a NEPA regulation regarding supplementation. State Br. 14-15 (citing 40 C.F.R. § 1502.9(c)(1)(i)). This regulation provides that an agency must supplement either draft or final environmental impact statements if the agency "makes substantial changes in the proposed action that are relevant to environmental concerns." 40 C.F.R. § 1502.9(c)(1)(i). As an initial matter, this regulation concerns supplementation of *environmental impact statements* rather than environmental assessments. The regulation thus does not impose any requirement on the environmental assessment process.

State Petitioners cite the regulation as support for the contention that "[w]here a final rule takes an unforeseeable turn from the proposal, NEPA requires an agency to provide additional opportunities for public participation." State Br. 14. Even assuming that the regulation has some application here, additional

opportunities for comment were unnecessary, because the final rule did *not* take an "unforeseeable turn." Supplemental NEPA analysis "must be prepared only where new information provides a *seriously* different picture of the environmental landscape." *Friends of Cap. Crescent Trail v. Fed. Transit Admin.*, 877 F.3d 1051, 1060 (D.C. Cir. 2017) (cleaned up).

As explained above (pp. 51-54), the 120W9 car is a 120W car with a thicker outer shell made from stronger steel. The 120W9 car does not present a "*seriously* different picture of the environmental landscape." *Id.* The 120W9 car reduces potential environmental impacts from derailments because of its increased puncture resistance. *Supra* pp. 38-41. And a reduction in potential impacts does not warrant supplemental NEPA analysis. *See Friends of the Bow v. Thompson*, 124 F.3d 1210, 1219 (10th Cir. 1997) (upholding agency's decision not to prepare a supplemental NEPA analysis because "a reduction in environmental impact is less likely to be considered a substantial change relevant to environmental concerns than would be an increase in the environmental impact").

Insofar as State Petitioners argue that the increased weight of 120W9 cars warrants supplemental NEPA analysis (Br. 16), PHMSA noted that most 120W9 cars would be within the Hazardous Materials Regulations' standard gross weight limit of 263,000 pounds, and it prescribed additional requirements for cars weighing up to 286,000 pounds. *See supra* pp. 42-44.

PHMSA exercised its technical expertise in requiring the 120W9 car and in determining that the 120W9 car was a safer version of the 120W car, not a wholly different car as Petitioners contend. The Court "must generally be at [its] most deferential" when reviewing the agency's "technical judgments and predictions." *Blue Ridge Env't Def. League v. Nuclear Regul. Comm'n*, 716 F.3d 183, 195 (D.C. Cir. 2013) (cleaned up). Supplementation and additional public comment were not warranted here because the 120W9 car is a type of 120W car that does not present a seriously different picture of the Rule's impacts.

B. PHMSA reasonably concluded that the Rule will have no significant environmental impacts.

Contrary to State Petitioners' contentions (Br. 16-20), PHMSA reasonably concluded that the Rule will not have significant environmental impacts and, thus, an environmental impact statement was not required.

NEPA requires a federal agency to prepare an environmental impact statement only for "major Federal actions significantly affecting the human environment." 42 U.S.C. § 4332(C). Courts give "considerable deference to an agency's decision regarding whether to prepare an [environmental impact statement]." *New York v. Nuclear Regul. Comm'n*, 681 F.3d 471, 477 (D.C. Cir. 2012). In evaluating the agency's decision, the Court considers whether the agency: 1) "accurately identified the relevant environmental concern," 2) took a "hard look at the problem" in preparing its environmental assessment, 3) made "a

convincing case for its finding of no significant impact," and 4) showed that even if a significant impact will occur, "changes or safeguards in the project sufficiently reduce the impact to a minimum." *Id.* (cleaned up).

PHMSA satisfied these requirements. It disclosed and took a hard look at the Rule's potential impacts, particularly as to safety, greenhouse-gas emissions, and environmental justice. And PHMSA showed that there would be no significant impacts, especially given the Rule's additional safety measures.

1. PHMSA took a hard look at potential environmental impacts.

a. PHMSA analyzed potential safety impacts.

Contrary to State Petitioners' contentions, PHMSA adequately considered safety issues under NEPA. State Br. 21-25.

PHMSA acknowledged that LNG poses potential hazards if it is released, and it considered potential release scenarios. JA447. Under NEPA, an agency "must look at both the probabilities of potentially harmful events and the consequences if those events come to pass." *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 985 F.3d 1032, 1049 (D.C. Cir. 2021) (cleaned up). "A finding of no significant impact is appropriate only if a grave harm's probability is so low as to be remote and speculative, or if the combination of probability and harm is sufficiently minimal." *Id.* (cleaned up). PHMSA satisfied this

requirement, examining potential release scenarios and concluding that the probabilities of the most dangerous scenarios were low.

PHMSA estimated three possible release scenarios that could occur during LNG transportation by rail. JA457. First, an equipment failure unrelated to a rail accident could release LNG. *Id*. PHMSA estimated that the probability of such releases was moderate and the consequences would be low. *Id*. Second, a rail accident could cause outer tank damage and the pressure-relief devices could release LNG to reduce any pressure build-up. *Id*. PHMSA estimated that the probability of such releases was low and the consequences would be low to high. *Id*. Third, a rail accident could damage both the inner and outer tanks and cause a large release of LNG. *Id*. The probability of such releases was low and the consequences would be low to high. *Id*. PHMSA noted that the risk of outer- and inner-tank punctures increases with train speed. JA455.

PHMSA noted that the probability of the third scenario (a large release) was reduced by the 120W9 cars' enhanced outer tank. JA457. But PHMSA acknowledged that the third scenario could have high consequences. *Id*. Large releases of LNG could spill on the ground in a pool or vaporize. *Id*. If the released LNG encountered an ignition source, then it could ignite. *Id*. Ignition sources from a derailment could include sparks from electrical systems on the train, hot metal heated by the friction of the derailment, or fires from the locomotive fuel

tanks. *Id*. There could be different types of fires, such as pool fires (where a pool of liquid LNG ignites) or vapor fires (where LNG vapors ignite). JA449. The number of cars that could be exposed to a fire depends on several factors, including whether the fire involved a burning pool of LNG, the duration of the fire, whether flames touch neighboring cars, and the impact of defensive actions taken by first responders. JA460. PHMSA explained the risks from LNG fires, from the spread of LNG vapors, and from spills of cryogenic material. JA448-49, JA451-52, JA457-59.

State Petitioners contend that PHMSA did not consider the possibility that escaped LNG from a derailed car could cause the outer tanks of adjacent cars to fail. State Br. 24. But PHMSA did address that, explaining that outer tanks can embrittle when exposed to cryogenic liquids. JA460. The inner tank will not embrittle because it is designed to handle cryogenic temperatures. *Id.*; 85 Fed. Reg. at 45,004 (JA11). If the outer tank fails, the DOT-113 car would lose its insulating vacuum and eventually pressure would build in the inner tank. JA460. This pressure increase would activate the pressure-relief devices, and LNG would vent in a controlled manner. *Id*.

State Petitioners contend that DOT-113 cars do not have a strong safety record (Br. 22-24), but PHMSA found otherwise based on the record. *See supra* pp. 25-27. Despite the long history of hazardous materials transportation in DOT-

113 cars, there have been only two incidents when the inner tank of a DOT-113 car breached and released material. 85 Fed. Reg. at 45,005 (JA12). PHMSA examined the two incidents.

The first incident occurred in 2011 in Moran, Kansas. JA449. Three 120W cars carrying refrigerated ethylene derailed, and 44,306 gallons of ethylene were released. JA449-50. Neither the train crew nor any civilians sustained injuries. JA450. The second incident occurred in 2014 in Mer Rouge, Louisiana. JA450. Two cars carrying cryogenic liquid argon derailed, and 47,233 gallons of argon spilled. *Id*. One car was a DOT-113 car and one car was an AAR204W car, which is similar to a DOT-113 car. *Id*. No injuries or fatalities from the hazardous material were reported. *Id*.

PHMSA acknowledged that cryogenic ethylene and cryogenic argon are transported in smaller quantities than the quantities that are possible for LNG transportation. *Id*. PHMSA also acknowledged that each additional car transporting hazardous material increases the potential of a hazardous material release if a derailment occurs. JA448. It noted that serious incidents involving DOT-113 cars have been rare but that, given the quantity of hazardous materials, accidents can be high-consequence events. JA450.

PHMSA took a hard look at the risks of transporting LNG by rail. However, given the safety history of 120W cars, PHMSA reasonably concluded that the risks

of derailment, breach of both inner and outer tanks, and ignition were low. JA460. Moreover, breaches are less likely under the Rule because 120W9 cars have enhanced outer tanks that improve crashworthiness. JA447, JA449.

b. PHMSA analyzed potential impacts from greenhouse-gas emissions.

Though State Petitioners suggest otherwise, PHMSA reasonably considered greenhouse-gas emissions. State Br. 25-27. Under NEPA, agencies must consider indirect effects of their actions. 40 C.F.R. § 1502.16(b). Indirect effects are caused by the action and are reasonably foreseeable, although they may be later in time or removed in distance. 40 C.F.R. § 1508.8(b). Greenhouse-gas emissions from burning natural gas are a reasonably foreseeable effect of some natural gas infrastructure and transportation projects. *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017). "Nonetheless, there will inevitably be some limits on the foreseeability of emissions, and the court has rejected the notion that downstream emissions are always reasonably foreseeable effects." *Del. Riverkeeper Network v. FERC*, 45 F.4th 104, 109 (D.C. Cir. 2022). For example, when "natural gas would be delivered for further transportation on the interstate grid to an unknown destination and for an unknown end use," then emissions "were not reasonably foreseeable." *Id.* at 110.

PHMSA did not "ignore[]" greenhouse-gas emissions, as State Petitioners claim. State Br. 27. PHMSA gave qualitative discussions of potential greenhouse-

gas emissions (and reductions) related to the Rule. State Petitioners fault PHMSA for not quantifying emissions (Br. 26-27), but PHMSA reasonably explained that such quantification was not possible. Instead, PHMSA qualitatively explained different potential impacts from the Rule relating to greenhouse-gas emissions.

The Court has recognized the complexity of modeling greenhouse-gas emissions, particularly in comparison to other fuel sources, because of energy market dynamics and the "many uncertainties in modeling such market dynamics." *Sierra Club v. U.S. Dep't of Energy*, 867 F.3d 189, 202 (D.C. Cir. 2017). Given the unpredictability regarding destinations, end uses, demand, and volumes, there was "nothing arbitrary" about PHMSA's decision to do a qualitative analysis of greenhouse-gas emissions instead of a quantitative analysis. *Id.* And, in any event, State Petitioners "make no attempt to identify a method that the [agency] could have used" to calculate greenhouse-gas emissions. *Del. Riverkeeper Network*, 45 F.4th at 110 (cleaned up).

First, PHMSA compared rail transportation to highway transportation. PHMSA explained that rail transportation is superior to highway transportation in terms of fuel efficiency and emissions. JA463. A train transporting LNG emits less greenhouse gases than the same volume of LNG transported by highway trucks. JA446. In fact, motor vehicle transportation generates 6.9 times more carbon dioxide (a greenhouse gas) than rail transportation over the same distance.

JA463. PHMSA acknowledged the Rule could increase rail transportation by providing a different mode to bring methane to markets, potentially facilitating delivery from stranded sources or to underserved areas that could not receive natural gas without rail delivery. JA469, JA487. But without the Rule, there could be more LNG transportation by highway. JA469.

In addition, rail cars remain in service for approximately 50 years, whereas the cargo tanks used for transporting LNG by highway are in service for eight years or less. JA491. Rail cars' long service life means that less materials and energy will be spent manufacturing replacements. *Id*.

Second, PHMSA acknowledged that shippers must construct 120W9 cars if they want to ship LNG. JA489. Producing these rail cars would cause some greenhouse-gas emissions, but less than a typical interstate gas pipeline (although pipelines can transport greater quantities and last longer). JA489-90.

Third, PHMSA did not anticipate any emissions would occur from venting LNG since pressure-relief valves should not activate during normal transportation. JA464. If any venting did occur, PHMSA anticipated that the duration of venting would be short and the valve would close again, thus limiting the emissions. JA465.

Fourth, PHMSA acknowledged that emissions could occur if LNG cars are involved in accidents or if they are lost during transport. JA464. PHMSA

concluded that it was unlikely cars could be lost during transport because LNG cars must be remotely monitored and because carriers must notify the Federal Railroad Administration immediately if LNG cars have not reached their destinations within 20 days. *Id*. In fact, 120W cars are designed to provide 40 days of transportation without venting—double the amount of time requiring Federal Railroad Administration notification. JA465.

Fifth, PHMSA acknowledged that allowing LNG transportation by rail might create business opportunities that might, in turn, cause production, distribution, and consumption of natural gas to increase. JA470. These opportunities could include power plants or LNG export facilities. *Id*. PHMSA acknowledged that production, transportation, and consumption of LNG related to the Rule could contribute to greenhouse-gas emissions. *Id*.

Finally, PHMSA explained that various economic and practical unknowns frustrated its ability to meaningfully predict the Rule's effects on natural gas production and transportation. *Id*. For example, shippers can transport natural gas via pipeline, and natural gas or LNG via truck, ship, rail in portable tanks with Federal Railroad Administration approval, or in rail tank cars under the Rule, making it hard to pinpoint the Rule's specific impacts. JA512. It was also difficult for PHMSA to forecast indirect and cumulative greenhouse-gas emissions because of different operating practices and various state, federal, and international

regulatory requirements. JA470. For example, in certain markets, natural gas could replace coal, wood, and diesel, which emit more greenhouse gases than natural gas. JA488-89. PHMSA's reasoning was "sound" because it explained that natural gas would be delivered to "unknown destination[s]" and for "unknown end use[s]." *Del. Riverkeeper Network*, 45 F.4th at 110.

In addition, increased use of natural gas in recent years in the United States reduced carbon dioxide emissions, even while energy needs increased, because natural gas was replacing other energy sources that emit more carbon dioxide. JA488-89. So facilitating the transportation of natural gas could reduce greenhouse-gas emissions, depending on the extent to which natural gas replaced other energy sources. JA489. PHMSA also noted that domestic production, consumption, and export of LNG were increasing substantially—independent of the Rule—so it was difficult for PHMSA to assess the Rule's potential impacts. JA470.

And the COVID-19 pandemic disrupted energy markets, and the LNG market in particular, which further complicated PHMSA's ability to forecast greenhouse-gas emissions. *Id*. PHMSA said that these unknowns could not be clarified through preparing an environmental impact statement. *Id*. At bottom, PHMSA did not have a concrete method of reasonably forecasting potential

greenhouse-gas emissions that could result from the Rule. JA488. Its qualitative analysis was reasonable.

c. PHMSA analyzed potential impacts on communities with environmental justice concerns.

PHMSA reasonably analyzed environmental justice issues presented in the record. State Petitioners' contrary argument lacks merit. State Br. 28-29. "An environmental justice analysis is measured against the arbitrary-and-capricious standard" and the Court evaluates whether the agency took a "hard look at environmental justice issues." *Sierra Club v. FERC*, 867 F.3d at 1368 (cleaned up).

PHMSA acknowledged that the Rule might facilitate LNG transportation through communities with environmental justice concerns, but it also might reduce highway transportation of LNG through those communities. JA477. Nonetheless, PHMSA acknowledged that the fixed location of rail infrastructure prevents full avoidance of communities with environmental justice concerns. *Id*. PHMSA emphasized, however, that the Rule's safety requirements reduce the likelihood of an LNG release during an accident. *Id*.

PHMSA noted that lower-income families and economically-distressed areas could potentially benefit from lower gas prices based on the Rule improving access in areas that lack natural gas pipelines. JA539. But there could be impacts from

increased traffic along rail lines near communities with environmental justice concerns. *Id.*

State Petitioners fault PHMSA for not analyzing the composition of communities along rail lines likely to support LNG traffic. State Br. 29. But PHMSA did not know the routes that shippers would use because routing decisions depend on natural gas production, pipeline capacity, demand, and other factors. JA495. The Rule does not dictate the routes that carriers transporting LNG may use. JA476-77. PHMSA also explained that it has no authority over the siting or construction of rail infrastructure. JA477. PHMSA noted, however, that the Rule requires railroads to use the practicable routes posing the least overall safety and security risk. *Id.*; *see also infra* p. 47 (explaining required safety and security analysis). In making that determination, railroads must consider factors such population density; this requirement thus protects populations along rail corridors. JA477.

The Tribe contends that PHMSA failed to consider its environmental justice concerns, namely that the Tribe is "uniquely located between an LNG plant and virtually all of the continental United States." Tribe Br. 49. But PHMSA considered the Tribe's concerns and concluded that they were "inapposite" because they were predicated on potential rail transport to Puget Sound Energy's Tacoma LNG facility. 85 Fed. Reg. at 45,022 (JA29). PHMSA explained that rail

transportation of LNG to the Tacoma facility was not permitted; rather, under that facility's authorization order from the state regulator, the "sole source of natural gas supply used in all operations" will be from Canada by pipeline. *Id*. If the facility ships out any LNG, it will ship by truck or will convert LNG to natural gas to supply customers through pipelines. 85 Fed. Reg. at 45,022-23 (JA29-30). PHMSA examined schematics for the Tacoma facility and determined that "rail infrastructure neither exists nor is contemplated at the site." 85 Fed. Reg. at 45,023 (JA30). The Tribe asserts that the Tacoma facility could make different plans in the future. Tribe Br. 48. But "NEPA does not require an agency to work through every remote and speculative possibility." *Gulf Restoration Network v. Haaland*, 47 F.4th 795, 802 (D.C. Cir. 2022) (cleaned up). PHMSA examined the Tacoma facility's authorization and schematics and saw no indication that rail infrastructure was contemplated. It reasonably considered the Tribe's concerns.

2. The NEPA intensity factors show that the Rule will have no significant impacts.

State Petitioners assert (Br. 16-20) that an environmental impact statement was required, but PHMSA analyzed the regulatory factors assessing significance under NEPA and reasonably determined that an environmental impact statement was not required.

Agencies determine whether an action will have significant impacts by examining the context of the action and the intensity of potential environmental

impacts. 40 C.F.R. § 1508.27. Ten factors inform the intensity inquiry. 40 C.F.R. § 1508.27(b). These factors include whether impacts may be both beneficial and adverse, public health or safety impacts, the degree to which effects may be highly controversial, the degree to which possible effects are highly uncertain or involve unique or unknown risks, and potential impacts to significant cultural resources. 40 C.F.R. § 1508.27(b).

PHMSA considered the intensity factors and determined that the Rule would have no significant impacts and, in fact, could have beneficial impacts. JA492-93. The Rule may benefit society by facilitating the use of natural gas, which has less greenhouse-gas emissions than some other fuels. JA493. The Rule also could improve energy security during winter months in areas with limited or no pipeline capacity. *Id*. In addition, public health conditions can improve in areas where natural gas replaces other fuels that pollute more. *Id*. The Rule could also reduce shipments of LNG by highway, which involves more accidents than rail. JA461.

State Petitioners argue that transporting LNG by rail presents "extreme danger" from derailments, but PHMSA's analysis showed otherwise. State Br. 16. PHMSA acknowledged that derailments could cause public health or safety impacts but determined that such risks are low. JA493. While derailments are possible, 120W cars have a strong safety record, have been used for decades, and have not been linked to any fatalities. JA492. Derailments risks are reduced by

the Rule's requirements for thicker outer tanks, higher-quality steel, enhanced braking technology, and route planning. JA493; *see also supra* pp. 36-49 (describing the Rule's additional safety measures). These "safeguards" in the Rule "sufficiently reduce the impact to a minimum," and thus support PHMSA's decision not to prepare an environmental impact statement. *New York v. Nuclear Regul. Comm'n*, 681 F.3d at 477 (cleaned up).

State Petitioners assert that PHMSA needed to prepare an environmental impact statement because the Rule's impacts are highly controversial. State Br. 18-20 (citing 40 C.F.R. § 1508.27(b)(4)). Under NEPA, potential impacts are only controversial when there is a substantial dispute as to the size, nature, or effect of the action, not simply when people oppose the action. *Nat'l Parks Conservation Ass'n v. Semonite*, 916 F.3d 1075, 1083 (D.C. Cir. 2019). For decades, PHMSA, the Federal Railroad Administration, and their predecessor agencies have had a strong safety record of overseeing rail transportation of hazardous materials, including flammable cryogenic liquids. JA494. Many of these hazardous materials, such as butane, liquid petroleum gas, and cryogenic ethylene, have similar risk profiles as LNG. *Id*. Some of these materials have greater risk profiles than LNG. *Id*. But LNG transportation will benefit from 120W9 cars and other tailored safety measures, such as real-time pressure monitoring. *Id*. PHMSA thus

concluded that a substantial dispute does not exist regarding the risks from transporting LNG by rail. *Id*.

PHMSA also reasonably concluded, contrary to State Petitioners' argument (Br. 17), that the risks from transporting LNG by rail are not uncertain, unique, or unknown. PHMSA explained that the risks from transporting cryogenic flammable gases are well known. JA494. And flammable gases are commonly transported in single-walled cars, but the tank-within-a-tank design of 120W cars offers superior protection against puncture and failure. *Id*.

PHMSA also found that an environmental impact statement would not be useful to inform decisionmakers or the public. PHMSA did not know how much LNG would be transported by rail because quantities would depend on market forces and practical constraints. JA494-95. PHMSA also did not know the routes that shippers would use, since routing decisions would depend on various factors, including production, pipeline capacity, and demand. JA495. Shippers could transport LNG by an almost infinite combination of existing or future rail routes. JA496. Preparing an environmental impact statement would not illuminate these unknowns related to quantity and routing. JA495. PHMSA acknowledged that the risks from transporting hazardous materials increase as the quantities increase. *Id*. But the Rule's safeguards will mitigate any risks so that transporting LNG by rail does not significantly impact human health or the environment. *Id*.

* * *

In summary, PHMSA satisfied NEPA's requirements with its environmental assessment, which enabled public participation and through which PHMSA took a hard look at the Rule's potential environmental impacts.

IV. PHMSA satisfied any obligation it had to consult with the Tribe.

PHMSA strives to consult with Indian tribes on a government-to-government basis on issues that may affect their interests. PHMSA made reasonable efforts to consult with the Puyallup Tribe on the Rule. The Tribe disagrees, but it does not point to any legally binding and judicially enforceable consultation requirements that it appropriately raised during the rulemaking process. And PHMSA's efforts satisfied any applicable consultation obligation.

A. The Tribe's view of consultation exceeds any legally binding and judicially enforceable requirement.

The Tribe points to three sources for its claim that PHMSA had a consultation obligation—the NHPA, Executive Order 13175, and DOT Order 5301.1. Tribe Br. 13, 30-37. But the Tribe did not assert that the NHPA applied to the rulemaking or properly exhaust the NHPA issue with the agency. And while PHMSA fully complied with Executive Order 13175 and DOT Order 5301.1, those Orders are not judicially enforceable.

1. The Tribe failed to exhaust the NHPA Section 106 issue before the agency.

The Tribe contends that PHMSA had a consultation obligation under the NHPA because the Rule is an undertaking under Section 106 of the NHPA. Tribe Br. 29-30. But the Tribe's comments during the rulemaking made only a passing reference to the NHPA in a footnote and did not assert whether or how the law applied to the rulemaking. Thus, the Tribe failed to properly raise or exhaust this issue before PHMSA, and PHMSA did not address whether the Rule was an undertaking.

Under ordinary principles of administrative law, a party "will normally forfeit an opportunity to challenge an agency rulemaking on a ground that was not first presented to the agency for its initial consideration." *Advocates for Highway & Auto Safety v. FMCSA*, 429 F.3d 1136, 1150 (D.C. Cir. 2005); *see also Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1059 (D.C. Cir. 2001) ("An agency is not required to consider issues and evidence in comments that are not timely filed.").

Courts "enforce the exhaustion requirement for good reason." *W. Watersheds Project v. BLM*, 76 F.4th 1286, 1294 (10th Cir. 2023). The reason for the forfeiture rule is to ensure the agency has "an opportunity to consider the matter, make its ruling, and state the reasons for its action." *Okla. Dep't of Envtl. Quality v. EPA*, 740 F.3d 185, 192 (D.C. Cir. 2014). The rule deters litigants from

"sandbag[ging] agencies by withholding legal arguments for tactical reasons until they reach the courts of appeal." *Id*. (cleaned up). "[C]ourts often cast a skeptical eye towards plaintiffs that have been involved throughout the administrative process yet rely on a peripheral or newfound theory only when thrust before a federal court." *W. Watersheds Project*, 76 F.4th at 1294.

Administrative exhaustion applies to bar the Tribe's argument here. In its notice of proposed rulemaking, PHMSA indicated that it saw no need for consultation under Executive Order 13175 but invited Indian tribes to identify any impacts to tribes. 84 Fed. Reg. at 56,970. The Tribe submitted 20 pages of comments on the proposed rule. JA128-152. Among its comments, the Tribe asserted that the rulemaking was subject to the consultation requirements in Executive Order 13175. JA130.

In its opening brief, the Tribe asserts that it "invoked NHPA consultation" and cites to two pages from those comments. Tribe Br. 29 (citing JA128; JA147). But neither of those pages cited or discussed the NHPA. JA128, JA147. The closest that the Tribe came was a general reference to "applicable federal law": "The purpose of this consultation, which would be ongoing, would be to further inform PHMSA of the concerns identified above and to permit the Tribe and PHMSA to engage in the type of meaningful and mutually informative

government-to-government consultation required by *applicable federal law*." JA147 (emphasis added). But the Tribe did not identify what federal law applied.

Although the Tribe does not reference it in its opening brief, the Tribe did cite the NHPA in a single footnote in its comments. The footnote stated: "Also consider NHPA Section 106 and most notably whether there is an undertaking that could potentially affect historic properties and thus require meaningful consultation with affected Tribes." JA130. (citations omitted).

This footnote was insufficient to alert PHMSA to the Tribe's position. The Tribe asserted no clear position or explanation regarding the applicability of NHPA Section 106 to the rulemaking. Rather the Tribe suggested considering *whether* there was an undertaking. *Id.* (citations omitted). If a footnote is "no place to make a substantive legal argument on appeal," *CTS Corp. v. EPA*, 759 F.3d 52, 64 (D.C. Cir. 2014), it is also no place to raise an issue with an agency. In this Court, "hiding an argument" in a footnote "and then articulating it in only a conclusory fashion results in forfeiture." *Id*.

The same principle applies to agency proceedings. "The fact that, buried in hundreds of pages of technical comments . . . some mention is made" of an issue is "insufficient to preserve the issue for review on appeal." *Nat'l Ass'n of Mfrs. v. U.S. Dep't of Interior*, 134 F.3d 1095, 1111 (D.C. Cir. 1998). And administrative exhaustion applies not just to factual issues but to purely legal issues. *See Ohio v.*

EPA, 997 F.2d 1520, 1528-29 (D.C. Cir. 1993) (argument that rule violated statute was waived for failure to raise before agency); *see also CBD v. FERC*, 67 F.4th 1176, 1184-85 (D.C. Cir. 2023) (citing a regulation one time in a "see, e.g.," was insufficient to put agency on notice).

This Court has explained that "[o]ur cases . . . require complainants, before coming to court, to give the [agency] a *fair opportunity* to pass on a legal or factual argument." *Nat'l Ass'n of Mfrs.*, 134 F.3d at 1111. PHMSA lacked a fair opportunity to evaluate the NHPA issue because the Tribe articulated no clear position that the NHPA applied to the rulemaking and provided no explanation or analysis in support of such a claim.

Whether an objection is fairly raised "depends on, among other things, the size of the record, the technical complexity of the subject, and the clarity of the objection." *Ctr. for Sustainable Economy v. Jewell*, 779 F.3d 588, 602 (D.C. Cir. 2015). PHMSA received hundreds of comments on its proposed rule covering numerous highly technical issues. One sentence from one commenter among hundreds—buried in a footnote in a twenty-page letter—is insufficient to give PHMSA a fair opportunity to consider the NHPA issue. *See Nat'l Ass'n of Mfrs.*, 134 F.3d at 1111 (declining to find that "scattered references . . . in a voluminous record addressing myriad complex technical and policy matters suffices to provide an agency . . . with a 'fair opportunity' to pass on the issue").

Nor did the Tribe's invocation of consultation under Executive Order 13175—which addresses policy implications for tribes—exhaust any issues concerning NHPA Section 106, which addresses impacts on historic properties. This Court requires "the argument [petitioner] advances" before the Court "to be raised before the agency, not merely the same general legal issue." *Koretoff v. Vilsack*, 707 F.3d 394, 398 (D.C. Cir. 2013) (per curiam) (cleaned up). Put differently, "challengers to government action cannot avoid waiver with 'cryptic and obscure' objections or issues presented at a very high level of generality." *All. for the Wild Rockies v. Petrick*, 68 F.4th 475, 489 (9th Cir. 2023) (cleaned up); *see id*. at 489-90 (finding administrative exhaustion when commenter included a "vague and generalized statement" on the issue "contained within more than a hundred pages of comments").

To sum up, the Tribe was required to structure its participation so that it "alert[ed] the agency to the [party's] position and contentions" to allow the agency to give the issue "meaningful consideration." *DOT v. Pub. Citizen*, 541 U.S. 752, 764 (2004). Having failed to do so, it cannot now raise for the first time its claim that PHMSA was required to comply with Section 106 of the NHPA.

This result is reinforced by the Tribe's administrative appeal. Even after reviewing the final Rule, the Tribe did not assert in its appeal that PHMSA had violated Section 106 of the NHPA. JA540-73. Instead, the Tribe reattached its

comments on the proposed rule (with the footnote suggesting in a single sentence that PHMSA consider whether there was an NHPA undertaking). JA540, JA546. And the Tribe stated that in "promulgating the Final Rule, PHMSA also failed to engage in legally sufficient government-to-government consultation with . . . the Puyallup Tribe of Indians." JA541. The Tribe also stated that it "wants PHMSA to consider more facts with regard to its purported consultation with the Puyallup Tribe of Indians." *Id*. Given that PHMSA had only identified consultation under Executive Order 13175 and had not referenced the NHPA, the Tribe's administrative appeal failed to fairly inform PHMSA of the Tribe's position. Thus, the Tribe forfeited a *second* (and last) opportunity to bring the NHPA issue to PHMSA's attention. *See Wash. Ass'n for Television & Child. V. FCC*, 712 F.2d 677, 681 (D.C. Cir. 1983) (noting that if the petitioner believed that the agency had misconstrued its petition, "it could easily have pointed out that error in a petition for rehearing").

Despite failing to give PHMSA a fair opportunity to consider the issue, the Tribe contends before this Court that the Rule is an undertaking under Section 106 of the NHPA and that PHMSA has violated the NHPA. Tribe Br. 29-30. But PHMSA did not address whether the rulemaking was an NHPA undertaking. And the Court should not determine that issue in the first instance when it was neither adequately raised during the administrative proceedings nor addressed by PHMSA

in the record. In any event, the record shows that PHMSA made reasonable efforts to consult with the Tribe. *See below* Argument Point III.B.

2. Executive Order 13175 and DOT Order 5301.1 are not legislative rules nor are they otherwise judicially enforceable.

The Tribe tries to identify a different source for a binding obligation to consult, but none exists. Tribe Br. 34-45. The Tribe contends that PHMSA violated legally binding consultation obligations found in Executive Order 13175 and DOT Order 5301.1,[10] but both Orders establish *internal*, non-judicially enforceable procedures for the Executive Branch. Those types of internal management procedures create no private rights and are not subject to judicial review.

Both Executive Order 13175 and DOT Order 5301.1 specifically disclaim any intent to create enforceable rights against the federal government.[11]

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[10] In August 2023, DOT Order 5301.1 was updated and superseded by DOT Order 5301.1A. This brief cites to the prior order in effect during the rulemaking.

[11] E.O. 13175 § 10, 65 Fed. Reg. 67,249, 67,252 (Nov. 6, 2000) ("This order is intended only to improve the internal management of the executive branch, and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law by a party against the United States, its agencies, or any person."); DOT Order 5301.1 at 10 (Nov. 16, 1999) (This Order is intended to improve the internal management of the Department . . . and is not intended to create any right enforceable in any cause of action by any party against the U.S., its agencies, officers or any person. In addition, this Order should not be construed to create any right to judicial review involving the compliance or noncompliance with this Order.").

"Petitioners' claims are explicitly foreclosed by" this language. *California v. EPA*, 72 F.4th 308, 318 (D.C. Cir. 2023). This Court has long held that "an executive order 'devoted solely to the internal management of the executive branch—and one which does not create any private rights—is not subject to judicial review.'" *Id.* (quoting *Meyer v. Bush*, 981 F.2d 1288, 1296 n.8 (D.C. Cir. 1993)). "Such orders simply serve as presidential directives to agency officials to consider certain policies when making regulatory decisions. They do not create free-standing private rights to enforce such policies because an executive order is not 'law' within the meaning of the Constitution or the APA." *Id.* And the Court has recognized that the same principles that apply to executive orders should apply to comparable agency orders. *See Cmtys. Against Runway Expansion v. FAA*, 355 F.3d 678, 688-689 (D.C. Cir. 2004) (noting that executive order and Department of Transportation order "both expressly state that they do not create a private right to judicial review").

As in *California*, 72 F.4th at 318, the Tribe attempts to "bootstrap private enforcement of executive orders" and agency-management directives into the APA's arbitrary and capricious review. *See* Tribe Br. 34-39. The Tribe cites *Communities Against Runway Expansion*, 355 F.3d at 688-89, but the claim at issue in *Communities Against Runway Expansion* was judicially reviewable "only because it did not arise under the Executive Order, but rather under NEPA, which

imposes statutory obligations that agencies must execute consistent with the requirements of the APA." *California*, 72 F.4th at 318 (discussing *Communities Against Runway Expansion*).

Next, the Tribe argues that DOT Order 5301.1 and Executive Order 13175 are "binding norms" because they are "legislative rules, which have present binding effect." Tribe Br. 36-40. But as discussed above, DOT Order 5301.1 and Executive Order 13175 are expressly *not* legally binding and *not* judicially enforceable; they therefore are *not* legislative rules. The Tribe cites no case in which any court has interpreted or applied either Order as a legislative rule. Indeed, the Ninth Circuit has held that another agency's consultation guidelines did not establish legal standards that could be enforced against the agency. *Hoopa Valley Tribe v. Christie*, 812 F.2d 1097, 1103 (9th Cir. 1986).

The Tribe gives three reasons why DOT Order 5301.1 is a legislative rule, but none is correct. Tribe Br. 37-40. First, the Tribe highlights (Br. 37-38) imperative language in the Order, but the Order provides needed context to that language by explicitly stating that it creates no private rights and is not subject to judicial review. *See* DOT Order 5301.1 at 10.

Second, the Tribe incorrectly asserts (Br. 38-39) that DOT Order 5301.1 implements a congressional mandate in the Indian Self-Determination and Education Assistance Act, Public Law 93-638. In its background, the Order quotes

that Act's congressional policy declaration. *See* DOT Order 5301.1(4)(3) (quoting 25 U.S.C. § 5302(a)). But that Act is not focused on consultation; the Act is directed at achieving "maximum Indian participation in the direction of educational as well as other Federal services to Indian communities." *Salazar v. Ramah Navajo Chapter*, 567 U.S. 182, 185-86 (2012) (quoting 25 U.S.C. § 450a(a)).

Third, the Tribe contends that "*PHMSA has repeatedly admitted that consultation is obligatory*." Tribe Br. 39. But the cited statements merely evince PHMSA's recognition that it is subject to Executive Order 13175 and DOT Order 5301.1, not that those Orders are binding legislative rules that create judicially enforceable rights.

Nor is the Tribe correct when it claims that the Orders bind PHMSA because they protect individual rights and wards of the federal government. Tribe Br. 41-42. The Tribe misplaces reliance on *Morton v. Ruiz*, 415 U.S. 199 (1974), in which the Supreme Court observed that when "the rights of individuals are affected, it is incumbent upon agencies to follow their own procedures." *Id*. at 235. The "rights of individuals" are *not* affected by the Orders because they grant no private rights and merely govern the agency's own activities. *See Nat'l Small Shipments Traffic Conference, Inc. v. ICC*, 725 F.2d 1442, 1449 (D.C. Cir. 1984)

(distinguishing *Morton* when the nonmandatory procedure "was not designed to protect either individual rights or wards of the federal government").

B. PHMSA fulfilled any applicable obligation to consult with the Tribe.

Even if PHMSA had a legally binding and judicially enforceable obligation to consult with the Tribe, it met that obligation here. The Tribe contends only that PHMSA did not conduct an adequate and timely consultation with the Tribe. Tribe Br. 26, 30-34, 42-45. But the record shows that PHMSA made good faith efforts to give the Tribe reasonable opportunities to consult.

1. PHMSA offered the Tribe reasonable opportunities to consult.

The Tribe claims that PHMSA violated Section 106 of the NHPA by failing to adequately consult with the Tribe. Tribe Br. 30-33. The Tribe has not identified other specific requirements in the NHPA or its implementing regulations that PHMSA failed to comply with during the rulemaking. Tribe Br. 26-45. By failing to raise any of those issues in its opening brief (or during the administrative proceedings), the Tribe has forfeited those issues. *See Al-Tamimi v. Adelson*, 916 F.3d 1, 6 (D.C. Cir. 2019) ("A party forfeits an argument by failing to raise it in [its] opening brief."). As to the specific issue raised by the Tribe, the record shows that PHMSA sought to follow Executive Order 13175 and DOT Order

5301.1. In so doing, PHMSA repeatedly attempted in good faith to consult with the Tribe in a manner that also comports with the NHPA.

As this Court recently recognized, it has "little precedent concerning what standards the agencies must use to comply with their NHPA consultation obligations." *Eagle Cnty.*, 82 F.4th at 1189. The NHPA regulations define consultation as the "process of seeking, discussing, and considering the views of other participants, and where feasible, seeking agreement with them." 36 C.F.R. § 800.16(f). An agency must provide an Indian tribe with a "reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects." *Id.* § 800.2(c)(2)(ii)(A). Given the "unique legal relationship" between the federal government and Indian tribes, consultation with Indian tribes "should be conducted in a sensitive manner respectful of tribal sovereignty." *Id.* § 800.2(c)(2)(ii)(B). "Consultation with an Indian tribe must recognize the government-to-government relationship between the Federal Government and Indian tribes." *Id.* § 800.2(c)(2)(ii)(C). Thus, the federal agency official "shall consult with representatives designated or identified by the tribal government." *Id.*

The record reveals PHMSA's extensive efforts to provide the Tribe with a "reasonable opportunity" to consult, while respecting tribal sovereignty and the government-to-government relationship.

In the October 2019 notice of proposed rulemaking, PHMSA noted that it had analyzed the proposed rule under Executive Order 13175. 84 Fed. Reg. at 56,970 (JA108). PHMSA did not anticipate that the rule would have substantial direct tribal implications, so it did not expect the Executive Order's funding and consultation requirements to apply. *Id*. But PHMSA invited Indian tribal governments to comment on any effects that the proposed rule might cause. *Id*.

In December 2019, the Tribe submitted comments on the proposed rule. JA128-152. In those comments, the Tribe "demand[ed] consultation" and asserted that PHMSA had "failed to satisfy its obligation to conduct government-to-government consultation with affected Indian Tribes." JA128, JA130. The Tribe asserted that the proposed rule would create health and safety risks, degrade air quality on its Reservation, and increase traffic on and adjacent to its Reservation. JA131. It also argued that the proposed rule "neglect[ed] to mention the communities, cities, and Tribes who would be directly impacted by safety incidents." JA133. Finally, the Tribe stated that it was "disappointed that PHMSA ha[d] failed to properly exercise its public trust obligation to the community and its special government-to-government relationship with the Puyallup Tribe." JA147.

In January 2020, the Tribe asked to meet with PHMSA about multiple topics, including the proposed rule, while members of the Tribe's Council were visiting Washington, D.C. JA579, JA581. PHMSA hosted the meeting at its office. JA579.

On February 12, 2020, PHMSA representatives met with two members of the Tribe's Council, the Tribe's lawyer, and another representative of the Tribe. JA579; JA431; JA584. The meeting included PHMSA's Director of Governmental, International, and Public Affairs, who is a member of PHMSA's executive leadership team. JA431.

PHMSA prepared notes summarizing the February 12, 2020 meeting. JA431. PHMSA understood the meeting's purpose was in part to "conduct a consultation and discuss comments" on the proposed rule. *Id*. Although the meeting focused on other topics of interest to the Tribe, PHMSA also asked if the Tribe had more comments or input on the proposed rule. *Id*. The Tribe reiterated its opposition to the proposed rule, noted that it had submitted comments to PHMSA, and told PHMSA that it did not have more comments to submit. *Id*. The Tribe also requested a follow-up government-to-government consultation regarding the proposed rule. *Id*.

The next day, February 13, 2020, PHMSA emailed the Tribe's lawyers to follow-up on the meeting. JA584. PHMSA acknowledged the Tribe's opposition

to the proposed rule. *Id*. PHMSA also invited the Tribe to submit its concerns in writing and offered to provide a written response. *Id*.

Later in February 2020, PHMSA followed up by leaving a voicemail for the Tribe's lawyer. JA590-91. The Tribe's lawyer responded, stating that she had not received the February 13, 2020 email. JA591. The Tribe's lawyer stated that the Tribe "may have more information" and was "still seeking meaningful consultation, with the decision maker." JA591-92. The Tribe assured PHMSA that it would "follow up." JA592.

What followed was a series of attempts by PHMSA to consult with the Tribe. On February 26, 2020, the same day that the Tribe's lawyer indicated the Tribe was seeking meaningful consultation, PHMSA offered times for a meeting on February 28, 2020 between the Tribe and PHMSA's Chief Counsel regarding the proposed rule. JA591. The next day, PHMSA emailed and called the Tribe again, seeking to confirm the February 28, 2020 consultation. JA590. Then the Tribe asked to reschedule and emphasized that it wanted a "leadership level discussion." JA589-90. On February 28, 2020, PHMSA responded with alternative meeting dates in March 2020 that its Chief Counsel was available for a consultation. JA588. PHMSA explained that its Chief Counsel was a member of PHMSA's senior leadership team. JA588. PHMSA received no response to its February 28, 2020 email.

On March 26, 2020, PHMSA reached out again to offer the Tribe an opportunity to meet with PHMSA's Chief Counsel to "continue your consultation that occurred in early February." JA594. Given the nascent pandemic, PHMSA offered to consult by phone. *Id*.

The Tribe's lawyer replied, "I had this on my list of items to revisit." *Id*. The Tribe's lawyer stated that she would "look into setting up a call or zoom meeting" but that it was difficult to do so with "most of our people working at home" and staff responding to the pandemic. *Id*. The Tribe's lawyer reiterated that "consultation needs a leadership level discussion." *Id*.

PHMSA responded that, since the February 12, 2020 meeting, the agency had "offered to set up a follow up meeting and have checked in with you multiple times over the last month offering meetings with our Chief Counsel, who is part of the PHMSA Executive Leadership Team." JA593-94. PHMSA repeated its offer to make its Chief Counsel available for a meeting and indicated flexibility on the timing. JA593. PHMSA concluded by noting that it "looked forward to scheduling a follow-up meeting at your earliest convenience." JA594. The Tribe requested times on three specific days for a meeting with staff (but not leadership), while reiterating that "consultation needs a leadership level discussion." JA593. PHMSA offered four blocks of time on two of those days when its Chief Counsel

was available. JA593. The Tribe did not respond, and there were no further communications. The Tribe never met with PHMSA's Chief Counsel.

In the Rule's preamble, PHMSA recounted its consultation efforts. 85 Fed. Reg. at 45,022-23. PHMSA concluded that the Rule and the final environmental assessment had addressed the Tribe's concerns as reflected in the February 2020 in-person meeting and the Tribe's written comments. *Id*. at 45,022, 45,025. Since the February 2020 meeting with the Tribe, PHMSA had extended multiple invitations for follow-up meetings with PHMSA leadership. *Id*. at 45,025. But the Tribe had not accepted PHMSA's invitations. *Id*.

To sum up, PHMSA offered the Tribe multiple opportunities to consult at a leadership level. *See* 36 C.F.R. § 800.2(c)(2)(ii)(A). PHMSA (1) respected the Tribe's sovereignty, (2) recognized the government-to-government relationship between the Tribe and PHMSA, (3) invited the Tribe to submit relevant materials, and (4) considered the Tribe's concerns. *See id*. § 800.2(c)(2)(ii)(B), (C). These efforts are sufficient to satisfy any obligation to consult.

2. The Tribe failed to take advantage of the ample consultation opportunities that PHMSA offered.

The Tribe contends that PHMSA's efforts are inadequate, but the record shows that the Tribe did not take advantage of the opportunities that PHMSA offered. Tribe Br. 30-34.

PHMSA invited the Tribe's Tribal Council to meet with the PHMSA's Chief Counsel for a leadership-level consultation—precisely what the Tribe insisted was necessary to constitute an adequate consultation. The Tribe claims that the *fourth* such offer came too late (Br. 32), but PHMSA extended the *first* such offer on the same day that the Tribe insisted that it needed a leadership level meeting. JA591-92. Despite PHMSA offering a leadership meeting five times in total, the Tribe never accepted any of those offers. And the Tribe did not respond to several of the agency's invitations, including the last one.

This is not PHMSA's fault. An agency "cannot drag all stakeholders to the proverbial consulting table—it can only set the table and send the invitations." *City of N. Miami v. FAA*, 47 F.4th 1257, 1275 (11th Cir. 2022) (discussing consultation under the Department of Transportation Act); *see also Concerned Citizens & Retired Miners Coal. v. U.S. Forest Serv.*, 279 F. Supp. 3d 898, 942 (D. Ariz. 2017) (observing that consultation is a "two-way street").

The Tribe also criticizes PHMSA for extending the fourth invitation "while it knew the Tribe's main contact was unavailable for medical reasons and while PHMSA was already 'working to finalize the final rule.'" Tribe Br. 45 (quoting JA1039). One of the Tribe's attorneys was on medical leave at the end of February into March 2020, and PHMSA expressed best wishes for the attorney's recovery. JA597. During this period, PHMSA continued to communicate with the Tribe's

other representatives in a reasonable effort to schedule a leadership-level consultation. JA593-98; JA588 (email to five other individuals with email addresses associated with the Tribe and the Tribe's outside counsel). And PHMSA's statement that it was "working to finalize the final rule" notified the Tribe that any further consultation had to take place sooner rather than later. JA1039. And, in any event, PHMSA had extended three invitations *before* this contact was on medical leave. PHMSA took reasonable steps to communicate.

The Tribe relies on two decisions from other circuits to assert that PHMSA's consultation efforts are insufficient, but those cases involve starkly different facts and legal issues. *See* Tribe Br. 30-33, 44-45. For example, in *Pueblo of Sandia v. United States*, 50 F.3d 856 (10th Cir. 1995), the Ninth Circuit found a lack of good faith consultation efforts when the agency "withheld relevant information" during the consultation process, *id*. at 862-63; the Tribe makes no such allegation here. Likewise, in *Oglala Sioux Tribe of Indians v. Andrus*, 603 F.2d 707 (8th Cir. 1979), the court found consultation was insufficient when an agency official "acknowledged at trial" that the challenged decision "had already been made prior to" the first meeting between tribal members and agency officials, *id*. at 710. Here, the record shows the opposite—that PHMSA's consultation efforts happened *before* it issued the Rule.

Seeking to bolster its consultation claim, the Tribe asks the Court to supplement the record for its petition challenging the Rule with a declaration (the Anderson Declaration) that its lawyer prepared in October 2020—four months *after* PHMSA issued the Rule. Tribe Br. 20-25. PHMSA included a similar declaration from September 2020 in the record for its denial of the Tribe's administrative appeal. *See* Revised Certified Index, ECF No. 2012635, Case No. 20-1009 (Aug. 15, 2023). But the Tribe has failed to meet the demanding standard for supplementing the record in its challenge to the Rule.

Judicial review of the Rule must be based on the "administrative record already in existence"—not on a "new record" first created in this Court. *Camp v. Pitts*, 411 U.S. 138, 142 (1973) (per curiam). This Court disfavors the creation of litigation affidavits to challenge an agency decision. *See, e.g.*, *Cone v. Caldera*, 223 F.3d 789, 795 (D.C. Cir. 2000). And the Court does "not allow parties to supplement the record unless they can demonstrate unusual circumstances justifying a departure from this general rule." *Am. Wildlands v. Kempthorne*, 530 F.3d 991, 1002 (D.C. Cir. 2008) (cleaned up). The Tribe has not shown any unusual circumstances. *See* Tribe Br. 23-25. And the Tribe misplaces reliance on *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1999), which has been given a "limited interpretation" and at most "may be invoked to challenge gross procedural deficiencies." *Hill Dermaceuticals, Inc. v. FDA*, 709 F.3d 44, 47 (D.C. Cir. 2013).

The Tribe has failed to identify any gross procedural deficiencies (and there were none).

In all events, the Anderson Declaration does not undermine PHMSA's compliance with any consultation obligation. The Declaration merely confirms the Tribe was dissatisfied with its February 12, 2020 meeting with PHMSA. But even PHMSA's notes from that meeting—on which the Tribe seeks to cast doubt with the Anderson Declaration—note that the Tribe "requested a follow up government-to-government consultation with PHMSA regarding the LNG by Rail rulemaking." JA431. Though PHMSA disputes the Declaration's characterization of the meeting, the record shows that PHMSA understood the Tribe's interest in more consultation. Thus, PHMSA offered the Tribe more opportunities to consult, including with PHMSA's leadership, but the Tribe did not take advantage of those opportunities.

In sum, PHMSA reasonably consulted with the Tribe on the Rule.

CONCLUSION

For these reasons, the Court should deny the petitions.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

1. This document complies with the type-volume limit of the Court's order of September 18, 2023 because, excluding the parts of the document exempted by Federal Rule of Appellate Procedure 32(f) this document contains 22,019 words.

2. This document complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type-style requirements of Federal Rule of Appellate Procedure 32(a)(6) because this document has been prepared in a proportionally spaced typeface using Microsoft Word 2016 in 14-point Times New Roman font.

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