The Evolving Scope of Significant Effects on the Environment: The National Environmental Policy Act and Climate Change

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INTRODUCTION

On Wednesday, November 29, 2006, the United States Supreme Court heard the oral arguments for Massachusetts v. Environmental Protection Agency. The case revolves around the ability of the U.S. Environmental Protection Agency (“EPA”) to regulate carbon dioxide (“CO2”) under the Clean Air Act (“CAA”); a seemingly minute point of law, unimportant to those outside of the environmental community and those regulated by the EPA. In reality, the case has the potential to affect how the United States goes forward in developing a policy to address climate change. It is the first time the Supreme Court will deal with the issue of climate change. The opinion of the Court will surely have a ripple effect: impacting pending climate change cases in lower courts, shaping the future of the standing doctrine, and spurring Congress to develop a climate change policy in the face of an administration that has, to date, decided not to mandate any regulation of CO2 emissions.

Unsatisfied with the administration’s response, many environmental groups, states, and local governments are looking to current environmental and tort law to begin regulating the emission of CO2 and other greenhouse gases (“GHGs”) through court orders. This is evident by the litany of current litigation ranging from states bringing nuisance suits against power companies and automakers to the line of cases arguing for federal regulation under the CAA, such as Massachusetts v. EPA. Another line of cases falls under the National Environmental Policy Act (“NEPA”). While unable to force the regulation of CO2, NEPA does require federal agencies to consider the environmental impacts of their actions, potentially including the impacts of CO2 emissions. Though the usefulness of bringing NEPA litigation for the lack of or inadequacy of consideration given to CO2 emissions is debatable, this article will focus on a narrow question: Can courts force federal agencies to take a “hard look” at the impacts of climate change due to the release of CO2 emissions stemming from the agency’s actions?

While NEPA does not provide a means to create, or force the administration to develop, any such regulations, NEPA can force federal agencies to at least consider and disclose to the public the impacts their actions will have due to contributions to CO2 emissions. This article examines the requirements and case law of NEPA with respect to climate change and explores a hypothetical lawsuit concerning the lack of federal environmental documentation for the planned reliance on coal-fired power plants (“CFPPs”) to provide the majority of the nation’s new sources of electric power. Next, this article will introduce the basic requirements of NEPA and the Council on Environmental Quality’s (“CEQ”) implementing regulations, and the science of climate change. The article will analyze what little case law there is on NEPA and climate change, including Border Power Plant Working Group v. Department of Energy, Mayo Foundation v. Surface Transportation Board, and Friends of the Earth v. Mosbacher, two of which are currently pending. Finally, the article will discuss the planned future reliance on CFPPs and a hypothetical lawsuit challenging such plans as a violation of NEPA.

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NEPA AND CLIMATE CHANGE

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act requires federal agencies to take a “hard look” at the environmental consequences of their proposed actions. Section 102, the action forcing section, requires agencies to write Environmental Impact Statements (“EIS”) for “major federal actions significantly affecting the quality of the human environment.” NEPA separates all federal agency actions into three categories: major actions, non-major actions, and categorical exclusions. Of these three, only major actions fall under the purview of NEPA. Major federal actions are further broken down into two categories: those that have a significant impact on the quality of the human environment and those that have no significant impact. In making the determination if an action will have a significant impact, agencies begin by preparing an Environmental Assessment (“EA”). Much more concise than an EIS, EAs provide public documentation of what the agency took into con-

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sideration to determine whether their proposed action will have a significant impact on the environment. If there is no significant impact, the agency issues a document explaining how the agency came to their conclusion called a Finding of No Significant Impact (“FONSI”). On the other hand, if it appears that the proposed action will have a significant impact, the agency must prepare a full EIS. Courts have maintained that NEPA is purely procedural and has no enforceable substantive mandates. Therefore, as long as an agency follows the appropriate procedure in making decisions, an agency can take a course of action that is not the most environmentally sound.

In order to satisfy the requirements of NEPA, an EIS must discuss, among other things: environmental impacts, including adverse effects, of the proposed action; alternatives to the proposed action; and irreversible commitments of resources. The CEQ, through its implementing regulations, further clarified and expanded upon the requirements set out in section 102(C) of NEPA, primarily through defining “effects” as those that are, “direct, indirect, or cumulative,” and “cumulative impacts,” as, “past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.” It is through these definitions that NEPA has the potential to evolve and broaden its scope as the scientific understanding of the environment grows of just how significant the impacts of climate change, induced by anthropogenic emissions of CO₂ and other GHGs, truly are.

**CLIMATE CHANGE IS A SIGNIFICANT IMPACT**

The necessity of constraining GHG emissions is a global problem, but the United States is responsible for largest percentage of the problem, compared to all other nations. CO₂ is not the only GHG, but it is by far the most prevalent, and in 2002, the United States accounted for over twenty percent of the world’s total CO₂ emissions. While a large portion of the world is trying to decrease emissions, any net increase in CO₂ emissions from the U.S. will only serve to exacerbate the impacts of climate change. Nevertheless, the question remains whether U.S. emissions are “significant” under NEPA? One effect of a major federal action may be a slight, seemingly miniscule, increase in worldwide CO₂ emissions. An increase in CO₂ emissions that amounts to less than one percent of worldwide emissions of CO₂ is not the sole cause of climate change, and preventing or lessoning that amount of the CO₂ emissions will not stop climate change. It is also currently not possible to determine the correlation between the CO₂ emissions from one action and the increase in temperature.

Perhaps a direct correlation between cause and effect and comparing the CO₂ emissions from one action to total worldwide emissions is the incorrect approach, both in theory and in law. After all, NEPA and the CEQ regulations require the consideration of cumulative impacts. As stated earlier, cumulative impacts include those that are, “past, present, and reasonably foreseeable.” Moreover, “cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” The release of CO₂ emissions and impacts of climate change could arguably fall under the scope of cumulative impacts. The court’s interpretation of cumulative impacts, however, has likely neutered this approach. Cumulative impacts must be related to the proposed project and within the affected area. Because of the narrow view of “cumulative impacts,” it is unlikely that impacts of the CO₂ emissions from any one project and related activities will be seen as significantly impacting the environment via climate change.

Another potential option to have the impact of an increase in CO₂ emissions deemed significant is through Programmatic Environmental Impact Statements (“PEIS”). Along with individual agency actions, programs also fall under the purview of NEPA. These broader EISs have the ability to look at the larger scale impacts of multiple projects that may later each get their own NEPA analysis. It remains to be seen if federal agencies or courts will ever view the emissions of CO₂ as “significantly affecting the quality of the human environment,” and the outcome of pending cases may determine which of the approaches, if any, will be successful.

**CURRENT CLIMATE CHANGE LITIGATION INVOLVING NEPA**

The perceived inaction on climate change has given rise to several lawsuits. Of these, a court has decided only one NEPA case, while three other NEPA cases are currently pending. The cases follow one of two strategies: (1) Attacking individual actions by agencies, and their corresponding NEPA documents, for failure to consider impacts GHG emissions; or (2) Attacking agency programs on a broader scale for their failure to do a PEIS. This article will analyze three of these cases.

The first, *Border Power Plant Working Group v. Department of Energy* (hereinafter “BPPWG”), was successful in requiring the Department of Energy (“DOE”) to include CO₂ emissions and impacts on climate change, however, DOE ultimately skirted the issue by dismissing the amount a CO₂ emitted as “negligible” in their EIS. The second case, *Mayo Foundation v. Surface Transportation Board (Mid State Coalition for Progress v. Surface Transportation Board)* (hereinafter “Mayo”), was also successful in requiring an agency to consider the impacts of climate change. Again, the agency skirted the issue by stating that the increase in emissions would be minor. The plaintiffs are now challenging the adequacy of the Supplemental Environmental Impact Statement (“SEIS”). The final case, *Friends of the Earth v. Mosbacher*, formerly *Friends of the Earth v. Watson* (hereinafter “FOE”), differs as it takes the approach that the defendant agencies are required to do a PEIS under NEPA.

**BORDER POWER PLANT WORKING GROUP V. DEPARTMENT OF ENERGY**

In *BPPWG*, plaintiffs challenged a DOE FONSI for permitting transboundary transmission lines entering the United States from Mexico. The planned transmission lines were to originate from two different power plants, the La Rosita Power Complex (“LRPC”) and the Termoelectrica de Mexicali power plant (“TDM”). After determining the plaintiffs had standing, the court moved to the merits of the case — did the emissions of the power plants fall under the purview of NEPA via indirect
Under NEPA, it is possible that CO₂ emissions from an individual coal-fired power plant need to be considered.

**Mayo Foundation v. Surface Transportation Board**

Before the court in Mayo is the Surface Transportation Board’s (“SBT”) Section on Environmental Analysis’s (“SEA”) EIS that approved new rail lines and upgrading of older lines. The plaintiffs in Mayo challenged the EIS in a prior lawsuit, and the court found the EIS to be inadequate, in part because, “SEA wholly failed to consider the effects on air quality that an increase in the supply of low-sulfur coal to power plants would produce.” SEA argued that the rail lines would not affect the demand for coal. The court did not agree with SEA’s argument, and agreed with the intervenor rail company’s (“DM&E”) assessment that it would increase the demand for coal. However, DM&E argued that despite the increased demand, SEA’s EIS did not need to consider the impacts on air quality because they were too speculative.

The court, to the contrary, viewed the “speculative” impacts as “indirect impacts” and therefore NEPA still required their consideration. Indirect impacts must still be “reasonably foreseeable.” The court found that even though the “extent” of the impacts is not certain, the “nature” of the impacts was reasonably foreseeable. SEA also argued that because the pollutants emitted were regulated under the CAA, any emissions from increased use of coal would not be significant. The court also found this argument unconvincing. Ultimately, the court held that even though some of the gases emitted into the air would be capped under the CAA, they would still have an environmental impact, and not all of the gases emitted, notably CO₂, are regulated under the CAA. The court went as far as to say that the EIS’s lack of analysis with respect to the increased coal consumption was “irresponsible.”

After the 2003 court decision, STB published an SEIS. The SEIS, using models of coal supply and demand, concluded that any increases in coal consumption would be minor. Therefore, STB reasoned, that any increase in emissions would not have significant impacts. The plaintiffs from the 2003 case have brought suit again claiming the SEIS’s consideration of the impacts is inadequate, including the treatment of climate change. How the Eighth Circuit treats this new challenge may determine how plaintiffs proceed with NEPA lawsuits as a means to address climate change. As with BPPWG, Mayo’s defendant agency ultimately did discuss climate change in its EIS. However, both agencies dismissed the amount of emissions as not significant, and therefore did not fully analyze their contribution to the broader impacts on the environment due to climate change. If the court finds that STB did adequately consider the impacts, the decision has the potential to allow all agencies to dismiss the impacts of GHGs as minor because each individual project does not emit a large percentage of total worldwide emissions.

**Friends of the Earth v. Mosbacher**

*FOE* is attempting to get around the problem of negligible emissions by arguing the defendant federal agencies, the Overseas Project Investment Corporation (“OPIC”) and the Export Import Bank (“EIB”), must do a PEIS. OPIC and EIB provide financing for overseas projects, including fossil fuel projects without any NEPA analysis. Collectively, plaintiffs asserted that the defendants must write a PEIS and the projects they support account for eight percent of worldwide emissions. With a larger percentage of worldwide total emissions affected by the agencies’ actions, this case could prove to require the agencies to actually consider the impacts of climate change instead of brushing them aside as negligible.

The only decision in regards to the case, in August of 2005, allowed the plaintiffs to survive a challenge to their standing and the claim that there has been no final agency action. On April 14, 2006, the court heard arguments on the merits of the case. The court’s 2005 opinion denying the defendants’ motion for summary judgment is optimistic. In determining the plaintiffs have standing, the court recognized that potential injuries caused by climate change and increased emissions are not speculative, and in moving forward on the merits, the defendants have con-
ceded that their actions do impact the environment and are instead arguing that they are not subject to NEPA.73 While compelling, those arguments do not need to be addressed for the purposes of this article.

**Coal Fired Power Plants Hypothetical**

As of September 2006, the National Energy Technology Lab, an agency under DOE, estimates there are currently 154 proposed or new (since 2000) CFPPs, and by 2030, there could be as many as 300 new CFPPs.76 Though it is difficult, if not impossible, to estimate the increase in CO₂ emissions these plants will create, one thing is certain: the forecasted dependence on a large number of new CFPPs will affect climate change.77 Absent a mandatory federal policy on climate change,78 it is unclear if the emissions of CO₂ from the new CFPPs will be regulated or even analyzed for their total cumulative impacts. Under NEPA, it is possible that CO₂ emissions from an individual CFPP need to be considered, but it is unlikely that individual CFPP’s emissions would exceed 0.5 percent of world CO₂ emissions and therefore, pending the decision in Mayo, could be considered “negligible.”79 In order to gain a better understanding of how much of a significant impact the over 150 new CFPP CO₂ emissions will have on climate change, a more comprehensive analysis should be done under NEPA via a PEIS, but determining which federal agency is responsible for the PEIS could prove to be a fatal flaw in such an approach.

The continued reliance on coal presents a tremendous environmental challenge. In order to even begin to understand just how much of an increase in CO₂ emissions will result from the new “boom” in CFPPs, some sort of environmental analysis is needed from the federal government. However, it is difficult to determine which federal agency is responsible for these new CFPPs. While DOE tracks the construction, production, and emissions of these new plants, they have little to no actual permitting or regulatory authority over them.80 The majority of the authority to permit the construction and operation of the plants rests with the states the CFPP resides in or with EPA under the CAA.81 Even under the CAA though, EPA has delegated the majority of its permitting authority to the states and is not required to do any NEPA review.82 With no clear solution, a broader approach must be taken. The plaintiffs in the above-discussed cases took such approaches in order to get at the underlying issue — GHG emissions from the combustion of coal and other fossil fuels.83 In order to address the issue of new CFPPs in their entirety, a PEIS is needed. However, such broad programs that have causal connections to the construction of new CFPPs are not abundant, and the ones that do exist likely have PEISs in place or in production. If so, prospective plaintiffs can challenge the PEIS if it did not adequately discuss the impacts of increased CO₂ emissions from CFPPs.

One such potential agency program that may have a causal link to increased emissions of CO₂ is the Department of Interior’s Office of Surface Mining (“OSM”). OSM, among other things, regulates mountaintop mining — a process in which the top of a mountain is removed through the use of explosives to get the coal within the mountain.84 For this, OSM, in conjunction with the Army Corps of Engineers, the U.S. Fish and Wildlife Services, and the EPA, produced a lengthy PEIS.85 Within the over 500 pages of analysis — that do not mention climate change, CO₂, or other related issues — lays a potential challenge due to inadequate consideration of the indirect effects of increase in the coal supply, analogous to Mayo, but on a wider, programmatic level, such as in FOE.86 In event that neither Mayo nor FOE produces a favorable outcome, a lawsuit attacking the mountaintop mining PEIS may still succeed. Such a suit would not face the dilemma of the scope of significant impacts, as mountaintop mining has a much greater impact than either a single CFPP or railroad. Additionally, the proposed suit would not face similar issues raised by the defense in FOE, as there is clear final agency action; a PEIS has already been published. The main issue blocking a decision on the merits for this proposed lawsuit is, however, on the first page of the PEIS. The agencies do accept that the PEIS was required under NEPA.87 If such a suit is possible depends, as all suits do, on multiple other factors as well, all of which need more review and will not be discussed in this paper.

**Conclusion**

With climate change becoming a certainty, the United States needs to take mandatory action to reduce its share of emissions. In the absence of such regulation, groups are attempting to address the problem through existing U.S. law, including through NEPA. The impacts of climate change are significant under NEPA, and federal agencies need to consider their contributions to climate change prior to taking action. Some agencies are accepting that emissions cause an impact, but the trick is now in finding a way around dismissing each action’s individual emissions as negligible. After all, it is now easy for a court to accept climate change. However, it is more difficult for a court, and not necessarily scientifically accurate, to accept that the small increase in worldwide emissions from a single project will have a correlative impact on the environment via climate change. This very dilemma turned the seeming victory of BPPWG into nothing more than a Pyrrhic victory. The pending court case, Mayo and FOE, will play a large role in the future of climate change litigation and NEPA analysis. If one of the cases is successful and the agencies are either required to broaden their scope of impacts in terms of climate change or required to do a PEIS that takes a “hard look” at the impacts of CO₂ emissions, a door will open for further litigation. This litigation can serve to not only gain a better understanding of climate change and the impacts it will have on our environment, but also to aid in demonstrating the need for mandatory regulation. With continued efforts to evolve the scope of NEPA to encompass the full impacts of climate change, future litigation can succeed without losing the greater struggle.
ENDNOTES: THE EVOLVING SCOPE OF SIGNIFICANT EFFECTS ON THE ENVIRONMENT continued from page 33

2 Mass. – Oral Arguments, id.
3 See Mass. – Oral Arguments, id; see also Robert Barnes, Court Hears Global Warming Case; Justices to Decide Challenge on Greenhouse Gas Emissions, Wash. Post, Nov. 30, 2006, at A03.
7 See Mayo, No. 06-2031; FOE, 2005 WL 2035596; and BPPWG, 260 F. Supp. 2d 997.
8 See 42 U.S.C. 4321 et al.
9 Because the courts have interpreted NEPA not to require any substantive action and are only procedural, some have argued that the NEPA is not as effective as its drafters intended to be. Without any substantive requirements, federal agencies can proceed with environmentally damaging actions as long as the agency follows the right procedures. See Brian LaFlamme, NEPA’s Procedural Requirements: Fact or Fiction?, 7 MO. ENVTL. L. & POL’Y REV. 16 (1999).
10 See 42 U.S.C. 4321 et al.
13 42 U.S.C. 4332(2)(C); 40 C.F.R. 1501.1(a) (stating “Section 102(2) contains “action-forcing” provisions to make sure that federal agencies act according to the letter and spirit of the Act). See 42 U.S.C. 4332(2)(C); 40 C.F.R. §§1501.3-1501.4, 1508.4.
14 42 U.S.C. 4332(2)(C); 40 C.F.R. §§1501.3-1501.4, 1508.4.
15 40 C.F.R. §1501.4.
16 40 C.F.R. §1501.3.
17 40 C.F.R. §1508.9.
18 40 C.F.R. §§1501.4(e), 1508.13.
19 42 U.S.C. 4332(2)(c); 40 C.F.R. §§1501.4, 1508.11.
20 See Morris County Trust v. Pierce, 714 F.2d 271 (3rd Cir. 1983).
22 42 U.S.C. 4332(2)(C); 40 C.F.R. §1502.
23 40 C.F.R. §§1500-1508; 40 C.F.R. §1508.8; 40 C.F.R. §1508.7.
25 CO₂ accounts for more than 90 percent of GHG emissions. Id.
29 The three cases pending are: Friends of the Earth v. Mosbacher, formerly Friends of the Earth v. Watson, 2005 WL 2035596 (N.D. Cal. 2005); Mayo, No. 06-2031 (8th Cir. filed Apr. 14, 2006); Center for Biological Diversity v. National Highway Traffic Safety Administration, No. 06-71891 (9th Cir. Filed Apr. 12, 2006).
31 Mid State Coalition for Progress v. Surface Transportation Board, 345 F.3d 520 (8th Cir. 2003).
33 Mayo, No. 06-2031 (8th Cir. filed Apr. 14, 2006).
34 The name of the case changed due to a staff change at the Overseas Private Investment Corporation (“OPIC”), one of the two defendants. Friends of the Earth v. Mosbacher, formerly Friends of the Earth v. Watson, 2005 WL 2035596 (N.D. Cal. 2005)
36 BPPWG, 260 F. Supp. 2d at 1006-08.
37 BPPWG, 260 F. Supp. 2d at 1013.
38 BPPWG, 260 F. Supp. 2d at 1013.
39 BPPWG, 260 F. Supp. 2d at 1016.
40 BPPWG, 260 F. Supp. 2d at 1016-17.
41 BPPWG, 260 F. Supp. 2d at 1016-17.
42 BPPWG, 260 F. Supp. 2d at 1016-17.
43 Imperial-Mexicali, supra note 28.
44 Mayo, No. 06-2031 (8th Cir. filed Apr. 14, 2006).
45 Mid States Coalition for Progress v. Surface Transp. Bd., 345 F.3d 520, 548 (8th Cir. 2003) [hereinafter Mid States].
46 Mid States, 345 F.3d at 549.
47 Mid States, 345 F.3d at 549.
48 Mid States, 345 F.3d at 549.
49 Mid States, 345 F.3d at 549.
50 Mid States, 345 F.3d at 550.
51 Mid States, 345 F.3d at 550.
52 Mid States, 345 F.3d at 550.
53 BPPWG, 260 F. Supp. 2d at 1006-08.
54 BPPWG, 260 F. Supp. 2d at 1013.
55 BPPWG, 260 F. Supp. 2d at 1016.
56 Imperial-Mexicali, supra note 28.
57 Mid States, 345 F.3d at 550.
58 Mid States, 345 F.3d at 550.
59 Mid States, 345 F.3d at 550.
60 Mid States, 345 F.3d at 550.
61 Mid States, 345 F.3d at 550.
62 Mid States, 345 F.3d at 550.
63 Mid States, 345 F.3d at 550.
64 Id.
65 Id.
66 Id.
67 Id.
ENDNOTES: POTENTIAL CAUSES OF ACTION FOR CLIMATE CHANGE continued from page 38

81 Telephone interview with Jim Daniel, Department of Energy (Dec. 4, 2006).
83 The majority of permitting authority under the CAA rest in State Implementation Plans ("SIPs"). While EPA must approve these plans, it is the States that execute them. Additionally, the CAA provides for its own NEPA like review, and permits under the CAA are not subject to NEPA itself. See generally Clean Air Act, 42 U.S.C. §7401, et al.
84 See FOE, 2005 WL 2035596 (N.D. Cal. 2005); Mayo, No. 06-2031 (8th Cir. filed Apr. 14, 2006).
87 Mountaintop Mining, id.
88 Mountaintop Mining, id.