REPORT OF THE ENVIRONMENTAL REGULATION COMMITTEE

The following is the report of the Energy Bar Association's Environmental Regulation Committee. In this report, the Committee summarizes key developments in federal and state environmental regulation from July 2013 to June 2014.

I. OIL & GAS

A. Hydraulic Fracturing

1. Federal Regulations

a. EPA Advanced Notice of Proposed Rulemaking for Chemical Disclosure under the Toxic Substances Control Act

In May 2014, the U.S. Environmental Protection Agency (EPA) published an Advanced Notice of Proposed Rulemaking (ANPRM) in the Federal Register to regulate chemicals used in hydraulic fracturing under sections 8(a) and 8(d) of the Toxic Substances Control Act (TSCA).[1] Section 8 of TSCA authorizes the EPA to promulgate rules requiring manufacturers and processors of chemical substances to maintain records and report information to the agency as the EPA Administrator may reasonably require.[2]

Earthjustice submitted a petition on behalf of forty-six organizations to the EPA in 2011, requesting that the Agency issue rules requiring toxicity testing, chemical reporting, and health and safety studies for chemicals and mixtures used in oil and gas exploration and production.[3] The EPA granted, in part, petitioners' requests, although limited only to chemical substances and mixtures used in hydraulic fracturing.[4] The EPA issued the ANPRM to identify issues for discussion and analysis and to gather information for its rulemaking efforts.[5]

b. EPA Guidance on Diesel Fuel in Hydraulic Fracturing

On February 11, 2014, the EPA published its final Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels: Underground Injection Control Program Guidance #84 (the Guidance).[6] The EPA also released

1. Notice Hydraulic Fracturing Chemicals and Mixtures, Advance Notice of Proposed Rulemaking, 79 Fed. Reg. 28,664 (May 19, 2014) (to be codified at 40 C.F.R. ch. I). Comments should be filed in EPA Docket No. EPA-HQ-OPPT-2011-1019. *Natural Gas Extraction—Hydraulic Fracturing*, EPA.GOV, http://www2.epa.gov/hydraulicfracturing (last updated May 19, 2014).

2. Toxic Substances Control Act, 15 U.S.C. § 2607 (2012) [hereinafter TSCA].

3. Letter from Deborah Goldberg & Megan Klein, Earthjustice, to Lisa P. Jackson, Adm'r, EPA, Citizen Petition under Toxic Substances Control Act Regarding the Chemical Substances and Mixtures Used in Oil and Gas Exploration or Production (Aug. 4, 2011), *available at* http://www.epa.gov/oppt/chemtest/pubs/Section_21_Petition_on_Oil_Gas_Drilling_and_Fracking_Chemicals8.4.2011.pdf.

4. Letter from Stephen A. Owens, Assistant Adm'r, Office of Chemical Safety & Pollution Prevention, EPA, to Deborah Goldberg, Earthjustice, TSCA Section 21 Petition Concerning Chemical Substances and Mixtures Used in Oil and Gas Exploration or Production (Nov. 23, 2011), *available at* http://www.epa.gov/oppt/chemtest/pubs/EPA_Letter_to_Earthjustice_on_TSCA_Petition.pdf.

5. TSCA, 15 U.S.C. § 2607.

6. PERMITTING GUIDANCE FOR OIL AND GAS HYDRAULIC FRACTURING ACTIVITIES USING DIESEL FUELS: UNDERGROUND INJECTION CONTROL PROGRAM GUIDANCE #84, EPA 816-R-14-001 (Feb. 11, 2014) [hereinafter PROGRAM GUIDANCE #84], *available at* http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/epa816r14001.pdf. *See also* Notice of Availability of EPA Requirements, 79 Fed. Reg. 8451 (Feb. 12, 2014).

an interpretive memorandum on February 5, 2014.[7] These guidance documents are intended to provide non-binding, technical recommendations for permit writers to consider when issuing permits for hydraulic fracturing activities using diesel fuels under the Underground Injection Control (UIC) Class II permit program of the Safe Drinking Water Act.[8] When Congress wrote the Energy Policy Act of 2005, it exempted hydraulic fracturing from the UIC program, except when diesel fuels are used.[9]

The new Guidance specifies that the EPA's interpretation of the definition of "diesel fuel" is limited to the following five chemical abstract service (CAS) Registry numbers: 68344-30-5 (automotive diesel fuels), 68476-34-6 (diesel fuel No. 2), 68476-30-2 (fuel oil No. 2), 68476-31-3 (fuel oil No. 4), and 8008-20-6 (kerosene).[10] This definition does not include hydraulic fracturing activities using diesel range organics (CAS No. is 68334-30-5).[11] The EPA noted that the use of diesel fuels for things other than hydraulic fracturing fluids or proppants is not subject to UIC requirements.[12] The EPA indicated that the Guidance provides what it believes are best practices for hydraulic fracturing activities whether or not they use diesel, including technical recommendations for well-casing and water quality sampling.[13]

c. BLM Fracturing Disclosure

The Department of Interior's Bureau of Land Management (BLM) has proposed a rule that would require disclosure of chemicals used in hydraulic fracturing on public and Tribal lands, update well-bore integrity regulations, and address issues related to flowback water.[14] The extended comment period for the draft rule ended in August 2013.[15]

BLM's revised rules would, among other provisions, require public disclosure of chemicals used in the hydraulic fracturing process directly to the BLM or through "FracFocus.org,"[16] create testing protocols for well integrity,[17] and require submittal of proposed methods for handling and disposing of

7. Memorandum from Peter Grevatt, Ph.D., Dir., Office of Ground Water & Drinking Water, to Regional Adm'rs & State & Tribal UIC Program Dirs., Implementation of the Safe Drinking Water Act's Existing Underground Injection Control Program Requirements for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels (Feb. 5, 2014), *available at* http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/signedmemohfactivitiesusingdieselfuels.pdf.

8. *Id.* at 1; 79 Fed. Reg. at 8451.

9. Energy Policy Act of 2005, Pub. L. No. 109-58, § 322, 119 Stat. 594, 694 (2005).

10. PROGRAM GUIDANCE #84, *supra* note 6, at 4-5.

11. *Id.*

12. *Id.* at 5.

13. *Id.* at 12.

14. Hydraulic Fracturing on Federal and Indian Lands, 78 Fed. Reg. 31,635 (proposed May 24, 2013) (to be codified at 43 C.F.R. pt. 3160).

15. Supplemental Notice of Proposed Rulemaking, 78 Fed. Reg. 34,611 (proposed June 10, 2013) (to be codified at 43 C.F.R. pt. 3160).

16. 78 Fed. Reg. at 31,642.

17. *Id.*

recovered fluids with the aim of protecting surface water and groundwater from contamination.[18]

d. DOT Emergency Order on Rail Transport of Crude Oil

The U.S. Department of Transportation (DOT) issued an emergency order on May 7, 2014, requiring railroad operating trains containing one million gallons of Bakken crude oil or more to notify particular State Emergency Response Commissions (SERCs) regarding the projected movement of such tank cars.[19]

The DOT order was issued together with a joint Safety Advisory by the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) (No. 2014-01), encouraging "offerors and carriers of Bakken crude oil by rail tank car to select and use the railroad tank car designs with the highest level of integrity reasonably available within their fleet."[20] The Safety Advisory further instructs "rail carriers to take additional precautionary measures to enhance the safe shipment of bulk quantities of Bakken crude oil by rail throughout the United States,"[21] specifically, that the DOT 111 or CTC 111 cars not be used for Bakken oil.[22]

e. Coast Guard Proposes Policy on Transporting Flowback Water by Barge

The Coast Guard issued a proposed policy letter on October 23, 2013, specifying conditions under which it will grant a Certificate of Inspection endorsement or letter allowing barges to carry hydraulic fracturing flowback wastewater, providing energy companies an additional option for transporting waste water to storage or reprocessing centers.[23] The Coast Guard policy requires barge owners to have the composition of the waste water analyzed by a state-accredited laboratory for analysis of chemical composition and establishes limits for radioactivity concentration and consignment activity.[24] The Coast Guard letter also establishes safety conditions and procedures intended to protect personnel, including radiation monitoring surveys and open venting on tanks.[25]

18. *Id.* at 31,675.

19. U.S. DEP'T OF TRANSP., EMERGENCY RESTRICTION/PROHIBITION ORDER, DOCKET NO. DOT-OST-2014-0067, (2014), http://www.dot.gov/briefing-room/emergency-order.

20. Notice of Safety Advisory, Recommendations for Tank Cars Used for the Transportation of Petroleum Crude Oil by Rail, 79 Fed. Reg. 27,370 (May 13, 2014).

21. *Id.* at 27,370.

22. *Id.*

23. Carriage of Conditionally Permitted Shale Gas Extraction Waste Water in Bulk, 78 Fed. Reg. 64,905 (proposed Oct. 30, 2013) (to be codified at 46 C.F.R. pt. 153).

24. Letter from J.W. Mauger, Capt., U.S. Coast Guard, U.S Dep't of Homeland Sec., to Distribution, Proposed Policy Letter: Carriage of Conditionally Permitted Shale Gas Extraction Waste Water in Bulk (Oct. 30, 2013), *available at* http://www.uscg.mil/hq/cg5/cg521/docs/CG-ENG.ProposedPolicy.ShaleGasWasteWater.pdf.

25. *Id.*

f. EPA Groundwater Impact Study

The EPA's draft report on the impact of hydraulic fracturing activities on water resources is expected to be released for peer review in late 2014.[26] The EPA extended the deadline for submittal of data and scientific literature to November 15, 2013.[27] The EPA reconvened a technical roundtable on December 9, 2013, and hosted a public webinar on January 28, 2014, to discuss the reports and results from the roundtable activities.[28] The summary report of the technical roundtable meeting includes an overview of discussions of water acquisition, chemical mixing, well injection, flowback and produced water, wastewater treatment and waste disposal.[29]

2. State Regulatory Activity

a. Seismic Monitoring Requirements

In Ohio, regulators announced new permit conditions in April 2014 for hydraulic fracturing activities in areas where seismic activity has been recorded.[30] The permit conditions require companies to install seismic monitors for permits issued for horizontal drilling within three miles of a known fault area or an area with seismic activity greater than 2.0 magnitude.[31] Drillers are required to suspend operations if a seismic event of greater than 1.0 magnitude is detected to investigate the cause.[32] Revised draft regulations released by the California Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR), on June 13, 2014, include seismic monitoring requirements as well.[33] The Illinois Legislature passed a hydraulic fracturing bill in June 2013 that is discussed more fully in section (e) below.

26. *See generally* EPA, STUDY OF POTENTIAL IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER RESOURCES (2012), *available at* http://www2.epa.gov/sites/production/files/documents/hf-report20121214.pdf. The progress report was released in December 2012, and a draft report is expected to be released for public comment and peer review in 2014.

27. Request for Information to Inform Hydraulic Fracturing Research Related to Drinking Water Resources, 78 Fed. Reg. 25,267 (Apr. 30, 2013).

28. *See generally EPA's Study of Hydraulic Fracturing and Its Potential Impact on Drinking Water Resources; 2013 Technical Roundtable*, EPA.GOV, *available at* http://www2.epa.gov/hfstudy/2013-technical-roundtable (last updated May 29, 2014).

29. *Id*. *See also* EPA, SUMMARY OF THE TECHNICAL ROUNDTABLE ON EPA'S STUDY OF THE POTENTIAL IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER RESOURCES: DECEMBER 9, 2013 at 5 (2014), *available at* http://www2.epa.gov/sites/production/files/2014-03/documents/summary_of_the_technical_roundtable_on_epas_study_of_the_potential_impacts_of_hydraulic_fracturing_on_drinking_water_resources_december_9_2013.pdf.

30. *See generally* Press Release, Ohio Dep't of Natural Res., Ohio Announces Tougher Permit Conditions for Drilling Activities Near Faults and Areas of Seismic Activity, (Apr. 11, 2014), *available at* http://ohiodnr.gov/news/post/ohio-announces-tougher-permit-conditions-for-drilling-activities-near-faults-and-areas-of-seismic-activity.

31. *Id.*

32. *Id.*

33. SB 4 Well Stimulation Treatment Regulations: First Revised Text of Proposed Regulations § 1783.3 (Ca. June 13, 2014) [hereinafter First Revised Text of Proposed Regulations], *available at* http://www.conservation.ca.gov/index/Documents/06-12-14%20-%20FINAL%20-%201st%20Revised%20SB%204%20WST%20Regulations.pdf.

b. New Groundwater Monitoring Requirements

In November 2013, the Wyoming Oil and Gas Conservation Commission (WOGCC) approved rules requiring companies to perform baseline groundwater sampling, analysis, and monitoring of water sources within half-a-mile of a proposed well.[34] The rule went into effect on March 1, 2014.[35] Operators must submit a plan with their application for a permit to drill and perform baseline water sampling and testing before commencing any drilling activities,[36] followed by resampling and testing twelve to twenty-four months[37] and again thirty-six to forty-eight months after setting the production casing or liner.[38]

Nevada issued draft regulations in January 2014, last revised in July 2014, that include requirements for groundwater baseline sampling prior to drilling and monitoring.[39] North Carolina has proposed rules requiring baseline and subsequent testing of groundwater near drill sites[40] that are pending legislative approval.[41] California's SB 4, passed in September 2013, directs the State Water Resources Control Board to develop model criteria for water quality monitoring by July 1, 2015.[42] Draft regulations released by California's DOGGR on June 13, 2014, require operators to conduct water quality testing on wells and surface water, including baseline and subsequent testing, when requested to do so by a property owner notified of the operator's intention to drill.[43]

c. North Carolina Energy Modernization Act

North Carolina's Energy Modernization Act of 2014, signed into law on June 4, 2014, lifted a statewide ban on the issuance of permits for oil and gas exploration and development activities using horizontal drilling and hydraulic fracturing.[44] The Act protects trade secrets and confidential information concerning constituents of hydraulic fracturing fluid.[45] The Act criminalizes knowing and willful disclosure by any person with access to this confidential information to any person not authorized to receive it as a Class 1 misdemeanor.[46]

34. Wy. Oil & Gas Conservation Comm'n, Summary of Comments and Responses: WOGCC Rules & Regulations, Chapter 1 & 3, § 46, (Nov. 22, 2013) [hereinafter WOGCC Rules], *available at* http://legisweb.state.wy.us/ARules/2012/Rules/ARR13-085.pdf.

35. *Id.*

36. *Id.* § 46(a).

37. *Id.* § 46(e).

38. *Id.*

39. Third Revised Proposed Regulation of the Division of Minerals of the Commission on Mineral Resources, LCB File No. R011-14 (July 24, 2014), *available at* http://minerals.nv.gov/uploadedFiles/mineralsnvgov/content/Programs/Oil_and_Gas/R_011-14_V7_RevisedHF_Regs.pdf.

40. 29 N. C. Reg. 150 (July 15, 2014).

41. *Id.* at 106.

42. S.B. No. 4, ch. 313, § 7(c) (Ca. 2013), *available at* http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB4.

43. First Revised Text of Proposed Regulations, *supra* note 33.

44. 2014-4 Sess. Laws 14, *available at* http://www.ncleg.net/Sessions/2013/Bills/Senate/PDF/S786v8.pdf.

45. *Id.* § 8(a).

46. *Id.*

The law prohibits local ordinances that would prevent oil and gas exploration, development, and production activities, including any ordinances that prohibit horizontal drilling or hydraulic fracturing.[47]

d. Pennsylvania Supreme Court Strikes Down Provisions of Act 13

In 2012, Pennsylvania passed Act 13, which established regulations for the development of unconventional wells in the state.[48] On December 19, 2013, the Pennsylvania Supreme Court struck down provisions of Pennsylvania's Act 13, invalidating certain portions of the act.[49] The Commonwealth Court, *en banc*, found that Act 13 was unconstitutional in part.[50] On cross-appeal, the Pennsylvania Supreme Court held that the provisions preempting municipalities' environmental regulation of oil and gas operations and a statutory requirement that municipal zoning ordinances be amended to include oil and gas operations in all zoning districts violated the Pennsylvania Environmental Rights Amendment.[51] The Pennsylvania Supreme Court stated in its opinion that, "[w]hile the subject of the right certainly may be regulated by the Commonwealth, any regulation is 'subordinate to the enjoyment of the right . . . [and] must be regulation purely, not destruction; laws of the Commonwealth that unreasonably impair the right are unconstitutional."[52]

The opinion of the Pennsylvania Supreme Court found the statutory well location restrictions and accompanying waiver options lacking in "readily-enforceable environmental standards."[53] Other provisions were remanded for further consideration.[54]

Although four justices agreed upon the unconstitutionality of sections 3215(b)(4) and (d), 3303, and 3304, only three of them joined the opinion of the Court.[55] Justice Baer wrote a separate opinion concurring with this outcome but relying on substantive due process rather than the Environmental Rights Amendment.[56]

e. Illinois Hydraulic Fracturing Regulatory Act

Illinois adopted the Hydraulic Fracturing Regulatory Act on June 17, 2013, which imposes new rules on high volume hydraulic fracturing operations[57] (more than 80,000 gallons of hydraulic fracturing fluid per stage or 300,000 gallons of hydraulic fracturing fluid in total on wells drilled at least 100 feet horizontally).[58]

47. *Id.* § 14.

48. 58 PA. CONS. STAT. §§ 2301-3504 (West 2012).

49. Robinson Twp. v. Commonwealth, 83 A.3d 901 (Pa. 2013).

50. Robinson Twp. v. Commonwealth, 52 A.3d 463 (Pa. Commw. Ct. 2012).

51. *Robinson Twp.*, 83 A.3d at 981.

52. *Id.* at 951 (quoting Page v. Allen, 58 Pa. 338, 347 (1868)).

53. *Id.* at 983.

54. *Id.* at 999.

55. *Id.* at 1000.

56. *Id.* at 1000-01.

57. Hydraulic Fracturing Regulatory Act, S.B. 1715, Pub. Act 098-0022 (Ill. 2013), *available at* http://ilga.gov/legislation/publicacts/98/PDF/098-0022.pdf.

58. *Id.* § 1-5.

The act includes chemical disclosure provisions,[59] baseline groundwater monitoring requirements,[60] and creates a rebuttable presumption of liability for contamination of water sources within 1,500 feet of a well site.[61] The Act requires permit applicants to submit flowback management and well site safety plans;[62] establishes setback, construction, cementing, and well integrity technical requirements;[63] and requires the creation of a "traffic light" system for seismic monitoring that "allow[s] for low levels of seismicity while including additional monitoring and mitigation requirements when seismic events are of sufficient intensity to result in a concern for public health and safety."[64] Additionally, the Act includes a provision allowing citizen suits to compel compliance with the investigative and enforcement authorities.[65]

f. California Issues Revised Regulations

California's Division of Oil, Gas, and Geothermal Resources released revised proposed well stimulation regulations on June 13, 2014,[66] replacing interim regulations issued on January 1, 2014.[67] The regulations lay out permitting requirements for hydraulic fracturing and other well stimulation techniques[68] and establish requirements for well integrity,[69] public disclosure,[70] water testing upon request,[71] seismic monitoring,[72] and waste handling.[73] The proposal would allow operators to request a "single-project authorization," allowing multiple well stimulation treatments under a single permit.[74] The proposed regulations would go into effect on January 1, 2015.[75]

g. Connecticut Imposes Moratorium on Treatment of Hydraulic

59. *Id.* § 1-35(b)(8).

60. *Id.* § 1-80.

61. *Id.* § 1-85.

62. Ill. Public Act 098-0022, § 1-35(b)(11)-(12).

63. *Id.* §§ 1-25, 1-70.

64. *Id.* § 1-96(c).

65. *Id.* § 1-102(a)-(b).

66. First Revised Text of Proposed Regulations, *supra* note 33.

67. *Id.*; S.B. 4 Interim Well Stimulation Treatment Regulations, *available at* http://www.conservation.ca.gov/dog/Documents/Final%20Interim%20Regulations.pdf; S.B. 4 Interim Well Stimulation Treatment Regulations: Text of Proposed Regulations (2014), *available at* http://www.conservation.ca.gov/dog/Documents/Final%20Interim%20Regulations.pdf.

68. First Revised Text of Proposed Regulations, *supra* note 33, §1783.

69. *Id.* § 1784.

70. *Id.* § 1788.

71. *Id.* § 1783.3.

72. *Id.* § 1785.1.

73. First Revised Text of Proposed Regulations, *supra* note 33, § 1786.

74. *Id.* § 1751.

75. S.B. No. 4, ch. 313 (Cal. 2013), *available at* http://www.leginfo.ca.gov/pub/13-14/bill/sen/sb_0001-0050/sb_4_bill_20130920_chaptered.pdf.

Fracturing Waste

Connecticut has imposed a three-year moratorium on the storage, treatment, and disposal of waste from hydraulic fracturing activities.[76] The bill takes effect July 1, 2014.[77] The State Department of Energy and Environmental Protection is required to adopt regulations addressing disposal activities during the moratorium.[78]

B. Pipelines

1. Keystone XL Update

a. State Litigation

In *Crawford Family Farm P'ship v. TransCanada Keystone Pipeline LP*, a private landowner challenged TransCanada's authority to invoke eminent domain with respect to siting the Keystone pipeline route.[79] On March 21, 2014, a Texas state court found that a pipeline company, such as TransCanada, was a common carrier with the right of eminent domain in the context of pipeline siting.[80] The Texas Supreme Court denied the landowner's petition for review, thus leaving in place the lower court's decision authorizing TransCanada's right of eminent domain.[81]

On January 22, 2013, pursuant to Nebraska state law referred to as LB 1161, the governor of Nebraska approved the proposed Keystone XL pipeline route through the state.[82] In *Thompson v. Heineman*, plaintiffs challenged the governor's approval, and on February 19, 2014, a Nebraska court found a state statute allowing the governor to approve major oil pipeline citing to be in violation of the state constitution.[83] The court held that by divesting the state public service commission (PSC) of control over the routing decisions of oil pipelines, the state statute violated the Nebraska Constitution, and ordered that no further action be taken pursuant to the governor's acceptance.[84] The governor has appealed this decision and the case remains pending before the Nebraska Supreme Court.[85]

76. S.B. No. 237, Pub. Act No. 14-200 (Conn. 2014), *available at* http://www.cga.ct.gov/2014/act/pa/pdf/2014PA-00200-R00SB-00237-PA.pdf.

77. *Id.*

78. *Id.* at 2-3.

79. Crawford Family Farm P'ship v. TransCanada Keystone Pipeline, LP, 409 S.W.3d 908, 910 (Tex. App. 2013), *reh'g overruled* (Sept. 17, 2013), *review denied* (Mar. 21, 2014).

80. *Id.*

81. *Id.*

82. Thompson v. Heineman, No. CI 12-2060, slip op. at 9 (Lancaster Cty. Dist. Ct. Feb. 19, 2014).

83. *Id.* at 49-50.

84. *Id*. at 50.

85. Appellant's Opening Brief, Thompson v. Heineman (Neb. Feb. 19, 2014) (No. S-14-000158), *available at* https://supremecourt.nebraska.gov/sites/supremecourt.ne.gov/files/misc/thompson-v-heineman/Appellants-Opening-Brief.pdf.

b. Federal Review Proceedings

The U.S. Department of State (State Department) published its Final Environmental Impact Statement (EIS) and invited members of the public to comment on any factor they deemed relevant to the national interest determination that will be made for the Presidential Permit application.[86] The comment period closed on March 7, 2014,[87] and more than 2.5 million public comments were submitted during this period.[88] On April 18, 2014, the State Department announced it would extend the time for analysis.[89] The State Department cited the need for resolution of the pending Nebraska decision regarding citing of the pipeline.[90] The State Department's review remains pending.[91]

2. FERC NEPA Review

On November 21, 2013, the Federal Energy Regulatory Commission (FERC or the Commission) approved Columbia Gas Transmission's application to construct and operate pipeline expansion facilities.[92] Environmental groups argued that the Commission's National Environmental Policy Act (NEPA) review was deficient for failing to consider development of Marcellus and other shale gas in its cumulative impact analysis.[93] The Commission responded that, "[w]ith respect to production and development activities that are not within the project area, the Commission will determine whether impacts of such activities should be included in the [environmental assessment (EA)] or EIS based on a fact-specific analysis."[94] The Commission reiterated its view on rehearing.[95]

On June 6, 2014, the D.C. Circuit Court of Appeals found that the FERC had violated NEPA in approving upgrades on the Eastern Leg of Tennessee Gas Pipeline's (TGP) 300 Line and remanded the case back to the FERC for further consideration.[96] This upgrade project was one of four projects proposed by TGP on its 300 Line.[97] Environmental groups argued that the FERC violated NEPA by segmenting its review of the project.[98] Environmental groups also claimed that by failing to give consideration to the project in conjunction with three other closely related Eastern Leg projects, the FERC failed to provide a meaningful analysis of the cumulative impacts of the projects.[99] The court agreed and found that the

86. Notice of 30 Day Public Comment Period Regarding the National Interest Determination for TransCanada Keystone Pipeline, L.P.'s Presidential Permit Application, 79 Fed. Reg. 6984 (Feb. 5, 2014).

87. *Keystone XL Pipeline Project: New Keystone XL Pipeline Application*, U.S. DEPT. OF STATE, http://www.keystonepipeline-xl.state.gov.

88. *Id.*

89. Press Release, U.S. Dep't of State, Keystone XL Pipeline Project Review Process: Provision of More Time for Submission of Agency Views (Apr. 18, 2014), http://www.state.gov/r/pa/prs/ps/2014/04/224982.htm.

90. *Id.*

91. *Id.*

92. *Columbia Gas Transmission, LLC*, 145 FERC ¶ 61,153 (2013).

93. *Columbia Gas Transmission, LLC*, 145 FERC ¶ 61,116 at P 22 (2014).

94. *Id.*

95. *Id.*

96. Del. Riverkeeper Network v. Fed. Energy Regulatory Comm'n, 753 F.3d 1304, 1307 (D.C. Cir. 2014).

97. *Id.* at 1308.

98. *Id.* at 1311.

99. *Id*. at 1307.

FERC violated NEPA by failing to consider TGP's other three projects on the Eastern Leg and in failing to address the cumulative impacts of the four upgrade projects.[100]

Legislation was introduced in Congress to modify the FERC's NEPA review process. The Natural Gas Pipeline Permitting Reform Act, H.R. 1900, sponsored by Representative Mike Pompeo (R-KS), would require the FERC to approve or deny applications for certificates of public convenience and necessity within twelve months of receiving a completed application.[101] The North American Energy Infrastructure Act, H.R. 3301, sponsored by Representative Fred Upton (R-MI), would require the FERC to approve construction of natural gas pipelines at the national boundary of the United States for the import or export of natural gas to or from Canada or Mexico unless such approval is found not to be in the national security interest.[102]

C. Methane & Fugitive Emissions

1. White House Climate Action Plan & Methane Reduction Strategy

On March 28, 2014, the Obama Administration announced its Strategy to Reduce Methane Emissions as part of the implementation of the President's Climate Action Plan.[103] The White House indicated that the EPA would assess sources of methane and other emissions from the oil and gas sector and determine how to further reduce methane emissions from these sources with the aim of completing new regulations by the end of 2016.[104] The White House also outlined plans for reductions in methane emissions related to coal mines, landfills, and cattle.[105]

2. State Activity

a. Colorado

In February 2014, Colorado Air Quality Control Commission enacted rules requiring fugitive emissions detection and repair and regulating methane emissions.[106] The rules require the reduction of emissions of volatile organic compounds (VOCs) and methane at oil and gas production facilities by 95%.[107]

100. *Id*. at 1320.

101. H.R. 1900, 113th Cong. (2013), http://beta.congress.gov/bill/113th-congress/house-bill/1900.

102. H.R. 3301, 113th Cong. (2013), http://beta.congress.gov/bill/113th-congress/house-bill/3301.

103. *See generally* Dan Utech, *A Strategy to Cut Methane Emissions*, THE WHITE HOUSE BLOG (Mar. 28, 2014), http://www.whitehouse.gov/blog/2014/03/28/strategy-cut-methane-emissions.

104. CLIMATE ACTION PLAN: STRATEGY TO REDUCE METHANE EMISSIONS, THE WHITE HOUSE 1, 7 (2014), *available at* http://www.whitehouse.gov/sites/default/files/strategy_to_reduce_methane_emissions_2014-03-28_final.pdf.

105. *Id.* at 2, 5-7.

106. Dep't of Pub. Health & Env't, Air Quality Control Commission Regulation Number 7, 5 CCR 1001-9 (Feb. 23, 2014) [hereinafter Regulation No. 7], *available at* https://www.colorado.gov/pacific/sites/default/files/002_Regulation-Numbers-3-6-and-7-Unofficial-Draft-002_1.pdf.

107. *Id.* at XVII.B.3b, XVII.C.1, XVII.D.3, XVII.G.

The Commission estimates the rules will reduce VOC emissions by 93,500 tons per year and methane emissions by approximately 65,000 tons per year.[108]

Gas from newly constructed, hydraulically fractured, or recompleted wells must be captured and routed to gathering lines or reduced by 95% by August 1, 2014.[109] Required reductions of emissions at centrifugal compressors must be reached by January 1, 2015.[110] The rules apply VOC emissions control requirements to certain storage tanks and glycol natural gas dehydrators[111] and include requirements for auto-igniters on combustion devices and either sealed valves or leak detection and repair for open-ended valves.[112]

The rules' leak detection and repair requirements require frequent inspection of components at natural gas compressor stations and well-production facilities, depending on the amount of fugitive VOC emissions.[113] They also impose timeframes for leak repair[114] and require submittal of an annual report.[115] The rules require implementation of best management practices to minimize emissions during well maintenance and liquids unloading,[116] and expand the low-bleed pneumatic controller requirement statewide.[117]

b. Wyoming

The Air Quality Division of Wyoming's Department of Environmental Quality updated its permitting guidance for oil and gas production facilities in September 2013.[118] The revised guidance requires operators to employ leak detection and repair programs in the Upper Green River Basin to all new and modified facilities where fugitive emissions are greater than or equal to four tons per year of VOCs.[119] Operators are required to conduct quarterly monitoring of fugitive emissions.[120]

Wyoming requires 98% control of flashing emissions on storage tanks containing VOCs or hazardous air pollutants (HAPs) for new and modified facilities.[121] Similar requirements apply to dehydration facilities[122] and pneumatic

108. Co. Dept. of Pub. Health & Env't, Regulatory Analysis for Proposed Revisions to Regulation 3, 6-7, 5 CCR 1001-5, 5 CCR 1001-8, and CCR 1001-9 (2014), *available at* http://www.epa.gov/airquality/oilandgas/2014papers/Attachment_GG_EDF.pdf.

109. Regulation No. 7, *supra* note 106, at XVII.G.

110. *Id.* at XVII.B.3.b.

111. *Id.* at XVII.C.1., XVII.D.3.

112. *Id.* at XVII.B.2.d., XVII.B.3.

113. *Id.* at XVII.F.

114. Regulation No. 7, *supra* note 106, at XVII.F.7.

115. *Id.* at XVII.F.9.

116. *Id.* at XVII.H.1.

117. *Id.* at XVIII.C.2.

118. OIL AND GAS PRODUCTION FACILITIES, CHAPTER 6, SECTION 2 PERMITTING GUIDANCE (2013) [hereinafter SECTION 2 PERMITTING GUIDANCE], *available at* http://deq.state.wy.us/aqd/Resources-New%20Source%20Review/Guidance%20Documents/September%202013%20FINAL_Oil%20and%20Gas%20Revision_UGRB.pdf.

119. *Id.* at 22.

120. *Id.*

121. *Id.* at 6.

122. *Id.* at 7.

pumps, and pneumatic controllers must be low or no-bleed.[123] In addition, Wyoming requires green completion permits in Concentrated Development Areas[124] and the Upper Green River Basin,[125] and produced water tanks are subject to the 98% VOC and HAP emissions control requirement.[126]

c. Ohio

Ohio adopted revised Model General Permits for oil and gas well sites released on April 4, 2014,[127] requiring more frequent leak detection inspections and quick repair of detected leaks.[128] Operators may use infrared cameras or portable sampling instruments to detect leaks.[129]

II. ELECTRIC GENERATION

A. Air: Criteria & Toxics

1. Utility MATS

The EPA's Utility Mercury and Air Toxics Standards (MATS) became effective on April 16, 2012.[130] The MATS rule established national emission standards for HAPs and revised new source performance standards (NSPS).[131] Compliance under the MATS rule will be required three years after the effective date, implying a compliance date in April 2015.[132] Generally, a fourth year for compliance will be made available to generators through application to the permitting authorities, and under extraordinary circumstances, a fifth year will be available for reliability critical units.[133]

In *White Stallion Energy Ctr., LLC v. EPA*, the United States Court of Appeals for the D.C. Circuit rejected petitions challenging the MATS rule by numerous parties, including attorneys general for nearly half of the states.[134] Their challenge centered on the EPA's finding that it is "appropriate and necessary" under section 112(n)(1)(A) of the Clean Air Act (CAA) to regulate HAP emissions

123. SECTION 2 PERMITTING GUIDANCE, *supra* note 118, at 11.

124. *Id.* at 16.

125. *Id.* at 22.

126. *Id.* at 23.

127. DIV. OF AIR POLLUTION CONTROL, OHIO EPA, REVISED GENERAL PERMITS FOR HIGH VOLUME HORIZONTAL HYDRAULIC FRACTURING, OIL AND GAS WELL SITE PRODUCTION OPERATIONS, FACT SHEET (Sept. 2014), *available at* http://epa.ohio.gov/Portals/27/oil%20and%20gas/OilandGasFactSheet.pdf.

128. Ohio EPA, High Volume Horizontal Hydraulic Fracturing, Oil and Gas Well Site Production Operations, Model General Permit 12.1(C)(5)(f)(2), *available at* http://epa.ohio.gov/Portals/27/oil%20and%20gas/GP12.1_PTIOA20140403final.pdf.

129. *Id.*

130. Final Rule, National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility Units, 77 Fed. Reg. 9304 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60 and 63).

131. *Id.*

132. *Id*. at 9426.

133. *Id.* at 9407.

134. White Stallion Energy Ctr., LLC v. EPA, 748 F.3d 1222 (D.C. Cir. 2014).

from electric utility steam generating units (EGUs).[135] The court concluded it was proper for the EPA, when deciding whether to regulate EGUs as a source category, to consider the delisting criteria in section 112(c)(9) of the CAA, the cumulative impacts of HAP emissions, and environmental harms.[136] The court agreed that the EPA was not required to factor in the costs of regulation.[137] The D.C. Circuit also rejected the petitioners' claim that the specific emissions limits for particular HAPs promulgated by the EPA were arbitrary and capricious because they rationally accounted for the scientific record and reasonably interpreted section 112 of the CAA.[138] Additionally, the court determined that the EPA validly chose to regulate all HAP emissions by EGUs while creating a subcategory for lignite-fired EGUs.[139] Finally, *White Stallion* recognized that the EPA can attain reasonable assurance of compliance with its rule through emissions averaging and stack testing.[140]

2. Cross-State Air Pollution Rule

On July 11, 2011, the EPA finalized the Cross-State Air Pollution Rule (CSAPR) to reduce power plant emissions that contribute to ozone and/or fine particle pollution in other states.[141] Under CSAPR, twenty-eight states were required to reduce their annual sulfur dioxide (SO_2), annual nitrogen oxides (NOx), and/or ozone season NOx emissions to help achieve the 1997 ozone and fine particulate matter National Ambient Air Quality Standards (NAAQS).[142] On August 21, 2012, the D.C. Circuit held that the EPA exceeded its statutory authority in two independent respects when it adopted CSAPR.[143] On June 24, 2013, the United States Supreme Court granted the EPA's petition for certiorari.[144]

On April 29, 2014, the Supreme Court reversed and remanded the holding of the D.C. Circuit.[145] The Court concluded that the EPA was entitled to considerable *Chevron* deference in developing regulations to satisfy its complex CAA duty to control interstate air pollution.[146] It went on to decide that the EPA's consideration of cost in regulating upwind states, as reflected in CSAPR, is a permissible construction of the interstate transport provisions in the CAA because those provisions do not preclude that choice.[147] The Court also rejected the D.C. Circuit's conclusion that such regulation must be based solely on an upwind state's

135. *Id.* at 1234.

136. *Id.* at 1234-1236.

137. *Id.* at 1236-1243.

138. *Id.* at 1245-1250.

139. *White Stallion Energy Ctr., LLC*, 748 F.3d at 1249-1252.

140. *Id.* at 1252-1256.

141. Final Rule, Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51-2, 72, 78, and 97).

142. *Id.* at 48,210.

143. EME Homer City Generation, L.P. v. EPA, 696 F.3d 7, 11 (D.C. Cir. 2012).

144. American Lung Ass'n v. EME Homer City Generation, L.P., 133 S. Ct. 2857 (2013), *granting cert.* EME Homer City Generation, L.P. v. EPA, 696 F.3d 7 (D.C. Cir. 2012).

145. EPA v. EME Homer City Generation L.P., 134 S. Ct. 1584 (2014).

146. *Id.* at 1593.

147. *Id.* at 1610.

proportional contribution to a downwind state's attainment of the NAAQS because this method is not required by the interstate transport provisions in the CAA.[148] Lastly, the Court concluded that the possibility of "over-control" of downwind states under CSAPR does not lead to its invalidation.[149] It found that instances of "over-control" in downwind states may be incidental to reductions necessary to guarantee attainment elsewhere, as well as acknowledging the reality that some imprecision is inevitable in regulating interstate air pollution.[150] Finally, the Court held that the CAA does not require states be given a second opportunity to submit a state implementation plan (SIP) once the EPA has promulgated each state's emission budget.[151]

The Supreme Court addressed only the issues that had been decided by the D.C. Circuit in its CSAPR decision.[152] On June 26, 2014, the United States Government filed a motion with the D.C. Circuit to lift the stay of CSAPR, but while the court considers the motion, the Clean Air Interstate Rule remains in place.[153]

3. Startup, Shutdown & Malfunction Provisions

On February 22, 2013, in response to a rulemaking petition filed by the Sierra Club, the EPA published a proposed rule concerning the treatment of excess emissions when industrial facilities are starting up, shutting down, and malfunctioning.[154] The EPA proposes to find that thirty-six states have state implementation plans that contain exemptions for emissions during periods of startup, shutdown, or malfunction (SSM) that are inconsistent with the CAA.[155] The EPA takes the position that only certain narrowly crafted affirmative defenses are allowed, and proposes to use its existing authority to direct affected states to submit revised plans as early as February 2015.[156]

Whether the CAA gives the EPA and the states authority to adopt affirmative defenses is the subject of some debate in the courts. In *Natural Resources Defense Council v. EPA* (*NRDC*), the D.C. Circuit ruled that the EPA exceeded its statutory authority by including an affirmative defense for unavoidable malfunctions in a

148. *Id.* at 1605.

149. *Id.* at 1608.

150. *EME Homer City Generation*, 134 S. Ct. at 1608.

151. *Id.* at 1588.

152. *See*, *e.g.*, *id.* at n.12.

153. *See generally* EME Homer City Generation, L.P. v. EPA, Respondent's Motion to Lift the Stay Entered on Dec. 30, 2011, No. 11-1302 (D.C. Cir. 2012), *available at* http://www.epa.gov/airmarkets/airtransport/CSAPR/pdfs/Transport_motion_to_lift_stay_ECF.pdf.

154. State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction, 78 Fed. Reg. 12,460 (proposed Feb. 22, 2013) (to be codified at 40 C.F.R. pt. 52).

155. *Id.* at 12,469. The thirty-six states are: Maine, New Hampshire, Rhode Island, New Jersey, Delaware, District of Columbia, Virginia, West Virginia, Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Illinois, Indiana, Michigan, Minnesota, Ohio, Arkansas, Louisiana, New Mexico, Oklahoma, Iowa, Kansas, Missouri, Colorado, Montana, North Dakota, South Dakota, Wyoming, Arizona, Alaska, and Washington. *Id.* at 12,466.

156. *Id.* at 12,489.

rule establishing emission limits for Portland cement plants.[157] Because section 304(a) of the CAA specifically vests authority over private suits in the courts and not the EPA, the court reasoned that the creation of an affirmative defense was not within the authority that the CAA confers on the EPA to fill gaps, indicating that only the courts may create affirmative defenses.[158]

Meanwhile, the United States Court of Appeals for the Fifth Circuit determined that the EPA could approve an affirmative defense adopted by Texas for unplanned SSM emissions in *Luminant Generation Co. v. EPA*.[159] There, the court reasoned that the EPA reasonably interpreted the enforcement provisions of section 113 of the CAA in approving the affirmative defenses.[160] However, in *NRDC*, the D.C. Circuit sought to distinguish *Luminant* by suggesting that the adoption of an affirmative defense in a state implementation plan may be different than the inclusion of one in emission limits established by the EPA.[161]

4. National Ambient Air Quality Standards

a. Particulate Matter

On May 9, 2014, the D.C. Circuit issued a decision in *National Association of Manufacturers v. EPA*, denying the National Association of Manufacturers and Utility Air Regulatory Group's petitions to review the EPA's NAAQS for Particulate Matter (PM Rule).[162] The court found unpersuasive the petitioners' first argument that the EPA "prejudged" the outcome of the review process for the PM Rule by failing to request comment on whether to review the NAAQS because the EPA issued a Notice of Proposed Rulemaking for all PM NAAQS issues as well as queried how to revise the NAAQS.[163] The petitioners' second argument that the EPA applied inconsistent peer-review standards and disproportionately weighed scientific studies about PM exposure and health effects failed because the court, under the arbitrary and capricious standard of review, gave deference to the EPA's reasonable fact-finding processes.[164] Third, the court found that the EPA acted within its discretion for addressing comments when the petitioners argued that the EPA did not respond to comments about studies that supported retaining the former NAAQS standard.[165] The petitioner's fourth argument that the EPA unreasonably eliminated spatial averaging was unavailing because the court found that the agency did reasonably explain its decision to eliminate the methodology.[166] The petitioners' fifth argument, opposing the requisite near-road monitors, was defeated because the court found that the EPA provided adequate

157. NRDC v. EPA, 749 F.3d 1055, 1061 (D.C. Cir. 2014).

158. *Id.* at 1062.

159. Luminant Generation Co. v. EPA, 714 F.3d 841 (5th Cir. 2013).

160. *Id.* at 852-53.

161. *NRDC v. EPA*, 749 F.3d at n.2.

162. Nat'l Ass'n of Mfrs. v. EPA, 750 F.3d 921, 922, 926 (D.C. Cir. 2014). The Utility Air Regulatory Group's petition, No. 13-1071, was consolidated with the National Association of Manufacturers' petition. *Id.*

163. *Id.* at 924.

164. *Id*.

165. *Id*. at 924-25.

166. *Id.* at 925.

notice of the requirement as well as acted reasonably to protect the public, at-risk populations, and ensure that the NAAQS represent real-world conditions.[167] Lastly, the court rejected the petitioners' final argument that the EPA should have first published compliance guidance documents regarding the PM Rule because the law requires that states devise implementation plans, not that the EPA issue additional guidance.[168] In a separate proceeding, the court remanded two related rules regarding fine particulate matter: the Clean Air Fine Particle Implementation Rule and the Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$).[169]

b. Ozone

The EPA last promulgated national ambient air quality standards for ozone on March 12, 2008.[170] At that time, the EPA set the primary standard at 0.075 ppm (averaged over eight hours) and made the secondary standard identical to the primary standard.[171] In 2013, environmental groups sued the EPA in the Northern District of California seeking injunctive relief, requiring the EPA to complete the required review of the NAAQS, and alleging that the EPA had a mandatory duty to complete its scheduled review of the NAAQS.[172] On April 29, 2014, the United States District Court for the Northern District of California ordered the EPA to issue a proposal by December 2014 and a final rule by October 2015.[173]

B. Air: Greenhouse Gases

1. The Judicial Challenge to the EPA's Greenhouse Gas Permitting Rules

On June 23, 2014, the Supreme Court partly rejected and partly upheld the EPA's prevention of significant deterioration (PSD) and Title V permitting rules governing greenhouse gas (GHG) emissions from stationary sources.[174] More specifically, the Court rejected the EPA's contention that a source's GHG emissions, standing alone, can trigger PSD and Title V permitting obligations.[175] However, the Court agreed with the EPA's contention that for sources that are subject to the PSD permitting process "anyway," because of their emissions of other pollutants, the EPA can require those sources to implement the best available control technology (BACT), for their GHG emissions.[176]

167. *Nat'l Ass'n of Mfrs.*, 750 F.3d at 925-26.

168. *Id.* at 926-27.

169. NRDC v. EPA, 706 F.3d 428, 437 (D.C. Cir. 2013) (granting petition for review of the Clean Air Fine Particle Implementation Rule and the Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)).

170. *See generally* Final Rule, National Ambient Air Quality Standards for Ozone, 73 Fed. Reg. 16,436 (Mar. 27, 2008) (to be codified at 40 C.F.R. pts. 50 and 58).

171. *Id.*

172. Sierra Club v. EPA, Case No: 4:13-cv-02809-YGR at 2 (N.D. Cal. Apr. 8, 2014).

173. *Id.* at 19.

174. Utility Air Regulatory Group v. EPA, 134 S. Ct. 2427 (2014).

175. *Id.* at 2431-32.

176. *Id.* at 2437-39.

2. State Implementation of the EPA's Greenhouse Gas Permitting Rules

In July 2013, a divided panel of the D.C. Circuit Court of Appeals rejected, on standing grounds, a challenge brought by Texas, Wyoming, and various industry groups to several EPA rules governing the issuance of PSD permits in Texas and certain other states.[177] The rules included, among others, a "SIP Call," which found that several SIPs were inadequate because their PSD provisions did not cover greenhouse gases, and imposing a federal implementation plan (FIP) rule directing that the EPA would handle the greenhouse gas portion of PSD permits in Texas.[178] Subsequently, Texas submitted a revised SIP to the EPA providing for the regulation of greenhouse gases, and in February 2014, the EPA proposed withdrawing its FIP and approving the revised Texas SIP.[179]

3. Recent EPA BACT Determinations for Greenhouse Gases for Power Plants

In March 2014, the EPA's Environmental Appeals Board (EAB) rejected a Sierra Club challenge to a PSD permit for a natural gas-fired power plant in Harlingen, Texas.[180] Sierra Club had challenged two aspects of the EPA's best available control technology (BACT) determination for GHG emissions from the power plant: (i) the EPA's conclusion that any of three different GHG emission limits would constitute BACT, depending on the plant developer's ultimate choice of which type of turbine to install, and (ii) the EPA's decision not to require the use of supplemental solar thermal technology.[181] The EAB held that Sierra Club had failed to demonstrate an abuse of discretion by EPA permitting staff on either point.[182]

In May 2014, the EAB rejected a similar Sierra Club challenge to a PSD permit for the ExxonMobil Chemical Company's Baytown Olefins plant in Harris County, Texas.[183] In this case, Sierra Club objected to the EPA's failure to require the installation of carbon capture and sequestration (CCS) technology as part of the BACT requirement for GHG emissions.[184] More specifically, Sierra Club contended that the EPA failed to apply an appropriate cost-benefit analysis in concluding that CCS was not required.[185] The EAB concluded that a traditional cost-benefit analysis was not required and that the permitting staff did not abuse their discretion by focusing on the cost of installing CCS compared to the overall cost of the project.[186] The EAB further concluded that because the cost of

177. Texas v. EPA, 726 F.3d 180 (D.C. Cir. 2013).

178. *Id.* at 186-87.

179. Approval and Promulgation of Air Quality Implementation Plans; Withdrawal of Federal Implementation Plan; Texas; Prevention of Significant Deterioration; Greenhouse Gas Tailoring Rule Revisions, 79 Fed. Reg. 9123 (proposed Feb. 18, 2014) (to be codified at 40 C.F.R. pt. 52).

180. *In re* La Paloma Energy Center, LLC, PSD Appeal No. 13-10, slip op. 1 (EAB Mar. 14, 2014).

181. *Id.* at 3, 11.

182. *Id.* at 5, 11.

183. *In re* ExxonMobil Chemical Company (Baytown Olefins Plant), PSD Appeal No. 13-11, slip. op. 1 (EAB May 14, 2014).

184. *Id.* at 3.

185. *Id.* at 13-14.

186. *Id.* at 14.

installing CCS would have increased the overall cost of the project by roughly 25% (hundreds of millions of dollars), EPA permitting staff did not abuse their discretion in rejecting CCS as BACT.[187]

4. EPA's Clean Air Act Section 111(b) Proposal for Greenhouse Gas Emissions from New Power Plants

In January 2014, the EPA published proposed GHG emission limits, better known as "new source performance standards," for new fossil-fuel fired power plants, pursuant to CAA section 111(b).[188] The proposed rule would limit new coal-fired electricity generating units (EGUs) to 1,100 pounds of CO_2 emissions per megawatt-hour (lbs/MWh) of electricity produced, with compliance measured on a rolling average basis during each twelve-operating month period.[189] The proposal would also require new small natural gas EGUs to meet an 1,100 lbs/MWh emission limit, while requiring larger, more efficient natural gas units to meet a limit of 1000 lbs/MWh.[190] The proposed rule will not regulate GHG emissions from existing power plants (defined as those that commenced construction, within the meaning of the EPA's regulations, prior to January 8, 2014) or modified or reconstructed power plants.[191] The EPA has issued separate proposals for those types of facilities.[192]

5. EPA's Clean Air Act Section 111(d) Proposal for Greenhouse Gas Emissions from Existing Power Plants

On June 2, 2014, the EPA released a long-anticipated proposal for regulating GHG emissions from existing power plants.[193] The proposal would set state-specific emission rates for fossil-fuel fired power plants (coal, oil and gas) and require each state to develop a plan for meeting those rates. The EPA has stated that the proposal would reduce nationwide GHG emissions from the power sector by 30% from 2005 levels by 2030.[194] The individual state target emission rates, however, were derived based on the EPA's estimate of the reductions that could be achieved, from a 2012 baseline, by applying a combination of heat rate improvements at individual coal units, increased utilization of gas units instead of coal units, increased use of lower-emitting generation sources, and improvements

187. *Id.* at 14-39.

188. Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 1430 (proposed Jan. 8, 2014) (to be codified at 40 C.F.R. pts. 60, 70-1, and 98).

189. *Id.* at 1433.

190. *Id.*

191. *Id.*; *see also id.* at 1466 (citing the statutory definitions for "new" and "existing").

192. *See generally* Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,829 (proposed June 18, 2014) (to be codified at 40 C.F.R. pt. 60); Carbon Pollution Standards for Modified and Reconstructed Stationary Sources: Electric Utility Generating Units 79 Fed. Reg. 34,959 (proposed June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

193. Carbon Pollution Emission Guidelines, 79 Fed. Reg. at 34,829.

194. ENVTL. PROT. AGENCY, EPA FACT SHEET: CLEAN POWER PLAN, http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-overview (last updated June 13, 2014).

in end-user energy efficiency.[195] The EPA's proposal would not impose direct emission limits on power plants, but would instead require each individual state to develop a plan for limiting power plant emissions.[196] The proposal would allow states to choose among several different compliance approaches.[197]

6. EPA's Clean Air Act Section 111(d) Proposal for Greenhouse Gas Emissions from Modified & Reconstructed Power Plants

Also on June 2, 2014, the EPA released a proposed approach for regulating GHG emissions from "modified" and "reconstructed" power plants i.e., existing power plants that are altered in such a way as to trigger additional emission control obligations.[198] "Modified" units are those that undergo a physical or operational change that results in an increase in their hourly rate of air emissions.[199] "Reconstructed" units are those where components have been replaced to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable new facility, and it is technologically and economically feasible to meet the emission standards set by the EPA.[200] Under the EPA's proposal, neither modified nor reconstructed steam units would have to install CCS or meet the more stringent emission standards proposed for newly constructed units.[201] Instead, those units would be required to meet an emission standard that the EPA calculated based on a combination of best operating practices and equipment upgrades (to improve the unit's efficiency).[202] However, modified and reconstructed gas turbines would be required to meet the corresponding emission limits for new gas turbines.[203]

7. State & Regional GHG Rules

a. California

California's GHG cap-and-trade program, established by AB 32 in 2006 and implemented by the California Air Resources Board (CARB), was established to achieve a reduction in GHG to the 1990 level of 427 million metric tons of CO_2 equivalent (CO_2e) by 2020.[204] This program applies to emissions of not only CO_2, but also methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons,

195. *See generally* Carbon Pollution Emission Guidelines, 79 Fed. Reg. at 34,895-97 (summarizing how the EPA sets the state target rates).

196. *Id.* at 34,830.

197. *Id.* at 34,897.

198. *Id.* at 34,959.

199. 40 C.F.R. § 60.14.

200. 40 C.F.R. § 60.15.

201. *Compare* Carbon Pollution Emission Guidelines, 79 Fed. Reg. at 34,962 (summarizing standards for modified and reconstructed units), *with* Standards of Performance for Greenhouse Gas Emissions, 79 Fed. Reg. at 1433 (summarizing standards for new units).

202. *See generally* Carbon Pollution Emission Guidelines, 79 Fed. Reg. at 34,962 (summarizing standards for modified and reconstructed units).

203. *Id.*

204. CAL. AIR RES. BD., STAFF REPORT: CALIFORNIA 1990 GREENHOUSE GAS EMISSIONS LEVEL AND 2020 EMISSIONS LIMIT at i (2007), *available at* http://www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf.

perfluorocarbons, nitrogen trifluoride, and other fluorinated GHGs.[205] A variety of facilities are regulated under this program including, but not limited to, facilities that engage in certain industrial operations (including, among other things, cogeneration, self-generation of electricity, and stationary combustion), electric generators located in California, entities that import electricity to California, and suppliers of liquefied natural gas.[206] Inclusion thresholds differ according to entity; for example, the threshold for electric generators and electricity importers is 25,000 annual metric tons or more of CO_2e, and compliance obligations for these entities began in 2013.[207] A covered entity's annual compliance obligation equals 30% of GHG emissions from the previous year,[208] and at the end of every three year compliance period, covered entities must hold sufficient allowances to cover its emissions from the entire compliance period.[209] Electric generators and electricity importers must hold sufficient allowances (equivalent to one metric ton of CO_2e) to cover each metric ton of CO_2e emissions as calculated pursuant to the regulations.[210] Covered entities may use offsets meeting specified criteria to meet up to 8% of their total compliance obligation.[211] Free allowances are allocated to electrical distribution utilities[212] and industrial entities pursuant to a specified methodology.[213]

On November 12, 2013, the Sacramento Superior Court issued a joint ruling on two related lawsuits which claimed, among other things, that the auction provisions exceed the scope of authority conferred on CARB in AB 32, and that the auction provisions permit an unconstitutional tax.[214] The court concluded that "the sale of allowances is within the broad scope of authority delegated to [CARB] in AB 32"[215] because, among other things, AB 32 "specifically delegates to [CARB] the discretion to adopt a cap-and-trade program and to 'design' a system of distribution of emissions allowances."[216] Further, the court stated that the charges ultimately resemble a regulatory fee more than a traditional tax (though they contain attributes of both),[217] and concluded that "all that is required is a reasonable relationship between the charges and the covered entities' (collective) responsibility for the harmful effects of GHG emissions. As the state's largest sources of GHG emissions, the court is persuaded that a reasonable relationship exists."[218] In a separate but related matter, California's Legislative Analyst's Office (LAO) issued a cap-and-trade auction revenue expenditure plan which,

205. CAL. CODE REGS. tit. 17, § 95810 (2013).

206. *Id.* § 95811.

207. *Id.* § 95812(a), (c)(2)(A)-(B).

208. *Id.* § 95855(b).

209. *Id.* § 95853.

210. CAL. CODE REGS. tit. 17, § 95852.

211. *Id.* §§ 95854, 95970-88.

212. *Id.* §§ 95870(d), 95890, 95892.

213. *Id.* §§ 95870(e), 95891.

214. Ca. Chamber of Commerce v. Ca. Air Resources Bd.; Morning Star Packing Co. v. Ca. Air Resources Bd., Case Nos. 34-2012-80001313, 34-2013-80001464 (Joint Ruling) (Cal. Nov. 12, 2013).

215. *Id.* at 11.

216. *Id.* at 9-10.

217. *Id.* at 18.

218. *Id.* at 22.

among other things, calls for $250 million in the 2014-2015 budget to support a high-speed rail system.[219] On May 16, 2014, a final rulemaking package of clarifying amendments was filed with the California Office of Administrative Law (OAL), which must make a final determination by June 30, 2014.[220] Regarding the EPA's proposed GHG rule, CARB Chairman Mary D. Nichols believes it may renew interest for other states to examine the possibility of pursuing cap-and-trade as a compliance solution.[221]

b. Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative (RGGI) is a cap-and-trade program, comprised of nine northeastern states,[222] designed to reduce GHG emissions through the auction and trading of carbon dioxide (CO_2) allowances. Pursuant to the Model Rules, all fossil fuel-fired electric generators with nameplate capacities of 25MW or greater must hold CO_2 allowances (each allowance representing one ton of CO_2) equal to their CO_2 emissions as of the end of a three-year timeframe known as the control period.[223] CO_2 allowances are allocated during quarterly auctions, and CO_2 offset allowances may also be awarded for projects that either reduce or sequester carbon emissions and meet, among other things, certain additionality and verifiability standards.[224]

Following program revisions announced in February 2013, that would reduce the CO_2 emissions cap by 2.5% annually through 2020, demand for CO_2 allowances increased significantly and it is anticipated that prices will remain above the minimum reserve price ($2.00 in 2013 and 2014) for the foreseeable future.[225] In addition, prices were likely high in the fourth quarter of 2013 due to speculation that the EPA's proposed rule would support participation in regional cap-and-trade programs like RGGI.[226] Among the changes proposed in February 2013 was a Cost Containment Reserve (CCR) that was designed to help regulate

219. MAC TAYLOR, LEGISLATIVE ANALYST'S OFFICE, THE 2014-15 BUDGET: CAP-AND-TRADE AUCTION REVENUE EXPENDITURE PLAN (2014), *available at* http://www.lao.ca.gov/reports/2014/budget/cap-and-trade/auction-revenue-expenditure-022414.pdf.

220. *Cap-and-Trade 2013*, CAL. AIR RES. BD., http://www.arb.ca.gov/regact/2013/capandtrade13/capandtrade13.htm.

221. Carolyn Whetzel, *States May Look to California for Ways to Meet EPA Rule*, BLOOMBERG (June 3, 2014), http://www.bloomberg.com/news/2014-06-03/states-may-look-to-california-for-ways-to-meet-epa-rule.html.

222. Participating states include: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. New Jersey, formerly a participating state, withdrew from RGGI in 2011. An appellate court in New Jersey recently found, however, that the manner in which it withdrew was unlawful–specifically, in addition to posting information on its website regarding the withdrawal from RGGI, the New Jersey Department of Environmental Protection should have repealed or amended the regulations to make clear that there is no stand-alone cap-and-trade program in New Jersey. *In re* Regional Greenhouse Gas Initiative (RGGI), Docket No. A-4878-11T4, 2014 WL 1228509, at *5 (N.J. Super. App. Div.).

223. REG'L GREENHOUSE GAS INITIATIVE, MODEL RuleXX-1.2(s), XX-1.4(a), XX-1.5 (2013), *available at* http://www.rggi.org/docs/ProgramReview/_FinalProgramReviewMaterials/Model_Rule_FINAL.pdf.

224. *Id.* at XX-10 (CO_2 Emissions Offset Projects).

225. POTOMAC ECON., ANNUAL REPORT ON THE MARKET FOR RGGI CO_2 ALLOWANCES: 2013, at 6 (2014), *available at* http://www.rggi.org/docs/Market/MM_2013_Annual_Report.pdf.

226. *Id.*

CO_2 allowance prices by limiting the price to $4.00 per ton in 2014.[227] The CCR was used for the first time in the first quarter of 2014 when the price reached $4.00, triggering the release of an additional five million allowances which subsequently sold out which met the withdrawal limit for 2014.[228] During the most recent auction, held on June 6, 2014, the clearing price for CO_2 allowances was $5.02.[229] Regarding the forthcoming EPA GHG rule, several states are keeping options open in terms of future compliance, including considering joining RGGI.[230]

C. Water

1. Cooling Water Intake Structures Rule

On May 19, 2014, EPA Administrator Gina McCarthy signed the final regulation governing cooling water intake structures (CWIS) at existing large plants and other facilities that utilize cooling water, including large manufacturing facilities, petroleum refineries, and chemical manufacturing facilities.[231] The rule also amends the existing rules governing CWIS at new electric generating facilities, known as the "Phase I" rule, to incorporate changes driven, in large part, by subsequent decisions by both the Second Circuit Court of Appeals and the Supreme Court regarding both the existing Phase I rule,[232] and the Phase II rule.[233] The final rule becomes effective on October 14, 2014.[234]

Cooling water is used to remove waste heat from the generation of power from steam electric generating plants.[235] Section 316(b) of the Clean Water Act (CWA) requires that the "location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact."[236] After years of litigation that largely overturned the EPA's Phase II rule governing CWIS at large electric generating facilities, the EPA, in 2011, entered into a settlement agreement providing for a schedule to propose and finalize new rules. On April 20, 2011, the EPA proposed new

227. REG'L GREENHOUSE GAS INITIATIVE, SUMMARY OF RGGI MODEL RULE CHANGES 3 (2013), *available at* http://www.rggi.org/docs/ProgramReview/FinalProgramReviewMaterials/Model_Rule_Summary.pdf.

228. POTOMAC ECON., MARKET MONITOR REPORT FOR AUCTION 23, at 3 (2014), *available at* http://www.rggi.org/docs/Auctions/23/Auction_23_Market_Monitor_Report.pdf.

229. POTOMAC ECON., MARKET MONITOR REPORT FOR AUCTION 24, at 3 (2014), *available at* http://www.rggi.org/docs/Auctions/24/Auction_24_Market_Monitor_Report.pdf.

230. *First US Carbon Market in Membership Talks with Five States*, GLOBAL CCS INST. (Oct. 14, 2013), http://www.globalccsinstitute.com/institute/news/first-us-carbon-market-membership-talks-five-states.

231. Final Rule, National Pollutant Discharge Elimination System—Final Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and to Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48,300 (Aug. 15, 2014) (to be codified at 40 C.F.R. pts. 122 and 125) [hereinafter CWIS Rule].

232. Riverkeeper, Inc. v. EPA, 358 F.3d 174 (2d Cir. 2004).

233. Riverkeeper, Inc. v. EPA, 475 F.3d 83 (2d Cir. 2007), *rev'd sub nom.* Entergy Corp. v. Riverkeeper, Inc., 559 U.S. 208 (2009).

234. CWIS Rule, *supra* note 231, at 48,300.

235. *Water Discharge*, EPA.GOV, http://www.epa.gov/cleanenergy/energy-and-you/affect/water-discharge.html (last updated Sept. 25, 2013).

236. 33 U.S.C. § 1326(b) (2012).

regulations governing CWIS at existing facilities.[237] After two Notices of Data Availability supplementing the proposed rule,[238] and five extensions of the settlement agreement, the EPA adopted final rules in May 2014.[239]

The new rule applies to facilities that withdraw two million gallons per day (mgd) of water from a water of the United States, and use at least 25% of that water exclusively for cooling purposes.[240] The final rule adopted a compliance mechanism for determining "best technology available" (BTA) for minimizing impingement mortality (IM) that differed from the proposed rule.[241] Most significantly, the final rule eliminated mandated compliance with a proposed annual and monthly maximum IM limit.[242] Instead, the final rule provides seven options to determine BTA for IM at a facility: (1) "installation of closed cycle cooling [(CCC)];" (2) operating a CWIS "that has a maximum design through-screen intake velocity of 0.5 feet per second;" (3) operating a CWIS at an actual "maximum through-screen velocity of 0.5 feet per second;" (4) operate offshore velocity caps that (i) were installed prior to October 14, 2014 (the effective date of the rule), or (ii) are installed after October 14, 2014 and either meet the National IM standard or are part of system of technologies that are determined to be BTA for IM; (5) operating modified traveling screens including measures that are protective of fish or shellfish; (6) operating a system of technologies, management practices, and operational measures that is determined to be BTA for the CWIS; and (7) "achiev[ing] a 12-month [IM] performance standard of all life stages of fish and shellfish of no more than 24 percent mortality, including latent mortality."[243] The permitting director may also impose additional measures for the protection of shellfish and fragile species.[244] Low capacity factor units, i.e., those units which have "an annual average capacity utilization rate of less than 8 percent averaged over a 24-month block contiguous period," may request a site-specific standard for the unit.[245] The permitting director may also determine that the rates of impingement may be so low that no additional impingement control is warranted.[246]

In contrast, the final rule continues to allow the determination of BTA for entrainment mortality (EM) on a site-specific basis.[247] The determination of BTA for EM is to be based upon the consideration of relevant factors, including control

237. National Pollutant Discharge Elimination System—Cooling Water Intake Structures at Existing Facilities and Phase I Facilities, 76 Fed. Reg. 22,174 (proposed Apr. 20, 2011) (to be codified at 40 C.F.R. pts. 122 and 125).

238. Notice of Data Availability Related to EPA's Stated Preference Survey, 77 Fed. Reg. 34,927 (proposed June 12, 2012) (to be codified at 40 C.F.R. pts. 122-25); Notice of Data Availability Related to Impingement Mortality Control Requirements, 77 Fed. Reg. 34,315 (proposed June 11, 2012) (to be codified at 40 C.F.R. pts. 122-25).

239. CWIS Rule, *supra* note 231, at 48,300.

240. *Id.* at 48,430.

241. *Id.* at 48,329.

242. *Id.* at 48,303.

243. *Id.* at 48,433-34.

244. CWIS Rule, *supra* note 231, at 48,434.

245. *Id.*

246. *Id.*

247. *Id.* at 48,434.

measures to reduce entrainment of federally-listed threatened or endangered (T&E) species, or designated critical habitat.[248] A determination by the permitting director must include consideration of the following factors:

> (i) [n]umbers and types of organisms entrained [including federally-listed T&E species]; (ii) impact of changes in particulate emissions or other pollutants associated with entrainment technologies; (iii) land availability inasmuch as it relates to the feasibility of entrainment technology; (iv) remaining useful plant life; and (v) social costs and benefits, which may include qualitative, quantified and monetized categories.[249]

The permitting director may also consider, to the extent the applicant submitted information, the following factors:

> (i) [e]ntrainment impacts on the water body; (ii) [t]hermal discharge impacts; (iii) [c]redit for reductions in flow associated with retirement of units within ten years preceding [the effective date of the rule]; (iv) [i]mpacts on the reliability of energy delivery within the immediate area; (v) [i]mpacts on water consumption; and (vi) [a]vailability of process water, gray water, waste water, reclaimed water, or other waters of appropriate quantity and quality for reuse as cooling water.[250]

The site-specific analysis includes the ability of the permitting director to conclude that no additional EM technologies are required based upon an analysis that "the social costs [are] not justified by the social benefits," or that "unacceptable adverse impacts cannot be mitigated," by the technologies considered.[251] However, unlike the process for determining BTA for IM, the process for identifying BTA for EM for those facilities that withdraw at least 125 million gallons per day requires a detailed entrainment characterization study, which is subject to peer review.[252]

Notably, the rule addresses the standards for IM and EM for repowered, replaced, or rebuilt units.[253] A new unit at an existing facility must either reduce the design intake flow to a level commensurate with CCC, or demonstrate that technologies and operational measures will reduce adverse environmental impact (AEI) to a level 90% or greater of the reductions commensurate with CCC.[254] A "new unit" is defined as a new "stand-alone" unit at an existing facility where construction of the new unit begins after the effective date of the rules, and that does not otherwise meet the definition of a new facility in the Phase I rule.[255] A "stand-alone" unit is a separate unit that is added to a facility for either the same general industrial operation or another purpose.[256] However, the preamble to the final rule makes it clear that repowering a fossil fuel facility, or power uprates at nuclear facility, including where a new boiler or new fuel is utilized, is not considered the construction of a new unit.[257]

248. *Id.* at 48,438.
249. CWIS Rule, *supra* note 231, at 48,438.
250. *Id.*
251. *Id.*
252. *Id.* at 48,427.
253. *Id.* at 48,339.
254. CWIS Rule, *supra* note 231, at 48,434.
255. *Id.* at 48,432.
256. *Id.* at 48,327.
257. *Id.* at 48,310-11.

Finally, the United States Fish and Wildlife Service and the National Marine Fisheries Service (the Services) have gained an important role in the 316(b) process.[258] As part of the rulemaking, the Services issued a Biological Opinion under section 7 of the Endangered Species Act (ESA).[259] The Biological Opinion states that the final rule is not likely to jeopardize listed T&E species or destroy or adversely modify critical habitat.[260] However, the Biological Opinion did not end the Services' involvement in the 316(b) process going forward. Specifically, the permitting director must submit applications to the field offices of the Services upon receipt for a sixty day review prior to public notice of the draft or proposed permit.[261] The rule specifically cautions that the Services review does not authorize incidental take of T&E species under the ESA.[262] However, the Services state in the Biological Opinion that if the permitting director adopts permit conditions recommended by the Services during the review process, the permittee may be exempted from the incidental take process for the species listed in that permit as long as the permittee complies with the process.[263]

2. Waters of the United States

The jurisdiction of the CWA applies to all navigable waters, which are defined as "waters of the United States." [264] Current regulations define "waters of the United States" to include navigable waters, interstate waters, and other waters that could affect interstate or foreign commerce, impoundments of waters of the United States, tributaries, territorial seas, and adjacent wetlands.[265]

Federal court decisions spanning over a decade have called the federal definition into question, and more importantly have added uncertainty to the regulated community. The culmination of this confusion was the Supreme Court's decision in *Rapanos v. United States* (*Rapanos*),[266] in which there was no decision which reflected a majority opinion of the Court. A plurality of four justices held that "waters of the United States" covered "relatively permanent, standing or flowing bodies of water" that are connected to traditional navigable waterways and wetlands.[267] In contrast, Justice Kennedy disagreed with the plurality and would have held that waters of the United States need to be determined on a case-

258. *Id.* at 48,357-58.

259. DIV. OF ENVTL. REVIEW, U.S. FISH & WILDLIFE SERV. & OFFICE OF PROTECTED RESOURCES, NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES ACT SECTION 7 CONSULTATION: PROGRAMMATIC BIOLOGICAL OPINION ON THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S ISSUANCE AND IMPLEMENTATION OF THE FINAL REGULATIONS SECTION 316(B) OF THE CLEAN WATER ACT (2014) [hereinafter BiOP], *available at* http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/upload/Final-316b-Biological-Opinion-and-Appendices-May-19-2014.pdf.

260. *Id.* at 71.

261. CWIS Rule, *supra* note 231, at 48,439.

262. *Id.*

263. BiOP, *supra* note 259, at 75-6.

264. 33 U.S.C. § 1362(7) (2012).

265. 33 C.F.R. § 328.3(a).

266. Rapanos v. United States, 547 U.S. 715 (2006).

267. *Id.* at 732.

by-case basis, and would be "jurisdictional" if they had a "significant nexus" to other waters of the United States.[268]

Following *Rapanos*, the EPA and USACE attempt to alleviate confusion by proposing a new definition of "waters of the United States."[269] Navigable waters that were, are, or may be susceptible to interstate or foreign commerce, interstate waters, territorial seas, and interstate wetlands continue to be "waters of the United States."[270] Tributaries of these waters, as well as impoundments of these traditional waters and impoundments of their tributaries, are also considered "waters of the United States."[271] Waters and wetlands adjacent to the aforementioned waters would also be considered "waters of the United States,"[272] which would include those waters and wetlands that border, are contiguous to, or that neighbor waters of the United States, including those waters separated by man-made dikes or barriers, natural river berms, beach dunes, and similar barriers,[273] and including waters located within a floodplain or riparian area of such waters.[274]

Finally, and most significantly, the proposed rule includes "other waters," including wetlands, which either alone or in combination with waters identified above, have "significant nexus" to a traditional water of the United States.[275] Relying, in large part, on Justice Kennedy's opinion in *Rapanos*, the EPA and USACE define waters and wetlands with "significant nexus" to include those waters which significantly affect the "chemical, physical, or biological integrity of a water" of the United States.[276]

The proposed rule specifically excludes certain waters from being "waters of the United States," including waste treatment systems, prior converted cropland, upland ditches which do not have perennial flow, ditches that do not contribute, directly or indirectly, to the flow of a water of the United States, certain artificial irrigation systems, certain reflecting pools or swimming pools or ornamental waters, water-filled depressions incidental to construction, groundwater, gullies, rills, and non-wetland swales.[277] Finally, the rule incorporates this proposed definition of "waters of the United States" into other regulatory programs which rely on the definition. The comment period for the proposed rule expires November 14, 2014.[278]

268. *Id.* at 759.

269. Definition of "Waters of the United States" under the Clean Water Act, 79 Fed. Reg. 22,188 (proposed Apr. 21, 2014) (to be codified at 33 C.F.R. pt. 328, and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 and 401) [hereinafter Proposed WOUS Rule].

270. *Id.* at 22,262.

271. *Id.*

272. *Id.* at 22,263.

273. *Id.*

274. Proposed WOUS Rule, *supra* note 269, at 22,263.

275. *Id.*

276. *Id.*

277. *Id.*

278. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities, 79 Fed. Reg. 35,712 (proposed June 21, 2014) (to be codified at 40 C.F.R. pts. 257, 261, 264-5, 268, 271, and 302).

D. Waste: Coal Combustion Residuals

In June 2010, the EPA published a proposed rule that would establish coal ash regulations under the Resource Conservation and Recovery Act (RCRA).[279] The proposal offered two alternative regulatory frameworks: the treatment of coal ash as a hazardous waste under subtitle C, or as nonhazardous material under subtitle D. On April 5, 2012, environmental groups filed a lawsuit in the District Court for the District of Columbia, which was later consolidated with subsequent actions brought by coal ash recyclers and marketers.[280]

On July 25, 2013, the House passed The Coal Residuals and Reuse Management Act, H.R. 2218, which gives states control over permitting for coal ash, by a vote of 265-155.[281] No subsequent legislation has been issued in the Senate.

On April 24, 2014, the court approved a consent decree, submitted by the parties, which requires EPA Administrator McCarthy to sign for publication in the Federal Register a notice taking final action regarding the EPA's proposed revision of RCRA subtitle D regulations pertaining to coal combustion residuals by December 19, 2014.[282]

E. Endangered Species Act

Congress passed the ESA (the Act)[283] in 1973 to protect imperiled species and the habitats on which they depend.[284] Under the Act, the U.S. Fish and Wildlife Service (FWS)[285] must list a species as threatened or endangered when defined scientific criteria are met.[286] Whenever FWS lists a species, it must also designate "critical habitat" for the species, which is then protected from destruction or adverse modification.[287] Additionally, the ESA prohibits the "taking" of a species without authorization.[288] "Taking" is defined broadly to include, among other things, harassing or harming a species.[289] Violation of the take prohibition can lead to civil or criminal penalties.[290]

279. *Id.*; Notice of Data Availability, 76 Fed. Reg. 63,252 (proposed Oct. 12, 2011) (to be codified at 40 C.F.R. pts. 257, 261, 264-5, 268, 271, and 302); Notice of Data Availability, 79 Fed. Reg. 46,940 (Aug. 2, 2013).

280. Complaint for Declaratory and Injunctive Relief, Appalachian Voices v. Jackson, No. 1:12-cv-00523 (D.D.C. Apr. 5, 2012); Complaint for Declaratory and Injunctive Relief, Boral Material Techns. Inc. v. Jackson, No. 1:12-cv-00629 (D.D.C Apr. 20, 2012); Complaint for Declaratory and Injunctive Relief, Headwaters Res., Inc. v. Jackson, No. 1:12-cv-00585 (D.D.C. Apr. 13, 2012).

281. *Floor Action on H.R. 2218, The Coal Residents and Management Act of 2013*, COMM. ON ENERGY & COMMERCE, http://democrats.energycommerce.house.gov/index.php?q=flooraction/floor-action-on-hr-2218-the-coal-residuals-reuse-and-management-act-of-2013 (last visited Oct. 11, 2014).

282. Appalachian Voices v. EPA, No. 1:12-cv-00523 (D.D.C. Apr. 24, 2014).

283. 16 U.S.C. §§ 1531-44 (2012).

284. *Id.* § 1531(b).

285. FWS handles listings of land species and freshwater fish, while the National Oceanic and Atmospheric Administration (NOAA) handles listings of marine species.

286. 16 U.S.C. § 1533(a)(1).

287. *Id.* § 1533(a)(3).

288. *Id.* § 1538(a)(1)(B).

289. *Id.* § 1532(19).

290. *Id.* § 1540.

1. Listing Decisions under the Multiple District Litigation (MDL) Settlement

In 2011, FWS entered into broad settlement agreements with the Center for Biological Diversity and WildEarth Guardians,[291] and agreed to make listing decisions for over 750 species.[292] So far, FWS has diligently held up its side of the agreement. In fiscal year 2013, FWS listed eighty-one new species, which is twelve times more than the total number of species listed in the previous administrations of President George W. Bush.[293] As of May 2014, FWS has listed 107 species pursuant to the settlement, and proposed listings for an additional twenty-six species.[294]

a. Legal Challenges to the MDL

Since the settlements were finalized, several groups have challenged their legal validity. In March 2014, the U.S. District Court for the District of Columbia dismissed a challenge by the National Association of Home Builders (NAHB) for lack of standing.[295] NAHB appealed that ruling on May 20, 2014.[296] Just weeks before the NAHB decision, Oklahoma and several other interested stakeholders filed a complaint in a separate litigation, alleging that the settlement violates the Administrative Procedure Act, the ESA and its implementing regulations, and the due process clause of the United States Constitution.[297] The litigation remains ongoing.

b. Recent Notable Listing & Proposed Listing Decisions

Recent notable listing decisions include those of the dunes sagebrush lizard and the lesser prairie chicken. In June 2012, FWS withdrew its proposal[298] to list the dunes sagebrush lizard, which inhabits areas in the Permian basin of Texas and New Mexico. The withdrawal followed a series of conservation agreements that committed property owners and oil and gas companies to protect and restore the lizard's habitat, thus averting the need for a listing.[299] In June 2013, environmental groups challenged the FWS's decision, alleging that the withdrawal of the

291. *Listing Workplan*, U.S. FISH & WILDLIFE SERV., http://www.fws.gov/endangered/improving_esa/listing_workplan_FY13-18.html (last updated Oct. 9, 2014).

292. *Id.*

293. *Id.*

294. *Id.*

295. Nat'l Ass'n of Home Builders v. U.S. Fish & Wildlife Serv., No. 12-2013, 2014 U.S. Dist. LEXIS 42946 (D.D.C. Mar. 31, 2014).

296. Notice of Appeal, Nat'l Ass'n of Home Builders, No. 12-2013 (D.D.C. May 20, 2014), ECF No. 27; *see also NAHB v. Fish & Wildlife Service*, NAT'L ASS'N OF HOME BUILDERS, http://www.nahb.org/generic.aspx?genericContentID=196936&fromGSA=1 (last visited Oct. 22, 2014).

297. Complaint, Oklahoma v. Interior, No. 14-CV-123-TCK-PJC (N.D. Okla. Mar. 17, 2014).

298. Withdrawal of the Proposed Rule to List Dunes Sagebrush Lizard, 77 Fed. Reg. 36,871 (proposed June 19, 2012) (to be codified at 50 C.F.R. pt. 17).

299. Press Release, U.S. Dep't of the Interior, Landmark Conservation Agreements Keep Dunes Sagebrush Lizard off the Endangered Species List in NM, TX (June 13, 2012), *available at* http://www.fws.gov/southwest/es/Documents/R2ES/NR_for_DSL_Final_Determination_13June2012.pdf.

proposed listing violated the ESA, the APA, and the Service's own policies.[300] Litigation remains ongoing.

In April 2014, FWS listed the lesser prairie chicken—whose range also includes areas of the Permian basin—as threatened.[301] The listing occurred despite the development of several significant conservation agreements created for the species, enrollment of millions of acres of habitat for protection under those programs, and commitment of millions of dollars by industry stakeholders.[302] Accordingly, in June 2014, industry sued FWS, challenging the listing as unlawful.[303] Environmental groups also sued, alleging that the species should have been listed as endangered.[304] Litigation remains ongoing.

In January 2013, FWS proposed to list the Gunnison sage grouse, which inhabits Utah and Colorado, as endangered.[305] FWS is required to make a final listing decision by November 12, 2014.[306] In anticipation of that listing decision, in June 2014, BLM issued a prospective moratorium[307] prohibiting oil and gas development in proposed critical habitat areas designated for the grouse. In December 2013, FWS proposed to list the northern long-eared bat,[308] whose habitat includes thirty-nine states.[309] FWS will make a final listing decision for the species by April 2, 2015.[310] In October 2013, FWS proposed to list the California and Nevada populations of the greater sage grouse as threatened.[311] The other greater sage grouse populations, which encompass nine other western states, remain candidates for future listing.[312] Some western states have taken steps to

300. Complaint, Defenders of Wildlife v. Jewell, No. 1:13-cv-00919, 2013 WL 3506780 (D.D.C. June 19, 2013), *available at* http://esawatch.org/wp-content/uploads/2013/07/130618-Defenders-CBD-v-Ashe-Complaint-re-DunesSagebrushLizard.pdf.

301. Final Rule, Determination of Threatened Status for the Lesser Prairie-Chicken, 79 Fed. Reg. 19,973 (Apr. 10, 2014) (to be codified at 50 C.F.R. pt. 17).

302. Press Release, U.S. Fish & Wildlife Serv., U.S. Fish and Wildlife Service Lists Lesser Prairie-Chicken as Threatened Species and Finalizes Special Rule Endorsing Landmark State Conservation Plan (Mar. 27, 2014).

303. Complaint, Permian Basin Petroleum Ass'n. v. Dep't of the Interior, No. 7:14-cv-50 (W.D. Tex. June 9, 2014); Complaint, Okla. Indep. Petroleum Ass'n v. Dep't of the Interior, No. 4:14-cv-00307-JHP-PJC (N.D. Okla. June 8, 2014).

304. Complaint, Defenders of Wildlife v. Jewell, No. 1:14-cv-1025 (D.D.C. June 17, 2014), *available at* http://www.biologicaldiversity.org/species/birds/pdfs/Complaint_lesser_prairie_chicken.pdf.

305. Endangered Status for Gunnison Sage-Grouse, 78 Fed. Reg. 2485 (proposed Jan. 11, 2013) (to be codified at 50 C.F.R. pt. 17).

306. Press Release, U.S. Fish & Wildlife Serv., U.S. Fish and Wildlife Service Announces Short Extension of Final Decision on Listing the Gunnison Sage-Grouse (May 6, 2014).

307. Memorandum from Edwin L. Roberson, Assistant Dir. of Res. & Planning, BLM, on Gunnison Sage-grouse Habitat Management Policy to State Dirs., Colo. & Utah (May 30, 2014).

308. Listing the Northern Long-Eared Bat as an Endangered Species, 78 Fed. Reg. 72,058 (proposed Dec. 2, 2013) (to be codified at 50 C.F.R. pt. 17).

309. *Id.*

310. 6-Month Extension of Final Determination on the Proposed Endangered Status for the Northern Long-Eared Bat, 79 Fed. Reg. 36,698 (proposed June 30, 2014) (to be codified at 50 C.F.R. pt. 17).

311. Threatened Status for the Bi-State Distinct Population Segment of Greater Sage-Grouse With Special Rule, 78 Fed. Reg. 64,358 (proposed Oct. 28, 2013) (to be codified at 50 C.F.R. pt. 17).

312. 12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered, 75 Fed. Reg. 13,910 (proposed Mar. 23, 2010) (to be codified at 50 C.F.R. pt 17) (finding the listing of the greater sage grouse to be "warranted, but precluded").

conserve the greater sage grouse in hopes of obviating a listing.[313] In June 2014, a senior BLM official reported that BLM intended to issue guidance soon on fire-related measures in greater sage grouse habitat.[314]

2. Proposed Critical Habitat Rulemakings

On May 12, 2014, FWS proposed two new rules addressing regulation of critical habitat under the ESA.[315] The public comment period was open until October 9, 2014.[316] The first proposed rule would amend the range of features eligible to be designated as critical habitat.[317] The ESA defines "critical habitat" as:

> [T]he specific areas within the geographical area occupied by the species, at the time it is listed . . . on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species . . . [that] are essential for the conservation of the species.[318]

For the first time, FWS is proposing to define by regulation "geographical areas occupied by the species" and "physical or biological features."[319] Under the proposal, "geographical area occupied by the species . . . may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g., migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals)."[320] FWS also proposed to define "physical or biological features" to mean "the features that support the life-history needs of the species, including but not limited to water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features" and "may include habitat characteristics that support ephemeral or dynamic habitat conditions."[321] Finally, FWS also stated that it increasingly expects to designate areas outside of a species' range in response to changing distribution or migration patterns due to climate change or other factors.[322]

313. *See generally* WYOMING FIELD OFFICE RECORD OF DECISION AND APPROVED RESOURCE MANAGEMENT PLAN FOR THE LANDER FIELD OFFICE PLANNING AREA, BUREAU OF LAND MGMT. (2014); *Species Profile: Greater sage-grouse (Centrocercus urophasianus)*, U.S. FISH & WILDLIFE SERV. ENVTL. CONSERVATION ONLINE SYS., http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06W (last updated Oct. 12, 2014) (noting candidate conservation agreements signed by Utah and Idaho).

314. Tripp Baltz, *Bureau of Land Management to Release Guidance on Sage Grouse Habitat, Fire*, 14 DAILY ENVTL. REP. 113, at A-6 (citing Janice Schneider, Assistant Interior Secretary for lands and minerals).

315. On the same day, FWS also proposed a draft policy document, which sets forth the agency's decision-making procedure for whether to exclude areas from a critical habitat designation. Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 79 Fed. Reg. 20,752 (May 12, 2014).

316. Changes to the Definitions and Regulations for Designating Critical Habitat, 79 Fed. Reg. 36,284 (proposed June 26, 2014) (to be codified at 50 C.F.R. pts. 402 and 424).

317. Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 424).

318. 16 U.S.C. § 1532(5)(A) (2012).

319. Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. at 27,069.

320. *Id.*

321. *Id*.

322. *Id*. at 27,073.

The second proposed rule would amend the definition of "destruction or adverse modification" of a critical habitat.[323] Under the proposal, "destruction or adverse modification" is defined as:

> [A] direct or indirect alteration that appreciably diminishes the conservation value of critical habitat for listed species. Such alterations may include, but are not limited to, effects that preclude or significantly delay the development of the physical or biological features that support the life-history needs of the species for recovery.[324]

The definition would protect areas where "physical or biological features … are present in a sub-optimal quantity or quality" and areas that are not inhabited by the species, but have the potential to support "physical or biological features" that fulfill the species' needs and its potential recovery.[325] In practice, the proposed definition would expand the range of activities that constitute "destruction or adverse modification" to include not only activities that directly impact critical habitat but also those that "preclude or significantly delay habitat regeneration or natural successional processes, to an extent that it appreciably diminishes the conservation value of critical habitat."[326]

3. "Significant Portion of Its Range" Policy

On July 1, 2014, FWS finalized a policy defining the phrase "significant portion of its range" (SPR).[327] FWS avers that listings under the new policy will be "relatively uncommon,"[328] but the policy likely expands the Service's discretion to list new species. Under the policy, FWS will list a species as endangered or threatened range-wide if the species is endangered or threatened within a "significant portion of its range."[329] A portion of a species' range is significant if "without the members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range."[330] "Range" is defined as the "general geographic area within which that species can be found" at the time of FWS's status determination, and includes areas a species does not use "on a regular basis."[331] Although "range" does not include historical range where the species no longer exists, the Service does consider past range reductions in deciding whether to list a species.[332]

323. Definition of Destruction or Adverse Modification of Critical Habitat, 79 Fed. Reg. 27,060 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 402).

324. *Id*. at 27,061.

325. *Id*.

326. *Id*.

327. Final Policy on Interpretation of the Phrase "Significant Portion of Its Range," 79 Fed. Reg. 37,578 (July 1, 2014) (to be codified at 50 C.F.R. ch. II).

328. *Id*. at 37,581.

329. *Id.* at 37,579.

330. *Id*. Note that there is no minimum percentage threshold for "significant." Rather FWS determines significance based on viability factors from conservation biology. *Id*. at 37,582-83.

331. *Id.* at 37,579, 35,783-85.

332. *Id*. at 35,784.

F. Avian Issues

"The take of certain bird species can give rise to criminal and civil penalties under . . . the Migratory Bird Treaty Act (MBTA),[333] which protects over 1000 species of migratory birds, and the Bald and [Golden Eagle Protection Act] BGEPA, which affords additional protections for bald and golden eagles."[334] The FWS Office of Law Enforcement is "responsible for investigating violations of both statutes and, where it deems appropriate, refers cases to the [Department of Justice (DOJ)] for prosecution."[335]

In 2013, DOJ "announced the first criminal enforcement action against a wind energy company."[336] The FWS is investigating a number of additional cases of avian mortalities at wind power facilities.[337] In addition, the FWS is taking steps to reform its regulations for eagle take permits[338] and recently issued the first programmatic eagle permit.[339] These developments are discussed in more detail in the sections that follow.

1. MBTA Criminal Enforcement

In November 2013, Duke Energy Renewables, Inc. (Duke) pled guilty to two Class B misdemeanor violations of the MBTA for bird deaths "at the company's Top of the World and Campbell Hill wind power [facilities]."[340] Under the plea agreement with DOJ, the company was sentenced to $1 million in restitution fines and a five-year probation, during which it is required to implement a Migratory Bird Compliance Plan (MBCP) to minimize or avoid avian mortalities at its four wind facilities, estimated to cost up to an additional $600,000 per year.[341] The plea agreement also required Duke Energy Renewables to develop an Eagle

333. 16 U.S.C. § 703(a) (2012); 50 C.F.R. § 21.11 (2009). The regulations define "take" under the MBTA as "to pursue, hunt, shoot, wound, kill, trap, capture or collect" or to attempt to do so. 50 C.F.R. § 10.12 (2007). Any corporation found in violation of the MBTA is subject to Class B misdemeanor charges and a maximum penalty of $15,000 or twice the gross gain derived from the offense, as well as five years of probation. 18 U.S.C. § 3571(d) (2012); 16 U.S.C. § 703.

334. Raya Treiser, *Bird Takes at Wind Energy Facilities: Lessons Learned from Recent Regulatory and Enforcement Actions*, 11 A.B.A. SEC. ON ENV'T, ENERGY, & RESOURCES 1, Aug. 2014, at 1 [hereinafter *Treiser*]. 16 U.S.C. § 668(a) (2012); 50 C.F.R. § 22.3 (2012). A "take" is defined broadly to include the pursuit, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting or disturbing of a bald or golden eagle or their nests or eggs. 16 U.S.C. § 668.

335. *Id.* at 3.

336. Press Release, U.S. Dep't of Justice, Utility Company Sentenced in Wyoming for Killing Protected Birds at Wind Projects (Nov. 22, 2013), http://www.justice.gov/opa/pr/utility-company-sentenced-wyoming-killing-protected-birds-wind-projects [hereinafter Duke Energy Announcement].

337. *Collision Course: Oversight of the Obama Administration's Enforcement Approach for America's Wildlife Laws and its Impact on Domestic Energy*, Hearing Before the H. Comm. on Natural Resources, 113th Cong. (2014) (testimony of Dan Ashe, Director, U.S. Fish & Wildlife Serv.), http://www.fws.gov/laws/Testimony/displaytestimony.cfm?ID=232 (last updated May 8, 2014).

338. *Eagle Scoping Public Input Process*, FWS, http://eaglescoping.org/.

339. Golden Eagles; Programmatic Take Permit Decision; Finding of No Significant Impact of Final Environmental Assessment; Shiloh IV Wind Project, Solano County, California, 79 Fed. Reg. 36,552 (June 27, 2014).

340. Duke Energy Announcement, *supra* note 336.

341. United States v. Duke Energy Renewables, Inc., Plea Agreement (D. Wyo. CR-13-CR-268 R Nov. 7, 2013), *available at* http://www.eenews.net/assets/2013/11/25/document_gw_01.pdf.

Conservation Plan and apply for a programmatic eagle take permit.[342] This represents the first criminal enforcement action against a wind energy company under the MBTA.[343]

The FWS is currently investigating seventeen additional cases of avian mortalities from wind power facilities, of which seven have been referred to DOJ for potential prosecution.[344]

While the standards are still evolving, perhaps the most important factor the Service considers in determining whether to investigate and refer a case for prosecution is whether the company can demonstrate a record of compliance with the Land-Based Wind Energy Guidelines[345] and the Eagle Conservation Plan Guidance.[346] These documents establish a national framework for assessing and mitigating risk to birds from the construction and operation of wind energy facilities. While compliance is voluntary, the FWS considers compliance in determining whether to investigate a take. As provided in the Wind Energy Guidelines:

> The Service will regard a developer's or operator's adherence to these Guidelines, including communication with the Service, as appropriate means of identifying and implementing reasonable and effective measures to avoid the take of species protected under the MBTA and BGEPA. The Chief of Law Enforcement or more senior official of the Service will make any decision whether to refer for prosecution any alleged take of such species, and will take such adherence and communication fully into account when exercising discretion with respect to such potential referral.[347]

2. Reforms of Eagle Take Permit Regulations

In 2009, FWS finalized regulations authorizing the limited take of bald and golden eagles that results from otherwise lawful activities.[348] The regulations provide for two kinds of take permits: standard permits, which authorize individual instances of unavoidable take; and programmatic permits, which authorize unavoidable recurring take, including take that results from the operation of energy facilities.[349]

342. *Id.*

343. Duke Energy Announcement, *supra* note 336.

344. Testimony of Dan Ashe, *supra* note 337.

345. U.S. FISH & WILDLIFE SERV., U.S. FISH & WILDLIFE SERVICE LAND-BASED WIND ENERGY GUIDELINES (2012) [hereinafter WIND ENERGY GUIDELINES], *available at* http://www.fws.gov/windenergy/docs/WEG_final.pdf.

346. U.S. FISH & WILDLIFE SERV., DIV. OF MIGRATORY BIRD MGMT., EAGLE CONSERVATION PLAN GUIDANCE, MODULE 1: LAND-BASED WIND ENERGY (VERSION 2) (2013), *available at* http://www.fws.gov/windenergy/PDF/Eagle%20Conservation%20Plan%20Gu*Id*ance-Module%201.pdf.

347. WIND ENERGY GUIDELINES, *supra* note 345, at 6.

348. 50 C.F.R. § 22.26. While wind energy operators are not legally required to obtain an eagle take permit, any take of an eagle in the absence of a permit could expose the company to liability under BGEPA and could result in significant monetary penalties, probation and even suspension of operations. An initial BGEPA violation by a company is a Class A misdemeanor with a maximum punishment of five years of probation and a $250,000 fine. 16 U.S.C. § 668(a), modified by 18 U.S.C. § 3571(c)(5) (2011). Subsequent violations are Class E felonies, punishable by five years of probation and a fine of up to $500,000. 18 U.S.C. § 3571(c)(3). In addition to criminal penalties, BGEPA also provides for a maximum civil penalty of $5,000 per violation. 16 U.S.C. § 668.

349. 50 C.F.R. § 22.26.

a. First Programmatic Eagle Take Permit

The Service issued the first five-year programmatic eagle take permit in July 2014, authorizing Shiloh IV Wind Project LLC to take up to five eagles within the permit's five-year term.[350] To mitigate for the project's adverse impacts to eagle populations, the company committed to retrofit 133 power lines within one year to reduce eagle deaths from electrocutions.[351] If actual mortality numbers prove to be higher than estimated, the company will be required to pursue "experimental advanced conservation practices," including the potential installation of audio-visual deterrents.[352]

In the past several months, FWS has also published notices of intent to prepare NEPA documents for two other projects. First, on December 4, 2013, FWS published a notice to prepare an EIS for an eagle take permit for the Chokecherry-Sierra Madre wind energy project.[353] The Service prepared a Final Scoping Report in April 2014, and is currently developing a draft EIS.[354] In addition, on January 1, 2014, the Service published a notice to prepare an Environmental Assessment for an eagle take permit for the Great Bay Wind Energy project.[355] As mentioned above, Duke Energy Renewables is also required to apply for an eagle take permit.

b. Thirty-Year Programmatic Take Permits

Effective on January 8, 2014, FWS extended the maximum duration of programmatic permits from five years to thirty years for wind projects, transmission projects, and other long-term energy operations,[356] in an effort to strike a more effective balance between industry's need for certainty and BGEPA's goal of maintaining or increasing the bald and golden eagle population.[357]

The revised eagle permit rule establishes an adaptive management framework that requires "intensive monitoring" of bald and golden eagles at

350. Press Release, U.S. Fish & Wildlife Serv., Pac. Sw. Region, Service to Issue First Programmatic Eagle Take Permit, Ensure Long-Term Health of Eagles Around California's Shiloh IV Wind Project (June 26, 2014), http://www.fws.gov/cno/press/release.cfm?rid=628.

351. Press Release, U.S. Fish & Wildlife Serv., Pac. Sw. Region, Service Releases Draft Environmental Assessment on Application for Eagle Permit for Shiloh IV Wind Energy Project in Northern California (Sept. 26, 2013), http://www.fws.gov/cno/press/release.cfm?rid=538.

352. Golden Eagles; Programmatic Take Permit Application; Draft Environmental Assessment, Shiloh IV Wind Project, Solano County, California, 78 Fed. Reg. 59,710 (Sept. 27, 2013); U.S. FISH & WILDLIFE SERV., DRAFT ENVIRONMENTAL ASSESSMENT, SHILOH IV WIND PROJECT EAGLE CONSERVATION PLAN 13 (2013), *available at* http://www.fws.gov/cno/pdf/ShilohIV-ECP-DEA.pdf.

353. Notice of Intent, 78 Fed. Reg. 72,926 (Dec. 4, 2013).

354. U.S. FISH & WILDLIFE SERV., MOUNTAIN-PRAIRIE REGION, FINAL SCOPING REPORT FOR THE ENVIRONMENTAL IMPACT STATEMENT FOR AN EAGLE TAKE PERMIT FOR PHASE I OF THE CHOKECHERRY AND SIERRA MADRE WIND ENERGY PROJECT (2014), *available at* http://www.fws.gov/mountain-prairie/wind/chokecherrySierraMadre/20140429FinalScopingReport.pdf.

355. Notice of Intent, 79 Fed. Reg. 143 (Jan. 1, 2014).

356. Final Rule, Eagle Permits; Changes In the Regulations Governing Eagle Permitting, 78 Fed. Reg. 73,704 (Dec. 9, 2013) (to be codified in 50 C.F.R. pts. 13 and 22).

357. *Id.* at 73,720-21.

energy facilities with thirty-year programmatic take permits.[358] The adaptive management process includes the development of advanced conservation practices to "reduce eagle disturbance[s] and blade-strike mortality."[359]

In addition, the new rule calls for the evaluation of each thirty-year permit at five-year intervals.[360] If the authorized level of take is exceeded, or if new scientific information demonstrates that additional mitigation measures are necessary for the preservation of eagles, FWS will amend the thirty-year permit to require additional mitigation measures or conservation practices.[361] If needed, FWS can revoke the programmatic permit altogether.[362]

A recent lawsuit challenges the validity of the FWS decision to extend the permit term to thirty years.[363] On June 16, 2014, the American Bird Conservancy (ABC) filed suit in the Northern District of California, alleging FWS violated NEPA by failing to "prepare [a] document analyzing the environmental impacts of the rule change."[364] In addition, the complaint claims FWS violated BGEPA and the Administrative Procedure Act because the rule subverts BGEPA's eagle protection purpose without adequate explanation.[365]

c. Revising Eagle Take Permit Regulations

The Service is currently considering further revisions of the 2009 eagle take rule,[366] including a possible redefinition of the eagle population management objectives (currently defined as achieving "stable or increasing breeding populations,")[367] the standard for issuing programmatic permits,[368] the standard for compensatory mitigation in cases where adverse impacts to eagle populations cannot be avoided,[369] and the duration of programmatic eagle take permits, among other issues. The Service is expected to issue a new draft proposed rule in late 2014, with a final rule targeted for late 2015.

358. *Id.* at 73,706.

359. *Id.*

360. *Id.*

361. 78 Fed. Reg. at 73,705.

362. *Id.*

363. Complaint for Declaration and Injunctive Relief, Shearwater v. Ashe, No. 14-cv-02830 (N.D. Cal. 2014), *available at* http://www.abcbirds.org/PDFs/EagleRuleComplaintFiled.pdf.

364. *Id.* at 2.

365. *Id.*

366. Press Release, U.S. Fish & Wildlife Serv., Pac. Sw. Region, Service Begins Process to Reviewing Eagle Management Objectives, Non-Purposeful Take Permits (June 20, 2014), http://www.fws.gov/cno/press/release.cfm?rid=625.

367. Eagle Permits; Take Necessary to Protect Interests in Particular Localities, 74 Fed. Reg. 46,836, 46,837-38 (Sept. 11, 2009) (codified at 50 C.F.R. pts. 13 and 22).

368. *Id.*

369. *See generally* Energy & Climate Change Task Force, A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior (2014), *available at* http://www.doi.gov/news/upload/Mitigation-Report-to-the-Secretary_FINAL_04_08_14.pdf.

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