

The Evolving Pipeline Regulations: Historical Perspectives and a New Model for Pipeline Safety in the Arctic National Wildlife Refuge

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TABLE OF CONTENTS

I. Introduction.....	168
II. Pipeline Regulations: A Historical Perspective	169
A. Early Attempts at Pipeline Construction	169
B. Interstate Commerce Commission: Economic Regulation and Constitutionality	169
C. Department of Transportation – Safety and Administration	171
D. Pipeline Safety Improvement Act of 2002	173
E. Pipeline Safety Improvement Act of 2006	175
F. Regulatory and Legal Challenges for ANWR Pipelines	176
G. Alaska National Interest Lands Conservation Act	177
H. Environmental Challenges.....	178

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I. NEPA Cumulative Impacts/Scope	178
III. The Next Phase in Regulating Pipelines: A New Model For Assuring Pipeline Safety in Sensitive Environmental Areas	180
A. EIS Post-Assessment Oversight	181
B. Inter-Agency Council for EIS Development and Operational Oversight.....	182
IV. Conclusion	183

I. INTRODUCTION

Significant questions lie beyond the political issue of drilling for oil in the Arctic National Wildlife Refuge (ANWR) regarding the safe removal and transport of its vast petroleum reserve.¹ This reserve exists largely within the 1.5 million acre coastal plain of ANWR that is referred as the “1002 area” from its reference in the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).² The economic viability of ANWR drilling rests partially on the ability to transport the petroleum from the remote and harsh Alaskan wilderness.³ Pipelines hold the critical answer to this transport issue as few alternatives exist for petroleum transport. The base infrastructure for pipelining minerals from Northern Alaska is the 800 mile Trans-Alaska Pipeline (also known as TAPS or the Alyeska Pipeline) that currently serves to move petroleum from the Prudhoe Bay fields to Valdez in Southern Alaska.⁴ The distance between the potential oil fields of the 1002 area in ANWR and TAPS ranges seventy-five to two hundred miles, but these lines travel through federal land before reaching a connection point with TAPS.⁵ While Congress and lobbyists battle to answer the question of whether drilling should be allowed,⁶ responsible plans for pipeline development in ANWR that is safe and environmentally proactive should be prepared to make available the strategic reserve of domestic oil while preserving our environmental

1. U.S. GEOLOGICAL SURVEY (USGS), U.S. DEPT. OF THE INTERIOR, OPEN FILE REPORT 98-34, THE OIL AND GAS RESOURCE POTENTIAL OF THE ARCTIC NATIONAL WILDLIFE REFUGE 1002 AREA, ALASKA (1998). This 1998 government study suggests the existence of 7.7 billion barrels of recoverable petroleum in Section 1002 of ANWR.

2. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487 §1002, 94 Stat. 2371 (codified in 16 U.S.C. § 3101).

3. USGS OPEN FILE REPORT 98-34 at 4.

4. Pipeline Facts, <http://www.alyeska-pipe.com/pipelinefacts.html> (last visited May 27, 2007).

5. Arctic Refuge: Maps, <http://arctic.fws.gov/maps.htm> (last visited May 27, 2007).

6. See Robert W. Corbisier, *The Arctic National Wildlife Refuge, Correlative Rights, and Sourdough: Not Just for Bread Anymore*, 19 ALASKA L. REV. 393 (a good discussion of reasons for development of the ANWR oil fields. This discussion is beyond the scope of this paper, but it is helpful to be familiar with the political situation from both the environmental and developmental perspectives).

treasures and heritage. This comment outlines a short history of the development of pipeline regulations through an examination of legal milestones that involve economic regulation, constitutional law, safety regulation, and environmental law. This comment also argues that potential oil operations in ANWR invite a new era for pipeline regulation in environmentally sensitive federal areas.

II. PIPELINE REGULATIONS: A HISTORICAL PERSPECTIVE

A. EARLY ATTEMPTS AT PIPELINE CONSTRUCTION

The first pipelines in the United States lacked regulatory oversight with respect to commerce, safety, and environmental issues. Attempts to build the first operational pipelines by S.D. Karns and J.L. Hutchinson in West Virginia failed in 1862.⁷ Hutchinson's best attempt, which relied on siphoning, delivered only fifty of 1,000 barrels sent through the pipeline.⁸ This meant 950 barrels were lost either because of leaking en route or a failure to budge over the line. Early pipelines were made from wood and were either above ground or in shallow ditches.⁹ While these wooden pipelines promised a better transportation system compared to the traditional use of oak barrels, the lack of regulatory oversight meant that early development would occur at the expense of the environment.¹⁰

This absence of regulations also emphasized anticompetitive dangers. Tidewater, built in 1879 to connect the Oil Regions of Pennsylvania to the Reading Railroad, was the first long distance pipeline.¹¹ Its construction and operation by Standard Oil revealed the economic efficiencies that pipelines offered but it also extended Standard's use of methods that led to unfair competition.¹²

B. INTERSTATE COMMERCE COMMISSION: ECONOMIC REGULATION AND CONSTITUTIONALITY

The first federal agency to address economic fairness issues in pipeline usage, the Interstate Commerce Commission (ICC),¹³ implemented tariff controls under the Hepburn Act of 1906.¹⁴ The ICC's tariff efforts

7. WILLIAM W. THORNTON, *THE LAW OF OIL AND GAS* 57 (Simeon S. Willis rev. and rewritten).

8. *Id.*

9. *Id.*

10. *Id.* at 56-57.

11. DANIEL YERGIN, *THE PRIZE: THE EPIC QUEST FOR OIL, MONEY & POWER* 43 (Free Press 1993).

12. *See id.* at 39-44.

13. 49 U.S.C. §10301.

14. Steven Reed & Pantelis Michalopoulos, *Oil Pipeline Reform: Still in the Labyrinth?*, 16 ENERGY L.J. 65, 69 (1995).

resulted in weak regulatory oversight until the late 1930's when "fair valuation" methodologies became the standard for determining pipeline usage rates.¹⁵

The real effects of the ICC on pipeline oversight were the constitutional challenges that the ICC's regulations raised. *The Pipeline Cases* provides a helpful analysis for understanding the constitutionality of the Hepburn Act. Particularly, an issue in *The Pipeline Cases* was whether the government may require an oil company to post rates and schedules concerning interstate oil transports even when a company ships only its own oil across state lines through its own pipelines. The court held that the government's exercise of power was constitutional and recognized that the former Standard Oil subsidiaries required other companies to sell their oil to them before shipping it on the pipeline.¹⁶ The pipelines were supposed to be common carriers, not dealers who could conduct business on their own terms. The issue of constitutionality qua commerce among the states was clear;¹⁷ it just took the ICC's requirement of rate posting to level the playing field in the era after Standard Oil. Economic oversight thus provided the impetus for fair business dealing in the pipeline sector of the oil transportation business.

The broad constitutional power of the commerce clause empowered the ICC to regulate in ways that proved to be a snare to oil companies. In *Champlin Refining Company v. United States*, Champlin Oil ("Champlin") found that despite the fact that it carried its own product to its own refineries in its own pipelines, it would be deemed a "common carrier" due to ICC requirements to file inventory of its property for purposes of valuation. Arguing that "transportation" did not apply to the movement of one's own goods for the purposes of the commerce clause, Champlin sought relief from having to be considered a "common carrier" under 49 USC §1 (omitted).¹⁸ Resting on the *Valvoline* decision,¹⁹ the court held that the distinction Champlin argued did not hold because "[t]hese interstate facilities are operated to put [Champlin's] finished products in the market in interstate commerce at the greatest economic advantage,"²⁰ thereby upholding a broad interpretation of the commerce clause.

Despite its progress in asserting economic regulation through tariffs and establishing constitutional authority in its regulation of pipelines, the

15. *Id.*

16. *The Pipe Line Cases*, 234 U.S. 548, 559 (1914).

17. *Id.* at 560.

18. *Champlin Refining Co. v. U.S.*, 329 U.S. 29, 33 (1946).

19. *Valvoline Oil Co. v. U.S.*, 308 U.S. 141 (1939).

20. *Champlin*, 329 U.S. at 34.

ICC did little to provide steps toward pipeline safety and environmental protection.

C. DEPARTMENT OF TRANSPORTATION – SAFETY
AND ADMINISTRATION

Congress created the Department of Transportation (DOT) in 1967.²¹ Its stated mission is to

develop and coordinate policies that will provide an efficient and economical national transportation system, with due regard for need, the environment, and the national defense. It is the primary agency in the federal government with the responsibility for shaping and administering policies and programs to protect and enhance the safety, adequacy, and efficiency of the transportation system and services.²²

The transition of safety administration from the ICC to the DOT marked the start of intensified safety regulations. Safety regulations for pipelines were originally administered by the Surface Transportation Board, which also regulated railroads and interstate trucking. The DOT deemed this arrangement to be inadequate to the challenges presented by pipeline regulation. So, in 2004, Congress created a new sub-agency of the DOT, called the Pipeline and Hazardous Materials Safety Administration (PHMSA), to oversee the special needs of pipelines.²³ PHMSA's stated purpose is to provide "the Department [of Transportation] a more focused research organization and establish a separate operating administration for pipeline safety and hazardous materials transportation safety operations."²⁴ Pipeline safety administration authority lies with another older agency below the PHMSA, the Office of Pipeline Safety (OPS).²⁵ Created in 1968, OPS is to "oversee and implement pipeline safety regulations."²⁶ OPS maintains five regional offices around the United States²⁷ and it demonstrates a level of federalism through its cooperation with individual state partners, which often include state public utilities commissions.²⁸

21. 49 U.S.C. § 101.

22. The United States Department of Transportation: A Brief History, <http://dotlibrary.dot.gov/Historian/history.htm> (last visited May 27, 2007).

23. Norman Y. Mineta Research and Special Programs Improvement Act, Pub. L. 108-426, 118 Stat. 2423 (codified in scattered sections of 49 U.S.C.).

24. About PHMSA, <http://www.phmsa.dot.gov/about/index.html> (last visited May 27, 2007).

25. PHMSA – Programs, <http://www.phmsa.dot.gov/programs/index.html> (last visited May, 27, 2007).

26. Carol M. Parker, *The Pipeline Industry Meets Grief Unimaginable: Congress Reacts with the Pipeline Safety Improvement Act of 2002*, 44 NAT. RESOURCES J. 243, 256 (2004).

27. OPS Regional Offices, <http://ops.dot.gov/regions/index.htm> (last visited May 27, 2007).

28. Federal, State and Industry OPS Partners, <http://ops.dot.gov/init/partner/partners.htm#states> (last visited May 27, 2007).

The pipeline safety statutes²⁹ prescribe “minimum safety standards”³⁰ that apply to owners and operators of pipeline facilities,³¹ their design, installation, inspection, emergency plans, *inter alia*,³² to protect the public from accidents. The statute also seeks to protect pipeline operators and employees by establishing qualifications for operators.³³ Accidents occur despite these laws and fuel media attention for their impact on human life and the environment. A sample of pipeline incidents describe how DOT safety regulations coupled with lax OPS oversight³⁴ did not equate to environmental security:

An oil spill that released 90,000 gallons of light crude in sensitive coastal marsh environment³⁵ near Lafitte, Louisiana, occurred on April 6, 2002.³⁶ The spill was effectively contained, but not before substantial environmental threat arose.³⁷

On June 10, 1999, a pipeline carrying gasoline ruptured near Bellingham, Washington, and released about 237,000 gallons of gasoline into a nearby creek³⁸ killing two boys and one man.³⁹ A report later blamed OPS for failing to adopt National Transportation Safety Board (NTSB) recommendations for safety improvements.⁴⁰

In 2002, Defenders of Wildlife produced a study of oil spills in Kenai National Wildlife Refuge that contains, among other things, an admonition not to drill in ANWR given the cognate situation in Kenai.⁴¹

These stories show that in the public’s eye, DOT regulations failed to provide pipeline safety in a manner that protected the environment. PHMSA believes that pipelines are extremely safe when compared to other modes of transportation.⁴² Spills occur rarely at a rate of one gallon per million barrel-miles, and deaths due to pipeline transport are 1/

29. 49 U.S.C. § 60101 *et seq.*

30. 49 U.S.C. § 60102 (2006).

31. 49 U.S.C.A. § 60102 (a)(2)(A) (2006).

32. *Id.* § 60102 (a)(2)(B).

33. *Id.* § 60102 (a)(3).

34. NAT’L TRANSP. SAFETY BD., PIPELINE ACCIDENT REPORT, PIPELINE RUPTURE AND SUBSEQUENT FIRE IN BELLINGHAM, WASHINGTON, REPORT NO. NTSB/PAR-02/02 52 (2002) [hereinafter *NTSB Report*], available at <http://www.nts.gov/publicctn/2002/PAR0202.pdf>.

35. *Pipeline Rupture Causes Louisiana Oil Spill*, CNN, Apr. 7, 2002, <http://archives.cnn.com/2002/US/04/07/oil.spill/index.html>.

36. *Id.*

37. *Id.*

38. *NTSB Report*, *supra* note 34, at 1.

39. *NTSB Report*, *supra* note 34, at 1.

40. *NTSB Chief Raps Pipeline Agency’s Record on Safety, Congressional Panel to Hold Hearing*, SEATTLE TIMES, Jul. 27, 1997, at B1.

41. *Toxic Tundra: Oil Drilling in an Alaskan Wildlife Refuge Leaves a Toxic Legacy of Oil Spills and Pollution*, DEFENDERS OF WILDLIFE, <http://www.defenders.org/habitat/toxictundra.pdf> (last visited Apr. 14, 2007).

42. PHMSA Pipeline Safety Program Frequently Asked Questions, <http://primis.phmsa.dot.gov/comm/FAQs.htm#6> (last visited Apr. 14, 2007).

87th of deaths occurring among oil trucking.⁴³ The high-volume loads of pipelines remain the key factor of environmental threat when compared to trucking accidents.⁴⁴ New regulations must therefore demand that safety equals environmental protection. Legislative actions in 2002 and 2006 moved to make this a closer reality.

D. PIPELINE SAFETY IMPROVEMENT ACT OF 2002

Safety concerns and an ever-growing history of OPS blundering spurned the passage⁴⁵ of the Pipeline Safety Improvement Act of 2002 (PSIA-2002).⁴⁶ The provisions of PSIA-2002 were originally part of the failed Energy Policy Act of 2002,⁴⁷ which failed at least in part because it contained provisions for opening ANWR to oil drilling.⁴⁸ The Energy Policy Act suggested that increased safety measures would be required for any potential pipeline transportation systems given the presence of safety protocols within the bill. Key provisions of PSIA-2002 that change safety measures to attempt to prove that safety can equal environmental protection include:

- Adoption of best practices protocol;⁴⁹
- Defined state oversight;⁵⁰
- Public education programs⁵¹ and pipeline safety information grants to communities;⁵²
- Employee protection;⁵³
- Real penalties for violation of safety orders;⁵⁴
- Population encroachment and rights-of-way;⁵⁵
- Pipeline integrity, safety, and reliability research and development;⁵⁶ and
- Verification of Pipeline Qualification programs.⁵⁷

43. *Id.*

44. Parker, *supra* note 26, at 246.

45. Parker, *supra* note 26, at 244-49.

46. Pipeline Safety Improvement Act of 2002, Pub. L. No. 107-355, 116 Stat. 2985 (2002) (amending 49 U.S.C. 601 (2006)).

47. H.R. 4, 107th Cong. (2002), available at http://energy.senate.gov/legislation/energybill/hr4_esa.pdf.

48. Parker, *supra* note 26, at 260.

49. Pipeline Safety Improvement Act § 2(c)(1)(a) (amending 49 U.S.C.A. § 6105).

50. *Id.* § 4 (amending 49 U.S.C. §60106).

51. *Id.* § 5 (amending 49 U.S.C. §60116).

52. *Id.* § 9 (amending 49 U.S.C. §60130).

53. *Id.* § 6 (amending 49 U.S.C. §60129).

54. *Id.* § 8 (amending 49 U.S.C. §60112 *et seq.*).

55. *Id.* § 11 (amending 49 U.S.C. §60127).

56. *Id.* § 12.

57. *Id.* § 13 (to amend 49 U.S.C. 60131).

Rights-of-way, penalties, and pipeline integrity, safety, and reliability research and development provisions hold particular merit for this discussion. Rights-of-way for pipelines refer to the area around a pipeline lane that is restricted from public encroachment. These rights-of-way are important to prevent the actions of saboteurs who disrupt pipelines. For example, in October 2001, an Alaskan man trespassed on the right-of-way and shot at the Trans Alaskan Pipeline. This caused a leak that not only polluted two acres of spruce forest but also brought oil production in Prudhoe Bay to a near halt.⁵⁸ While this case reflects little probability for a similar situation occurring at pipelines in ANWR due to the region's remoteness, the case raises awareness of the magnitude of effects of future disruptions to TAPS in the event ANWR oil begins to run through TAPS. If TAPS runs at full capacity, the potential for larger spills due to right-of-way encroachment increases. PSIA-2002 provides for the securing of rights-of-way by its mandated study to gather information on "land use practices, zoning ordinances, and preservation of environmental resources with regard to pipeline rights-of-way and their maintenance."⁵⁹

Penalties for safety violations have been under-enforced by OPS for a long time.⁶⁰ PSIA's penalty updates put teeth in the safety orders of the Secretary and provide a natural incentive to follow safety protocols. In addition to raising general penalties from \$25,000 to \$100,000 and from \$500,000 to \$1,000,000,⁶¹ the penalties provision paves the way for "civil actions to enforce [safety provisions]"⁶² as well as "civil actions to require compliance with subpoenas or allow for inspections."⁶³

Section 12 of PSIA-2002 initiates an inter-agency pooling of expertise "for ensuring that the elements of the program within its expertise are implemented in accordance with this section."⁶⁴ This gathering of the Department of Transportation, Department of Energy, and the National Institute of Standards and Technology received charge to "carry out a program of research, development, demonstration, and standardization to ensure the integrity of pipeline facilities."⁶⁵ Among other issues, this

58. *Shooting Case puts Focus on Pipeline Security*, PLANET ARK, Feb. 21, 2002, <http://www.planetark.org/dailynewsstory.cfm/newsid/14645/story.htm>.

59. Pipeline Safety Improvement Act § 11(a).

60. *See generally Pipeline Safety: Hearing on Preliminary Information on the Office of Pipeline Safety's Actions to Strengthen its Enforcement Program: Hearing Before the Subcomm. On Energy and Air Quality, Comm. On Energy and Commerce*, 108th Cong. (2004) (statement of Katherine Siggerud, Director, Physical Infrastructure Issues), <http://www.gao.gov/new.items/d04985t.pdf>.

61. Pipeline Safety Improvement Act § 8, at 2993.

62. *Id.* at 2993-2994.

63. *Id.* at 2994.

64. Pipeline Safety Improvement Act § 12, at 2997.

65. *Id.*

team will assess material inspection, stress and fracture analysis, internal inspection and leak detection technologies, methods of analyzing content of pipeline throughput, pipeline security, and risk assessment methodology.⁶⁶ As part of this joint venture, DOT submitted a broad agency announcement that called for cost-sharing ideas to improve pipeline damage prevention and leakage detection.⁶⁷ By August 2004, OPS delivered a final R&D strategic plan that met the objectives set forth in section 12 of the PSIA-2002.⁶⁸ This report contains analysis regarding new pipeline technologies that improve safety⁶⁹ while proposing areas for improvement such as increased pipeline capacity and decreased safety breaches on pipelines.⁷⁰ PSIA-2002 has already reversed delinquent areas of OPS oversight and introduced a new era of pipeline safety regulation, but it remains to be seen if the safety additions provide environmental security in environmentally-sensitive areas.

E. PIPELINE SAFETY IMPROVEMENT ACT OF 2006

On the heels of the PSIA-2002 came the 2006 Pipeline Safety Improvement Act amendments (PSIA-2006) that were enacted on December 29, 2006.⁷¹ Like PSIA-2002, the provisions of PSIA-2006 further changed pipeline safety and damage prevention, civil penalties,⁷² public education and awareness,⁷³ and safety orders.⁷⁴

Most notably, PSIA-2006 included an amendment for “Petroleum Transportation Capacity and Regulatory Adequacy Study.”⁷⁵ Subsection (a) of the 49 USC § 60136 portion of this section reads:

In General.—The Secretaries of Transportation and Energy shall conduct

66. *Id.* at 2998.

67. PHMSA Research and Development: DTRS56-04-BAA-0002, <http://primis.phmsa.dot.gov/rd/DTRS5604BAA0002.htm> (last visited May 27, 2007).

68. PHMSA Research and Development: R&D Strategic Plan, <http://primis.phmsa.dot.gov/rd/strategicplan.htm> (last visited May 27, 2007). “PSIA-2002 also set forth the requirement that the Department of Transportation (DOT), the Department of Energy (DOE), and the National Institute of Standards and Technology (NIST) in the Department of Commerce (DOC) shall carry out a program of research, development, demonstration and standardization to ensure the integrity of pipeline facilities.’ These agencies, along with the Minerals Management Service (MMS), have agreed to areas of responsibility as described in a Five Year Interagency Research and Development Program Plan for Pipeline Safety and integrity and implemented in a Memorandum of Understanding.” *Id.*

69. *Id.* at III.

70. *Id.* at IV(1)-(2).

71. Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006, Pub. L. No. 109-468, § 1, 120 Stat. 3486 (2006).

72. *Id.* at § 2.

73. *Id.* at § 3.

74. *Id.* at § 13.

75. *Id.* at § 8.

periodic analyses of the domestic transport of petroleum products by pipeline. Such analyses should identify areas of the United States where unplanned loss of individual pipeline facilities may cause shortages of petroleum products or price disruptions and where shortages of pipeline capacity and reliability concerns may have or are anticipated to contribute to shortages of petroleum products or price disruptions. Upon identifying such areas, the Secretaries may determine if the current level of regulation is sufficient to minimize the potential for unplanned losses of pipeline capacity.

The court in *United States v. Alaska* stated that TAPS ran at a surplus of 600,000 barrels of oil per day.⁷⁶ As of June 23, 2004, this figure still holds true.⁷⁷ This differential is largely attributed to the decreased outputs by the Prudhoe Bay fields.⁷⁸ Though ANWR is not the stated focal point of PSIA-2006 Section 8, this fact about TAPS and Alaskan oil bears interest in light of this statutory amendment. Because Alaska boasts some of the largest oil fields in the United States⁷⁹ and has the Trans-Alaska Pipeline, it seems that PSIA-2006 paves the road for joint-agency regulation of the Trans-Alaska Pipeline and the potentially adjoining pipelines from ANWR in a manner that may increase safety precautions relative to potential increased throughputs.

F. REGULATORY AND LEGAL CHALLENGES FOR ANWR PIPELINES

Though PSIA-2002 and PSIA-2006 bring DOT safety regulations promulgated by PHMSA and OPS up-to-date, more administrative and statutory considerations must be made when contemplating pipeline construction and regulation in environmentally-sensitive areas such as ANWR. Even if all statutes and regulations surrounding pipelines in sensitive environmental areas are followed, the issue of public assurance remains an issue. To surmount this hurdle, oil companies vying to develop ANWR's fields must produce plans and practices that not only establish a new standard for environmental and safety controls, but that also permit new joint-agency government regulation. These plans and practices must address two additional challenges beyond "mere" compliance with PSIA-2002 and PSIA-2006: they must take into account the nature of ANWR's existence through the Alaska National Interest Lands Conservation Act (ANILCA), its organic legislative act, and compliance policies set forth in the National Environmental Policy Act (NEPA).

76. *United States v. Alaska*, 35 Fed. Cl. 685, 696 (Ct. Fed. Cl. 1996).

77. Pipeline Facts: Pipeline Operations, <http://www.alyeska-pipe.com/Pipelinefacts/PipelineOperations.html> (last visited May 27, 2007).

78. *Alaska*, 35 Fed. Cl. at 696.

79. Top 100 Oil and Gas Fields, http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/crude_oil_natural_gas_reserves/current/pdf/appb.pdf (last visited May 27, 2007).

G. ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT

Congress created the Arctic National Wildlife Refuge in 1960 under Public Land Order 2214.⁸⁰ This range expanded and received a new name in 1980 under ANILCA.⁸¹ ANILCA's purpose is the following:

In order to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values, the units described in the following titles are hereby established. . . . This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition, and thus Congress believes that the need for future legislation designating new conservation system units, new national conservation areas, or new national recreation areas, has been obviated thereby.⁸²

This statement reaches beyond the strictures of the Federal Land Policy Management Act of 1976 (FLPMA), which applies to all other federal lands of the United States according to its stated purpose:

- (1) the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest;
- (2) the national interest will be best realized if the public lands and their resources are periodically and systematically inventoried and their present and future use is projected through a land use planning process coordinated with other Federal and State planning efforts.⁸³

The language of ANILCA possesses the same withdrawal power as the FLPMA but in a way that commands a higher sense of congressional purpose. The generic language of FLPMA merely "retains" federal land unless "disposal of a particular parcel will serve the national interest"⁸⁴ while ANILCA uses colorful language describing the particular "nationally significant natural, scenic, historic, archeological, geological, scien-

80. U.S. Fish and Wildlife Service – Alaska, Arctic National Wildlife Refuge Establishment: Public Land Order 2214, <http://arctic.fws.gov/plo2214.htm>.

81. Alaska National Interest Lands Conservation Act of 1980, Pub. L. No. 96-487, § 303(2), 94 Stat. 2371, 2389 (1980), available at <http://arctic.fws.gov/anilcabits.htm>.

82. *Id.*

83. 43 U.S.C. § 1701(1)-(2) (2007).

84. *Id.* at § 1701 (1).

tific, wilderness, cultural, recreational, and wildlife values”⁸⁵ of Alaskan lands to be withdrawn. In constitutional terms, this likens to a heightened standard of review that applies to federal lands covered under ANILCA. Section 1002 of ANILCA segregates the 1.5 million acre coastal plain for the study of oil exploration feasibility.⁸⁶ This land, compared to other lands within ANWR, can be opened only by authorization of Congress for the specific purpose of oil development.⁸⁷ If Congress decides to open the 1002 area, the authorization to lay pipelines would not be automatic because the general provisions of ANILCA⁸⁸ and NEPA⁸⁹ apply to the permitting process. One particular issue highlighted by ANILCA is the relationship between oil development and caribou.⁹⁰

Advocates of ANWR drilling point out that caribou seem to get along with drilling operations around Prudhoe Bay,⁹¹ but anecdotes cannot simply satisfy the requirements of a federal statute. The resulting tension between the developer’s pipelines and caribou will need to find analysis within an environmental impact statement.

H. ENVIRONMENTAL CHALLENGES

NEPA requires an environmental impact statement (EIS) for “major Federal actions significantly affecting the quality of the human environment.”⁹² The EIS contains comprehensive analysis of all viable alternatives of major federal action, including an analysis of the “no action” option.⁹³ Caribou aside, this means the analysis must cover all environmental issues relative to the delicate nature of the coastal plain by the discretion of the Fish and Wildlife Service. The two major questions are (1) what does NEPA require concerning cumulative impacts and scope for a pipeline system in ANWR, and (2) do the provisions of PSIA-2002 and PSIA-2006, in their efforts to equate safety with environmental protection, contribute clarity and support to NEPA analysis given the higher standard of ANILCA?

I. NEPA CUMULATIVE IMPACTS/SCOPE

NEPA regulations provide for cumulative impact⁹⁴ and scope⁹⁵ to be

85. Alaska National Interest Lands Conservation Act § 101, at 2374.

86. Alaska National Interest Lands Conservation Act § 1002, at 2449.

87. Alaska National Interest Lands Conservation Act § 1003, at 2452.

88. Alaska National Interest Lands Conservation Act §1002, at 2379, 2389.

89. 42 U.S.C. § 4332 (2004).

90. Alaska National Interest Lands Conservation Act § 1002, at 2450.

91. Deborah Jacobs, *The Caribou and Alaskan Oil*, 19 PERC REPORTS, June 2001, at 3, available at <http://www.perc.org/pdf/june01.pdf>.

92. 42 U.S.C. § 4332 (2007).

93. 40 C.F.R. § 1508.25(b)(1) (2007).

94. *Id.* at 1508.7.

considered in the formation of an EIS. Both of these issues relate oil drilling and extraction to the necessary pipeline building and administration. Pipelines are “foreseeable future actions”⁹⁶ under an analysis of cumulative impacts because oil extraction necessitates a delivery system. Pipelines are also “connected actions . . . closely related”⁹⁷ for the same symbiotic reason given above.

*Kleppe v. Sierra Club*⁹⁸ discusses parameters for determining whether cumulative impact and scope warrant a single EIS versus separate EIS’s. In this case, Sierra Club challenged the ruling that allowed the defendants to construct four EIS’s for four separate coal mining operations in the Northern Great Plains.⁹⁹ On review, the Supreme Court upheld respondent’s argument that one EIS better contained the true impacts of the development project because the activities were “‘programmatically,’ ‘geographically,’ and ‘environmentally’ related.”¹⁰⁰ Segmented EIS’s for the development project would not have taken into account “diminished availability of water, air and water pollution, increases in population and industrial densities, and perhaps even climatic changes.”¹⁰¹ Pipelines supporting potential oil extraction in the 1002 area of ANWR certainly fit the programmatic and geographic categories because pipelines are the only reasonable method of petroleum transportation in the harsh Arctic climate of ANWR. Both operational elements of oil extraction and pipeline transport exist within the same proximity (and indeed would be physically linked). Thus, the geographic requirement is strong. The “environmentally related” issue applies on its face because the nature of ANILCA sets aside the entire 1002 area for assessment and study given the potential environmental impacts of petroleum development.¹⁰² “Cumulative environmental impacts are, indeed, what require a comprehensive impact statement.”¹⁰³ This EIS would not sufficiently support a pipeline system in ANWR because another EIS might be required by the increased usage of TAPS. The federal government oversees the operations of TAPS,¹⁰⁴ so increasing its load by transporting oil from ANWR in addition to Prudhoe runs the risk of triggering federal

95. *Id.* at 1508.25.

96. *See id.* at 1508.7.

97. *See id.* at 1508.25

98. *Kleppe v. Sierra Club*, 427 U.S. 390 (1976).

99. *Id.* at 394.

100. *See id.* at 412-15.

101. *See id.* at 413-15.

102. *See ANILCA*, Pub. L. No. 96-487 § 1002, 94 Stat. 2371 (1980).

103. *Kleppe*, 427 U.S. at 413.

104. 43 U.S.C. § 1651 (2007).

action¹⁰⁵ due to increased spill volume danger. Using the same analysis of cumulative impacts and scope as the court used in *Kleppe v. Sierra Club*,¹⁰⁶ a separate EIS would be necessary for the increased use of TAPS because not all the parameters for a unitary EIS are met with TAPS. TAPS transport meets the “programmatically” requirement¹⁰⁷ because the link it provides from ANWR pipelines establishes the necessary connection to the market. However, TAPS does not meet the criteria for “geographically”¹⁰⁸ or “environmentally”¹⁰⁹ related because TAPS runs over 800 miles through the length of Alaska.¹¹⁰ NEPA’s scoping requirements encourage the inclusion of similar actions within the EIS,¹¹¹ and TAPS’s gigantic length and terrain coverage exceed the scope of the ANWR operation.

III. THE NEXT PHASE IN REGULATING PIPELINES: A NEW MODEL FOR ASSURING PIPELINE SAFETY IN SENSITIVE ENVIRONMENTAL AREAS

NEPA requires that all possible environmental impacts be considered in the EIS.¹¹² Without adequate safety measures to steer away potential oil spills, the EIS would have to assume a certain level of oil spills. No standard preventing spills and enforcing penalties of safety violations would stand in the way of environmentally marginal operational practices, so the prospect of oil pipelines in ANWR would look very grim from the public comment portion of the EIS.¹¹³ This would only give fodder to a new media blitz against ANWR operations.

PSIA-2002 and PSIA-2006 go a long way towards meeting NEPA scrutiny for building pipelines systems in environmentally sensitive areas such as ANWR. PSIA-2002 delivers the broad substantive overhaul to pipeline safety regulations that not only protect employees but also provide safety buffers from oil spills that can harm the environment. While PSIA-2002 provides increased fines, right-of-way encroachment protection, and pipeline integrity development, the statute is not clear as to how these requirements will be administered or enforced. OPS already struggles with a dismal track record for administration and the newly-minted

105. See generally 42 U.S.C. § 4332 (2007) (illustrating federal action that may occur if oil transportation is increased).

106. *Kleppe v. Sierra Club*, 427 U.S. 390, 412-15 (1976).

107. *Id.*

108. *Id.*

109. *Id.*

110. Alyeska Pipeline Home Page, <http://www.alyeska-pipe.com/default.asp> (Last visited Apr. 10, 2007).

111. 40 C.F.R. § 1508.25 (a)(3) (2007).

112. 42 U.S.C. § 4332(C)(ii) (2007).

113. See 40 C.F.R. § 1503.4 (2007).

PHMSA has yet to exercise its administrative capacity in a challenging environmental situation such as ANWR. PSIA-2006 provides the procedural bolstering to PSIA-2002 through its appropriations provision and mandate for the Petroleum Transportation Capacity and Regulatory Adequacy Study (PTCRAS). The question is now whether future appropriations will be made after the current funds go away in 2010¹¹⁴ and whether reporting will continually update statistics on how well safety regulations of PSIA-2002 and PSIA-2006 serve the NEPA goals of environmentally sensitive areas. The PTCRAS served a definite but static purpose. Reports provide critical information to the public that keeps government regulation in check. A measure providing for periodic reports should be included in an amendment to PSIA-2006.

Though PSIA-2002 and PSIA-2006 fixed failed attempts at pipeline safety and provided real solutions that help satisfy NEPA, surmounting the huge environmental question of pipelines in environmentally-sensitive areas requires a new approach. This approach includes (1) an augmented NEPA that extends from the typical EIS requirements to post-project assessment that is (2) controlled by a consortium of federal agencies, discussed briefly below. This system invokes governmental oversight through NEPA's EIS process to assure that PSIA-2002 and PSIA-2006 see implementation in ANWR in a manner that addresses ANWR's inherent environmental sensitivities. This idea also picks up where the deficiencies of administration, continued appropriations, and reporting leave off in PSIA-2002 and PSIA-2006. This solution may offer the best answer to safety regulations and might finally equate to real environmental protection.

A. EIS POST-ASSESSMENT OVERSIGHT

NEPA does not generally require post project assessment¹¹⁵ because NEPA is generally procedural in nature.¹¹⁶ As Bradley Karkkainen laments:

If the pre-project EIS turns out to have been mistaken about the environmental consequences of the action, the interested parties ordinarily have little recourse, and in most cases nothing more is required of the agency.

114. Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006, Pub. L. No. 109-468, § 18(a)(1)(D), 120 Stat. 3486 (2006).

115. Bradley C. Karkkainen, *Toward a Smarter NEPA: Monitoring and Managing Government's Environmental Performance*, 102 COLUM. L. REV. 903, 927 (2002).

116. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350-351 (1989) ("Although these procedures are almost certain to affect the agency's substantive decision, it is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process. . . other statutes may impose substantive environmental obligations on federal agencies, but NEPA merely prohibits uninformed—rather than unwise—agency action").

But most of the time we do not know the actual consequences of the action or whether the EIS predictions turned out to be accurate. Under NEPA, the agency conducting the EA or EIS ordinarily has no obligation to follow up on its predictions to determine their accuracy, nor do agencies regularly make it their practice to do so. Nor does anyone else within or outside of government make it their business to do so on a regular basis. For all we know, the predictions contained in any given EIS could turn out to be wildly inaccurate, and no one would be the wiser.¹¹⁷

Karkkainen suggests that some agency oversight would be beneficial in order to ensure that EIS achieves the level of environmental assurance that it sets out to achieve in the beginning. The idea of such a post-project review runs contrary to NEPA's procedural spirit, yet this assurance and accountability to an inter-agency council might just strike the deal between allowing ANWR production given the assurances in pipeline safety it would provide. Of course, such an action demands special-circumstance status which clarifies that EIS oversight occurs only for environmentally-sensitive areas where the proposed activity would not occur without such oversight measures.

B. INTER-AGENCY COUNCIL FOR EIS DEVELOPMENT AND OPERATIONAL OVERSIGHT

Borrowing from PSIA-2002's inter-agency pooling of expertise,¹¹⁸ an EIS system involving post-project oversight would benefit best from a council of inter-agency representatives who offer their expertise to both EIS development and oversight. The necessary players include representatives from the DOI, DOT, DOE, and EPA to address the public lands, transportation safety regulations, energy supply issues, and environmental regulations, respectively. The agency representatives would be individually responsible for appending action items relating to their respective issues into the standard EIS developed by the FWS. This sets up the ability for the council to request regular reports from the pipeline operators and serves not only as a quasi-regulatory body but also as an advisory board. This resource to the oil pipeline operators assures that operations follow all applicable environmental issues while also acting as an ombudsman to the public. Pipeline safety regulations can equate to environmental protection in sensitive areas under this model. See the appendix diagram for a model of the proposed procedures.

117. Karkkainen, *supra* note 115, at 927.

118. Pipeline Safety Improvement Act of 2002, Pub. L. No. 107-355, §12, 116 Stat. 2985 (2002) (Section 12 is PSIA-2002's pipeline integrity, safety, and reliability research).

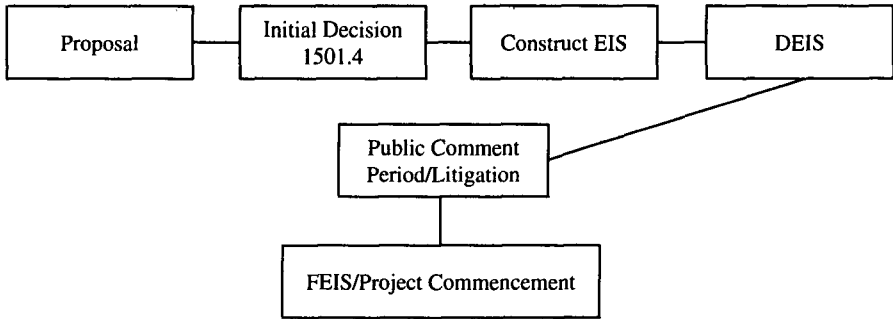
IV. CONCLUSION

Pipeline safety regulation efforts have not always equated to adequate environmental protection. The new PSIA-2002 and PSIA-2006 measures moved safety regulations in a direction that undergirds NEPA analysis but do not completely solve the issue of laying and operating pipelines in environmentally-sensitive areas such as ANWR. Oil companies hoping to drill in ANWR should look to expand the progress of PSIA-2002/2006 by submitting to interagency oversight and regulation. This process represents a new era of pipeline safety management that, if successful, could be a model for development of environmentally sensitive areas whose disposal or exploitation is deemed to be in the national interest.¹¹⁹

119. See generally 42 U.S.C. § 1701 (2007) (illustrating the compensation for injury or death for employees and contractors of the United States working outside the United States).

APPENDIX: PROPOSED OVERSIGHT PROCEDURES

A. "TYPICAL" EIS PROCEDURE



B. PROPOSED EIS WITH OVERSIGHT PROCEDURE

