

Pipeline Transportation of Natural Gas and Crude Oil: Federal and State Regulatory Authority

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Summary

New technologies such as hydraulic fracturing and directional drilling have dramatically increased U.S. production of natural gas and crude oil from shales and other unconventional formations. As a result, companies have invested in new pipeline infrastructure to transport these resources from producing regions to domestic and foreign consuming markets. Siting, construction, operation, and maintenance of this infrastructure may raise environmental, health, and safety concerns, particularly when oil or gas moves by pipeline through heavily populated areas. Such concerns may prompt congressional interest in the relationship between federal and state authority over the siting and safety of pipeline infrastructure.

Under the Natural Gas Act (NGA), siting of interstate natural gas pipelines and related facilities requires specific approval from the Federal Energy Regulatory Commission (FERC). When the pipeline company receives a certificate of public convenience and necessity from FERC, state or local laws that conflict with FERC's exercise of its jurisdiction under federal law or would pose an obstacle to construction of the pipeline (e.g., local zoning laws) are preempted unless FERC requires the company to comply with them as a condition of granting the certificate. The NGA specifically preserves state authority over pipeline projects under the federal Clean Air Act (CAA), Clean Water Act (CWA), and Coastal Zone Management Act (CZMA). However, state authority under these laws remains subject to federal administrative and judicial oversight and review. Federal law also provides several avenues for a state to provide input into FERC's siting and environmental reviews of a proposed interstate natural gas pipeline.

In contrast to siting review of proposed interstate natural gas pipelines, interstate crude oil pipelines undergo a state-by-state siting approval process. No federal law broadly preempts state and local siting requirements for these pipelines. Construction or operation of any oil or gas pipeline, whether interstate or intrastate, may require additional federal or state authorizations or consultations, depending on the proposed route of the pipeline and its potential to discharge pollutants or affect natural, cultural, or historical resources. States retain broad authority to regulate to control pollution, as well as to protect and conserve natural, cultural, and historical resources. States play a significantly reduced role, however, with respect to applications for pipeline rights-of-way over federal lands or permission to cross an international border, which implicate powers of the federal government over federal lands, foreign trade, and/or foreign affairs.

Although pipelines represent a relatively safe form of transporting oil and gas as compared to other modes of transportation, the presence of new pipelines in populated areas, including gathering lines, has increased interest in federal and state oversight of pipeline safety. The Pipeline Safety and Hazardous Materials Administration (PHMSA) within the Department of Transportation (DOT) has broad authority to promulgate minimum federal safety standards for pipeline facilities and transportation. States may also become authorized to administer and enforce PHMSA's baseline safety standards for intrastate pipeline facilities and transportation; adopt and enforce stricter state standards for intrastate facilities compatible with DOT standards; and inspect interstate facilities for compliance with DOT regulations. Federal pipeline safety provisions specifically preempt state "safety standards" for interstate oil or gas pipelines. Generally, federal courts have held that federal pipeline safety laws do not preempt a state or local siting law that only incidentally affects safety. However, the NGA could potentially preempt a state's or locality's application of such a law to an interstate natural gas pipeline facility.

Contents

Pipeline Siting, Construction, and Operation	2
Siting of Interstate Natural Gas Pipelines	2
Preemption of State and Local Siting Authority	
Preservation of State Authority Under Certain Federal Laws	4
FERC's Coordination of NEPA Reviews and Other Agency Approvals	5
Eminent Domain Power	
Siting of Natural Gas Gathering Lines	6
Siting of Crude Oil Pipelines	
Additional Federal Authorizations and Review	9
Pipelines Crossing International Borders	9
Pipelines Crossing Federal Lands	
Pipeline Projects with the Potential to Affect Surface Waters	
Pipeline Projects Involving Emissions of Regulated Air Pollutants	16
Pipeline Projects Affecting Historical, Natural, or Cultural Resources	18
Pipeline Projects Affecting a State's Coastal Zone Pipeline Safety	
Gathering Lines and Offshore Pipelines	
Preemption of State Laws Relating to Pipeline Safety	23
Statutory Provisions and Regulations	24
Judicial Interpretations	24
Contacts	
Author Contact Information	25

Production of natural gas and crude oil from shales and other unconventional formations in the United States has expanded significantly due to new technologies such as hydraulic fracturing and horizontal drilling.¹ This boom in production has increased investment in new pipeline infrastructure to gather and transport these resources from producing regions to domestic and foreign consumers.² Pipelines represent a relatively safe means of transporting oil and gas as compared to other modes of transportation, but have the potential to cause harm to public health and the environment because of the hazardous materials they carry and the proximity of some pipelines to highly populated areas.³

Construction of new pipelines and related facilities may prompt congressional interest in the relationship between federal and state authority over siting and safety of pipeline infrastructure. States and localities arguably have an interest in oversight and regulation of pipeline projects within their borders. Such projects could potentially have environmental and safety impacts that could affect their residents. However, the federal government has in the past sought national uniformity in regulation of some aspects of pipeline transportation to provide consumers throughout the United States with access to an adequate supply of oil or gas resources at reasonable prices and to ensure safety and reliability of pipeline infrastructure.

This report discusses the relationship between federal and state authority over siting and safety of crude oil and natural gas transmission and gathering pipelines and related facilities.⁵ The report does not examine authority over other modes of transportation such as rail, truck, or vessel transport.⁶ Nor does it examine in detail oil spill response or liability laws;⁷ underground storage of natural gas; or the relationship between federal and tribal authority over pipelines that cross Indian lands.⁸

¹ U.S. Energy Information Administration (EIA), *Annual Energy Outlook 2014*, http://www.eia.gov/oiaf/aeo/tablebrowser/. For more information, see CRS Report R43148, *An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions*, by (name redacted) and (name redacted)

² See, e.g., Christine Buurma & Kelly Gilblom, *Glut of Gas Heading South as Shale Boom Finally Reaches Florida*, Bloomberg (July 22, 2015), http://www.bloomberg.com/news/articles/2015-07-21/shale-gas-heads-to-florida-as-pipelines-seek-to-even-prices.

³ For background on, and analysis of, the Department of Transportation's (DOT's) pipeline safety program, see CRS Report R44201, *DOT's Federal Pipeline Safety Program: Background and Key Issues for Congress*, by (name re dacted) .

⁴ See, e.g., Algonquin LNG v. Loqa, 79 F. Supp. 2d 49, 52 (D.R.I. 2000).

⁵ Broadly speaking, pipelines fall into three categories: (1) gathering pipelines that collect the oil or gas from wells or other sources and bring it to a processing facility or transmission line; (2) transmission pipelines that transport the commodity long distances to large users (including refineries for crude oil) or to distribution lines (for natural gas only); and (3) distribution lines that deliver natural gas to consumers. Pipeline Hazardous Materials Safety Administration (PHMSA), General Pipeline Frequently Asked Questions, http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=a62924cc45ea4110VgnVCM1000009ed07898RCRD&vgnextchannel=f7280665b91ac010VgnVCM1000008049a8c0RCRD&vgnextfmt=print#QA_5.

⁶ For more on transport of crude oil by rail, see CRS Report R43390, *U.S. Rail Transportation of Crude Oil: Background and Issues for Congress*, by (name redacted) et Fibr more on crude oil vessel safety issues and flag requirements, see CRS Report R43653, *Shipping U.S. Crude Oil by Water: Vessel Flag Requirements and Safety Issues*, by (name redacted)

 $^{^{7}}$ For more on oil spill response and liability, see CRS Report RL33705, *Oil Spills: Background and Governance*, by (name redacted)

⁸ For example, a pipeline project might have to obtain a right-of-way (ROW) over lands that the United States holds in trust for an Indian tribe or that individual Indians own with restrictions on alienation imposed under federal law. *See* Department of the Interior (DOI), Bureau of Indian Affairs (BIA), Final Rule, Rights-of-Way on Indian Land, 80 *Federal Register* 72492 (November 19, 2015) (to be codified at 25 C.F.R. Part 169). Various federal statutory provisions authorize DOI to grant or approve ROW over Indian lands. *E.g.*, 25 U.S.C. §§321, 323-328, 2218.

Pipeline Siting, Construction, and Operation

Authorization for "siting" of a pipeline facility generally involves approval of the route and location of the pipeline and related facilities (e.g., compressor stations that push natural gas through pipelines). Notably, siting of interstate natural gas transmission pipelines involves a centralized federal approval process overseen by the Federal Energy Regulatory Commission (FERC), while siting of interstate crude oil transmission pipelines typically involves a state-by-state approval process. Commentators that have studied regulatory treatment of natural gas and crude oil pipelines have pointed to various reasons for these differences, including the fact that most natural gas is transported over land by pipeline because of the prohibitive cost of converting it into liquefied natural gas (LNG) in large volumes for transport by other modes; the political and economic background of the regulatory regime for each resource; and "varying concerns over monopoly power," among other things. 10

This section also addresses federal and state laws that contain additional requirements for construction or operation of an oil or gas pipeline.¹¹

Siting of Interstate Natural Gas Pipelines

Siting, construction, and operation of interstate natural gas pipelines require specific approval from the federal government. Section 7(c) of the Natural Gas Act of 1938 (NGA) provides that a person seeking to construct, extend, acquire, or operate a facility for the transportation or wholesale sale of natural gas in interstate commerce must obtain from FERC a certificate of public convenience and necessity authorizing these actions. Generally, under the NGA, FERC may issue such certificates only after notice, a hearing, and a determination that (1) the applicant is willing and able to provide the service; (2) the applicant will comply with the NGA and FERC rules promulgated thereunder; and (3) the action will be "required by the present or future public convenience and necessity. Although an entity seeking to build an *inter*state natural gas pipeline must seek FERC's approval, the agency's siting jurisdiction under the NGA does not extend to *intra*state pipelines (i.e., pipelines not engaged in interstate commerce) or pipeline

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⁹ Compare "Siting of Interstate Natural Gas Pipelines" with "Siting of Crude Oil Pipelines" below. As discussed below, construction and operation of cross-border oil or gas pipeline facilities requires a presidential permit. See "Pipelines Crossing International Borders" below.

¹⁰ Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 Iowa L. Rev. 947, 950 (2015), http://ilr.law.uiowa.edu/files/ilr.law.uiowa.edu/files/ILR_100-3_Klass.pdf.

¹¹ In particular, see "Additional Federal Authorizations and Review" below.

¹² 15 U.S.C. §717f(c).

¹³ 15 U.S.C. §717f(c)-(d). Section 7 of the NGA refers to the now-defunct Federal Power Commission. Congress transferred this agency's authority to grant certificates of public convenience and necessity to FERC in the Department of Energy Organization Act of 1977. 42 U.S.C. §7172(a)(1)(D). FERC's regulations on applications for certificates are located at 18 C.F.R. Part 157. FERC regulations governing applications for blanket certificates are located at 18 C.F.R. Part 157, Subpart F. A "blanket certificate" is an authorization from FERC to conduct certain limited activities with respect to a natural gas facility without further approval from the agency. *See* 18 C.F.R. §157.203.

¹⁴ 15 U.S.C. §717f(c)(1)(B), (e). FERC has issued a policy statement explaining how it evaluates applications for certificating new construction. FERC, Statement of Policy, Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227 (September 15, 1999), http://www.ferc.gov/legal/maj-ord-reg/pl99-3-000.pdf; see also Order Clarifying Statement of Policy, 90 FERC ¶ 61,128 (February 9, 2000), https://www.ferc.gov/legal/maj-ord-reg/PL99-3-001.pdf; Order Further Clarifying Statement of Policy, 92 FERC ¶ 61,094 (July 28, 2000), https://www.ferc.gov/legal/maj-ord-reg/PL99-3-002.pdf.

¹⁵ Some pipelines that receive gas from an interstate pipeline within a state (or at a state boundary) for consumption (continued...)

facilities used for the production, gathering, or local distribution of natural gas. ¹⁶ However, as discussed below, states may have specific siting requirements for some pipelines not within FERC's jurisdiction. ¹⁷

Preemption of State and Local Siting Authority

The Supreme Court has held that Congress's enactment of the NGA demonstrated legislative intent to "occupy the field" with respect to transportation and wholesale sale of natural gas in interstate commerce to the exclusion of state and local regulation. This holding suggests that, as an initial matter, an entity holding a certificate of public convenience and necessity from FERC is not subject to state or local laws (e.g., zoning laws) that have more than an incidental effect on construction of the certificated facilities for transportation of natural gas in interstate commerce. However, the NGA allows FERC to require a certificate holder to comply with state or local laws as a condition of exercising rights under the certificate. In the past, FERC has apparently taken the view that state or local laws that affect siting of an interstate natural gas pipeline facility might not be preempted unless they conflict with FERC's exercise of its jurisdiction under federal law or would pose an obstacle to the facility's construction. As discussed further below, the NGA also contains a savings clause preserving states' "rights" under three federal laws: the Coastal Zone Management Act (CZMA), Clean Air Act (CAA), and Clean Water Act (CWA).

Federal laws and regulations also provide several avenues for a state to provide input into FERC's siting review of an interstate natural gas pipeline.²³ For example, a state agency may provide input to FERC as an intervenor (i.e., an official party to the proceedings)²⁴ during the certificate

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within that state may qualify for an exemption from FERC jurisdiction if regulated by a state commission. See 15 U.S.C. §717(c).

¹⁶ 15 U.S.C. §§717(b), 717f(c).

¹⁷ As an example, see "Siting of Natural Gas Gathering Lines" below.

¹⁸ Schneidewind v. ANR Pipeline Co., 485 U.S. 293, 310 (1988) ("When a state regulation 'affects the ability of FERC to regulate comprehensively ... the transportation and sale of natural gas, and to achieve the uniformity of regulation which was an objective of the [NGA]' or presents the 'prospect of interference with the federal regulatory power,' then the state law may be pre-empted even though 'collision between the state and federal regulation may not be an inevitable consequence.' ... We therefore conclude that [the state law at issue] impinges on a field that the federal regulatory scheme has occupied.") (citation omitted); Northern Natural Gas Co. v. Iowa Utils. Board, 377 F.3d 817, 824 (8th Cir. 2004) ("The preemptive effect of the NGA, as defined in *Schneidewind*, does not depend on whether the FERC intends to preempt state authority. Congress occupied the field of interstate natural gas rates and facilities by delegating broad power to the FERC to regulate that field.").

¹⁹ Schneidewind v. ANR Pipeline Co., 485 U.S. 293, 308 (1988). The NGA preempts such laws.

²⁰ 15 U.S.C. §717f(e) ("The Commission shall have the power to attach to the issuance of the certificate and to the exercise of the rights granted thereunder such reasonable terms and conditions as the public convenience and necessity may require."); NE Hub Partners, L.P. v. CNG Transmission Corp., 239 F.3d 333, 339, 346 n.13 (3d Cir. 2001).

²¹ Order Issuing Certificate, Texas Eastern Transmission, LP, 153 FERC ¶ 61,311 (December 17, 2015) ("The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction of facilities approved by this Commission."); Order on Rehearing, Iroquois Gas Transmission System, LP, 59 FERC ¶ 61,094 ("[T]he Natural Gas Act (NGA) preempts state and local law to the extent the enforcement of such laws or regulations would conflict with the Commission's exercise of its jurisdiction under the federal statute.").

²² See "Preservation of State Authority Under Certain Federal Laws" below.

²³ FERC regulations also include procedures for a voluntary pre-filing process that a pipeline project may undertake with FERC approval. Such procedures are intended to facilitate involvement of the public and relevant federal, state, and local government agencies at an early stage of the proceedings. 18 C.F.R. §157.21(b).

²⁴ Intervenors have the right to participate in the proceedings, request rehearing of FERC orders, and seek judicial (continued...)

application proceedings, or during an environmental review FERC conducts under the National Environmental Policy Act (NEPA) in connection with the certificate proceedings. ²⁵ States that participated in the certificate proceeding may seek rehearing within 30 days after FERC issues an order granting a certificate. ²⁶ Following a rehearing, a state could seek judicial review of FERC's order in the appropriate federal court of appeals. ²⁷ The NGA, as amended by the Energy Policy Act of 2005 (EPAct), also contains procedures for judicial review of actions and omissions by FERC and other federal and state agencies under federal law pertaining to grant of a certificate. ²⁸

Preservation of State Authority Under Certain Federal Laws

As noted above, the NGA specifically provides that it does not preempt state "rights" under three federal laws under which the federal government may delegate authority to the states or encourage federal/state cooperation: the CZMA, the CAA, and the CWA.²⁹ This provision may preserve state regulatory authority when, for example, a state law affecting construction or operation of a pipeline project has been incorporated by reference into a federally approved state implementation plan (SIP) under the CAA or when a state regulates a pipeline's construction consistent with a federally approved coastal management plan.³⁰

However, the NGA provides an additional check on state authority under these laws by vesting federal courts of appeals with original and exclusive jurisdiction over civil suits seeking judicial review of federal or state actions or omissions concerning issuance, denial, or conditioning of a permit or other approval under federal law when it would interfere with construction of a FERC-

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review of final FERC actions in U.S. Circuit Courts of Appeal. See 15 U.S.C. §717r(a)-(b).

If FERC anticipates that granting the certificate will affect significantly the quality of the human environment, the agency must document its consideration of those effects, and possible alternatives that could reduce those effects, in an environmental impact statement (EIS). 42 U.S.C. §4332. If the degree of impacts is uncertain, FERC may prepare an environmental assessment (EA) to determine whether a finding of no significant impact (FONSI) could be made or whether an EIS is necessary. 40 C.F.R. §1508.9. There are certain categories of action that do not individually or cumulatively have a significant effect on the human environment and, thus, do not require the preparation of an EIS or EA. 40 C.F.R. §1508.4. For more information on the policy aspects of NEPA, see CRS Report RL33152, *The National Environmental Policy Act (NEPA): Background and Implementation*, by (name redacted)

FERC's review of a certificate application also takes into account environmental and land use issues. *E.g.*, 18 C.F.R. §§157.206(b), 380.12

²⁵ See 18 C.F.R. §§157.10(a) (procedures for protests and interventions), 380.10(a) (interventions in NEPA proceedings), 385.214 (state agency participation in FERC proceedings). NEPA requires federal agencies to consider the potential environmental consequences of proposed federal actions and to involve the public in the federal decision-making process, but does not compel agencies to choose a particular course of action. See 42 U.S.C. §4332. Because issuing a certificate of public convenience and necessity is a "federal action," FERC must follow NEPA prior to issuance. See 40 C.F.R. §1508.18(a), (b)(4).

²⁶ 15 U.S.C. §717r(a).

²⁷ 15 U.S.C. §717r(b).

²⁸ 15 U.S.C. §717r.

²⁹ 15 U.S.C. §717b(d) ("Except as specifically provided in [the NGA], nothing in [the NGA] affects the rights of states under [the CZMA, CAA, or CWA].").

³⁰ One federal court held that this provision preserves state laws incorporated by reference into a state's Environmental Protection Agency-approved SIP under the CAA. Dominion Transmission, Inc. v. Summers, 723 F.3d 238, 244 (D.C. Cir. 2013) ("Incorporation by reference makes [a Maryland state law] part of Maryland's SIP. The provision is therefore saved from preemption by the NGA."). It may also protect from preemption state regulation of a pipeline's construction that is consistent with the state's federally approved coastal management plan. *See* AES Sparrows Point LNG, LLC v. Smith, 527 F.3d 120, 127 (4th Cir. 2008).

certificated facility (e.g., CAA pre-construction permits or CWA water quality certifications). This provision for judicial review does not apply with respect to the CZMA, which contains its own administrative review process administered by the Secretary of Commerce. If the court determines the actions or omissions are inconsistent with federal law governing issuance of the permit and would prevent construction of an interstate pipeline, it must remand the proceeding to the relevant federal or state agency for further action consistent with its order, to be undertaken prior to a court-imposed deadline. It is important to note that the CAA and CWA authorize the Environmental Protection Agency (EPA) to exercise continuing oversight over a state's administration and enforcement of federal environmental law permitting programs relevant to pipeline siting.

FERC's Coordination of NEPA Reviews and Other Agency Approvals

Section 313(b) of EPAct designated FERC as the lead agency for coordinating NEPA reviews and required federal approvals for interstate natural gas pipeline certificate applications.³⁵ Such federal approvals include those issued by a state under delegated federal authority (e.g., state issuance of permits under a federal environmental law like the CWA).³⁶ EPAct also directed FERC to establish a schedule for completion of federal authorizations needed for the agency to grant a pipeline certificate, consistent with time periods established in other federal laws.³⁷ Pursuant to this authority, FERC promulgated a rule requiring that, in general, federal and state agencies determine whether to issue a permit or other approval needed under federal law within 90 days of FERC issuing its final "environmental document."³⁸ The NGA, as amended, provides

³¹ 15 U.S.C. §717r(d).

³² 16 U.S.C. §1456(c)(3)(A) (authorizing the Secretary of Commerce to override a state's objection to a permit issued by a federal agency that would affect "any land or water use or natural resource of the coastal zone" of the state for national security and other reasons). It appears that the Commerce Secretary's decision is subject to review in federal court under the Administrative Procedure Act. *See* Millennium Pipeline Co., L.P. v. Gutierrez, 424 F. Supp. 2d 168, 174 (D.D.C. 2006).

³³ 15 U.S.C. §717r(d)(3). For more on the NGA's judicial review provision generally, see Palm Beach County Envtl. Coalition v. Florida, 651 F. Supp. 2d 1328, 1342-46 (S.D. Fla. 2009) (discussing and interpreting the NGA judicial review provision); Islander East Pipeline Co., LLC v. Conn. Dep't of Envtl. Prot., 467 F.3d 295, 299 (2d Cir. 2006) (determining that a state agency's denial of a water quality certification in connection with a pipeline project was arbitrary and capricious and remanding to the agency for further proceedings).

³⁴ See, e.g., 33 U.S.C. §1342(c)(3), (d)(2) (authorizing the EPA to withdraw approval of a state National Pollutant Discharge Elimination System (NPDES) permit program or prevent issuance by a state of an NPDES permit under that program); *id.* §1344(b)-(c) (authorizing the EPA to veto, after a consultation with the Army Corps of Engineers, a disposal site for dredged or fill material (or restrict its use) in certain circumstances); 42 U.S.C. §7413(a)(5) (authorizing the EPA to issue an order prohibiting construction or modification of a major stationary source of air pollution in circumstances in which a state "is not acting in compliance with any requirement or prohibition of the chapter relating to the construction of new sources or the modification of existing sources"); 42 U.S.C. §7661d(b)-(c) (authorizing the EPA to exercise an effective veto over state-issued Title V operating permits).

³⁵ 15 U.S.C. §717n(b). In 2002, FERC and several federal executive departments and agencies entered into a memorandum of understanding (MOU) in which the agencies agreed on a framework for cooperation in conducting NEPA reviews and reviewing applications for federal authorizations related to a Section 7(c) certificate application. Interagency Agreement on Early Coordination of Required Environmental and Historic Preservation Reviews Conducted in Conjunction with the Issuance of Authorizations to Construct and Operate Interstate Natural Gas Pipelines Certificated by the Federal Energy Regulatory Commission, https://www.ferc.gov/industries/gas/enviro/gas_interagency_mou.pdf.

³⁶ 15 U.S.C. §717n(b).

³⁷ 15 U.S.C. §717n(c).

³⁸ 18 C.F.R. §157.22. Although FERC has established a deadline for other agencies to decide on requests for federal authorizations for interstate natural gas pipeline projects, no federal law establishes a deadline for FERC itself to act on (continued...)

judicial remedies for an applicant in a federal court of appeals if a federal or state agency does not meet a time frame set by the Commission.³⁹ Critics have argued that this remedy is ineffective to prevent agencies from exceeding the 90-day deadline. 40

Eminent Domain Power

Section 7(h) of the NGA delegates the federal power of eminent domain to a holder of a certificate of public convenience and necessity. ⁴¹ The holder may exercise this power, consistent with the terms of the certificate, in federal or state court to acquire a private right-of-way (ROW), land, or other property interest needed to build, operate, or maintain an interstate pipeline or related facility if it cannot obtain the necessary interests by contract or negotiation with a property owner.42

Siting of Natural Gas Gathering Lines

Generally, "gathering lines" are pipelines that transport oil or gas from a production well to a processing facility or transmission pipeline. 43 The Pipeline and Hazardous Materials Safety Administration (PHMSA) within the Department of Transportation (DOT) has noted that some shale gas gathering lines "are generally of much larger diameter and operating at higher pressure than traditional rural gas gathering lines, increasing the concern for safety of the environment and people near operations."44

As discussed above, FERC's siting jurisdiction under the NGA does not extend to facilities or pipelines used for the gathering of natural gas. 45 However, the NGA does not define "gathering" line." FERC has developed a test to determine when a pipeline is a nonjurisdictional gathering line. 46 A 2010 FERC order illustrates how the agency may evaluate whether natural gas pipelines

certificate applications or conclude rehearings of decisions on certificate applications. Concerns with delays of energy infrastructure projects have led some Members of Congress to introduce legislation in the 114th Congress that would impose a firm deadline on FERC to complete its review of these applications. E.g., Natural Gas Pipeline Permitting Reform Act, H.R. 161; Oil and Gas Production and Distribution Reform Act of 2015, S. 1210. For more on this issue, see CRS Report R43138, Interstate Natural Gas Pipelines: Process and Timing of FERC Permit Application Review, by (name redacted) .

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³⁹ 15 U.S.C. §717r(d)(2).

⁴⁰ See, e.g., H.R. 161, Natural Gas Pipeline Permitting Reform Act §2 (amending the NGA to provide for "deemed approval" of permits when the agency fails to meet the applicable deadline).

^{41 15} U.S.C. §717f(h).

⁴² Id. Federal district courts have jurisdiction only in condemnation proceedings in which the property owner claims more than \$3,000. Id.

⁴³ The NGA does not define "gathering lines." PHMSA has defined them on its website as pipelines that "transport gases and liquids from the commodity's source—like rock formations located far below the drilling site—to a processing facility, refinery or a transmission line." Gathering Pipelines: Frequently Asked Questions, http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid= 4351fd1a874c6310VgnVCM1000001ecb7898RCRD&vgnextchannel= $f7280665b91ac010VgnVCM1000008049a8c0RCRD\&vgnextfmt=print\#QA_0.$

⁴⁴ *Id*.

⁴⁵ 15 U.S.C. §§717(b), 717f(c).

⁴⁶ The NGA does not further define what constitutes a nonjurisdictional gathering facility, but the Supreme Court has held that "gathering" under the NGA is a narrow term "confined to the physical acts of drawing the gas from the earth and preparing it for the first stages of distribution." Northern Nat. Gas Co. v. Kansas State Corp. Comm'n, 372 U.S. 84, 90 (1963). To determine whether it has jurisdiction over a facility, FERC typically considers several factors that vary (continued...)

are "gathering lines" exempt from its jurisdiction under the NGA. ⁴⁷ In *Laser Marcellus Gathering Co.*, FERC determined that it lacked jurisdiction over a pipeline and other facilities that would gather gas from fracked Marcellus Shale wells and transport it to an interstate pipeline for delivery to consumers, despite the possibility that the pipeline would operate at a high pressure and the fact that it would extend across two states. ⁴⁸ Thus, the entity seeking to build the pipeline did not have to obtain a certificate from FERC for that project, but would presumably have been subject to any state siting requirements not preempted by federal law.

State siting approval requirements vary significantly. ⁴⁹ As discussed below, additional authorizations and consultations for construction and operation of such pipelines may be required from federal or state agencies under generally applicable federal and state laws, including those pertaining to land management, protection of the environment, and conservation of historical, natural, or cultural resources. ⁵⁰

Siting of Crude Oil Pipelines

In contrast to siting review of proposed interstate natural gas pipelines under the NGA, no federal law establishes a specific approval process for the siting of pipelines that would transport crude oil within the borders of the United States. ⁵¹ However, state or local laws may establish requirements for siting a pipeline, provided such requirements are not preempted by federal law (e.g., federal pipeline safety laws). ⁵² For example, in some states, a company might have to seek approval of the pipeline route—or, at least, authorization for the use of eminent domain to obtain

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depending on the nature and location of the facility. The factors that FERC considers when determining whether a facility is subject to its jurisdiction may include "(1) the length and diameter of the pipelines; (2) the extension of facilities beyond the central point in the field; (3) the facilities' geographic configuration; (4) the location of compressors and processing plants; (5) the location of wells along all or part of the facilities; and (6) the operating pressures of the pipelines." Laser Marcellus Gathering Co., LLC, 130 FERC ¶ 61,162 (2010) (citations omitted). For offshore facilities, FERC may also consider: "nonphysical criteria such as the purpose, location and operation of the facility[;] the general business activity of the owner of the facility[;] and whether the jurisdictional determination is consistent with the objectives of the NGA and the [Natural Gas Policy Act of 1978]." Amerada Hess Corp., 52 FERC ¶ 61,268 (1990). It is important to note, however, that courts have in the past required FERC to modify the way in which it considers these factors and to consider other factors not listed above. *See*, *e.g.*, Williams Gas Processing-Gulf Coast Co., L.P. v. FERC, 475 F.3d 319, 323-25 (D.C. Cir. 2006) (discussing FERC's attempts to revise the "primary function test" in response to a series of court decisions finding fault with it).

⁴⁷ FERC also lacks siting jurisdiction over production lines, distribution lines, and intrastate pipelines (i.e., pipelines not engaged in interstate commerce). *See* 15 U.S.C. §717(b).

⁴⁸ Laser Marcellus Gathering Co., LLC, 130 FERC ¶ 61,162 (2010). Hydraulic fracturing involves pumping fluids (primarily water and a small portion of chemicals, along with sand or other proppant) under high pressure into rock formations to crack them and allow the resources inside to flow to a production well. National Energy Technology Laboratory, *Modern Shale Gas Development in the United States: An Update*, U.S. Department of Energy, September 2013, http://www.netl.doe.gov/research/oil-and-gas/natural-gas-resources.

⁴⁹ See, e.g., Alabama Admin. Code r. 400-1-8-.03; 805 Ky. Admin. Regs. 1:190.

⁵⁰ For some of the federal approvals and consultations that may be required, see "Additional Federal Authorizations and Review" below. States may also have additional requirements. *E.g.*, 58 Pa. Cons. Stat. Ann. §3218.5, 25 Pa. Code Chapter 102 (erosion and sedimentation control).

⁵¹ Companies building crude oil pipelines that would cross international borders must obtain a presidential permit authorizing construction and operation of the necessary cross-border facilities. See "Pipelines Crossing International Borders" below.

⁵² *E.g.*, Major Oil Pipeline Siting Act, Neb. Rev. Stat. §§57-1401 to 57-1413; Energy Conversion and Transmission Facility Siting Act, N.D. Code Subchapters 49-19, 49-22.

necessary property interests—from a state utility commission, local legislature, or state governor.⁵³

Construction and operation of crude oil pipelines may require additional federal and state authorizations. For example, a state may require permits or consultations for project-related water withdrawals, impacts to state-protected species, and crossings of public lands and waters, among other things.⁵⁴ In addition, as described in more detail below, construction or operation of such pipelines may require various federal authorizations from, or consultations with, federal agencies (or state agencies acting under delegated federal authority) depending on the proposed route of the pipeline and its potential effect on the environment or natural, cultural, or historical resources.⁵⁵

Lack of a centralized federal approval process for siting crude oil pipelines—and, in particular, interstate crude oil pipelines—may make it more difficult for pipeline companies to obtain necessary authorizations, particularly when strong opposition from local landowners and the public exists. For example, no federal law broadly preempts state and local siting requirements for these pipelines, and thus pipeline companies must obtain approval of the pipeline route on a state-by-state basis. In addition, Congress has not granted companies seeking to construct interstate oil pipelines a statutory right of eminent domain as it has provided to interstate natural gas pipeline certificate holders in the NGA. Therefore, companies that cannot successfully negotiate a ROW with a landowner must seek condemnation of needed property interests under the law of each state through which the pipeline would travel. No federal law gives a single federal agency responsibility for coordinating federal authorizations needed for interstate crude oil pipelines or setting a deadline for them, and no specific procedure exists for judicial review of federal or state actions or omissions with respect to federal authorizations when such acts or omissions would prevent construction of an interstate crude oil pipeline.

⁵³ *E.g.*, Cal. Pub. Util. Code §6231.5(a) (local legislature); Ga. Code Ann. §§22-3-83(a), 22-3-84 (state transportation agency and environmental agency prior to exercise of eminent domain power); Neb. Rev. Stat. Ann. §57-1405(1) (state public utility commission or governor). Although much attention has focused on siting and safety of natural gas gathering lines, some states have laws regarding siting and operation of crude oil gathering pipelines. An example is North Dakota, which in 2015 enacted a law that requires operators of underground crude oil gathering pipelines to provide a state commission with "pipeline engineering construction design drawings and specifications, a list of independent inspectors, and a plan for leak protection and monitoring" for the pipeline, among other things. N.D. Code §38-08-27. The law also requires furnishing of a bond covering the operation of an underground crude oil gathering pipeline transferring oil "from a production facility for disposal, storage, or sale purposes." N.D. Code §38-08-04.

⁵⁴ *E.g.*, Department of State, Alberta Clipper Project Final EIS, Table 1.6-1 (2009), http://www.state.gov/e/enr/applicant/applicants/202466.htm. A company seeking to route a crude oil pipeline over state lands would likely have to lease, or otherwise obtain permission to occupy, those lands. *E.g.*, Alaska Stat. §§38.35.020(a), 38.35.050.

⁵⁵ See "Additional Federal Authorizations and Review" below.

⁵⁶ Cf. Schneidewind v. ANR Pipeline Co., 485 U.S. 293, 310 (1988) ("When a state regulation 'affects the ability of FERC to regulate comprehensively ... the transportation and sale of natural gas, and to achieve the uniformity of regulation which was an objective of the [NGA]' or presents the 'prospect of interference with the federal regulatory power,' then the state law may be pre-empted even though 'collision between the state and federal regulation may not be an inevitable consequence.").

⁵⁷ Cf. 15 U.S.C. §717f(h).

⁵⁸ See, e.g., N.D. Code ch. 32-15; Wyo. Stat. Ann. §1-26-814. For a list of eminent domain authorities and siting procedures for oil transmission pipelines in all 50 states, see Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 Iowa L. Rev. 947, 1027-1053 (2015), http://ilr.law.uiowa.edu/files/ilr.law.uiowa.edu/files/ILR_100-3_Klass.pdf.

⁵⁹ Cf. 15 U.S.C. §§717n(b)-(c), 717r(d).

Additional Federal Authorizations and Review

In addition to obtaining certificate authority from FERC (for siting, construction, and operation of interstate natural gas pipelines) and complying with any nonpreempted state or local siting requirements, an entity seeking to build, operate, or maintain an oil or gas pipeline may have to obtain additional federal authorizations, depending on the pipeline's proposed route and its potential impact on environmental, natural, historical, and cultural resources. For example, federal law may require the pipeline project to obtain additional approvals or ROW—or establish consultation requirements—when the project would (1) cross an international border or federal lands; (2) result in emissions of regulated pollutants under the CAA or discharges into surface waters under the CWA; or (3) affect areas with protected wildlife or cultural, natural, or historical resources. In some cases, the agency granting the authorization may condition its approval on the pipeline company's compliance with certain terms.⁶⁰

Notably, some of these authorizations may constitute "federal action" requiring some level of NEPA review. During the NEPA process, the lead agency may identify additional necessary federal authorizations or consultations by federal agencies under other federal laws (e.g., the Endangered Species Act (ESA) or National Historic Preservation Act (NHPA)). FERC coordinates such reviews and consultations with respect to interstate natural gas pipeline projects. ⁶²

This section provides a nonexhaustive overview of some of the additional federal authorizations and review that may be required for the construction or operation of oil or gas pipelines. ⁶³ It also examines the role, if any, that states play with regard to these federal authorizations and reviews. While states play a minimal role with respect to applications for ROW over federal lands or permission to cross an international border, states retain broad authority to regulate to control pollution, as well as to protect and conserve natural, cultural, and historical resources.

Pipelines Crossing International Borders

Before a company may construct and operate cross-border facilities necessary for a pipeline to transport natural gas or crude oil between the United States and a foreign country, it must obtain a presidential permit.⁶⁴ States generally lack authority to approve border crossings of such facilities, because regulation of border crossings implicates constitutional powers of the federal government over foreign commerce and foreign affairs.⁶⁵ Indeed, lower federal courts have held that the

⁶⁰ E.g., 43 C.F.R. §2885.11 (terms and conditions for ROW through federal lands); 33 C.F.R. §325.4 (pertaining to conditions on Army Corps of Engineers permits).

⁶¹ See generally, e.g., 42 U.S.C. §4332 (NEPA); 40 C.F.R. §1501.7 (regulations implementing NEPA procedural provisions); 16 U.S.C. §1536 (ESA).

⁶² See "FERC's Coordination of NEPA Reviews and Other Agency Approvals" above. As discussed further below, cross-border pipelines extending from the United States into Canada or Mexico require a presidential permit. See "Pipelines Crossing International Borders" below.

⁶³ This section does not examine whether approval of interstate compact commissions with authority over water resources in a particular basin would be required for construction of a pipeline that affected resources managed by the commissions. *See, e.g.*, Delaware River Basin Compact, P.L. 87-328, §§1.3(c), (e); 2.1; 3.1.

⁶⁴ Exec. Orders 10485, 11423, 13337. In order to export natural gas or crude oil, additional federal authorizations may be required. *See, e.g.*, 15 U.S.C. §717b (natural gas). For a discussion of when modifications to an existing cross-border energy facility require a new presidential permit, see CRS Report R43261, *Presidential Permits for Border Crossing Energy Facilities*, by (name redacted) and (name redacted)

⁶⁵ U.S. Const. art. I, §8, cl. 3 (giving Congress the power to "regulate commerce with foreign nations"); *id.* art. II, §2 (setting forth several presidential authorities over foreign affairs).

President's authority to issue such permits derives from Article II of the Constitution, which the Supreme Court has interpreted to include the power to conduct the nation's foreign relations.⁶⁶

For pipelines that would import or export natural gas, Executive Order 10485 serves as the source of FERC's authority to review and approve requests for presidential permits for construction and operation of necessary border-crossing facilities. The order requires FERC to approve these requests if it determines that they would be "consistent with the public interest" and the Secretaries of State and Defense make favorable recommendations. For cross-border crude oil pipelines, Executive Order 11423, as amended by Executive Order 13337, contains a delegation from the President to the Secretary of State of the authority to receive and review applications for presidential permits. Issuance of a permit requires a State Department determination, after consultations with other federal agencies, that the project would serve the "national interest."

States may participate to some extent in federal agency environmental reviews for cross-border facility presidential permits under NEPA.⁷¹ Although it is unclear whether issuance of a presidential permit is a "federal action" subject to NEPA review requirements, ⁷² FERC and the State Department both follow NEPA when reviewing applications for cross-border permits.⁷³ Most cross-border oil pipeline facilities authorized by the State Department have involved projects that extend a relatively short distance into a border state. Most presidential permits for such projects have involved the preparation of an Environmental Assessment (EA) resulting in a Finding of No Significant Impact.⁷⁴ It was not until 2006 that the State Department determined that a proposed cross-border oil pipeline project would require an EIS. Since then, two additional pipeline proposals have involved the preparation of an EIS, including the proposed Keystone XL pipeline, which would have had a length of approximately 875 miles.

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⁶⁶ United States v. Curtiss-Wright Export Corp., 299 U.S. 304, 319-21 (1936); *see also, e.g.*, Nat. Res. Defense Council v. Department of State, 658 F. Supp. 2d 105, 109, 112 n.7 (D.D.C. 2009); Sisseton-Wahpeton Oyate v. Department of State, 659 F. Supp. 2d 1071, 1081 (D.S.D. 2009). For an analysis of congressional authority to supersede the President's rejection of a permit request for a cross-border pipeline, see CRS Legal Sidebar WSLG1436, *Obama Administration Rejects Keystone XL Pipeline Permit Request: Could Congress Nevertheless Approve It?*, by (name redacted) and (name redacted)

⁶⁷ Exec. Order 10485 §1(a).

⁶⁸ Exec. Order 10485 §1. The order refers to the now defunct "Federal Power Commission" instead of FERC. Congress subsequently eliminated the FPC, and this function was transferred to the Department of Energy (DOE), which then delegated it to FERC. 42 U.S.C. §7172(f); DOE Delegation Order No. 00-004.00A.

⁶⁹ Exec. Order 11423, as amended by Exec. Order 13337, §1.

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⁷¹ See 18 C.F.R. §§157.10(a) (FERC procedures for protests and interventions), 380.10(a) (interventions in FERC NEPA proceedings), 385.214 (state agency participation in FERC proceedings); 22 C.F.R. §161.9 (discussing involvement of the public and other government agencies in the State Department's NEPA proceedings).

⁷² 40 C.F.R. §1508.12 ("Federal agency means all agencies of the Federal Government. It does not mean the Congress, the Judiciary, or the President ...").

⁷³ 18 C.F.R. Part 380 (FERC); 22 C.F.R. Part 161 (State Department). When appropriate, FERC may integrate its NEPA review of a presidential permit request with its responsibilities under Sections 3 and 7(c) of the NGA, which govern siting approval of jurisdictional natural gas import/export facilities and new interstate pipelines, respectively. 15 U.S.C. §§717b, 717f(c).

⁷⁴ For more on FERC and State Department implementation of NEPA with respect to cross-border pipeline projects, see CRS Report R44140, *Presidential Permit Review for Cross-Border Pipelines and Electric Transmission*, by (name redacted) and (name redacted).

Pipelines Crossing Federal Lands

Another area in which states lack significant authority involves the federal government's grant of rights-of-way (ROW) for pipeline crossings over federal lands. The federal government owns hundreds of millions of acres of lands in the United States, particularly in the Western states.⁷⁵ Under the Property and Supremacy Clauses of the U.S. Constitution, the federal government has ultimate authority over this land. ⁷⁶ Federal laws provide a means for companies seeking to route oil or natural gas pipelines across federal lands to obtain ROW from the federal government.⁷⁷ Section 28 of the Mineral Leasing Act (MLA) authorizes the Department of the Interior (DOI) and the heads of other federal departments and agencies with jurisdiction over federal lands to grant ROW through those lands for pipeline transportation of oil or natural gas except when the lands are (1) in the National Park System; (2) held in trust for an Indian or Indian tribe; or (3) on the Outer Continental Shelf. 78 The MLA authorizes DOI to grant or renew ROW through federal lands when DOI—or two or more federal agencies—have jurisdiction over the surface of the lands involved. 9 By contrast when a single federal agency other than DOI has jurisdiction over the surface of all of the federal lands involved in the proposed ROW, the head of that agency may grant or renew the ROW. 80 The MLA requires the DOI or agency head to "take into consideration and to the extent practical comply with State standards for ROW construction, operation, and maintenance" for pipelines.81

The Bureau of Land Management (BLM) within DOI has promulgated regulations governing various aspects of oil or natural gas⁸² pipeline ROW, including requirements as to which lands are available for ROW; qualifications for holding a ROW; and terms and conditions on holding ROW.⁸³ In addition, other federal land management agencies have promulgated regulations addressing grants of ROW for pipelines (and special use authorizations for construction of pipelines) across lands they manage, including the Forest Service within the Department of Agriculture (Forest Service)⁸⁴ and the Fish and Wildlife Service (FWS) within DOI.⁸⁵ In contrast

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⁷⁵ E.g., Bureau of Land Management (BLM), Public Lands Statistics 2014, at 1, http://www.blm.gov/public_land_statistics/pls14/pls2014.pdf; Forest Service, Land Areas of the National Forest System 1 (2014), http://www.fs.fed.us/land/staff/lar/LAR2014/LAR_Book_FY2014.pdf. For more information, see CRS Report R42346, Federal Land Ownership: Overview and Data, by (name redacted), (name redacted), and (name redacted).

⁷⁶ U.S. Const. art. IV, §3, cl. 2; U.S. Const. art. VI, cl. 2. For more on federal and state authority over federal lands, see CRS Report R44267, *State Management of Federal Lands: Frequently Asked Questions*, by (name redacted) and (name redacted)

⁷⁷ See, e.g., 30 U.S.C. §185.

⁷⁸ 30 U.S.C. §185(a)-(b).

⁷⁹ 30 U.S.C. §185(c)(2). When DOI acts as the granting authority for other federal agencies with jurisdiction over the lands, it must consult with them. 30 U.S.C. §185(c)(2).

⁸⁰ 30 U.S.C. §185(c)(1).

^{81 30} U.S.C. §185(v).

⁸² Relevant BLM regulations define "oil or gas" as "oil, natural gas, synthetic liquid or gaseous fuels, or any refined product produced from them." 43 C.F.R. §2881.5. The regulations do not cover ROW for "a lessee's or lease operator's production facilities located on its oil and gas lease." *Id*.

⁸³ 43 C.F.R. Part 2880. The regulations also address issuance of temporary use permits for construction, operation, and maintenance of the pipeline. The regulations describe ROW as "nonpossessory, nonexclusive" rights and temporary use permits as "revocable, nonpossessory" privileges. 43 C.F.R. §2881.5.

⁸⁴ The Forest Service decides whether to concur in BLM's grants of ROW under the MLA and issue special use authorizations for pipelines transporting oil, gas, or products thereof on National Forest System land, consistent with other federal laws. 36 C.F.R. §251.53(e); *see also, e.g.*, Atlantic Coast Pipeline Exhibit D: Permit Table, https://www.dom.com/library/domcom/pdfs/gas-transmission/atlantic-coast-pipeline/acp-exhibit-d-permit-table.pdf.

⁸⁵ FWS has promulgated regulations governing its grant of pipeline ROW through or across lands in the National (continued...)

to these agencies, the National Park Service (NPS) within DOI lacks a general grant of statutory authority to grant new easements for oil or gas pipelines over its lands (although some NPS lands are subject to existing gas or petroleum product pipeline easements). 86 In the past, Congress has specifically authorized NPS to approve easements for particular projects in national parks in various federal laws.87

For certain offshore pipelines and related facilities, the Bureau of Safety and Environmental Enforcement (BSEE) within DOI grants ROW through the submerged lands of the Outer Continental Shelf (OCS), 88 in accordance with Section 5(e) of the Outer Continental Shelf Lands Act (OCSLA).89

Pipeline Projects with the Potential to Affect Surface Waters⁹⁰

Some federal laws may also require pipeline companies to obtain permits in order to control discharges or emissions of pollutants into the environment. One such law is the CWA, which prohibits "discharges of pollutants" by any person from any point source into the "navigable waters"—a term defined to include the "waters of the United States" and territorial seas—except in accordance with other CWA provisions.⁹¹ The EPA and the Army Corps of Engineers (Corps) have promulgated regulations interpreting the scope of the "waters of the United States" protected under the CWA, 92 but Supreme Court decisions 93 and ongoing litigation have left the precise extent of the CWA's protections unclear.⁹⁴

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Wildlife Refuge System and issuance of temporary use permits for pipeline-related activities. 50 C.F.R. §29.21-1; see also 16 U.S.C. §668dd(d). Specific requirements for ROW for the pipeline transportation of oil, natural gas, and other resources or products across FWS lands are located at 50 C.F.R. §29.21-9.

⁸⁶ See, e.g., NPS, Oil and Gas Management Plan, Big Thicket National Preserve, https://parkplanning.nps.gov/ projectHome.cfm?projectID=10848.

⁸⁷ E.g., Denali National Park Improvement Act, P.L. 113-33, §3 (2013); New York City Natural Gas Supply Enhancement Act, P.L. 112-197, §3 (2012); Delaware Water Gap National Recreation Area Natural Gas Pipeline Enlargement Act, P.L. 109-156, §3 (2005).

⁸⁸ The Outer Continental Shelf Lands Act (OCSLA) defines the OCS as "all submerged lands lying seaward and outside of the area of lands beneath navigable waters as defined in [43 U.S.C. §1301] and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control." 43 U.S.C. §1331(a).

⁸⁹ 43 U.S.C. §1334(e). The statute and regulations promulgated thereunder require ROW pipelines to be designed, installed, operated, maintained, and abandoned in a manner that provides "safe and pollution-free" transportation of fluids; set forth qualifications for holding a ROW; and generally require open and nondiscriminatory access to certain ROW pipelines on the OCS. Id.; 30 C.F.R. Part 250, Subpart J; see also 30 C.F.R. Part 291.

⁹⁰ This report does not address potential groundwater contamination issues. Section 1424(e) of the Safe Drinking Water Act (SDWA) generally bars federal financial assistance for any projects (including pipeline projects) that may contaminate an aquifer designated by the EPA as the sole or principal drinking water source for an area "which, if contaminated, would create a significant hazard to public health." 42 U.S.C. §300h-3(e). For more on the SDWA, see CRS Report RL31243, Safe Drinking Water Act (SDWA): A Summary of the Act and Its Major Requirements, by (name redacted.)

^{91 33} U.S.C. §§1311, 1362 (defining relevant terms). "The term 'territorial seas' means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles." Id.

The act also prohibits unpermitted discharges into the contiguous zone and oceans other than those made from a vessel or floating craft, which are regulated separately under the Ocean Dumping Act. 33 U.S.C. §§1311, 1362. "Contiguous zone" is "the entire area established or to be established by the United States under article 24 of the Convention of Territorial Sea and Contiguous Zone." 33 U.S.C. §1362(9), "Ocean" means "any portion of the high seas and the contiguous zone." 33 U.S.C. §1362(10).

^{92 33} C.F.R. §328.3 (Army Corps of Engineers); 40 C.F.R. §122.2 (EPA).

The CWA envisions cooperation between the federal government and states with respect to administration of federal water quality laws. Thus, states may assume permitting responsibilities under CWA Sections 402 and 404, which are discussed further below. 95 However, the EPA retains authority to review, and if necessary, deny state permits under these programs—or withdraw approval of state permitting programs. 96 In general, the CWA also preserves state authority to regulate discharges of pollutants under state law, provided the state does not adopt or enforce an "effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance which is less stringent than the effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance" in effect under the CWA.⁹⁷

It is important to note that the CWA is not the only federal law that may require a permit for pipeline projects with the potential to affect surface waters. For example, Section 10 of the Rivers and Harbors Act may require a permit from the Corps for pipeline projects that involve obstructions to navigation of certain interstate water bodies, 98 including projects involving building structures in, under, or over navigable waters; excavating, dredging, or filling in such waters; or modifying "the condition, course, capacity, or location" of channels of water bodies. 99 OCSLA Section 4(e) extended the Corps authority over such obstructions to "artificial islands, installations, and other devices located on the seabed, to the seaward limit of the OCS."100

Clean Water Act Section 404: Permits for Discharge of Dredged or Fill Materials

An entity that will, as part of a pipeline project, discharge "dredged material" or "fill material" 101 into protected waters, including protected rivers, streams, and wetlands, may have to obtain a

98 33 C.F.R. §320.1(d). "Generally, they are those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce." 33 C.F.R. §§322.2(a), 329.4.

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⁹³ Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC), 531 U.S. 159 (2001); Rapanos v. United States, 547 U.S. 715 (2006).

⁹⁴ On October 9, 2015, a divided panel of the U.S. Circuit Court for the Sixth Circuit granted a nationwide stay of the controversial final rule, published in June 2015 by the Corps and the EPA redefining the "waters of the United States" (WOTUS) protected under the CWA. Ohio v. U.S. Army Corps of Engineers, 803 F.3d 804, 806 (6th Cir. 2015). For more on this issue, see CRS Report R43455, EPA and the Army Corps' Rule to Define "Waters of the United States," by (name redacted), as well as CRS Legal Sidebar WSLG1503, Sixth Circuit Will Hear Challenges to EPA's Clean Water Act Jurisdiction ("Waters of the United States") Rule, but Litigation Uncertainties Remain Unresolved, by (name redacted)

^{95 33} U.S.C. §§1342(b)-(c) (state assumption of National Pollutant Discharge Elimination System (NPDES) permitting program), 1344(g)-(j) (state assumption of dredged and fill material permitting program).

⁹⁶ See, e.g., 33 U.S.C. §1342(c)(3), (d)(2) (authorizing the EPA to withdraw approval of a state NPDES permit program or prevent issuance by a state of an NPDES permit under that program); id. \$1344(b)-(c), (i) (authorizing the EPA to prevent issuance by a state of a Section 404 permit and to veto, after a consultation with the Corps, a disposal site or restrict its use in certain circumstances).

⁹⁷ 33 U.S.C. §1370.

⁹⁹ 33 U.S.C. §403. The Corps regulations governing exercise of this authority are located at 33 C.F.R. Part 322. 100 43 U.S.C. §1333(e).

^{101 &}quot;Fill material," which does not include refuse, is defined as any material "placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation" of any such waters. 33 C.F.R. §323.2(e)(1) (Corps); 40 C.F.R. §232.2 (EPA). "Dredged material" is "material that is excavated or dredged from waters of the United States," 33 C.F.R. §323.2 (Corps); 40 C.F.R. §232.2 (EPA); see also generally Coeur Alaska, Inc. v. Southeast Alaska Conservation Council, 557 U.S. 261, 273-77 (2009) (explaining how a court should determine whether a discharge requires a CWA Section 404 permit or a Section 402 (continued...)

permit authorizing these activities. ¹⁰² Section 404 of the CWA authorizes the Corps to issue permits for the discharge from a point source of dredged or fill material into "waters of the United States" (i.e., certain internal waters and the territorial seas ¹⁰³) at "specified disposal sites." ¹⁰⁴ States may assume these permitting responsibilities with respect to certain waters upon EPA approval; however, only two states have done so. ¹⁰⁵ Section 404 is not intended to affect the ability of states to regulate discharges of dredged or fill material in navigable waters within state boundaries. ¹⁰⁶

The Corps determines whether to issue an individual Section 404 permit, and what conditions to place on the permits, according to a public interest test. ¹⁰⁷ The Corps' environmental review of a permit application is done pursuant to guidelines developed jointly with the EPA. ¹⁰⁸ The Corps may also authorize pipeline project activities under general permits instead of individual project permits. ¹⁰⁹ General permits authorize categories of similar activities ¹¹⁰ within a state, region, or nationwide that the Corps expects will cause only minimal adverse environmental effects, both

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permit).

^{102 33} U.S.C. §1344(a).

¹⁰³ The term "territorial sea" means "the belt of the sea measured from the baseline as determined in accordance with the Convention on the Territorial Sea and the Contiguous Zone and extending seaward a distance of three miles." 40 C.F.R. §230.3(n). The discharge of dredged material into the ocean is governed by Section 103 the Marine Protection, Research, and Sanctuaries Act of 1972 and regulations and criteria issued pursuant thereto. 33 U.S.C. §1413; 33 C.F.R. Part 324; 40 C.F.R. Subchapter H. The EPA and the Corps share regulatory responsibilities with respect to these discharges.

¹⁰⁴ 33 U.S.C. §1344(a). Exemptions from the permit requirement exist for discharges of dredged or fill material for certain maintenance purposes and "temporary sedimentation basins on a construction site which does not include placement of fill material into the navigable waters," among other things. 33 U.S.C. §1344(f).

^{105 33} U.S.C. §1344(g)-(h); 40 C.F.R. Part 233, Subpart H. The two states are Michigan and New Jersey.

¹⁰⁶ 33 U.S.C. §1344(t).

¹⁰⁷ 33 C.F.R. §320.4(a). The test for public interest involves an analysis of the proposed activity's benefits and detriments; ensuring compliance with other legal requirements (e.g., under the ESA, CZMA and Wild and Scenic Rivers Act); and a focus on "conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people." 33 C.F.R. §320.4(a). If the EPA guidelines prohibit a disposal site, the Corps must also consider "the economic impact of the site on navigation and anchorage" in making a decision. *See* 33 U.S.C. §1344(b)(2); 33 C.F.R. §320.2(f).

¹⁰⁸ 33 U.S.C. §1344(b). These guidelines generally require that, among other things, there be no practicable alternative "to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" and that the discharge will not "cause or contribute to significant degradation of the waters of the United States" after actions have been taken to minimize potential adverse impacts. *See* 40 C.F.R. §§230.10, 230.12. The guidelines apply for evaluating potential discharges of dredged or fill material into internal waters of the United States and of fill material into the territorial seas. *Id.* at §230.2(b). Intentional discharge of dredged material into the territorial sea and oceans is governed by the Marine Protection, Research, and Sanctuaries Act, 33 U.S.C. §§1411, 1413, which also requires a Corps permit. Guidelines for evaluating general permits are located at 40 C.F.R. §230.7(b)(1).

¹⁰⁹ See Sierra Club, Inc. v. Bostick, 787 F.3d 1043, 1046-47 (10th Cir. 2015).

¹¹⁰ Courts have held that the Corps has broad discretion to define a category of similar activities and to defer partially to post-permit issuance review procedures consideration of whether particular activities may be authorized under a general permit because they have minimal environmental impacts. *E.g.*, Ohio Valley Envtl. Coalition v. Bulen, 429 F.3d 493, 498, 502 (4th Cir. 2005). In addition, the Corps may use special permit conditions, including mitigation measures, in general permits to ensure that the permit authorizes activities similar in nature and does not result in more than minimal environmental impacts. Sierra Club v. United States Army Corps of Eng'rs, 508 F.3d 1332, 1337 (11th Cir. 2007).

separately and cumulatively. 111 Activities authorized under a general permit typically do not require an individual application; rather, such activities must simply comply with general permit conditions. 112 The EPA may veto, after a consultation with the Corps, a disposal site or restrict its use in certain circumstances. 113

Clean Water Act Section 402 Permits for Other Discharges

If a discharge resulting from a pipeline project point source involves addition to U.S. waters of something other than "dredged material" or "fill material" as defined by the EPA and the Corps, the project may have to obtain a CWA Section 402 National Pollutant Discharge Elimination System (NPDES) permit from the EPA or authorized state. 114 The EPA retains oversight of NPDES permitting in states that have been authorized to implement the permit program and can object to a permit that a state proposes to issue, if the permit does not meet CWA requirements. 115 NPDES permits allow discharges to navigable waters subject to certain limits based on both the technology available to control the pollutants (i.e., technology-based effluent limits) and limits that are protective of the water quality standards of the receiving water (i.e., water-quality-based effluent limits). 116

Clean Water Act Section 401 Water Quality Certification

Section 401 of the CWA requires applicants for federal licenses or permits authorizing activities with the potential to result in a discharge into waters of the United States and territorial seas (e.g.,

¹¹⁶ 33 U.S.C. §1342. The EPA has not set federal water quality standards for waters under U.S. jurisdiction beyond the territorial seas (i.e., it has not set standards for the area that beyond 3 nautical miles from shore). NPDES permits for discharges (other than from a vessel) in the waters of the contiguous zone or ocean would include effluent limitations and, possibly, ocean discharge criteria requirements under CWA Section 403. 33 U.S.C. §§1342-1343.

¹¹¹ 33 U.S.C. §1344(e). Corps regulations describing the different types of permits are located at 33 C.F.R. §325.5. In addition, the Corps may issue "letters of permission" under Section 404 via an abbreviated review process in certain circumstances. 33 C.F.R. §§325.2(e)(1).

Parties have challenged Corps approval of pipeline project activities under general permits, arguing that such permits lack the same level of review as individual permits. E.g., Sierra Club, Inc. v. Bostick, 787 F.3d 1043, 1046-47 (10th Cir. 2015). In 2015, the Tenth Circuit declined to find a violation of the CWA when the Corps determined that a nationwide permit authorized construction of an oil pipeline that would cross over 2,000 waterways. The court held that the permit did not authorize activities with more than minimal environmental impacts because the Corps properly considered each pipeline crossing to be a separate and distinct project and allowed for some individual review of the projects after grant of the permit to assure minimal impact. Sierra Club, Inc. v. Bostick, 787 F.3d 1043, 1046-47, 1056, 1061 (10th Cir. 2015). The court also held the Corps did not have to conduct a NEPA environmental analysis for all or part of the pipeline when verifying that the project complied with the terms of the nationwide permit because NEPA analysis conducted prior to issuance of the nationwide permit for construction of "utility lines" would suffice when the Corps verified that a party's action was consistent with the permit. Id. at 1052; Snoqualmie Valley Pres. Alliance v. Army Corps of Engineers, 683 F.3d 1155, 1164 (9th Cir. 2012) ("Verifying that permittees may properly proceed under a nationwide permit does not require a full NEPA analysis at the time of the verification.").

¹¹² See 33 C.F.R. §320.1(c).

¹¹³ 33 U.S.C. §1344(b)-(c). These circumstances are when the discharge of dredged or fill materials into the site would "have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas ... wildlife, or recreational areas." Id.

¹¹⁴ 33 U.S.C. §1342(a)(1); see also generally Coeur Alaska, Inc. v. Southeast Alaska Conservation Council, 557 U.S. 261, 273-77 (2009) (explaining how a court should determine whether a discharge requires a CWA Section 404 permit or an NPDES permit). According to one industry source, discharges of process or test water during pipeline facility construction or operation may require an NPDES permit. Interstate Natural Gas Association of America, http://www.ingaa.org/cms/834.aspx.

^{115 33} U.S.C. §1342(d).

applicants for CWA Section 404 permits issued by the Corps) to obtain certification from the state where the discharge originates or will originate (or the EPA, if there is no state with authority to certify or the EPA promulgated the water quality standards) that such activities will not violate various CWA requirements. These requirements include effluent limitations and EPA-approved water quality standards, as well as other "appropriate" state law requirements. States may condition certification on the applicant's compliance with certain terms. States may waive certification voluntarily or by failing to act within a reasonable period of time.

Water quality certification may represent a powerful tool for states to exercise authority over pipeline projects. The Supreme Court has held that states may use water quality certification to prohibit issuance of federal permits or to require federal permitting agencies to condition permits for the activity on requirements that are not specifically related to the discharge itself. The EPA cannot force a state to certify, and in the past, state courts generally served as the forum for judicial review of whether a state's certification conditions were "appropriate." However, EPAct 2005 amended the NGA to provide for expedited review in a federal court of appeals of whether state water quality certifications under the CWA are consistent with federal law if denial of a certification would prevent construction or operation of an interstate natural gas pipeline project or LNG export facility. 123

Pipeline Projects Involving Emissions of Regulated Air Pollutants

Another federal pollution control law potentially requiring pipeline projects to obtain permits is the Clean Air Act (CAA), which, among other provisions, regulates emissions of certain air pollutants to protect ambient, or outdoor, air quality.¹²⁴ The CAA is an example of cooperative federalism in which states typically have responsibility for implementation and enforcement of EPA-promulgated air quality standards. As one example, the EPA sets National Ambient Air Quality Standards (NAAQS) for certain air pollutants, for which states then submit State Implementation Plans (SIPs) for EPA approval.¹²⁵ These SIPs explain how the state or local agencies will attain, maintain, and enforce federal air quality standards.¹²⁶

¹¹⁷ 33 U.S.C. §1341; see also 40 C.F.R. Part 121. For more on Section 401 water quality certification, see CRS Report 97-488, *Clean Water Act Section 401: Background and Issues*, by (name redacted) .

¹¹⁸ 33 U.S.C. §1341; *see also* 40 C.F.R. Part 121. When the EPA determines that a discharge may affect water quality of any other state other than the state in which the discharge originates, the EPA must notify the other state, the federal permitting agency, and the applicant. 33 U.S.C. §1341(a)(2). The other state has 60 days after receiving the notification to determine whether the discharge will violate is water quality requirements and object and request a public hearing. At the hearing, the EPA comments on the objection and the federal permitting agency "shall condition the license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements" or deny issuance of the permit. *Id.*

¹¹⁹ 40 C.F.R. §121.2(4).

^{120 33} U.S.C. §1341(a); 40 C.F.R. §121.16. The reasonable period of time may not exceed one year.

¹²¹ Pud No. 1 v. Wash. Dep't of Ecology, 511 U.S. 700, 707-13 (1994); S. D. Warren Co. v. Me. Bd. of Envtl. Prot., 547 U.S. 370, 386 (2006).

¹²² See Lake Carriers' Ass'n v. EPA, 652 F.3d 1, 10 (D.C. Cir. 2011).

¹²³ Energy Policy Act of 2005 (EPAct 2005), P.L. 109-58, §313(b), 15 U.S.C. §717r(d).

¹²⁴ 42 U.S.C. §§7401, et seq. For more on the application of the CAA to natural gas systems, see CRS Report R42986, *An Overview of Air Quality Issues in Natural Gas Systems*, by (name redacted)

¹²⁵ 42 U.S.C. §7410.

¹²⁶ *Id*.

Construction and operation of facilities related to pipeline transportation, such as compressor stations or pumps that move natural gas or oil through pipelines, may require CAA permits from the EPA or an authorized state, tribal, or local government. Permitting requirements would vary depending on the types and quantities of pollutants that would be emitted from the facility to be constructed and the air quality attainment status for those pollutants in the area where the facility would be constructed, among other things. 128

In the context of pipeline facilities, applicable federal CAA permitting requirements may include the Title V operating permit program, which generally informs operators of applicable air pollution controls required for major sources; ¹²⁹ and the New Source Review (NSR) permitting programs, which generally require proposed newly constructed or modified stationary sources emitting regulated pollutants above certain thresholds to install control technology and limit emissions of certain pollutants. ¹³⁰ In addition, the EPA sets technology-based emissions standards called New Source Performance Standards (NSPS) for certain newly constructed or modified sources. ¹³¹ In 2012, the EPA promulgated NSPS for emissions of volatile organic compounds (VOCs) and sulfur dioxides from onshore facilities in the crude oil and natural gas production sector and natural gas transmission and storage sector. ¹³² In August 2015, the EPA proposed, among other things, to amend the NSPS to address emissions of VOCs and methane from compressors and compressor stations in the natural gas transmission and storage sector, as well as production sector gathering and boosting stations. 133 The EPA also sets standards for new and existing stationary sources of toxic air pollutants in certain source categories, regardless of their location, known as National Emissions Standards for Hazardous Air Pollutants (NESHAPs), including for some sources in the oil and gas sector. 134 States may be authorized to implement and enforce the federal NSPS and NESHAPs for new (and also, with respect to NESHAPs, existing) sources. 135 The CAA's nonpreemption provision allows states to establish and enforce stricter

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¹²⁷ See, e.g., Texas Commission on Environmental Quality, Statement of Basis of the Federal Operating Permit, Phillips 66 Pipeline LLC, https://www.tceq.texas.gov/assets/public/permitting/air/publicnotice/20165SOB.pdf (crude oil and natural gas liquids pipeline pump station); TCEQ, El Paso Natural Gas Company, LLC, http://tceq.state.tx.us/assets/public/permitting/air/publicnotice/21277SOB.pdf (natural gas compression station); Interstate Natural Gas Association of America, Clean Air Act, http://www.ingaa.org/cms/844.aspx.

In 2012, the U.S. Sixth Circuit Court of Appeals held that permitting authorities may not group together emissions of regulated pollutants from separate oil and gas facilities and determine that the facilities constitute a single "major source" subject to CAA regulatory requirements when those facilities are not physically proximate to one another. Summit Petroleum Corp. v. EPA, 690 F.3d 733, 735 (6th Cir. 2012). In August 2015, the EPA proposed a rule that would seek to clarify when permitting authorities may aggregate emissions from sources in the oil and gas sector. EPA, Proposed Rule, Source Determination for Certain Emission Units in the Oil and Natural Gas Sector, 80 *Federal Register* 56579 (September 18, 2015). CAA Section 112, which establishes the hazardous air pollutants program, specifically prohibits aggregation of certain oil and gas facilities in some circumstances. 42 U.S.C. §7412(n)(4).

¹²⁸ CAA Section 328 requires the EPA to control air pollution from sources on the OCS, except certain places off the coasts of Alabama, Alaska, Louisiana, Mississippi, and Texas. 42 U.S.C. §7627. The EPA has promulgated regulations implementing this requirement at 40 C.F.R. Part 55. The Bureau of Ocean Energy Management (BOEM) has promulgated regulations regarding emissions from other OCS sources at 30 C.F.R. §\$550.302-550.304.

¹²⁹ 42 U.S.C. §7661a.

¹³⁰ 42 U.S.C. §7475 (Prevention of Significant Deterioration (PSD) program for attainment areas); 42 U.S.C. §7503 (nonattainment NSR program).

¹³¹ 42 U.S.C. §7411; 40 C.F.R. Part 60.

¹³² 40 C.F.R. Part 60, Subpart OOOO.

¹³³ EPA, Proposed Rule, Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, 80 *Federal Register* 56593 (September 18, 2015).

¹³⁴ 42 U.S.C. §7412; 40 C.F.R. Part 63.

¹³⁵ 42 U.S.C. §§7411(c), 7412(l).

emissions standards or limitations than required under their SIP or by federal NSPS and NESHAPS for stationary sources. 136

The EPA retains authority to prevent construction or modification of a major stationary emissions source when a state or local government has not followed EPA requirements for permitting that source. 137 With respect to Title V operating permits, the EPA may effectively veto state-issued permits if they do not conform to requirements in the CAA or the state's SIP. 138

Pipeline Projects Affecting Historical, Natural, or Cultural Resources

Construction of an oil or gas pipeline also has the potential to impact wildlife and natural resources, as well as cultural or historical properties. Several federal laws may require federal agencies issuing permits authorizing pipeline project activities to consult with federal or state agencies with expertise on particular resources to determine the activity's potential effect on the resource; the viability of alternatives or mitigation measures; and, in some cases, to obtain additional authorizations. During the NEPA process or evaluation of the permit application, the lead agency may identify additional necessary federal authorizations or consultations by federal agencies under other federal laws. 139

As with federal agency environmental reviews under NEPA, federal law in some cases specifically provides for state participation in these consultations. ¹⁴⁰ For example, states may play a role under Section 106 of the National Historic Preservation Act (NHPA) and regulations promulgated thereunder, which require federal permitting agencies to evaluate potential impacts of a project on certain cultural and historical properties and to seek to resolve any adverse effects. 141 Under the act, DOI may delegate authority to states so that they become the entities with which federal agencies consult about federal undertakings that may affect historical properties, and so that states may assist in developing plans to mitigate harm to the properties. 142

Another major federal consultation requirement is set forth in Section 7 of the Endangered Species Act (ESA), which generally requires a federal permitting agency to consult with FWS prior to issuing a permit authorizing activities that may affect listed endangered or threatened species or critical habitat of such species. 143 If the federal permitting agency determines grant of the permit is likely to adversely affect a listed species, the FWS ultimately issues a biological opinion on whether the agency action will jeopardize continued existence of the species or harm its critical habitat. 144 The opinion may set forth "reasonable and prudent alternatives" to the action

136 42 U.S.C. §7416.

¹³⁷ 42 U.S.C. §7413(a)(5); see also Alaska Dep't of Envtl. Conservation v. EPA, 540 U.S. 461, 468-69 (2004) (examining this authority with respect to the PSD permitting program).

¹³⁸ 42 U.S.C. §7661d(b)-(c).

¹³⁹ See generally, e.g., 42 U.S.C. §4332 (NEPA); 40 C.F.R. §1501.7 (regulations implementing NEPA procedural provisions); 16 U.S.C. §1536 (ESA).

¹⁴⁰ Cf. 40 C.F.R. §§1501.5-.7, 1503.1. Consultations under other federal and state laws may take place concurrently with a NEPA review. E.g., Department of State, Alberta Clipper Project Final EIS, Table 1.6-1 (2009), http://www.state.gov/e/enr/applicant/applicants/202457.htm.

¹⁴¹ 54 U.S.C. §306108; see also 54 U.S.C. §300320 (defining "undertaking"); 36 C.F.R. Part 800 (regulations implementing the NHPA Section 106 process).

^{142 54} U.S.C. §302303.

¹⁴³ 16 U.S.C. §1536(a); 50 C.F.R. Part 402, Subpart B. The National Marine Fisheries Service, National Oceanic and Atmospheric Administration, conducts consultations with respect to certain marine species and anadromous fish. 50 C.F.R. §402.01(b).

¹⁴⁴ 16 U.S.C. §1536(b); 50 C.F.R. §402.14.

when jeopardy to a species or harm to habitat would result. An FWS opinion may also authorize incidental "takes" of endangered or threatened species if federal agency action would likely adversely affect a species but not jeopardize its existence. When provides for the agency to consult with states when preparing a biological opinion. In addition, the ESA allows states to limit or prohibit the taking of a federally listed endangered or threatened species if such regulation would be more restrictive than federal limitations or prohibitions.

Somewhat similar consultation requirements exist under Section 305 of the Magnuson-Stevens Fishery Conservation and Management Act, regarding effects on essential fish habitat¹⁵⁰ and Section 304 of the National Marine Sanctuaries Act, regarding impacts to sanctuary resources.¹⁵¹ A variety of other federal statutes and executive orders may apply to projects affecting cultural, historical, or natural resources or properties.¹⁵² States may also have their own environmental and historical review requirements, as well as consultation and other permitting requirements for projects affecting state-protected species, provided they are not preempted by federal law.

Pipeline Projects Affecting a State's Coastal Zone

When issuance of a federal permit would affect land, water use, or natural resources of the coastal zone of a state, the CZMA generally requires the state to concur with a certification by the nonfederal permit applicant that its actions will be consistent with the state's federally approved coastal management plan. The state is responsible for notifying the federal permitting agency that it concurs or objects to the applicant's certification; if it fails to respond within 6 months, it waives its concurrence rights. Provided waiver has not occurred, the permit may not be granted by the federal agency in the absence of the state's concurrence unless the Secretary of Commerce

The Marine Mammal Protection Act prohibits "takes" of marine mammals in U.S. waters and by persons subject to U.S. jurisdiction on the high seas, with certain exceptions, and requires permits authorizing incidental takes, the proposed issuance of which triggers NEPA and ESA consultation requirements. 16 U.S.C. §§1371-1374.

¹⁴⁵ 16 U.S.C. §1536(b); 50 C.F.R. §402.14.

¹⁴⁶ Under the ESA, "take" of a species means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. §1532(19). Section 9 of the ESA prohibits "takes" of endangered species. 16 U.S.C. §1538(a)(1)(B). FWS has extended the prohibition to threatened species unless a Section 4(d) rule applies. 50 C.F.R. §17.31. In addition, the Migratory Bird Treaty Act prohibits takes of certain migratory birds unless authorized by FWS permit. 16 U.S.C. §\$703-712. In May 2015, FWS announced its intent to promulgate regulations allowing it to permit certain takes of migratory birds. FWS, Notice of Intent, Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Federal Register 30032 (May 26, 2015).

¹⁴⁷ 16 U.S.C. §1536(b); 50 C.F.R. §402.14. Alternatively, a project might apply for a FWS incidental take permit under ESA Section 10, which would trigger formal consultations. 16 U.S.C. §1539.

¹⁴⁸ See FWS, Revised Interagency Cooperative Policy Regarding the Role of State Agencies in Endangered Species Act Activities (February 22, 2016), https://www.federalregister.gov/articles/2016/02/22/2016-03541/revised-interagency-cooperative-policy-regarding-the-role-of-state-agencies-in-endangered-species.

^{149 16} U.S.C. §1535(f).

^{150 16} U.S.C. §1855(b).

^{151 16} U.S.C. §1434(d).

¹⁵² These include the Antiquities Act of 1906, 54 U.S.C. §§320301-320303; Archaeological and Historic Preservation Act of 1974, 16 U.S.C. §§469-469c-2; Archaeological Resource Protection Act of 1979, 16 U.S.C. §§470aa-470mm; Fish and Wildlife Coordination Act, 16 U.S.C. §§661-667e; Native American Graves Protection and Repatriation Act of 1990, 25 U.S.C. §§3001-3013; Wild and Scenic Rivers Act, 16 U.S.C. §§1271-1287; Wilderness Act, 16 U.S.C. §§1131-1136; Exec. Order 11593, Protection and Enhancement of the Cultural Environment; Exec. Order 13007, Indian Sacred Sites.

¹⁵³ 16 U.S.C. §1456(c)(3)(A); 15 C.F.R. Part 930, Subpart D.

¹⁵⁴ Id.

"finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of [the CZMA] or is otherwise necessary in the interest of national security." The Commerce Secretary's decision is subject to review under the Administrative Procedure Act. 156

Pipeline Safety

Pipelines represent a relatively safe means of transport, but they have the potential to cause harm to public health and the environment because of the hazardous materials they carry and the proximity of some pipelines to highly populated areas. Recent oil and gas pipeline accidents have drawn new attention to pipeline risks. In addition, specific concerns have arisen regarding shale gas gathering lines, which the DOT has noted are generally of much larger diameter and operating at higher pressure than traditional rural gas gathering lines, increasing the concern for safety of the environment and people near operations.

This section reviews federal and state authority over pipeline safety under federal laws codified in Chapters 601-605 of Title 49 of the *United States Code* ("Pipeline Safety Act" or "PSA"). 160

PHMSA and State Authority over Pipeline Safety

The PSA's stated purpose "is to provide adequate protection against risks to life and property posed by pipeline transportation and pipeline facilities by improving the regulatory and enforcement authority" of DOT. ¹⁶¹ The act directs to DOT to promulgate minimum federal safety standards for transportation ¹⁶² of gas ¹⁶³ and hazardous liquids (e.g., crude oil) ¹⁶⁴ by pipeline

¹⁵⁵ *Id*.

¹⁵⁶ See, e.g., Millennium Pipeline Co., L.P. v. Gutierrez, 424 F. Supp. 2d 168, 174 (D.D.C. 2006).

¹⁵⁷ For background on, and analysis of, DOT's pipeline safety program, see CRS Report R44201, *DOT's Federal Pipeline Safety Program: Background and Key Issues for Congress*, by (name redacted) .

¹⁵⁸ E.g., NSTB, Pacific Gas and Electric Company Natural Gas Transmission Pipeline Rupture and Fire, San Bruno, CA, September 9, 2010, NTSB/PAR-11/01 (2011); NTSB, Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release Marshall, Michigan July 25, 2010, NTSB/PAR-12/01 (2012); see also Department of Energy, Quadrennial Energy Review: Energy Transmission, Storage and Distribution Infrastructure 2-17 (2015), http://energy.gov/sites/prod/files/2015/07/f24/QER%20Full%20Report_TS%26D%20April%202015_0.pdf.

¹⁵⁹ DOT, Gathering Pipelines, Frequently Asked Questions, http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=4351fd1a874c6310VgnVCM1000001ecb7898RCRD&vgnextchannel=f7280665b91ac010VgnVCM1000008049a8c0RCRD&vgnextfmt=print#QA_5.

 $^{^{160}}$ This section does not address other federal laws, like the Occupational Safety and Health Act, that may be relevant to pipeline safety.

¹⁶¹ 49 U.S.C. §60102(a)(1).

¹⁶² The PSA's definition of "transporting gas" refers to "the gathering, transmission or distribution of gas by pipeline, or the storage of gas, in interstate or foreign commerce; and ... the movement of gas through regulated gathering lines; but does not include gathering gas (except through regulated gathering lines) in a rural area outside a populated area designated by the Secretary as a nonrural area." 49 U.S.C. §60101(a)(21).

The PSA defines "transporting hazardous liquid" as "the movement of hazardous liquid by pipeline, or the storage of hazardous liquid incidental to the movement of hazardous liquid by pipeline, in or affecting interstate or foreign commerce; and ... the movement of hazardous liquid through regulated gathering lines; but ... does not include moving hazardous liquid through—(i) gathering lines (except regulated gathering lines) in a rural area; (ii) onshore production, refining, or manufacturing facilities; or (iii) storage or in-plant piping systems associated with onshore production, refining, or manufacturing facilities." 49 U.S.C. §60101(a)(22).

¹⁶³ The PSA defines gas as "natural gas, flammable gas, or toxic or corrosive gas" and "gas pipeline facility" as including "a pipeline, a right of way, a facility, a building, or equipment used in transporting gas or treating gas during (continued...)

facilities¹⁶⁵ to fulfill this purpose.¹⁶⁶ The PSA also authorizes DOT to enforce these pipeline safety standards. For example, DOT may order an operator of a pipeline facility determined to be hazardous to life, property, or the environment to take corrective action, including repair of the facility or suspension of its operations.¹⁶⁷ The Office of Pipeline Safety within the Pipeline Hazardous Materials and Safety Administration (PHMSA) of DOT has responsibility for administering and enforcing the PSA.¹⁶⁸

Section 60105 of the PSA establishes a state pipeline safety program certification process by which states may become authorized to administer and enforce PHMSA's baseline safety standards for *intra*state pipeline facilities and pipeline transportation. This provision prohibits, with certain exceptions, PHMSA from prescribing or enforcing safety standards for an intrastate pipeline facility "to the extent that the safety standards and practices are regulated by a State authority ... that submits to the Secretary annually a certification for the facilities and transportation...." However, for a state's certification to be valid, the state must certify that it has adopted, by the date of certification, "each applicable standard prescribed [by PHMSA under the PSA] or, if a standard under [49 U.S.C. Chapter 601] was prescribed not later than 120 days before certification, is taking steps to adopt that standard." In addition, even if a certification is in effect for a state, Section 60105(d) provides that such a certification does not apply to PHMSA safety standards promulgated after the date of the certification. Thus, Section 60105 would not prevent PHMSA from promulgating and enforcing new safety standards for an intrastate facility.

(...continued)

A certification in effect under this section does not apply to safety standards prescribed under this chapter after the date of certification. This chapter applies to each applicable safety standard prescribed after the date of certification until the State authority adopts the standard and submits the appropriate certification to the Secretary under subsection (a) of this section.

Id.

its transportation." 49 U.S.C. §60101(a)(2)-(3).

¹⁶⁴ The PSA defines "hazardous liquid" to include "petroleum." 49 U.S.C. §60101(a)(4).

¹⁶⁵ The term "gas pipeline facility" "includes a pipe-line, a right of way, a facility, a building, or equipment used in transporting gas or treating gas during its transportation." 49 U.S.C. §60101(3). The term "hazardous liquid pipeline facility" "includes a pipeline, a right of way, a facility, a building, or equipment used or intended to be used in transporting hazardous liquid." 49 U.S.C. §60101(5).

¹⁶⁶ 49 U.S.C. §60102(a)(2). In general, the standards must be practicable, protective of the environment, and based on cost-benefit and risk-based analyses, among other things. 49 U.S.C. §60101(b).

¹⁶⁷ 49 U.S.C. §60112(d).

¹⁶⁸ PHMSA—About the Agency, http://www.phmsa.dot.gov/about/agency. Statutory provisions and a Memorandum of Understanding between FERC and DOT address the responsibilities of each agency with respect to natural gas pipeline safety. 49 U.S.C. \$60104(d)(2); Memorandum of Understanding Between DOT and FERC Regarding Natural Gas Transportation Facilities (1993), http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/1993_DOT_FERC.pdf. The MOU acknowledges DOT's "exclusive authority to promulgate Federal safety standards" for natural gas transportation facilities but notes that FERC may impose stricter standards related to mitigation of environmental impacts from construction and operation of pipelines as part of its certificate approval process. *Id.* at 2; *see also* 18 C.F.R. \$157.14. The State Department consults with DOT for presidential permits for cross-border pipelines pursuant to Executive Order 11423, as amended by Executive Order 13337.

¹⁶⁹ 49 U.S.C. §60105(a). A state that has submitted a valid certification may also adopt and enforce stricter state standards for intrastate facilities, provided these standards are compatible with PHMSA's standards. *Id.* An "intrastate gas pipeline facility" is "a gas pipeline facility or transportation of gas within a state not subject to Federal Energy Regulatory Commission (FERC) jurisdiction under the Natural Gas Act (NGA)." 49 U.S.C. §60101(a)(9).

^{170 49} U.S.C. §60105(a).

¹⁷¹ 49 U.S.C. §60105(a)-(b).

¹⁷² 49 U.S.C. §60105(d). Specifically, this provision states that

Each state could then become authorized to administer and enforce the new federal standard by submitting a valid certification for that standard. 173

If PHMSA has accepted a certification for a state, the agency may also enter into an agreement allowing the state to become an agent of DOT with respect to inspections of *inter*state pipelines for compliance with federal standards; however this does not authorize states to adopt or enforce safety standards for these pipelines. ¹⁷⁴ The DOT must also consider comments from committees that include states when promulgating minimum safety standards. 175

Gathering Lines and Offshore Pipelines

Congress has shown interest in safety of gathering lines. 176 Various provisions in the PSA and DOT regulations determine whether DOT regulates an onshore or offshore pipeline as a gathering line and how it regulates the pipeline. 177 Onshore gas gathering lines in rural areas are not federally regulated for safety. 178 Federal oversight of offshore pipeline safety, including produceroperated offshore pipelines on the OCS and gathering lines, may fall within the jurisdiction of DOI, DOT, or another federal agency—or be subject only to state regulation. 179

States that have submitted a proper certification to DOT may promulgate more stringent safety standards for intrastate gathering lines regulated by DOT, provided they are compatible with federal minimum safety standards. ¹⁸⁰ In addition, some intrastate gathering lines are not federally regulated for safety, and thus states may regulate them without becoming certified. One study found that a few states have laws regulating safety of intrastate gathering lines that appear to be

¹⁷³ Id.

¹⁷⁴ 49 U.S.C. §60106(b). An "interstate gas pipeline facility" is a gas pipeline facility used to transport gas and subject to FERC jurisdiction under the NGA. 49 U.S.C. §60101(a)(6). An "interstate hazardous liquid pipeline facility" is used to transport hazardous liquid in interstate or foreign commerce; all other HLP facilities are intrastate. 49 U.S.C. §60101(a)(7), (10).

¹⁷⁵ 49 U.S.C. §60102(b). State can also comment on safety standards proposed by DOT during rulemaking. 49 U.S.C. §60104(a). The PSA provides other means for federal and state cooperation on pipeline safety oversight. For example, DOT may enter into cooperative agreements with states to further PSA objectives. 49 U.S.C. §60117(k).

¹⁷⁶ DOT defines "gathering line" in its regulations as "a pipeline that transports gas from a current production facility to a transmission line or main" (for natural gas pipelines), 49 C.F.R. §192.3, or "a pipeline 219.1 mm (85/8 in) or less nominal outside diameter that transports petroleum from a production facility" (for pipelines transporting hazardous liquids, including crude oil). 49 C.F.R. §195.2.

¹⁷⁷ E.g., 49 U.S.C. §60101(b) (directing DOT to promulgate regulations defining "gathering line" and, if appropriate, "regulated gathering line" but providing that the latter term may not include "a crude oil gathering line that has a nominal diameter of not more than 6 inches, is operated at low pressure, and is located in a rural area that is not unusually sensitive to environmental damage."); 49 C.F.R. §§192.8 (explaining how to determine whether an onshore gas pipeline is a regulated gathering line), 192.9 (describing how onshore and offshore gas gathering lines are regulated), 195.1 (describing which liquids pipelines DOT regulates and excepting from regulation onshore rural gathering lines transporting crude oil with the exception of those described at 49 C.F.R. §195.11), 195.11 (explaining how to determine whether a pipeline is a regulated rural hazardous liquids gathering line and listing requirements that apply to such pipelines), 195.413 (imposing requirements with respect to hazardous liquids pipelines in the Gulf of Mexico and its inlets).

¹⁷⁸ 49 C.F.R. §192.8 (explaining how to determine whether an onshore gas pipeline is a regulated gathering line).

¹⁷⁹ E.g., 30 C.F.R. Part 250, Subpart J (DOI offshore pipeline regulations); Memorandum of Understanding Between DOT and DOI Regarding OCS Pipelines (1996), http://www.bsee.gov/WorkArea/DownloadAsset.aspx?id= 85899347674.

¹⁸⁰ 49 U.S.C. §60104(c).

stricter than federal minimum safety standards; however, these state laws may not apply to rural gathering lines.¹⁸¹

Preemption of State Laws Relating to Pipeline Safety

Another component of the relationship between federal and state authority is the degree to which the PSA preempts state laws on pipeline safety. On this issue, the PSA provides the following:

A State authority that has submitted a current certification under section 60105(a) of this title may adopt additional or more stringent safety standards for intrastate pipeline facilities and intrastate pipeline transportation only if those standards are compatible with the minimum standards prescribed under this chapter. A State authority may not adopt or continue in force safety standards for interstate pipeline facilities or interstate pipeline transportation. 182

Federal courts have found that, under the Supremacy Clause of the U.S. Constitution, federal laws preempt state laws, thereby rendering them invalid, generally in three ways: (1) when Congress, acting within its constitutional powers, expressly provides that state law is preempted; (2) when state law conflicts with federal law because it is impossible to comply with both or state law would frustrate federal objectives; and (3) when federal regulation in a particular field is so pervasive that it demonstrates Congress' intent to "occupy" that subject to the exclusion of supplementary state regulation. 183 Because Congress has included an express preemption clause in the PSA, it is not necessary to analyze whether type (3) would apply. 184

As indicated above, the PSA contains an express preemption clause that distinguishes between state laws regulating intrastate pipelines and laws regulating interstate pipeline safety. Additional or more stringent state "safety standards" for "intrastate pipeline facilities" and "intrastate pipeline transportation" will be preempted unless (1) DOT has authorized the state to adopt and enforce intrastate safety standards; and (2) the standards are compatible with federal minimum standards. 185 State "safety standards" for "interstate pipeline facilities" and "interstate pipeline transportation" will also be preempted. 186

In determining the scope of the express preemption clause, a court would likely seek to define the scope of the term "safety standard." While the plain meaning suggests that "safety standards" set forth binding rules for safe operation of pipelines that must be attained, a court might also

¹⁸¹ For a compendium of state laws on gathering lines, see Oak Ridge National Laboratory, Review of Existing Federal and State Regulations for Gas and Hazardous Liquid Gathering Lines A-3 to A-226 (2013), http://www.phmsa.dot.gov/ pv_obj_cache/pv_obj_id_95ADA29972042AECB435D6447C32DC72854F3600/filename/ report_to_congress_on_gathering_lines.pdf.

¹⁸² 49 U.S.C. §60104(c). "Notwithstanding the preceding sentence, a State authority may enforce a requirement of a one-call notification program of the State if the program meets the requirements for one-call notification programs under this chapter or chapter 61." Id.

¹⁸³ California Federal Savings and Loan v. Guerra, 479 U.S. 272, 280 (1987).

¹⁸⁴ Cipollone v. Liggett Group, Inc., 505 U.S. 504, 517 (1992).

¹⁸⁵ 49 U.S.C. §60104(c).

¹⁸⁶ Id. Notably, other laws may preempt state efforts to regulate pipeline safety. For example, the NGA may preempt application of a state safety law to the extent that it has more than an incidental effect on siting or construction of an interstate natural gas pipeline. See "Preemption of State and Local Siting Authority" above.

¹⁸⁷ The PSA does not define "safety standards." Definitions of "pipeline facility" and "pipeline transportation" at 49 U.S.C. §60101(a) do not provide additional assistance in interpreting the scope of the expression preemption clause.

look to industry usage of the term to gain additional insight into its meaning, 188 as well as related statutory provisions, regulations, and judicial interpretations.

Statutory Provisions and Regulations

A court might also derive the meaning of "safety standard" from the actual standards promulgated by PHMSA under the PSA. The regulations, which are located at 49 C.F.R. Parts 190-195, address minimum safety standards for design, construction, operation, testing, inspection, and maintenance of pipeline facilities, as well as pipeline personnel qualifications and emergency response plans for oil pipelines, with stricter standards to be applied in some areas of high population and environmental sensitivity. 189

Other statutory provisions appear to limit the preemptive effect of the PSA. In particular, the PSA "does not authorize the Secretary of Transportation to prescribe the location or routing of a pipeline facility," and thus state laws falling within this category would appear to survive preemption unless they affect safety. ¹⁹⁰ The PSA also has no effect on state tort liability. ¹⁹¹

Judicial Interpretations

Federal court opinions may also shed light on when the PSA would preempt a state law affecting pipeline safety. Several cases have addressed whether a state or local siting law is a preempted "safety standard." In Texas Midstream Gas Services LLC v. City of Grand Prairie, the Fifth Circuit held that a city could impose on an interstate natural gas pipeline and compressor station: setback requirements; noise reduction and aesthetic requirements; and a requirement to pave roads for vehicle access. 192 However, the court held a requirement pertaining to a security fence to be preempted. 193 The court held that the PSA did not expressly preempt the setback requirement because it was designed to address aesthetic concerns and preserve property values and only incidentally (rather than directly and substantially) affected safety. 194 The Fourth Circuit held that local land use regulations are not preempted by pipeline safety standards even when they forbid a company from siting a facility in a proposed location. 195

Conflict preemption could occur when a state law or action conflicts with the PSA or regulations promulgated thereunder because it is impossible to comply with both federal and state law or the state action poses an obstacle to the accomplishment and execution of congressional objectives in the PSA to "provide adequate protection against risks to life and property posed by pipeline

¹⁹¹ 49 U.S.C. §60120(c).

¹⁸⁸ It might turn to, for example, publications of the American Petroleum Institute (API) for insight into what the industry considers to constitute a pipeline "safety standard." API, http://publications.api.org/ (registration required).

¹⁸⁹ 49 C.F.R. Parts 192, 194, and 195.

¹⁹⁰ 49 U.S.C. §60103(e).

¹⁹² 608 F.3d 200, 203-204 (5th Cir. 2010).

¹⁹⁴ Id. at 211. The court also found no conflict preemption of the state requirements other than the security fence requirement.

¹⁹⁵ Washington Gas Light Co. v. Prince George's County Council, 711 F.3d 412, 424 (4th Cir. 2013). In this case, the natural gas transportation facility was not subject to FERC siting jurisdiction under the NGA because FERC treated it as a local distribution facility.

transportation and pipeline facilities." Without examining a specific state law, it is difficult to speculate as to when this would occur.

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¹⁹⁶ See California Federal Savings and Loan v. Guerra, 479 U.S. 272, 280 (1987) (citations omitted); 49 U.S.C. §60102. State laws also would not apply if a court determined that they violated the Commerce Clause of the U.S. Constitution because, for example, they discriminate against interstate commerce or impose undue burdens on interstate commerce. See generally Oregon Waste Systems, Inc. v. Dep't of Environmental Quality of Oregon, 511 U.S. 93, 99 (1994); Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

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