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INCONSISTENCY WITH THE NCP UNDER CERCLA: WHAT DOES IT MEAN?

William C. Tucker*

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INTRODUCTION

Government counsel frequently encounter resistance when litigating or attempting to settle U.S. Environmental Protection Agency (EPA) cost-recovery claims under section 107(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).1 This resistance occurs because potentially responsible parties (PRPs) persist in the mistaken assumption that the EPA's costs are subject to the same scrutiny their private clients might give to bills submitted by a contractor or supplier. In litigation, National Contingency Plan (NCP)2 inconsistency is an affirmative defense to costs.3 Because of this, PRPs frequently assert: (1)

* William C. Tucker is a Senior Assistant Regional Counsel, for the U.S. Environmental Protection Agency, Region II. He is writing here in his individual capacity and not as government counsel. All opinions expressed herein, including but not limited to positions on legal or policy issues, are entirely his own and are not to be construed as those of the EPA or the United States.

3. See CERCLA § 107(a)(4)(A), 42 U.S.C § 9607(a)(4)(A) (2006) (stating that PRPs are responsible for clean-up costs incurred by the United States not inconsistent with the NCP).
costs which seem unreasonable or excessive must somehow be in "violation" of the NCP; (2) EPA counsel are claiming the right to spend without restraint during remedy implementation; or (3) the EPA's failure to issue a "record of decision" (ROD) amendment or, alternatively, an "explanation of significant differences" (ESD), for the slightest change to planned remedial construction, constitutes inconsistency with the NCP.\(^4\) However, these arguments are generally unpersuasive, not because they have no basis in common business practices, but because they lack a sound legal foundation.

First and foremost, parties asserting these defenses often misunderstand the standard of review necessary to meet their burden of establishing that the government's costs are inconsistent with the NCP. In effect, they attempt to contest the reasonableness or cost-effectiveness of the governments' expenditures on equitable grounds under the guise of an "NCP inconsistency" argument.\(^5\) Second, their argument that changes made during remedial construction require formal modification of an EPA ROD is problematic. With this argument, these parties frequently overlook both the heavy burden required to show a ROD amendment is required, and the important due process and procedural differences that the courts have recognized between a ROD amendment and an ESD.

In fact, as this article will attempt to show, the defendant's burden in CERCLA cost-recovery actions challenging the EPA's costs is a heavy one indeed. CERCLA affords the government a high degree of deference in cost-recovery actions. First, to show "NCP inconsistency," a defendant must demonstrate on the administrative record that the EPA acted arbitrarily and capriciously in remedy selection.\(^6\) PRP opportunities to challenge the EPA's costs on the basis of errors in implementation, as opposed to remedy selection, are extremely limited. Second, to show that mid-course

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\(^4\) See Alex A. Beehler, Steve C. Gold & Steven Novick, Contesting of CERCLA Costs by Responsible Parties—There is No Contest, [1992] 22 Envtl. L. Rep. (Entl. Law Inst.) 10,763, 10,764–65 (asserting as a waste of time efforts by defendants to split hairs over amount of cost recovery). PRPs also frequently challenge the EPA's cost documentation as inadequate, primarily because the EPA lacks "work performed" documentation. However, the EPA generally maintains it is only required to provide adequate cost accounting to demonstrate that costs were incurred in relation to a particular site (through invoices, payment vouchers, employee timesheets, etc.). *Id.* at 10,768. Once the EPA meets this burden of proving its costs, the burden shifts to the defendants to show the EPA's costs are inconsistent with the NCP; the EPA is not required to justify each expenditure. United States v. Kramer, 913 F. Supp. 848, 856 (D.N.J. 1995); see Beehler, Gold & Novick, *supra* at 10,765 & n.18 ("[P]roving that costs were consistent with the NCP is not part of the government's prima facie case.").

\(^5\) See United States v. Kramer, 913 F. Supp. at 852 (defendants broadly alleging that "wasteful, unnecessary, unreasonable, or excessive costs may not be recovered by the government because such costs are, as a matter of law, inconsistent with CERCLA and the NCP").

\(^6\) California v. Neville Chem. Co., 358 F.3d 661, 673 (9th Cir. 2004).
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corrections made by the EPA during remedy implementation and without a formal modification to the selected remedy amount to arbitrary and capricious action, a defendant must show that the changes to the remedy were "significant" or "fundamental" and that consequential damages were incurred as a result. In most cases, making such a showing will be an insurmountable burden for defendants.

I. LEGAL BACKGROUND

A. Statutory Scheme

Section 107(a) of CERCLA provides for the recovery of "all costs of removal or remedial action incurred by the United States Government or a State or Indian tribe not inconsistent with the National Contingency Plan." "Notwithstanding any other provision or rule of law," section 107 liability provisions are "subject only to the defenses set forth in subsection (b) of this section." Those provisions allowing the government to recover "all costs" may be contrasted with section 107(a)(4)(B), which limits private cost-recovery only to "necessary" costs "consistent with the [NCP]." Thus, Congress clearly distinguished between private cost-recovery actions under section 107 and actions initiated by the government. Under the former, the burden is on the private plaintiff to show its costs are both "reasonable" and "consistent with" the NCP. In contrast, the government may recover "all" its proven costs, subject only to the affirmative defenses

9. 42 U.S.C. § 9607(a). Section 107(b), in relevant part, reads:

There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat of release of a hazardous substance and the damages resulting therefrom were caused solely by (1) an act of God; (2) an act of War; (3) an act or omission of a third party . . .; or (4) any combination of the foregoing paragraphs.

Id. § 9607(b). The third exception applies so long as the person can show he exercised due care and took precautions against foreseeable third-party acts or omissions. Id. Since these defenses are rarely successful, if raised at all, as a practical matter the language of section 107 virtually excludes all defenses except to the EPA's costs under "NCP inconsistency."

set forth in section 107(b) and a showing of NCP "inconsistency." CERCLA also provides that, in a cost-recovery action brought by a PRP respondent to an EPA order, the party performing the response action may only recover "reasonable costs" of that action. Thus, Congress expressed a clear intent that section 107 actions initiated by the United States under CERCLA allow the government to recover all costs, and do not allow private plaintiffs to challenge costs on the grounds that they are unreasonable or unnecessary.

Section 113(j), enacted with the Superfund Amendments and Reauthorization Act of 1986 (SARA), makes clear that the only relevant challenge to a section 107 action brought by the government (aside from those enumerated defenses in section 107(b)) is that the government's choice of response action, development and implementation of which resulted in the incurrence of costs, is inconsistent with the NCP. Subsection (j)(2) provides that a party challenging the EPA's response action in a CERCLA judicial action must "demonstrate, on the administrative record, that the decision was arbitrary and capricious or otherwise not in accordance with law." If a court finds the selection of a response action erroneous under that standard, section 113(j)(3) limits a defendant's victory to only those demonstrable damages affected by the error. That is, the government may still recover all its costs except those demonstrably attributable to the NCP inconsistency in remedy selection. That subsection states that in such an event "the court shall award . . . only the response costs or damages that are not inconsistent with the [NCP]." Thus, the section 113(j)(3) standard upholding the EPA's choice of response action unless "arbitrary or capricious or otherwise not in accordance with law" is the only basis on which the EPA's costs may be challenged as "inconsistent" with the NCP. This is reinforced by the language of section 113(j)(4), which states: "In reviewing alleged procedural errors [under the NCP], the court may disallow costs or damages only if the errors were so serious and related to matters of such central relevance to the action that the action would have been significantly changed had such errors not been made."

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11. 42 U.S.C. § 9607(a), (b); see also 42 U.S.C. § 9613(g)(2) (CERCLA statute of limitations).
17. Id.
Thus, it is clear that CERCLA affords the government a high degree of deference, both in remedy selection and cost-recovery. In addition, the statute also specifically allows the EPA to recover its legal costs. With the SARA amendments of 1986, Congress amended section 101(25) of CERCLA, which defines the terms "removal" and "remedial action" to include "enforcement activities related thereto." The congressional history indicates that this change was made to give the EPA "authority to recover costs for enforcement actions taken against responsible parties." However, this should in no way be taken as a limitation on legal costs recoverable under section 107(a) of CERCLA. Section 104(b)(1) grants the EPA authority to "undertake such planning, legal, fiscal, economic, engineering, architectural, and other studies or investigations as [it] may deem necessary or appropriate to plan and direct response actions, to recover the costs thereof, and to enforce the provisions of this chapter." Thus, the statute expressly authorizes legal expenses, not only to "recover the costs" of response actions, but also to "plan and direct" such actions and generally to "enforce the provisions" of CERCLA.

In other words, the statute not only authorizes the incurrence of response costs for cost recovery litigation, but also authorizes related enforcement actions, including those legal costs incurred in planning and directing response actions and in enforcing the remedial provisions of CERCLA. Such costs may include, among others, costs of obtaining access under section 104(e), costs incurred in providing legal advice to the EPA's program offices, and legal costs of claims settlement and defense under a response action contract.

23. 42 U.S.C. § 9604(e). See generally 40 C.F.R. pt. 35, subpt O (2007). Subpart O authorizes payments to states under cooperative agreements for contractor claims settlement and defense. The recipient of an award under a cooperative agreement or state contract "may incur costs (including legal, technical and administrative)" to assess or settle a claim "by or against the recipient," to "defend against a contractor claim for increased costs," or "to prosecute a claim to enforce a contract." 40 C.F.R. § 35.6600(b), (c) (emphasis added).
B. Case Law

CERCLA allows the United States to recover "all costs . . . not inconsistent with the [NCP]."24 "The NCP regulates the choice of response actions, not the costs" incurred.25 Thus, the United States is entitled to recover all of its response costs not inconsistent with the NCP, if the decision to incur the challenged costs was not arbitrary and capricious.26

A private party seeking to recover costs in a CERCLA action can only recover reasonable costs, plus interest.27 However, when the government brings a cost recovery action, it can recover all response costs, even those that may be excessive, as long as the selection of the remedy is not inconsistent with the NCP.28 PRPs have the burden of proof as to whether a remedial action was selected in a manner inconsistent with the NCP.29

To establish NCP inconsistency, a PRP must demonstrate that the EPA selected its response action in a manner that was arbitrary and capricious.30 A review of the EPA's remedy decision is based upon review of the administrative record only.31

28. See 42 U.S.C. § 9607(a)(4)(A) (requiring "all costs of removal or remedial action" be consistent); Hardage, 982 F.2d at 1442 (holding that inconsistency of a particular cost will depend on whether the response action is deemed inconsistent) (citing NEPACCO, 810 F.2d at 748).
30. Wash. State Dep't of Transp. v. Wash. Natural Gas Co., 59 F.3d 793, 802 (9th Cir. 1995); see also Minnesota v. Kalman W. Abrams Metals, Inc., 155 F.3d 1019, 1024 (8th Cir. 1998) (stating that "defendants have the burden of proving that the costs incurred were inconsistent with the NCP, an issue that is judicially reviewed under the arbitrary and capricious standard of review for agency action"); California v. Neville Chem. Co., 358 F.3d 661, 673 (9th Cir. 2004) (stating "to show that the Department's actions were inconsistent with the [NCP], the burden is on Neville to show that the Department acted in an arbitrary and capricious manner in choosing a particular response action"); Am. Cyanamid Co., 786 F. Supp. at 158 (citing United States v. Ward, 618 F. Supp. 884, 900 (E.D.N.C. 1985)) (stating that to satisfy its "burden of proving that the response costs claimed by the [U.S.] are inconsistent with the [NCP] . . . defendants must prove that the agency's actions were arbitrary and capricious").
31. See 42 U.S.C. § 9613(j)(2) (2006) (providing that courts "shall uphold [the EPA's] decision in selecting the response action unless the objecting party can demonstrate, on the administrative record, that the decision was arbitrary and capricious or otherwise not in accordance with law"); see also In re Bell Petroleum Servs., Inc., 3 F.3d 889, 904–05 (5th Cir. 1993), rev'd in part on other grounds, 64 F.3d 202 (5th Cir. 1995), rehearing denied (Nov. 14, 1995) (reviewing authority is "limited to the administrative record").
Furthermore, should a response action be found inconsistent with the NCP, the United States is not precluded from recovering costs incurred in implementing that action, unless the defendants can also show that excess costs were incurred because of inconsistency with the NCP.\textsuperscript{32} PRPs can only question the cost-effectiveness of a remedial action when addressing the remedy selection phase. However, once the EPA chooses a remedy that is not arbitrary and capricious, cost-effectiveness is no longer a viable challenge.\textsuperscript{33}

As long as the choice of remedy is not arbitrary and capricious, costs of implementation are presumed to be reasonable, and the United States is under no obligation to minimize its response costs.\textsuperscript{34} The strongly worded Kramer opinion, a Third Circuit district court case, follows the holdings of other circuits when it states that costs that are unreasonable, unnecessary, improper, not cost-effective, and excessive may still not be inconsistent with the NCP and, therefore, recoverable by the EPA.\textsuperscript{35}

II. NCP CONSISTENCY: WHAT DOES IT REALLY MEAN?

A. The NCP Consistency Standard of Review

PRPs frequently assert that costs are unrecoverable when they arise from "actions" that are inconsistent with the NCP, citing such cases as \textit{United States v. Kramer}.\textsuperscript{36} They challenge the government's costs as inconsistent with the NCP based on alleged failure to "comply" with the NCP in implementing a remedy.\textsuperscript{37} However, PRPs making this argument

\begin{itemize}
\item \textsuperscript{33} \textit{See Kramer}, 913 F. Supp. at 867 (finding that, as a matter of law, arguments of cost-effect do not allege inconsistency with the NCP); \textit{Am. Cyanamid Co.}, 786 F. Supp. at 162 (stating “[o]nce EPA validly chooses a permanent remedy for a site, cost-effectiveness is no longer a viable challenge to the implementation of that remedy”); \textit{see also Kalman W. Abrams Metals, Inc.}, 155 F.3d at 1025 (stating that consistency with the NCP is presumed unless the EPA acted arbitrarily and capriciously).
\item \textsuperscript{34} United States v. Hardage, 982 F.2d 1436, 1442 (10th Cir. 1992); \textit{Am. Cyanamid Co.}, 786 F. Supp. at 161.
\item \textsuperscript{35} \textit{Kramer}, 913 F. Supp. at 867.
\item \textsuperscript{36} \textit{Id.}
\item \textsuperscript{37} \textit{See Wash. State Dep’t Transp. v. Wash. Natural Gas Co.}, 59 F.3d 793 (9th Cir. 1995) (finding that Washington State Department of Transportation (WSDOT) had not referred to the NCP in selecting the remedy for that site, and that its “lead representative on the coordination team handling the contamination project was not even aware that the NCP existed”). Without stopping its inquiry there, the court proceeded to evaluate WSDOT’s actions “under the standards set forth in the NCP,” because
\end{itemize}
misinterpret the standard of review. The *Kramer* opinion holds that once the EPA has documented its costs, in order to challenge those costs the burden shifts to the defendants to show that the remedy selected in the ROD is inconsistent with the NCP.\(^3\) The court in that case granted two government motions, holding first that "defendants' arguments that costs are excessive, unreasonable, duplicative, not cost-effective, and improper do not allege inconsistency with the [NCP]" and "do not provide a defense to a cost recovery action under section 107(a) of [CERCLA]."\(^3\) The court further held that "as a matter of law, those same arguments do not allege inconsistency with the NCP and therefore do not provide defenses in a cost recovery action under section 107(a) of CERCLA."\(^4\) In its opinion, the court quoted *United States v. Hardage* with approval:

The court in *Hardage* clearly stated: "When the government is seeking response costs, . . . consistency with the NCP is presumed unless defendant can overcome this presumption by presenting evidence of inconsistency. . . . In order to show that a government response cost is inconsistent with the NCP, a defendant must demonstrate that the government's response action giving rise to the particular cost is inconsistent with the NCP. To show that a government response action is inconsistent with the NCP, a defendant must demonstrate that the EPA acted arbitrarily and capriciously in choosing a particular response action to respond to a hazardous waste site."

The court further stated, quoting from an earlier opinion, that "[c]ost effectiveness is a criteria for the EPA only when choosing a permanent remedy for a site among competing alternatives. This is the only reference

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\(^3\) "an environmental cleanup could conceivably follow a standard procedure consistent with the NCP, even if the NCP is not actually referenced." *Id.* at 803; *see also* United States v. Ne. Pharm. & Chem. Co., 810 F.2d 726, 748 (8th Cir. 1986) (showing that there is a significant difference between "NCP consistency" and "NCP compliance"). PRPs often argue that the NCP imposes strict and minute requirements upon the EPA, the least infraction of which is a violation sufficient to deny the EPA cost recovery. However, NCP inconsistency is an affirmative defense that requires a defendant to show, on the administrative record, that the EPA acted with such disregard for the NCP in selecting the remedy that its behavior was "arbitrary and capricious." This standard is highly deferential to the government. See United States v. Ward, 618 F. Supp. 884, 900 (E.D.N.C. 1985) ("[I]t would be an unreasonable waste of judicial time and government resources not to mention an usurpation of agency authority, to require the EPA to justify its every action in order to recover under section 107 . . . .")

39. *Id.* at 849.
40. *Id.* at 867.
41. *Id.* at 862 (citing *Hardage*, 982 F.2d at 1442 (citations omitted)) (emphasis added).
to cost-effectiveness of hazardous substance response actions in the NCP."
In addition, the Kramer court emphasized:

Even if a response action is shown to be inconsistent with
the NCP, defendants still have not triumphed. In order to
establish the amount of costs to be disallowed, "the
defendants have the burden of demonstrating that the clean-
up, because of some variance from the Plan, resulted in
demonstrable excess costs."^{42}

In a recent opinion, the Third Circuit reaffirmed the standard for NCP
consistency set forth in Kramer. In the opinion filed December 22, 2005, in
United States v. E.I. DuPont de Nemours & Co., on appeal from the District
Court for the District of Delaware, the circuit court sitting en banc
overruled United States v. Rohm & Haas Co., and held that CERCLA
authorizes the United States to recover removal and remedial action
oversight costs.^{43} DuPont's amici contended that if oversight costs were
recoverable, "responsible parties will be held unfairly liable for the 'waste
and inefficiency' of EPA practices."^{44} In response, the court reiterated the
standard of review applicable to an NCP inconsistency claim.^{45} Citing
United States v. Northeastern Pharmaceutical & Chemical Co., the court
reaffirmed that "responsible parties have the burden of proving" costs
inconsistent with the NCP and that "the arbitrary and capricious standard is
the proper measure of review."^{46} The court then stated that:

We agree EPA response costs are presumed consistent with
the [NCP] unless a responsible party overcomes this
presumption by establishing the EPA's response action
giving rise to the costs is inconsistent with the [NCP]. . . .

To establish an EPA response action is inconsistent with the
[NCP], a responsible party must show the EPA acted

^{42} Id. (citing Am. Cyanamid Co., 786 F. Supp. at 161) (citations omitted).
^{43} United States v. E.I. DuPont De Nemours & Co., 432 F.3d 161, 179 (3d Cir. 2005). See
Certain Oversight Costs under CERCLA, United States v. E.I. DuPont De Nemours and Company, Inc.,
^{44} E.I. DuPont de Nemours & Co., 432 F.3d at 178.
^{45} Id.
^{46} Id. (citing United States v. N.E. Pharm. & Chem. Co., 810 F.2d 726, 747–48 (8th Cir.
1986)).
arbitrarily and capriciously in choosing the response action.\textsuperscript{47}

Other circuit courts addressing this issue have adopted this standard of review. In addressing an NCP inconsistency claim, the Ninth Circuit cited both \textit{Washington State Department of Transportation v. Washington Natural Gas Co. (WSDOT)} and \textit{Hardage} with approval, stating that in order to "show that the Department's actions were inconsistent with the NCP, the burden is on [the defendant] to show that the Department acted in an arbitrary and capricious manner in choosing a particular response action."\textsuperscript{48} Essentially, PRPs attempting to argue that the EPA "violated" the NCP through mistakes in remedy implementation are trying to cloak in the guise of NCP inconsistency an argument—which has been repeatedly rejected by the federal courts—that the government's costs are not recoverable because they are not cost-effective. However, the federal bench has spoken loud and clear on this point.

\textbf{B. Remedy Implementation vs. Remedy Selection}

While acknowledging that liability may be imposed under CERCLA for all remedial costs incurred by the governments that are "not inconsistent with the [NCP],"\textsuperscript{49} PRPs often maintain that the government is saying that NCP compliance is not required during remedy implementation, and the remedy selection process is the only time that NCP compliance is required. If true, PRPs' counsel maintain that the EPA can act with impunity and collect unlimited response costs, as long as the PRPs cannot prove the EPA was inconsistent with the NCP during remedy selection.\textsuperscript{50}

In reply, government counsel maintain that under the \textit{Kramer} rationale an allegation that costs are excessive or not cost-effective does "not allege inconsistency with the NCP," and is therefore not a defense to a cost

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  \item \textsuperscript{47} \textit{California v. Neville Chem. Co.}, 358 F.3d 661, 673 (9th Cir. 2004) (emphasis added); \textit{United States v. Hardage}, 982 F.2d 1436, 1508 (10th Cir. 1992); see also \textit{Wash. State Dep't of Transp. v. Wash. Natural Gas Co.}, 59 F.3d 793, 802 (9th Cir 1995) (stating that defendants have burden of proving WSDOT's action was arbitrary and capricious); \textit{United States v. R.W. Meyer, Inc.}, 889 F.2d 1497, 1508 (6th Cir. 1989) (stating that defendants have burden of proving that the EPA acted arbitrarily and caprichiously).
  \item \textsuperscript{48} \textit{California v. Neville Chem. Co.}, 358 F.3d 661, 673 (9th Cir. 2004) (emphasis added); \textit{United States v. Hardage}, 982 F.2d 1436, 1508 (10th Cir. 1992); see also \textit{Wash. State Dep't of Transp. v. Wash. Natural Gas Co.}, 59 F.3d 793, 802 (9th Cir 1995) (stating that defendants have burden of proving WSDOT's action was arbitrary and capricious); \textit{United States v. R.W. Meyer, Inc.}, 889 F.2d 1497, 1508 (6th Cir. 1989) (stating that defendants have burden of proving that the EPA acted arbitrarily and caprichiously).
  \item \textsuperscript{50} Although PRPs sometimes maintain that NCP compliance is required for remedy implementation, because the NCP primarily addresses remedy selection, not implementation, they often have difficulty pointing to specific provisions of the NCP which they allege are "violated" or not complied with in the course of implementing the remedial action.
\end{itemize}
recovery action under section 107(a) of CERCLA. As noted above, the Third Circuit has validated *Kramer* in holding that "[t]o establish an EPA response action is inconsistent with the [NCP], a responsible party must show EPA acted arbitrarily and capriciously in choosing the response action." However, government counsel usually do not contend that the governments can expend unlimited response costs, or completely disregard the NCP during remedy implementation, even though the federal courts have consistently held that cost-effectiveness is not a requirement once the remedy has been selected. In fact, the NCP provides a regulatory scheme designed to ensure that the government’s remedy implementation costs are adequately documented and not profligately incurred.

Subsection 300.435(a) of the NCP provides that "[t]he remedial design/remedial action (RD/RA) stage includes the development of the actual design of the selected remedy and implementation of the remedy through construction. A period of operation and maintenance may follow the RA activities." Section 300.435(b)(1) requires that "[a]ll RD/RA activities shall be in conformance with the remedy selected and set forth in the ROD or other decision document for that site." Section 300.160 specifically requires accounting of RD/RA expenditures for cost-recovery purposes. This provision is important since, as the *Kramer* court stated, "once the government proves that it incurred the costs for a particular site,"

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52. *DuPont*, 432 F.3d at 178–79 (emphasis added); see also Neville Chem. Co., 358 F.3d at 673 (finding no evidence the EPA acted "arbitrarily and capriciously in choosing a particular response action").
54. 40 C.F.R. § 300.435(a) (2007).
55. 40 C.F.R. § 300.435(b)(1). The NCP primarily addresses remedy selection, not implementation. For that reason, NCP provisions arguably applicable to remedy implementation are few and are either extremely limited in scope or extremely broad. For example, 40 C.F.R. § 300.435(b) further requires that certain quality assurance/quality control (QA/QC) sampling procedures be followed, and that the lead agency ensure that "applicable and relevant and appropriate requirements" (ARARs) are met. The remaining subsections, 40 C.F.R. § 300.435(c)-(f), address, respectively, community relations (including ESD and ROD amendment procedures), contractor conflict of interest, recontracting, and operation and maintenance. Although 40 C.F.R. § 300.435 is the only NCP section to directly address RD/RA, certain other NCP provisions may be read as governing discrete aspects of remedy implementation. See, e.g., 40 C.F.R. § 300.150 (worker health and safety requirements); § 300.160(b) (requiring documentation for cost recovery); § 300.400(c) (containing certain requirements for fund-financed actions, including "prompt response" and community sensitivity); § 300.400(e) (permit requirements); § 300.515(g) (requirement for site cooperative agreements and joint EPA-State inspections "at the conclusion of construction" to ensure ARARs are met).
56. 40 C.F.R. § 300.160.
the burden shifts to the defendants to prove that the costs arose from actions that were inconsistent with the NCP.\textsuperscript{57} Read together, these provisions provide a regulatory scheme designed to ensure that the government cannot act with impunity in the conduct of a remedial action.

Consistent with NCP section 300.435(b)(1), which requires that all RD/RA activities "shall be in conformance with the remedy selected and set forth in the ROD," the Kramer court, while allowing the government to recover documented costs which are "unreasonable," "excessive," and "not cost-effective" (as long as defendants cannot show the selected remedy is inconsistent with the NCP), would limit recovery of costs to those incurred in performing the remedy selected in the ROD.\textsuperscript{58} The court held that "while the NCP requires the EPA to evaluate the cost-effectiveness of competing remedies, the NCP does not require that items of response cost be 'reasonable,' 'proper,' or 'cost-effective.'"\textsuperscript{59} Yet the court also held that costs arising "from fraud, double-billing or activities that do not relate to the lawful remedy . . . are not recoverable under section 107."\textsuperscript{60} That is precisely because such costs are not incurred in performing the remedy selected in the ROD. The NCP requirements for cost accounting and NCP procedures applicable to remedy selection, including consideration of cost-effectiveness, along with the NCP requirement that costs be incurred in performing the remedy selected in the ROD, are designed to ensure that the government does not collect "unlimited" response costs during remedy implementation. The Kramer court elaborated upon this principle:

Congress has not given the EPA a license to squander the funding from the Superfund that it must use for such remedial actions. By requiring that the actions be selected in a manner consistent with the NCP, the statute embraces the requirement that the EPA consider the cost-effectiveness of various alternative remedial plans before selecting the approach to be taken at the site. . . . The limitation on recovery of response costs "incurred" by the government similarly implies that costs unrelated to the duly selected remedy are unrecoverable, and also that costs . . . are not recoverable until they have been paid by the government, again implying the regularity and due care of

\textsuperscript{57} Kramer, 913 F. Supp. at 856 n.9; see also United States v. Hardage, 982 F.2d 1436, 1442 (10th Cir. 1992) (stating that the burden of proof of inconsistency with the NCP rests with the defendant).

\textsuperscript{58} Kramer, 913 F. Supp. at 867; 40 C.F.R. § 300.435(b)(1).

\textsuperscript{59} Kramer, 913 F. Supp. at 867.

\textsuperscript{60} Id.
governmental accounting and disbursement measures as a safeguard.\textsuperscript{61}

PRPs frequently cite, but misinterpret the import of, several key opinions, including \textit{Minnesota v. Kalman W. Abrams Metals, Inc.}\textsuperscript{62} and \textit{WSDOT}.\textsuperscript{63} \textit{Kalman} is cited in support of the assertion that NCP consistency applies to all phases of cleanup governed by the NCP, including remedy implementation. The inquiry in \textit{Kalman}, however, was not whether the State of Minnesota followed the NCP in implementing the remedy, but whether the remedy selection process itself was inconsistent with the NCP. In \textit{Kalman}, the district court found that the State of Minnesota "failed to undertake a feasibility study" prior to choosing the experimental soil washing remedy. Instead, the State relied on a prior EPA Site Assessment and ignored its own contractor's and the EPA contractor's recommendations for "complete removal" of contaminants.\textsuperscript{64} In addition, the court found the State "gave the public minimal public notice of the proposed soil washing remedy and contracted to implement that remedy before the public comment period ended."\textsuperscript{65} Finally, the district court found that when the soil washing remedy failed, the State hired "new contractors, at increased expense, to clean up the site."\textsuperscript{66} The court of appeals held that this was arbitrary and capricious and inconsistent with the NCP because the State "failed to monitor [its own contractor] and modify the remedy when the unevaluated problem turned out to be greater than anticipated."\textsuperscript{67} The \textit{Kalman} court, therefore, found the State's actions arbitrary and capricious based on inadequate site investigation, failure to evaluate remedial alternatives, failure to provide for pre-decisional public notice and comment, and failure to modify the remedy when changed circumstances

\textsuperscript{61} \textit{Id.} at 865.
\textsuperscript{63} Wash. State Dept. of Transp. v. Wash. Natural Gas Co., 59 F.3d 793, 802 (9th Cir. 1995); see also United States v. Jones, 267 F. Supp. 2d 1349, 1363–64 (M.D. Ga. 2003). \textit{Jones} was a Clean Water Act (CWA) case in which, among other claims, the government sought reimbursement of removal costs under the Oil Pollution Act (OPA), 33 U.S.C. §§ 2701–2720 (2006). \textit{Id.} at 1349–50. The United States had moved for summary judgment on liability and costs; the court granted the government's motion as to liability, but denied summary judgment as to costs, since issues of fact remained with regard to defendant's "NCP consistency" defense. \textit{Id.} at 1352–53, 1364. Thus, this case is inconclusive. It is worth noting, however, that the court also granted the government's motion for summary judgment as to defendants' affirmative defense contesting the "reasonableness" of the government's costs. \textit{Id.} at 1364.
\textsuperscript{64} \textit{Kalman W. Abrams Metals, Inc.}, 155 F.3d at 1024–25.
\textsuperscript{65} \textit{Id.} at 1024.
\textsuperscript{66} \textit{Id.} at 1025.
\textsuperscript{67} \textit{Id.}
required. All the State's errors go to remedy selection, not implementation.

Similarly, PRPs cite WSDOT for the proposition that NCP consistency applies to all remedial actions. However, the holding of WSDOT is quite different. In that case, response costs incurred by WSDOT were held not recoverable by the Ninth Circuit because WSDOT's actions in selecting the remedy were found to be arbitrary and capricious and inconsistent with the NCP. The court applied this standard because "[t]he NCP is designed to make the party seeking response costs choose a cost-effective course of action to protect public health and the environment." The court further elaborated on the standard for NCP inconsistency review as follows:

To prove that a response action of the EPA was inconsistent with the NCP, a defendant must prove that the EPA's response action was arbitrary and capricious. This legal standard is justified 'because determining the appropriate removal and remedial action involves specialized knowledge and expertise, [and therefore] the choice of a particular cleanup method is a matter within the discretion of the [government].'

The record before the court demonstrated that the lead representative from WSDOT on the coordination team did not even know the NCP existed when developing a remedial action for the site. WSDOT "utterly failed" to adequately conduct a remedial investigation: the court found that "WSDOT's initial investigation failed to determine either the nature or the extent of the threat posed," as required by the NCP. In addition, WSDOT did not properly evaluate remedial alternatives as specified in the "feasibility study" requirements of the NCP. Finally, "WSDOT failed to provide an opportunity for public review and comment of the alternative remedial measures it was considering." As a result, the response costs were disallowed, not because WSDOT didn't follow the NCP with regard to remedy implementation or due to the State's excessive costs, but rather

68. Id.
70. Id. at 802 (emphasis added).
71. Id. at 802 (citing United States v. Hardage, 982 F.2d 1436, 1442 (10th Cir. 1992) (quoting United States v. NEPACCO, 810 F.2d 726, 748 (8th Cir. 1986))) (emphasis added) (citations omitted); United States v. R.W. Meyer, Inc., 889 F.2d 1497, 1508 (6th Cir. 1989); NEPACCO, 810 F.2d at 748.
73. Id. at 803.
74. Id. at 805.
75. Id.
because the court found that WSDOT selected its remedial action in an arbitrary and capricious manner that was inconsistent with the NCP. In short, the WSDOT opinion does not speak to remedy implementation. Rather, like Kalman, the court held the State’s actions arbitrary and capricious based on “utter” failure of the remedial investigation, failure to evaluate remedial alternatives, and failure to provide public notice and opportunity for comment.76

PRPs characterize the EPA’s position as denying that NCP consistency is not required for remedy implementation, but only for remedy selection. However, that is not the case. The NCP provides a regulatory scheme that requires the government to act “in conformance with the remedy selected and set forth in the ROD,” to consider cost-effectiveness in remedy selection, and to keep an accurate accounting of its costs.77 These NCP requirements are designed to ensure that the government does not collect unlimited response costs or act with impunity during remedy implementation. Once these NCP requirements are met, however, to avoid liability for all of the government’s costs, a PRP must show, not that the government’s costs were not cost-effective or unreasonable, but that the selection of the response action was arbitrary and capricious and inconsistent with the NCP.

Individual site costs may only be challenged based upon NCP inconsistency in remedy selection once documented and if incurred in connection with a particular site. Costs may not be challenged as inconsistent with the NCP merely because they are unreasonable, not cost-effective, or excessive. Nevertheless, PRPs frequently persist in challenging the EPA’s costs as excessive or not cost-effective based on allegations of, among others, design errors, contract disputes, mismanagement of contracts, and inadequate contractor oversight on the part of the EPA or its state counterparts. However, as the Kramer opinion clearly holds, costs which not only are “excessive,” but also those which are “unreasonable, duplicative, not cost-effective, and improper . . . as a matter of law . . . do not allege inconsistency with the NCP and therefore do not provide defenses in a cost recovery action under section 107(a) of


CERCLA.\textsuperscript{78} Under Kramer and similar cases, a government motion to strike any such defenses would be granted.\textsuperscript{79}

C. Changes Requiring Remedy Modification

PRPs often claim that the EPA, without a ROD amendment or an ESD, implemented significant remedy changes in violation of the NCP.\textsuperscript{80} They frequently argue that minor changes made during remedy implementation or construction, such as modifications to methane gas venting systems, provisions of temporary water supplies, extensions of caps or impermeable covers protecting previously undetected waste material, and the like, were "significant" or even "fundamental" remedy changes requiring the EPA to follow formal remedy modification procedures, such as issuance of ROD amendments or ESDs. It is important to note that the threshold question is not whether a particular component of a remedy was itself significantly changed, but whether the remedy selected in the ROD was significantly changed by a modification to a particular component of the remedy. The NCP states that "after the adoption of the ROD, if the remedial action . . . differs significantly from the remedy selected in the ROD with respect to scope, performance, or cost, the lead agency shall . . . publish an explanation of significant differences when the differences . . . significantly change but do not fundamentally alter the remedy selected in the ROD."\textsuperscript{81} The preamble to the EPA's NCP regulations published in 1990 clarifies the difference between significant changes to a ROD by discussing those that are "nonsignificant."

Nonsignificant changes are minor changes that usually arise during design and construction, when modifications are made to the functional specifications of the remedy to optimize performance and minimize cost. This may result in minor changes to the type and/or cost of materials, equipment, facilities, services and supplies used to

\begin{footnotesize}
\begin{enumerate}
\item 79. See id. at 867; Am. Cyanamid Co., 786 F. Supp. at 162; Kalman W. Abrams Metals, Inc., 155 F.3d at 1025.
\item 80. Note that when PRPs allege a "significant" change in the remedy occurred, their argument must be that an ESD is required. However, under the NCP and relevant case law, if such a change is "fundamental," then their argument must be that a ROD amendment is required.
\item 81. 40 C.F.R. § 300.435(c)(2) (emphasis added).
\end{enumerate}
\end{footnotesize}
implement the remedy. The lead agency need not prepare an ESD for minor changes.\textsuperscript{82}

The EPA’s remedies typically consist of multiple components only one of which represents the primary treatment methodology. Minor changes to components of a remedy that are not primary, occurring during design and construction and made in order to “optimize performance and minimize cost,” are described in the NCP as “nonsignificant.”\textsuperscript{83} Nevertheless, PRPs frequently allege that minor changes made “to optimize performance and minimize cost” constitute significant changes requiring an ESD.

It is instructive in this regard to read the examples of “significant” changes requiring an ESD given in the EPA’s \textit{Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents} (ROD Guidance).\textsuperscript{84} They include: (1) a significant increase in volume of waste material to be treated resulting in a substantial cost increase; (2) off-site disposal rather than on-site disposal selected in the ROD, resulting in a significant increase in costs and implementation time; (3) implementation of a ROD contingency, changing the primary remedy from pump and treat to monitored natural attenuation; (4) newly promulgated cleanup levels requiring a significant change in cleanup level, timing, volume or cost of the remedy; (5) a zoning change from residential to commercial significantly changing threat levels, risk scenarios and cleanup levels specified in the ROD; and (6) a change to the primary pump and treat system from air stripping for ex-situ treatment of groundwater to biological treatment of groundwater.\textsuperscript{85} All of these examples involve not a modification to one small component of the remedy, resulting in lower costs, but substantially increased waste volume, cost, or implementation time; significant changes in risk and contaminant cleanup levels to be achieved; or substitution of one primary treatment technology for another.

It is further instructive to read the examples given in the 1990 NCP Preamble of “significant” changes requiring an ESD. They include the following: (1) a newly promulgated requirement affects “a basic feature of

\textsuperscript{82} National Oil and Hazardous Substances Pollution Contingency Plan, 55 Fed. Reg. 8666, 8772 (Mar. 8, 1990) (emphasis added).

\textsuperscript{83} Id.

\textsuperscript{84} OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVTL. PROT. AGENCY, OSWER 9200.1-23P, A GUIDE TO PREPARING SUPERFUND PROPOSED PLANS, RECORDS OF DECISION, AND OTHER REMEDY SELECTION DECISION DOCUMENTS 7-3 fig.7-1 (1999), available at http://epa.gov/superfund/policy/remedy/rods/index.htm (providing examples of “minor” changes including: (1) a 25% increase in volume of soil to be treated; (2) a change in an on-site disposal location; and (3) a change from quarterly to semi-annual groundwater monitoring).

\textsuperscript{85} Id.
the remedy, such as timing or cost,” but does not fundamentally alter the remedy specified in the ROD; (2) sampling during the design phase “indicates the need to increase the volume of waste material to be removed and incinerated by 50 percent, requiring an increase in cost”; (3) the “use of carbon adsorption instead of air stripping to conduct ground-water treatment,” with the pump and treat approach remaining the same. As with the ROD guidance, the examples include substantial increases in waste volume, “basic” changes to timing and cost, and the substitution of one primary treatment technology for another. Often, changes alleged by PRPs to be significant did not significantly affect overall timing or cost of construction, increase the volume of waste material to be treated, or constitute substitution of one primary treatment technology for another, as is the case with the examples provided in the preamble.

PRPs challenging the EPA’s costs on this basis often rely on United States v. Burlington Northern Railroad Co. In Burlington Northern, a hazardous sludge that was to be pumped out of the site contained more rock than anticipated, requiring a modification of the already-selected remedial action plan. One modification—the addition of a gravity settling tank to remove the rock in the sludge—increased the remedy’s cost by $100,000 to a total of $2.3 million. The court held that this modification did not require reconsideration of the remedy currently in place. However, subsequent post-ROD difficulties increased costs by approximately 61% (or $1.4 million). Thus, the Tenth Circuit affirmed the district court’s holding that this increase fundamentally altered the remedy “with respect to scope and cost,” and that failure to amend the ROD was inconsistent with the NCP. However, the court further held that to avoid liability the defendant must show that the “arbitrary and capricious actions of the EPA resulted in

86. National Oil and Hazardous Substances Pollution Contingency Plan, Preamble, 55 Fed. Reg. at 8772 (emphasis added).
88. Id. at 693 (stating the issue was whether the unanticipated rock content significantly changed or fundamentally altered the remedial plan).
89. Id.
90. Id. at 699 (reversing “the district court’s holding that the EPA’s conclusion to remediate the site to a $10^{-4}$ cancer risk level was arbitrary and capricious”).
91. Id. at 694.
92. Id. Note that the court did not find a “significant” change requiring an ESD, but a “fundamental” change requiring a ROD amendment. The public notice procedures are quite different for both. The NCP regulations, 40 C.F.R. §300.435(c)(2)(i)(A), (B), require that an ESD only be made “available to the public in the administrative record,” and that the EPA publish a “notice that briefly summarizes” the ESD. No public comment period is required. A ROD amendment, on the other hand, must be made “available to the public . . . prior to the commencement of the remedial action affected by the amendment,” and the public given an opportunity to comment. §300.435(c)(2)(ii)(H) (emphasis added).
avoidable and unnecessary remediation costs,” and remanded for a
determination whether the EPA’s remedial actions “resulted in demonstrable
excess costs” that would not have otherwise been incurred.93

Therefore, even if PRPs are successful in arguing that a change made
during construction rises to a “fundamental” change to the remedy requiring
a ROD amendment, under the holding of Burlington Northern a defendant
must show the government acted arbitrarily in not issuing one and incurred
additional costs as a result.94 This is a heavy burden for PRPs to meet for
the simple reason that mid-course changes made during construction often
result in lower, not higher costs, and if they do increase costs, those costs
are usually small in comparison to the total costs sought by the EPA in a
cost-recovery action. Most PRPs will have difficulty meeting their burden
of proving that “demonstrable excess costs” were incurred as a result.95

PRPs sometimes cite other EPA regions’ ESDs and ROD amendments
as precedent. However, the fact that the EPA may have issued ESDs in
certain circumstances does not bind the Agency in other circumstances. In
addition, defendants have the burden to show that failure to issue an ESD,
which as noted above requires public notice, but not prior public notice and
comment, is arbitrary and capricious and inconsistent with the NCP. This
standard is not met by citing examples of ESDs issued by the Agency
undertaken in an excess of caution, perhaps anticipating a challenge based
on failure to issue a ROD modification. Finally, it is important to recognize
that there appears to be no cases in which a federal court has held an EPA
action arbitrary and capricious for the agency’s failure to issue an ESD,

94. Id.; see also Minnesota v. Kalman W. Abrams Metals, Inc., 155 F.3d 1019 (8th Cir. 1998)
(finding “states may recover all costs except those that appellees prove were inconsistent with the
(stating “the defendants have the burden of demonstrating that the clean-up, because of some variance
from the Plan, resulted in demonstrable excess costs”); United States v. Am. Cyanamid Co., 786 F.
party claiming the benefit of an exception to cost recovery, the defendants carry the burden of proving
that the actions that gave rise to the costs were inconsistent with the NCP.”). But consider the initial
ruling of United States v. Wash. State Department of Transportation, in which the court found the EPA’s
construction of air strippers was not supported by the administrative record and therefore was arbitrary
*19 (W.D. Wash. Feb. 07, 2007). In a subsequent proceeding and in contravention of existing case law,
the court placed the burden on the government to demonstrate that the EPA would have incurred the
same amount of response costs by installing the air strippers as part of the remedial action. United
(W.D. Wash. Apr. 25, 2007).
95. See Burlington N. R.R. Co., 200 F.3d at 695.
rather the only relevant precedent concerns a failure to issue a ROD amendment. 96

PRPs sometimes claim that failure to comply with NCP public notice requirements is a separate NCP violation. However, as noted above, the inquiry is not whether the government has “violated” the NCP, nor how many such violations the EPA may have committed, but whether the PRPs can show that the government’s actions in selecting a response action (or in failing to issue a ROD amendment) are arbitrary and capricious. Public notice is part and parcel of the procedures specified under the NCP for issuance of ESDs and ROD amendments. 97 In fact, the provisions applicable to such remedy modifications are found under “community relations.” 98 Nevertheless, it is important to recognize that there is an important due process or procedural distinction between a “significant” remedy change requiring an ESD, and a “fundamental” change requiring a ROD amendment that makes it unlikely that a court would deny the EPA’s costs for only failing to issue an ESD.

Whereas a ROD amendment requires prior public notice and comment, an ESD does not. 99 Perhaps for that reason, courts addressing this issue have found error when the government failed to follow NCP public notice and comment procedures for ROD amendments, not ESDs. 100 The NCP only requires that an ESD and supporting documentation be made “available to the public in the administrative record,” and that the EPA publish a “notice that briefly summarizes” the ESD; no public comment period is required. 101 In another case, Atlantic Richfield Co., the Atlantic Richfield Co. (ARCO) sought reimbursement from the EPA of costs it incurred under a unilateral administrative order (UAO) in connection with the excavation and removal of a greater volume of aluminum wastewater sludge than had been anticipated in the ROD, under section 106(b)(2)(D) of CERCLA. 102 ARCO argued that the EPA’s order was arbitrary and capricious and inconsistent with the NCP. 103 Its argument was that the ordered work constituted a fundamental deviation from the remedy selected

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96. See, e.g., id. at 679 (holding the EPA’s actions arbitrary and capricious for not issuing a ROD).
97. 40 C.F.R. § 300.435(c) (2007).
98. Id.
99. 40 C.F.R. § 300.435(c)(2)(i)(A), (B).
100. E.g., Burlington N. R.R. Co., 200 F.3d at 694; see also Atlantic Richfield Co., 8 E.A.D. 394, 418 (1999), available at http://www.epa.gov/eab/disk11/atlantic.pdf (“In short, these provisions indicate that if a proposed enforcement action is ‘significant[ly] differ[ent]’ from the remedy selected in the ROD, notice to the public is required.”).
101. 40 C.F.R. § 300.435(c)(2)(i)(A), (B).
102. Atlantic Richfield Co., 8 E.A.D. at 396.
103. Id. at 398.
in the ROD and that the EPA had failed to issue a ROD amendment.\textsuperscript{104} The EPA's Environmental Appeals Board (EAB) rejected ARCO's argument.\textsuperscript{105} Despite the change in remedy, the EAB found the change was merely "significant," not "fundamental," requiring not a ROD amendment but an ESD.\textsuperscript{106} The EAB further held that the EPA was justified in ordering the company to proceed with the remedy prior to the issuance of an ESD.\textsuperscript{107} The EAB explained:

During the period when the ESD is being prepared and then made available to the public, the lead agency should proceed with the pre-design, design, construction, or operation activities associated with the remedy. The remedy can continue to be implemented . . . because the ESD represents only a notice of a change, and is not a formal opportunity for public comment since the Agency is not reconsidering the overall remedy.\textsuperscript{108}

By contrast, a ROD amendment and its supporting information must be made "available to the public . . . prior to the commencement of the remedial action affected by the amendment."\textsuperscript{109}

\textbf{CONCLUSION}

PRP arguments attacking the EPA's costs as unreasonable or excessive do not allege inconsistency with the NCP within the meaning of CERCLA section 107(a), and therefore these arguments cannot provide a defense under \textit{Kramer} and relevant case law. PRPs frequently mistake the correct standard of review. Essentially, they are attempting to contest the "reasonableness" or cost-effectiveness of the government's costs under the cloak of NCP inconsistency, without attempting to prove error in the selection of the remedial action. The latter is the correct standard of review for an NCP inconsistency defense. As demonstrated above, it is well

\begin{itemize}
\item 104. \textit{Id.}
\item 105. \textit{Id.} at 399.
\item 106. \textit{Id.} at 421.
\item 107. \textit{Id.}
\item 108. \textit{Id.} at 419 (quoting \textit{OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVTL. PROT. AGENCY, INTERIM FINAL GUIDANCE ON PREPARING SUPERFUND DECISION DOCUMENTS, OSWER Dir. 93555.3-02, ch. 8, at 10 (June 1989))
\item 109. \textit{Id.} at 420 (quoting 40 C.F.R. § 300.435(c)(2)(ii)) (contrasting that section with § 300.435(c)(2)(i), which states only that an ESD and its supporting information must be made "available to the public" at some unspecified time).
\end{itemize}
established that, to show the government’s costs are inconsistent with the NCP, the burden is on the PRPs to show that the agency acted in an arbitrary and capricious manner “in choosing a particular response action.” That is a heavy burden to meet, and the standard of review is one highly deferential to the government.

PRPs would like to demonstrate that without a detailed examination of the reasonableness of each item of the governments’ costs the EPA would have carte blanche to spend without restraint and to collect unlimited response costs. In making that claim, however, they overlook essential NCP provisions designed to ensure that the government’s costs are accounted for and are incurred in furtherance of a remedial action selected under extensive NCP provisions governing remedy selection, which include the requirement that the selected remedy be cost-effective. It is precisely this NCP requirement that the Kramer court found so persuasive. The court held that, once the EPA selects its remedy in compliance with the NCP, the EPA may recover all costs incurred in performance of that remedy. The court also held the allegations that costs are “excessive, unreasonable, duplicative, not cost-effective, and improper” do not allege inconsistency with the NCP and “do not provide a defense to a cost recovery action under section 107(a)” of CERCLA.

Finally, PRP attempts to construe relatively minor changes made during construction as “significant” or “fundamental” changes to a remedy are usually doomed to fail. In any case, PRPs have the additional burden of establishing that demonstrable damages or excess costs were incurred as a result. Thus, PRPs generally will be unsuccessful in meeting either burden of proof.


RECONCILING TOURISM AND THE ENVIRONMENT: A TASK FOR INTERNATIONAL ENVIRONMENTAL LAW?

Angela Williams*

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INTRODUCTION

Tourists have been visiting Goa since the 1960s.1 Located on the south west coast of India, the state of Goa encompasses more than eighty

* Dr. Williams has been a Lecturer in Law at the University of Sussex, United Kingdom since 2004. Previously she was a part-time teaching assistant at the University of Nottingham where she completed her Ph.D and LL.M (with Distinction) in International Environmental Law.

kilometers of sandy beaches with inland areas boasting huge expanses of paddy fields, coconut plantations, market villages, and the western Ghat Mountains. The environmental diversity, climate, and expansive beaches provide an obvious draw for domestic and international tourists alike.

The particularly relaxed atmosphere of the people and natural surroundings made it a paradise for backpackers during the 1960s who "were more or less able to adapt to the local way of life, eating local food and living in simple accommodation." As a result, the impact on the environment from these tourists during the 1960s and 1970s was minimal. However, as the reputation of Goa's natural resources became more widely known, tourist numbers began to escalate. By the middle of the 1980s, charter flights were arriving in Goa and with them "a new breed of tourist who had money and demanded western amenities. This quickly caught the attention of foreign investors and tour companies, who wasted no time in building hotels, swimming pools, and even golf courses to meet the tourists' growing expectations and demands."

The result was (now, at least) predictable. The marine environment suffered a substantial loss of mangroves due to land reclamation for development, which resulted in erosion and exposing coastal banks to storm surges. Overfishing and inappropriate catch methods led to a steady decrease in fish stocks and diversity, while "land reclamation, the extraction of sand, [and] the construction of jetties" in areas of tourism development aggravated coastal erosion. Moreover, recreation facilities and activities have contributed to overall environmental degradation: swimming pools and golf courses monopolize vital local water supplies; motor boats damage and pollute shallow coastal waters; beach accommodation frequently lacks sufficient sewage facilities or refuse collection, which, together with beach litter, results in further pollution of

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2. For an overview of tourism in Goa, see David Wilson, Paradoxes of Tourism in Goa, 24 ANNALS OF TOURISM RES. 52, 52–53 (1996).

3. The Mandrekar Family, supra note 1.

4. Id.

5. See Kalidas Sawkar et al., Tourism and the Environment: Case Studies on Goa, India and the Maldives 8–10 (1998) (discussing the environmental impacts of removing mangroves in Goa).

6. Id. at 10.
coastal waters. Although tourism in Goa is concentrated predominately in coastal areas, the construction of more advanced transportation systems (primarily in the form of airports and railway) and an increase in motor vehicle use has also contributed to localized atmospheric pollution.

The result of such extensive tourism development has had two key impacts. First, the experience of tourists visiting Goa today is clearly different to those of tourists forty years ago due to the rapid (and mostly unregulated) development of the Goan tourism industry and the subsequent pollution and degradation of the local environment. Second, tourists (and the tourism industry) relocate to new areas that have yet to undergo such intensive development, effectively seeking an environment similar to Goa in the 1960s. This impact is less easily rectified. Once visitors have departed in search of their new pristine holiday destination, Goa is left to contend with the environmental degradation and pollution created by the tourism industry. This is especially problematic for developing countries that lack the requisite financial and technological resources to facilitate environmental recovery or establish precautionary frameworks and infrastructure with a view to prevention. Perhaps of greatest concern, however, is the fact that the story of Goa is in no way unique. Similar degradation by the tourism industry continues to be replicated in numerous environments around the world.

So, what are the options for Goa and the plethora of other natural environments around the world that are adversely affected by tourism development? And do any institutional frameworks or international legal structures exist that are able to manage and regulate these activities in order to prevent further degradation to the global natural environment? Tourism activities inevitably provoke arguments regarding the balance and reconciliation of economic, environmental, cultural, social, and ethical concerns. While all of these interests have important and independent value, the scope of this article is restricted to the environmental impacts of tourism. Chiefly, this Article examines recent efforts to redress the current imbalance and considers the likelihood of achieving environmentally sustainable tourism.

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7. Id. at 11–12; see, e.g., Scott D. Hubbard, Everything Old is New Again, 84 Mich B.J. 28, 29 (2005) ("Golf courses commonly use 1,000 to 4,000 [gallons per day (gpd)], per acre, with courses averaging 20 to 120 acres (a midrange of about 400,000 gpd.).").

8. Kalidas, supra note 5, at 12.
The relationship between tourism and the natural environment is a complex one. The numerous activities that collectively constitute tourism now represent the world's largest industry. However, while tourism is largely dependent on the natural environment for its continuing survival, the ongoing development of the tourism industry often consumes and degrades the very same natural resources upon which it depends. Popular tourism locations frequently emerge as a result of the particular characteristics of the natural environment. It is widely recognized that when tourists choose a holiday destination, local environmental conditions act as the predominant influence. That is, the primary resources of a location, such as natural scenery, cultural heritage, or wildlife, coupled with favorable climatic conditions provide the main draw when choosing a destination. Thus, both the continuation and future development of the tourism industry are inextricably dependent on the sustainability of the natural environment.

The relationship between the tourism industry and the environment has been categorized into one of three different types of associations to explain how each relates to one another. During the very early stages of the relationship, tourism and the environment simply coexist. Both pursue individual goals and thereby maintain minimal interaction. However, as either tourism development or environmental awareness develops or expands in scope, the relationship is forced to enter a new association of
either conflict or symbiosis. Conflict generally arises when the tourism industry expands rapidly, resulting in the consumption or degradation of the natural environment and encroachment on the local communities. The alternative option is a state of symbiosis where both tourism and the environment exist in a mutually beneficial relationship. A symbiotic relationship potentially provides significant benefits for both elements. The tourism industry undertakes the sustainable utilization of natural resources (ideally in a non-consumptive manner such as nature or wildlife viewing) while simultaneously generating revenue, part of which can be redirected towards the protection and restoration of the same natural environment. However, the relationship between tourism and the environment most often develops into one of conflict that results in a turbulent association.

In determining the potential impact of tourism activities on the environment, it has been suggested that the particular evolutionary stages of tourism development often correlate to the level of damage sustained by that local environment. In areas where relatively few people travel the environmental impact often remains low. Such visitors are frequently more inclined to accept local conditions and adapt to the surroundings. Conversely, when large numbers of tourists visit an area on chartered or package-type excursions, the environmental impacts are comparatively greater as these tourists often expect comfortable western-style amenities, which place greater pressure on local communities and natural resources.

Such environmental damage created by the tourism industry occurs on two levels. First, the primary natural resource responsible for attracting tourists to the area is highly susceptible to degradation from an influx of people utilizing and consuming the entity. This can be illustrated with the example of a beach which, when inundated with tourists, risks increased degradation from litter, pollution from motor boats, damage to the local

15. Id.
16. Id.
17. Id.
18. Id.
19. Id.
21. See The Madrekar Family, supra note 1 (explaining how backpackers in the 1960s were "able to adapt to the local way of life").
22. See LUCIA DE STEFANO, WORLD WILDLIFE FUND, FRESHWATER AND TOURISM IN THE MEDITERRANEAN 10 (2004) ("A tourist staying in a hotel uses on average one-third more water than local inhabitants . . . [while] the annual water consumption of a golf course is . . . equivalent to that of a city of 12,000 inhabitants.").
23. See Cater & Goodall, supra note 10, at 312 (explaining damages to primary and secondary resources).
biodiversity and habitats from overfishing, and sand dune erosion. The other level on which tourism impacts the environment relates to the plethora of secondary resources that facilitate a tourist's visit to the primary resource. To enable people to visit a beach, at a minimum, there must be transportation services, accommodation, and eating and waste disposal facilities. Additional entertainment and shopping facilities, along with add-on tourist excursions and activities, increase visitation. These secondary resources impose a considerable threat to the environment. The development of such facilities is often located in areas harboring sensitive ecosystems such as coastlines, mountains, and historic monuments.

Nevertheless, in some cases tourism can offer conservation benefits by working in harmony with environmental protection. This can be illustrated where the protection of wildlife resources is undertaken for the purpose of attracting nature-based tourist activities. National parks in southern Africa strive to ensure the conservation of wildlife responsible for attracting tourists and revenue into the region. As a result, a proportion of this revenue is redirected back into conservation programs to ensure the sustainability of the natural resources, and moreover, the sustainability of that revenue. Similarly, money generated by tourism has also been used to rehabilitate historic sites and transform derelict areas into new tourist facilities.

However, this symbiotic relationship between tourism and the environment is fundamentally reliant upon the ability of natural resources to attract tourist revenue, which may then be used to facilitate conservation. While this relationship offers many obvious advantages for the protection of wildlife and the natural environment, it effectively is limited to natural resources judged by tourists to be worthy of preservation. Thus, a distinctly anthropocentric attitude is evident. Elements of the natural environment accorded protection by tourism revenue are restricted to

24. See SAWKAR, supra note 5, at 8–13 (discussing the environmental impacts of tourism on beaches). Similarly, Peru's Machu Picchu has experienced significant environmental degradation over recent years. See Robin Emmott, Tourism Boom Threatens Peru's Machu Picchu, WORLD ENV’T NEWS Nov. 28, 2003, http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=22960 (“Some 1,500 tourists walk the 500 year old, 40 mile Inca trail every day, eroding the trail's stone staircases and granite terraces.”).


26. Id.

27. Id. at 96.

28. It is much easier to generate revenue via tourism for the conservation of aesthetically attractive ecosystems and species (such as beaches, lagoons, mountains, giant pandas, cetaceans, big cats and so on), compared to the less glamorous elements of the natural environment (for example wetlands, insects, and predator species).
resources deemed to be of value to humanity, usually either for aesthetic or practical reasons, with the consequent neglect of many other integral aspects of the biosphere. As such, tourism can be a useful stimulus for conservation, but it should be utilized in conjunction with additional measures to ensure all aspects of the ecosystem are accorded sufficient protection.

II. THE CONCEPT OF SUSTAINABLE TOURISM

Since its inception during the early 1900s, the tourism industry has flourished and diversified in response to technological developments and the varying trends and priorities of tourists, industries, and the environmental climate. The more recent emergence of sustainable tourism terminology signified an important development in the relationship between the natural environment and the tourism industry. Given the wide application of the sustainable development concept, generally defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," it was inevitable that such a framework would be applied to the tourism industry, which demonstrates extensive potential for environmental degradation. Although much discussion has been undertaken on what sustainable tourism might specifically constitute, definitions have typically been vague and therefore difficult to apply in a practical sense.


31. The idea of applying sustainable development to the tourism industry is often credited to the seminal work, JOST KRIPPENDORF, THE HOLIDAY MAKERS: UNDERSTANDING THE IMPACT OF LEISURE AND TRAVEL 1–3 (Vera Andrassy trans., 1987). For a theoretical background to sustainable tourism, see LESLEY A. FRANCE, Introduction to THE EARTHSAN READER IN SUSTAINABLE TOURISM 1, 11–15 (Lesley France ed., 1997).

The World Tourism Organization (UNWTO)\textsuperscript{32} integrated the ideas of sustainable development and tourism by formally adopting a conceptual definition for "sustainable development of tourism" that reconciles the environmental, economic, and socio-cultural aspects of tourism by establishing a suitable balance between the three dimensions that should guarantee the long-term sustainability of tourism.\textsuperscript{34} First, the UNWTO notes the need for sustainable tourism to "[m]ake optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity."\textsuperscript{35} In this case, the UNWTO appears to be recognizing the environmental impacts of tourism activities and acknowledging the dependent relationship tourism has on the natural environment. In order to be effective, this must include not only the physical impacts, such as the utilization of natural resources and the pollution occurring as a direct result of tourist activities, but also the subtle ecological imbalances and habitat destruction or relocation which may additionally occur.\textsuperscript{36} Thus, sustainable tourism must ensure the ongoing sustainability of the natural environment and its biological diversity.

Second, the UNWTO requires that sustainable tourism "respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance."\textsuperscript{37} The sustainability of social and cultural traditions (the experience of which is deemed fundamental to many before the concept of sustainable development can move from a mental state to a physical and economic reality."); Zhenhua Liu, \textit{Sustainable Tourism Development: A Critique}, 11 J. SUSTAINABLE TOURISM 459, 460–61 (2003); Karen Woodward, \textit{Loving the Environment to Death: Can Law Protect the Environment from the Leisure Threat?}, 5 EURO. ENVTL. L. REV. 148, 149–50 (1996).

\textsuperscript{33} The World Tourism Organization (UNWTO) was formed as an intergovernmental organization in 1970 after formerly existing as the technical nongovernmental International Union of Official Travel Organizations (IUOTO). World Tourism Organization, http://www.world-tourism.org/ (last visited Oct. 18, 2007). Located in Madrid, Spain, the UNWTO became an executing agency of the United Nations Development Programme (UNDP) in 1976, before establishing a formal cooperation agreement with the United Nations in the following year. \textit{Id.} The UNWTO currently has approximately 150 member states and more than 300 affiliate members, including local government bodies, private sector representatives, tourism associations, and educational institutions. \textit{Id.} In 2003 the UNWTO became a specialized agency of the United Nations. \textit{Id.}

\textsuperscript{34} Although termed a \textit{definition}, the UNWTO provides something more akin to an \textit{explanation} of sustainable tourism, describing, among other things, what is required and how sustainable tourism should operate.


\textsuperscript{36} \textit{Mathieson & Wall}, \textit{supra} note 25, at 94–95.

\textsuperscript{37} UNWTO Concepts & Definitions, \textit{supra} note 35, para. 2.
tourists) faces similar issues to those confronting the environment. The sustainability of local cultures is threatened as communities in many developing countries commonly view tourism as a solution to poverty, albeit as a trade-off for the loss of local tradition and indigenous identity. This can occur in a multitude of ways, including the loss of authenticity, adapting to tourists demands, and commodification of ethnic rites and festivals.

Third, the UNWTO definition stipulates that sustainable tourism must “ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.” This dimension is all the more significant given that tourism activities now represent one of the world’s most lucrative industries.

However, the methods for assessing the economic sustainability of a tourism operation vary greatly compared with the standards required for other assessment criteria. Economic sustainability is based predominately on making tourist activities as affordable as possible in order to increase revenue generation. Thus, what is deemed to be a sustainable level of tourism based upon economic assessment criteria may prove to be entirely unsustainable in environmental terms.

This can be illustrated by the economic leakage principle common to many tourist destinations located in developing countries. Where expenditure can be attributed to tourism within a local community, the expenditure can be attributed to tourism within a local community, the

38. For example, the significance of social and cultural traditions can be seen to be degraded in some respects as a result of overpopularization by the tourism industry as “attractions.” The nine-day festival in Pamplona, Spain, which includes the “running of the bulls,” honors the City's patron saint, San Fermin. Similarly, La Tomatina (the tomato throwing festival), in Buñol, Spain honors the Town's patron saint, San Luis Bertrán, and the Virgin Mary. Both festivals are now renowned international tourist events.


40. Following the recent proliferation of tourism projects in Lacanjá Chansayab, Mexico, the Lacandon community admit that “they only wear their traditional clothes because trainers sent by the tourism ministry insisted that tourists would prefer to see them so dressed” Anne Vigna, Les Charlatans du Tourisme Vert [The Charlatans of Green Tourism], LE MONDE DIPLOMATIQUE, July 2006, available at http://www.monde-diplomatique.fr/2006/07/vigna/13608 (author’s trans).

41. UNWTO Concepts & Definitions, supra note 35, para. 3.


43. See Mastny, supra note 39, at 106–07; Robert F. Prosser, The Ethics of Tourism, in THE ENVIRONMENT IN QUESTION: ETHICS AND GLOBAL ISSUES 37, 43–45 (David E. Cooper & Joy A. Palmer eds., 1992) (“Where tourism is controlled by foreign companies, the ‘leakage’ of tourism-generated income may be as high as 80 percent . . . .”).
leakage is the portion of that revenue which leaves the community by way of taxes, profits, wages, imports, and the like. Estimates suggest that high leakage (from seventy to eighty percent of expenditures) is common in some developing countries, leaving local communities with a fraction of the total revenue generated by tourism activities.\textsuperscript{44}

The UNWTO recognizes how each of these three dimensions are to be reconciled in order to achieve sustainable tourism. Notably, the "informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide participation and consensus building" is required, along with the "constant monitoring of impacts" in order to enable the introduction of "necessary preventive and/or corrective measures whenever necessary."\textsuperscript{45} However, the concept of sustainable tourism is capable of interpretation and manipulation by various disciplines. While the UNWTO definition has enjoyed wide international endorsement, there remains a significant level of ambiguity and scope for differing interpretations.

III. ECOTOURISM: ENVIRONMENTALLY SUSTAINABLE TOURISM?

In recognizing that sustainable tourism is largely a compromise between environmental, economic, and social priorities, the concept of ecotourism initially presents itself as a solution to these competing interests by providing an alternative: environmentally sustainable tourism.\textsuperscript{46} To date there remains an absence of any universal definition for the concept of ecotourism. Instead, an ad hoc approach has been adopted in order to identify the boundaries of the concept. The UNWTO neglects to provide a definition, but instead offers a number of distinguishable characteristics of ecotourism\textsuperscript{47} similar to those proffered by the United Nations Environment


\textsuperscript{45} UNWTO Concepts & Definitions, supra note 35, para. 4.


\textsuperscript{47} The UNWTO identifies the main characteristics of ecotourism as being nature-based travel where the main motivation is the observation and appreciation of nature. Ecotourism incorporates educational features, and is often undertaken in small groups, which minimizes the negative natural and socio-cultural impacts and supports the protection of natural areas. UNWTO-UNEP Concept Paper, International Year of Ecotourism 2002, http://www.world-tourism.org/sustainable/IYE/WTO-UNEP-Concept-Paper.htm.
Programme (UNEP). Both emphasize features such as small-scale, nature-based tourism with an educational element, contributing to conservation and including the participation of local communities. However, a specific definition for ecotourism has been concluded in two other fora. First, the International Ecotourism Society (TIES) claims ecotourism is “responsible travel to natural areas that conserves the environment and sustains the well being of local people.” Second, the World Conservation Union (IUCN) states that ecotourism is:

environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features—both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations.

Accordingly, while there is no single definitive explanation of ecotourism, the essence of the concept can be identified as a responsible form of travel prioritized by the sustainability of the environment and local cultures, while incorporating an educational learning experience with an emphasis on small-scale participation, including local ownership and involvement.

Based on this understanding, ecotourism must implicitly incorporate notions of sustainable tourism in order to ensure long-term sustainability for the benefit of future generations. Conversely, sustainable tourism does not necessarily encapsulate the value of ecotourism, but rather, represents the attempted reconciliation of environmental, economic, and social considerations. While such an approach would appear to acknowledge the value of ecotourism as a conservation strategy far beyond the concept of

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48. UNEP identifies the basic elements of ecotourism as contributing to the conservation of biodiversity, sustaining the well-being of local people, involving responsible action by tourists, requiring the lowest consumption of non-renewable resources, and emphasizing local participation. About Ecotourism, UNEP Tourism, http://www.unep.fr/pc/tourism/ecotourism/home.htm (last visited Oct. 15, 2007); WOOD, supra note 46, at 14.


52. For a discussion on the difference between ecotourism and sustainable tourism, see id.; WOOD, supra note 46, at 12–13; The International Ecotourism Society, supra note 50.
sustainable tourism, there are problems with employing ecotourism terminology.

One major challenge facing the concept of ecotourism is the confusion as to whether activities represent a product or a principle. The commercial characteristics of the tourism industry mean that while ecotourism can be identified as a conservation concept, it may also be recognized as a niche market segment of the tourism industry effectively diluting the environmental credibility and value of the concept. The nature of the tourism industry means that a wide range of tourist operators, from multinational airlines and hotel chains to local one-person service providers, can identify their enterprise as an ecotourism operation, consequently aligning their business with the principles and standards attributed to the ecotourism concept.

This act of "greenwashing" by tourist operators can be traced back to the popularization of nature-based tourism, where any activity associated with nature or wilderness-orientated travel was similarly labeled nature tourism, implying the incorporation of conservation principles. Thus, a fundamental obstacle to effective employment of ecotourism terminology is that while a certain standard of conservation and behavior is now associated with the concept, there is in fact limited responsibility acknowledged in respect to the accompanying sustainability objectives and principles. While sustainable tourism may not prioritize environmental concerns to the same extent as ecotourism, there is a clearer and more coherent understanding of the sustainable tourism concept in definitional terms. Moreover, its foundation in the law and policy of sustainable development creates a solid preexisting framework within which to develop and shape tourism activities.

53. CATER, supra note 46, at 3–5.
56. See, e.g., David Hoch & Robert Franz, Eco-Porn Versus the Constitution: Commercial Speech and the Regulation of Environmental Advertising, 58 ALB. L. REV. 441, 441 (1994) ("Names for the relatively new marketing phenomenon of making unsubstantiated or false environmental claims in advertising range from 'green-collar marketing' and 'greenwash' to the derogatory but arguably more accurate 'greensleeze' and 'eco-pornography.'").
57. Ecotourism can be seen to have had a positive environmental and social impact in parts of Latin America. See Marla Kerr, Ecotourism: Alleviating the Negative Effects of Deforestation on Indigenous Peoples in Latin America, 14 COLO. J. INT'L ENVTL. L. & POL'Y 355, 355 (2003) ("The ecotourism program has helped bring the Huaorani's vulnerability to the encroaching oil industry into the international limelight."),
The concept of ecotourism was acknowledged and provided with further impetus following the United Nations declaration that 2002 is the International Year of Ecotourism (IYE). The result of this UN-sponsored occasion was a number of regional preparatory conferences on ecotourism issues, culminating in the inaugural 2002 World Ecotourism Summit. Attended by delegates from governments, private businesses, trade associations, nongovernmental organizations, international organizations, and academic institutions, the Summit concluded a non-negotiated, multi-stakeholder dialogue outlining a set of recommendations for the development of ecotourism activities in the context of sustainable development (the Quebec Declaration on Ecotourism). Identifying the main participants in the ecotourism sector, the Quebec Declaration makes a series of recommendations to each group outlining how ecotourism should be managed and developed in future years. While the Quebec Declaration employs many of the principles found within the greater sustainable development philosophy, critics still consider the IYE largely to be the promotion of ecotourism as an exploitable niche market (mass-nature tourism) and a tool for further development of the industry.


61. Numbered recommendations are made to national, regional, and local governments (1 to 19), the private sector (20 to 33), non-governmental organizations, community-based associations, academic, and research institutions (34 to 37), inter-governmental organizations, international financial institutions, and development assistance agencies (38 to 45), local and indigenous communities (46 to 47), and the World Summit on Sustainable Development (48 to 49). Id. at 3–9.

62. For example, sustainable use, environmental impact assessment, polluter pays, participation, and cooperation, are principles employed by the Quebec Declaration. Id. at 2–4.

63. Vivanco, supra note 59, at 26; Mastny, supra note 39, at 116–17.
IV. THE REGULATION OF TOURISM BY INTERNATIONAL ENVIRONMENTAL LAW

The term “international environmental law” has now been in wide circulation for more than twenty years. But what exactly does this topic encompass? The scope of international environmental law conceivably extends to the international legal regulation of any aspect of the “environment,” which is defined as “the conditions under which any person or thing lives or is developed . . . [or] . . . the sum-total of influences which modify and determine the development of life or character.” This definition has received little by way of further explanation in subsequent environmental declarations, resulting in a wide range of topics being grouped within international environmental law including: the control of waste; hazardous substances and nuclear energy; the protection of the atmosphere and outer space; and the conservation of the marine environment and biological diversity. This broad range of environmental topics provides, perhaps, an ideal standpoint from which to consider the regulation of the tourism industry given the vast and varied impacts tourism activities have on the natural environment.

As a global phenomenon, tourism embraces activities occurring within global, regional, and transboundary contexts, as well as within national boundaries. As such, in order to be truly effective tourism regulation must

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64. See PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 25 (2d ed. 2003) (“Modern international environmental law can be traced directly to international legal developments which took place in the second half of the nineteenth century.”).
65. 5 OXFORD ENGLISH DICTIONARY 315 (2d ed. 1989).
67. A glance at the table of contents of any general textbook on international environmental law reveals many of these topics. E.g., SANDS, supra note 64; PATRICIA BIRNIE & ALAN BOYLE, INTERNATIONAL LAW AND THE ENVIRONMENT (2d ed. 2002).
68. Consider, for example, climate change. While levels of greenhouse gas emissions can be attributed to individual states, the problem of climate change remains global, owing to, among others, the impacts of state behavior transcending national boundaries (for example, the effects of carbon sinks or deforestation may be felt in other states), the inability of one state (or even a group of states) to effectively address and correct the problem, and the indivisible nature of the atmosphere. By its very nature, tourism contributes to climate change by increasing demands on transportation (especially aviation) and promoting the industrial development of tourism infrastructure, both of which result in the accelerated emission of greenhouse gases. In a situation such as this, a national or regional regulatory approach does not offer a sufficiently comprehensive regime by which to successfully address the global nature of the problem.
be approached from an international perspective and accordingly, addressed by the international legal system.\textsuperscript{69}

Before specifically examining how international environmental law might regulate the tourism industry, it is worth first making a few preliminary observations as to how the international legal system might be applied to various participants within the tourism industry. International environmental law contains a substantial body of rules and principles devoted to the protection of the global environment.\textsuperscript{70} Given the recognition of environmental issues by the international legal system and the link between tourism and environmental degradation, public international law appears, prima facie, to be a suitable vehicle for the regulation of tourism activities where there exists an environmental threat. One contrary argument which may be raised is that international environmental law is primarily concerned with establishing substantive rights and obligations applicable to states (traditionally the dominant or exclusive subjects of public international law), whereas tourism represents the activities of several different entities (for example: individual tourists, tour operators, local communities, and interest groups) who have traditionally not been accorded international personality. Consequently, this may undermine the suitability of international environmental law for this task.

This argument can be refuted on two main grounds. First, there exist a whole host of traditional and developing principles of international law that are relevant to environmental protection, in addition to the primary substantive obligations and rights of states. For example, international law has a constitutional role in providing a mechanism for negotiating international rules and standards, settling disputes, promoting cooperation,
and overseeing correct implementation and compliance,\textsuperscript{71} which may serve to bring private sector actors indirectly within the scope of the system.\textsuperscript{72} Furthermore, international law can, in some ways, be seen to operate in a similar way to national laws by establishing regulatory systems for environmental protection. Where national measures are in place, international regimes coordinate and harmonize the various national standards.

Traditionally, international rules existed primarily in the form of treaties or customary law, but there now exists an increasing prevalence of "soft-law" instruments within public international law.\textsuperscript{73} As a result, the international legal system can be viewed as a framework and coordination mechanism for global, regional, transboundary, and national regulation in respect to a specific international issue.\textsuperscript{74} Secondly, and more generally, there have been major changes in perspective regarding personality and participation within the international legal community, which has resulted in legal rules and principles bearing directly upon participants other than states.\textsuperscript{75} Now, the modern reality of international law sees many non-state


\textsuperscript{72} Many actors that traditionally do not participate within international law may indirectly play some role in the wider context of the international legal system. For example, private sector actors may be involved in the negotiation and promotion of an international instrument, or similarly, in ensuring implementation and enforcement of international standards at national or regional levels.

\textsuperscript{73} For a general explanation on the sources of international law, see \textit{SHAW, supra note 70, at 65–119; IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 3 (6th ed. 2003); V.D. DEGAN, SOURCES OF INTERNATIONAL LAW 237–40 (1997) (discussing international soft law); G. M. Danilenko, Law-Making in the International Community, in 15 DEVELOPMENTS IN INTERNATIONAL LAW 30–43 (1993) (discussing art. 38(1) of the Statute of the International Court of Justice as "the basic norm about sources"). For a comparison with a non-traditional approach to identifying the sources of international law see \textit{HIGGINS, supra note 70, at 18–38 ("[I]nternational law has to be identified by reference to what actors (most often states), often without benefit of pronouncement by the International Court of Justice, believe normative in their relations with each other.")}.\textsuperscript{74} For example, Part XII of the 1982 Law of the Sea Convention (UNCLOS) recognizes the issue of marine pollution and sets out basic standards to which states should adhere. United Nations Convention on the Law of the Seas pt. XII, Dec. 10, 1982, 1883 U.N.T.S 397 [hereinafter UNCLOS]. However, much of the substance and institutional support is established at the regional level—primarily under the United Nations Environmental Programmer (UNEP) Regional Seas Programme, which coordinates the development and implementation of regional conventions and action plans, each of which is tailored to address the specific characteristics of an individual marine environment. United Nations Environmental Programme: Regional Seas Programme, http://www.unep.org/regionalseas/About/default.asp (last visited Sept. 5, 2007).

\textsuperscript{75} \textit{E.g., HIGGINS, supra note 70, at 46–54 ("International organizations may be participants in the international legal system in a variety of senses."); Phillipe J. Sands, The Environment, Community and International Law, 30 HARV. INT’L L.J. 393, 394 (1989) ("[T]he political reality that non-governmental organizations are important participants in international society ought to be given legal expression.").}
actors involved in all stages of the international legal process. Both international and non-governmental organizations are becoming increasingly active in the research and drafting of international agreements, as well as acting as watchdogs to ensure compliance. Furthermore, individuals are increasingly being held accountable, especially in terms of international criminal responsibility. Therefore, an approach that considers international law as a "normative system," whereby the various participants undertake different roles as part of the legal process, more accurately reflects the current personality of public international law.

Recognizing the role played by participants other than states within the international legal system is especially important in the context of environmental protection. The state-based view of international law is centered on the doctrine of the sovereignty and equality of states. Similarly, the most fundamental principle of international environmental law recognizes that states enjoy the sovereign right to exploit their own resources, but must not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction. However, there are certain natural resources which are considered to be of such global value that they transcend the traditional notions of state sovereignty by restricting the degree of freedom exercisable by the state. In such situations the


78. HIGGINS, supra note 70, at 1.

79. BROWNLEIE, supra note 73, at 289.

80. Stockholm Declaration, supra note 66, Principle 21; Rio Declaration, supra note 66, Principle 2; see also NICO SCHRUVER, SOVEREIGNTY OVER NATURAL RESOURCES 1 (1997) (discussing the principle of permanent sovereignty).

preservation of natural resources occurs by reference to international conservation standards and by making these matters the topic of global attention. World Heritage Sites offer a classic example of such a situation. For instance, Peru's Machu Picchu has been identified as possessing special international significance and accordingly, the conservation of the site is regulated in part by international agreement. A further reason that the state-orientated approach does not offer an effective framework for international environmental protection is that environmental issues do not fit neatly within sovereign boundaries. Environmental pollution occurs with no respect for state borders and, as such, requires all participants of the international community to contribute towards the prevention and management of polluting activities, thereby deconstructing traditional notions of state sovereignty.

Finally, the diversity of participation within the tourism industry means that, in order for international law to operate in a truly comprehensive way, this form of regulation should also ideally extend beyond states to other participants, such as individual tourists, multinational tour companies, international tourism organizations, and civil society in general. There is now increasing support for the proposition that other participants within the international legal system may also, in some circumstances, possess legal personality in international law. Indeed these participants play an increasingly significant role in the regulation of the tourism industry for the purposes of environmental protection.

The next section of this article examines and critiques aspects of current international environmental law that contribute to the regulation of the tourism industry. While there are many aspects of international environmental law that could, in general terms, be interpreted as being applicable to tourism, this analysis is concerned with those aspects that

82. See Birnie & Boyle, supra note 67, at 97–99, 137–43, for an introduction to the concept of “common concern,” and to distinguish this concept from that of common property, common heritage, and shared natural resources.


84. E.g., Higgins, supra note 70, at 47–48 (“[T]he courts of the United Kingdom found that the International Tin Council (ITC) had legal personality. . . .”).

85. General principles of international environmental law (for example preventative principle, cooperation, precautionary principle, polluter-pays principle, principle of common but differentiated
directly recognize and address the tourism-environment relationship. International agreements that have acknowledged but have yet to develop the impacts and inter-relationship of tourism activities have been largely omitted in this case.  

V. GENERAL PROVISIONS FOR BIODIVERSITY CONSERVATION

"The concept of biological diversity, or biodiversity [is understood to encompass] the diversity of ecosystems, the diversity of species, and the genetic diversity within species." Threats to biodiversity are predominately derived from human activities, such as habitat destruction (from agriculture and industrial development) and resource consumption (from hunting, collection, and exploitation). Moreover the indirect ecological consequences of many of these threats are equally as devastating for associated biodiversity components where, for example, "the destruction and loss of habitats and species . . . [threaten] . . . the ability of ecosystems to purify water, regenerate soil, regulate temperature, recycle nutrients and waste, and maintain the atmosphere." Accordingly, an ecosystem approach to conservation is considered most effective in respect of the regulation and management of biodiversity, in order to ensure that both direct and indirect ecological consequences are addressed.

Many of the general global provisions regarding the conservation of biological diversity are established in the 1992 U.N. Convention on responsibilities and so on) may well be relevant and applicable to tourism activities, but are largely excluded from this discussion.

86. See, e.g., World Heritage Convention, supra note 81 (illustrating goals to protect natural and cultural sites that are often also major tourist attractions such as Australia's Great Barrier Reef, the historic sanctuary of Machu Picchu in Peru, India's Taj Mahal, and Yellowstone National Park in America). Although the relationship between tourism and world heritage has been recognized, there has been little development to date in this direction. Similarly, the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat recognizes the recreational value of many of its designated sites (for example, Spain's Doñana National Park, the Etosha Pan in Namibia, and New Zealand's Farewell Spit), yet this agreement currently offers little guidance in how tourism should be managed and regulated. See Ramsar Convention, supra note 76.

87. See MICHAEL BOWMAN, The Nature, Development and Philosophical Foundations of Biodiversity Concept in International Law, in INTERNATIONAL LAW AND THE CONSERVATION OF BIOLOGICAL DIVERSITY 5, 5 (Michael Bowman & Catherine Redgwell eds., 1996); P. VAN HEIJNSBERGEN, INTERNATIONAL LEGAL PROTECTION OF WILD FAUNA AND FLORA 197 (1997) ("The concept is explained as an all embracing term for the degree of nature's variety . . . ."). This understanding of biodiversity was also one adopted by Article 2 of the Convention on Biological Diversity. CBD, supra note 81, art. 2.

88. SANDS, supra note 64, at 549.
Biological Diversity (CBD). The objective of the 190 state parties to the CBD is "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources." The Convention defines the term "biological diversity" very widely and, in fact, extends its scope to include biological resources, biotechnology, and genetic material. The general obligations under the CBD include international cooperation with respect to areas beyond national jurisdiction and the development (or adaptation) of "national strategies . . . for the conservation and sustainable use of biological diversity." More specific responsibilities within the Convention include the requirement that each state identify and monitor components of biodiversity (important for its conservation and sustainable use) and the establishment of "protected areas . . . where special measures need to be taken to conserve biological diversity." 

While state parties are obliged to adhere to the general conservation measures, it is the Convention's adoption of the "sustainable use" principle that is of particular interest. The link between tourism and biodiversity has been identified by the CBD subsidiary body on Scientific, Technical and Technological Advice ("SBSTTA"), which focuses on tourism as one example of sustainable use. While the SBSTTA highlights the potential environmental and socio-economic impacts on biological diversity from tourism, it most notably advocates the CBD as a "framework for the development of policy options for sustainable tourism, which would

89. For a discussion on the Convention see, for example, SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY, HANDBOOK OF THE CONVENTION ON BIOLOGICAL DIVERSITY INCLUDING ITS CARTAGENA PROTOCOL ON BIOSAFETY, at xxiii–xxxv (3d. ed. 2005); Désirée M. McGraw, The CBD—Key Characteristics and Implications for Implementation, 11 REV. EUR. CMTY & INT'L ENVTL. L. 17 (2002); ALAN E. BOYLE, THE RIO CONVENTION ON BIOLOGICAL DIVERSITY 33–50 (Michael Bowman & Catherine Redgwell eds., 1996).
91. CBD, supra note 81, art. 1.
92. Id. art. 2.
93. Id. art. 5.
94. Id. art. 6.
95. Id. art. 7.
96. Id. art. 8.
97. Article 2 of the Convention explains that "sustainable use involves the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations." Id. art. 2.
promote the conservation and sustainable use of biological diversity.99 In considering the CBD as an ideal framework from which to address tourism, the SBSTTA adopts the three objectives of the CBD—specifically the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of the benefits—as the guiding principles for sustainable tourism. The CBD Guidelines on Biodiversity and Tourism Development (CBD Guidelines) were subsequently drafted in order to specifically apply the provisions of the CBD to the sustainable development and management of tourism activities.100

The CBD Guidelines identify a multi-stakeholder management procedure from which ten steps for the management of sustainable tourism and biodiversity are outlined; these include obtaining baseline information and identifying goals, ensuring impact assessment and management, implementation, monitoring, and adaptive management.101 The focus of these guidelines—coordinated policy-making, development planning and management—is reflected by the requirement for national strategies and implementation by government bodies. While the legal nature of the guidelines is clearly nonbinding, the context of their approval at the meeting of the Conference of Parties and the simultaneous proposal for a user's manual, glossary, and clearing-house mechanism to promote, collect, and disseminate information, clearly demonstrates that these Guidelines are intended for practical application by the CBD state parties.102

Although much of the substance within the CBD Guidelines appears generalized and potentially lacks any onerous international commitment, the guidelines are designed as a framework to be adopted and implemented at the national level, thereby recognizing and accommodating the particular characteristics of various countries and tourism trends. Similar to many other international agreements, the CBD framework reflects a compromise whereby the imposition of less strict provisions is netted against the wide agreement of participants and flexibility in terms of application.

Perhaps most importantly, state parties to the CBD have recognized the significant impact tourism has on the various forms of biodiversity. Consequently, the Convention can be seen to operate on two levels. First, a majority of the rights and obligations set out in the CBD can be transferred

99. Id. ¶ 73.
101. Id. ¶¶ 11–82.
102. A user's manual on the CBD Guidelines on Biodiversity and Tourism Development has been drafted and opened to governments, relevant international organizations and other stakeholders for comments. CBD Guidelines, supra note 100.
directly to the tourism industry where the majority of activities are undertaken in an environment with highly vulnerable biodiversity. Second, the institutional framework created by the Convention allows for the further exploration and development of associated issues, such as tourism, thereby harnessing the collective will of participating states. The CBD is one of the most widely ratified international environmental agreements; this means that its institutional bodies have an important role in the dissemination of information to participating states in addition to the development and implementation of associated guidelines and programs.

VI. INTERNATIONAL TRADE IN SPECIES

The nature of the international wildlife trade is diverse with plant and animal species (including products such as exotic leather goods, food, tourist souvenirs, and medicine), now worth billions of dollars annually. In promoting the protection of certain species against over-exploitation through international trade, the Convention on International Trade in Endangered Species (CITES) recognizes, inter alia, the recreational value of wild flora and fauna. CITES operates by assigning different species to one of the three appendices to the Convention, each of which is afforded a different level of protection.

The tourism industry is closely linked with issues surrounding international wildlife trade: revenue from wildlife-related tourism continues to increase as tourists seek out the wilderness and unspoiled environment as part of their tourism experience. While tourism potentially offers many


104. CITES, supra note 83, pmbl.

105. Species listed in Appendix I include those “threatened with extinction which are or may be affected by trade” for which commercial trade is prohibited. Id. art. II. Appendix II includes those species which, although not necessarily now threatened with extinction, may become so unless strict regulation is imposed; trade is allowed in respect to Appendix II species only where the “export will not be detrimental to the survival of that species” and the “specimen was not obtained in contravention of the relevant law.” Id. art. III. Species listed in Appendix III are those identified as being subject to national regulation in order to prevent or restrict exploitation, and requiring international cooperation to control trade. Id. art. V. Trade in these species is allowable in accordance with a (less stringent) permitting system, although for many species, an Appendix III classification is a temporary measure until upgraded to an Appendix II classification. Id.
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benefits for the preservation of wildlife by way of public education and conservation-orientated revenue generation, it can also be seen to threaten protectionist measures established in CITES. As a result, the relationship between tourism and wildlife trade is inextricably linked. This was illustrated in 2000, when Kenya opposed the joint proposal of Botswana, Namibia, South Africa, and Zimbabwe to lift the CITES ban on ivory trade. While population numbers of elephant had recovered in some South African countries, Kenya claimed that reopening ivory trade would result in increased poaching and thereby threaten its tourism industry. Something of a compromise was achieved in 2002 where Botswana, Namibia, and South Africa were allowed to sell a limited and strictly controlled amount of their registered ivory, although Kenya and India remain opposed to ivory being available for sale. The link recognized between ivory trade and tourism is vital for countries such as Kenya where tourism ranks first in terms of foreign currency earnings.

Trophy hunting remains a draw for many tourists visiting parts of Africa. Hunting safaris generally operate by charging a daily hunting rate together with an additional “trophy fee” for different species, including amongst many others, buffalo, rhino, elephant, lion, and leopard. There are a number of exceptions to the regulation of trade under CITES, including “specimens that are personal or household effects.” However, tourist souvenirs obtained outside the owner’s state of usual residence are not included in this exception and, therefore, must comply with the permitting requirements. Under the provisions of CITES, trade in


110. CITES, supra note 83, art. VII(3) (stating exemption of Personal and Household Effects); Resolution on Control of Trade in Personal and Household Effects, CITES, Conf. 13.7 (Oct. 1997) [hereinafter Control of Trade in Personal and Household Effects] (allowing for the export/import without permit of: caviar (up to 250 grams per person); rainsticks (up to three per person); specimens of crocodilian species (up to four per person); and queen couch shells (up to three per person)).

111. Resolution on Control of Trade in Tourist Souvenir Specimens, CITES, Conf. 10.6 (June 1997), available at http://www.cites.org/eng/res/10/10-06.shtml. This applies to specimens of Appendix I species that are souvenirs being imported by a person returning to his State of usual residence, and specimens of Appendix II species that are souvenirs being imported by a person returning to his State of usual residence if the specimens were taken form the wild in a State requiring the prior grant of export permits before the export of such specimens). Id.
hunting trophies of species listed under Appendix I is only permitted where accompanied by import and export permits confirming that the "exportation of the hunting trophy is not detrimental to the survival of the species."112 Accordingly, any hunting trophy obtained, for example, in South Africa and intended for transport back to the tourist's home country must be accompanied by the relevant CITES permits. Moreover, in the case of some species, quotas have been set by the CITES Conference of the Parties (COP) for the number of hunting trophies allowed for each particular country.113

CITES has also directly addressed the control of trade in tourist souvenir specimens by way of a COP resolution.114 The Resolution recognizes that derivatives of Appendix I and II species continue to be widely sold as tourist souvenir specimens at international airports, duty free areas, and other places catering to largely international travelers. Furthermore, export permits are frequently not required by exporting countries. As such, the Resolution urges states to comply with the trade regulations set out in CITES and prohibits the sale of Appendix I tourist souvenir specimens in areas beyond customs control points, such as duty-free shops, seaports, and international departure areas.

Finally, the importance of public education and the provision of accessible information in places of international departure is recognized and recommended as a method of informing travelers about CITES and their legal responsibilities relating to the import and export of wildlife specimens. Subsequently, tourism activities involving the hunting or purchase of wildlife specimens have been comprehensively addressed by the CITES framework, and specific controls and regulations have been put in place regarding these tourist activities. While inevitable problems remain with ensuring compliance and enforcement, CITES remains one of the more developed and substantive responses from the international legal community currently in place.

113. A detailed listed of export quotas has been published by CITES, available at http://www.cites.org/eng/resources/quotas/index.shtml. Special quota systems have been developed for trade in leopard hunting trophies and skins for personal use; trade in live specimens of cheetah and hunting trophies; markhor hunting trophies; and trade in ivory from African elephants. See WUNSTEKERS, supra note 103, at 391 ("The establishment of quota systems . . . is probably the most effective tool for the regulation of international trade in world fauna and flora currently available.").
114. Control of Trade in Personal and Household Effects, supra note 110 (recalling Resolution Conf. 4.12). For a discussion on this resolution see WUNSTEKERS, supra note 103, at 143–50.
VII. MARINE MAMMALS

The conservation of cetaceans has traditionally centered on the regulation of the global whaling industry as whales have been exploited as a natural resource since the early thirteenth century.\footnote{See, e.g., Anthony D'Amato & Sudhir K. Chopra, Whales: Their Emerging Right to Life, 85 Am. J. Int'l L. 21, 22 (1991) ("This essay examines the history, and argues for the presentation, of a broadening international consciousness about whaling . . .").} It is only in more recent years that the link between marine mammals and tourism has become evident with the development and expansion of the international whalewatching industry. Extending to all marine mammals, the term "whale watching" is described as "[t]he non-consumptive use of whales in which the animals are approached from vessels, with an intent to obtain visual contact in their natural environment" for recreation, scientific, educational, and publicity reasons.\footnote{CAROLE CARLSON, A REVIEW OF WHALE WATCH GUIDELINES AND REGULATIONS AROUND THE WORLD 77 (2007), available at http://www.iwcoffice.org/_documents/conservation/WWREGSApril1207.pdf; see also ERICH HOYT, WHALE WATCHING 2001: WORLDWIDE TOURISM NUMBERS, EXPENDITURES, AND EXPANDING SOCIOECONOMIC BENEFITS 3 (2001) (defining "whale watching" as "tours by boat, air or from land, formal or informal, with at least some commercial aspect, to see, swim with, and/or listen to any of the some 83 species of whales, dolphins and porpoises").}

Whalewatching, as a commercial tourism activity, is now estimated to be a one billion dollar industry (US$), with more than nine million participants per year in eighty seven countries and territories.\footnote{HOYT, supra note 116, at 146.} There are more than eighty species of cetaceans included in whalewatching operations,\footnote{The most common focal species for whalewatching are humpback whales, gray whales, northern and southern right whales, blue whales, minke whales, sperm whales, short-finned pilot whales, orcas, and bottlenose dolphins. Two of these (the blue and the northern right whales) are classified as endangered species, while two others (humpback and southern right whales) are considered vulnerable Id. at 146-47; see also IUCN Red List of Threatened Species, http://www.iucnredlist.org (offering a searchable database).} and although the activity can take place from land-based or aerial platforms, it is boat-based tourism that is the most common, with seventy-two percent of tourists choosing to view whales in this way.\footnote{Id. at 147.} There have been numerous studies undertaken on the potential effects of whalewatching on cetaceans, with results indicating that—as with any wildlife viewing activities—unregulated industries threaten normal cetacean behavioral patterns by intrusive human interaction.\footnote{E.g., Rob Williams, Andrew W. Trites & David E. Bain, Behavioral Responses of Killer Whales (Orcinus Orca) to Whale-Watching Boats: Opportunistic Observations and Experimental Approaches, 256 J. Zool. Lond. 255, 268 (2002).}
growth in the number of whale watchers worldwide, this industry is clearly one that deserves the attention of the international community in order to ensure that tourism is undertaken in an environmentally sustainable manner.

One of the fastest growing whalewatching industries is located in Iceland. Tourism currently represents one of the main economic industries for Iceland and as such, the increasing number of whalewatching activities makes an important contribution to the country's economy. However, debate now surrounds the future of the whalewatching industry in light of Iceland's decision to resume "sustainable whaling," after a fourteen year hiatus following the worldwide moratorium on whaling that came into effect in 1989. Previously, concerns had been raised regarding the impact on local tourism as Iceland had undertaken limited whaling under the guise of scientific research, but this latest move fuels fear within the tourism industry that tourists may boycott the island in protest to its resumption of whaling, thereby crippling the lucrative whalewatching business. Moreover, estimates attribute the "direct value of whalewatching in Iceland at $8 million a year, while whaling yielded only $3-4 million per year" before the moratorium took effect in 1989. Thus, not only does the tourism industry need to ensure its own activities are environmentally

121. During the 1990s there was an average annual increase of more than ten percent. Hoyt, supra note 116, at 12.

122. Iceland experienced an extraordinary annual growth rate of 250% from the mid to late 1990s. Hoyt, supra note 116, at 70-72.


sustainable, but the impact of Iceland’s whaling activities must also be considered in order to determine what contributory effect it may have.126

Whales have been the topic of international conservation efforts since the 1930s,127 although early attempts were largely superseded by the 1946 International Convention for the Regulation of Whaling (IWC).128 While the objective of the IWC is to “provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry,”129 much debate surrounds the conflicting ideologies regarding the initial purpose of the Convention to sustain the whaling industry and the modern preservationist approach currently advocated by much of the international community.130 Accordingly, pressure has been exerted on the IWC by both pro- and anti-whaling states in respect to its mandate to establish conservation-based policy.131 While the text of the IWC is restricted to the subject of conserving whale stocks, it has facilitated considerable scientific research and provides guidance to states in respect to

126. For a discussion on the relationship between whaling and whalewatching see, for example, Erich Hoyt & Glen T. Hvenegaard, A Review of Whale-Watching and Whaling with Applications for the Caribbean, 30 COASTAL MGMT. 381 (2002).

127. The first whaling treaty was the 1931 Convention for the Regulation of Whaling. Lyster, supra note 103, at 17.

128. Id. at 120; IWC Res 2003-2, supra note 123. For further discussion on the IWC, which was established under the Convention, see Gregory Rose & Saundra Crane, The Evolution of International Whaling Law, in GREENING INTERNATIONAL LAW (Philippe Sands ed., 1993) (“This chapter aims to provide an understanding of the challenges facing the IWC in its attempts to ‘manage whale stocks’ today.”); Pat W. Birnie, International Legal Issues in the Management and Protection of the Whale: A Review of Four Decades of Experience, 29 NAT. RESOURCES J. 903 (1989) (describing legal issues in the international regulation of whaling).


whale-killing methods and associated welfare issues,132 small cetaceans,133 whale sanctuaries,134 conservation issues,135 and whalewatching activities.

A relatively new development in the work of the IWC is its involvement in whalewatching as a sustainable use of cetacean resources. The IWC established a working group on whalewatching and called upon state parties "to undertake a preliminary assessment . . . of whalewatching activities in their respective countries."136 In acknowledging that the "regulation of whalewatching is a matter for the responsible coastal state, rather than for the Commission,"137 the Working Group (under advice from the Scientific Committee) created the General Principles for Whalewatching, which were subsequently adopted by the Commission in 1996.138 The IWC General Principles for Whalewatching outline three aspects of the tourism activity to be accorded specific attention.139 First, states must manage the development of whalewatching to minimize the risk of adverse impacts by, inter alia, employing the precautionary principle in respect to evolving whalewatching operations140 and implementing measures to regulate the variable aspects of the industry.141 Secondly, platforms (the vessels from which tourists view whales) must be designed, maintained, and operated in such a way as to minimize the risk of adverse effects on cetaceans.142 Finally, tourist operators should "allow cetaceans to

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133. The status of small cetaceans under the Convention remains uncertain since the term "whale" is not defined by the Convention. ICRW, supra note 129, art. 2.


135. See, IWC Res. 2003-2, supra note 123, at 1 (establishing a Conservation Committee to strengthen the conservation agenda of the IWC).


139. General Principles for Whalewatching, supra note 138.

140. Id. § 1(iii). While the term "precautionary principle" is not specifically used in the General Principles for Whalewatching, the IWC recognizes the "need for precautionary measures to ensure that the continuing development and expected expansion of whalewatching activities do not adversely affect cetacean populations, individual animals, or their environment, or significantly increase the risk to the survival or ecological functioning of such populations." IWC Res. 1996-2, supra note 138 (emphasis added).

141. General Principles for Whalewatching, supra note 138, § 1(i) (including "platform numbers and size, activity, frequency and length of exposure in encounters with individual and groups of whales").

142. This point is especially important in respect of disturbances from noise, as cetaceans respond in different ways "to low and high frequency sounds, relative sound intensity or rapid changes in sound." Id. § 2(ii); Karen N. Scott, International Regulation of Undersea Noise, 53 INT'L & COMP.
control the nature and duration of ‘interactions.’” The IWC Principles of Whalewatching provide a basis from which states have developed individual regulations and management procedures, which build on and substantiate the standards set out by the Commission. Some thirty countries have implemented national whalewatching guidelines or regulations for tourist operators. Australia has adopted a particularly comprehensive set of guidelines for cetacean observation that outline the operational requirements of vessels and aircraft (including how to approach cetaceans), the avoidance of noise, and rules regarding feeding, touching, and swimming with cetaceans.

International environmental law has offered an indirect, yet apparently extensive and relatively successful, solution to the problem posed by tourism in respect of marine mammals. While the IWC offers very little by way of inherent conservation priorities, the infrastructure established to support this international agreement, the Commission, the Scientific Committee, and additional working groups, has harnessed the political will of member states and implemented international regulations of whalewatching in response to the expanding tourism industry. As with the legal initiatives introduced by CITES, there will inevitably remain challenges in terms of ensuring compliance and enforcement, especially given the involvement of private-sector entities. However, the comparatively extensive implementation of regulatory standards into national systems and coordinated enthusiasm at the international level demonstrates an emerging trend in terms of the environmental regulation of tourist activities.

VIII. MARINE POLLUTION

Tourism activities pose a real and significant threat to the global marine environment. The sources from which marine pollution can occur have been well documented, and many of them may be associated to varying

L.Q. 287, 288 (2004) ("Cetaceans are believed to be highly sensitive to sound and are tremendously vocal.").

143. General Principles for Whalewatching, supra note 138, § 3. This requires operators to be aware of aspects such as the speed and angle of approach, the distance between the platform and cetaceans, sudden changes in speed, direction or noise, and the placing of a platform between mother and calf pairs so as to separate a group.

144. See CARLSON, supra note 116 (describing the regulations and guidelines of countries around the world).

degrees with tourism activities. However, of most immediate relevance to the tourism industry is pollution from land-based sources and vessel-sourced pollution. The Law of the Sea Convention (UNCLOS) covers a multitude of issues relating to the use of the ocean and the management of the sea's resources, with many of its provisions regarding maritime navigation and territorial sea limits being equally applicable to tourism activities. While UNCLOS does establish rights and obligations in respect of environmental marine protection, the legal nature of this is largely qualified and there are no substantive obligations imposed or quantifiable rights conferred on state parties. Instead, UNCLOS incorporates what are now regarded as the generally accepted international rules and standards in respect of marine pollution. The provisions of more specialized agreements (such as MARPOL, OSPAR and the Regional Seas Conventions) impose more detailed obligations. Thus, while UNCLOS outlines the common standards in respect of the marine environment. The impact of tourism has been recognized and addressed by more specialized agreements, which impose management regimes, development strategies, and pollution requirements on state parties.


147. It has been estimated that marine pollution can be attributed to twelve percent from shipping, ten percent from dumping, one percent from sea-bed activities, forty-four percent from land-based sources, and thirty-three percent from the atmosphere (much of which originates from land-based activities). GESAMP, UNEP, Reports and Studies No. 39, The State of the Marine Environment 88 (1990) (hereinafter Reports and Studies No. 39).


149. See UNCLOS, supra note 74, arts. 19–20 (regarding provisions on innocent passage), art. 56 (regarding rights, jurisdiction and duties of the coastal state in the exclusive economic zone), art. 94 (regarding duties of the flag state).

150. UNCLOS, supra note 74, pt. XII.

151. Id. For a discussion on the negotiation of Part XII of the Convention, see Nordquist, supra note 148, at 35.

152. See, e.g., Alan E. Boyle, Marine Pollution under the Law of the Sea Convention, 79 Am. J. Int'l L. 347, 347-372 (1985) ("[I]t is only a general framework of powers and duties, not a code of specific standards for particular forms of pollution.").
A. Land-Based Marine Pollution

One form of pollution regulation with significant relevance to the tourism industry is marine pollution from land-based sources, which also includes atmospheric pollution from land activities. Land-based sources constitute the largest source of marine pollution. These pollutants include: sewage, industrial waste, agricultural runoff, water from power stations, vehicle exhaust, and fumes from domestic and industrial chimneys.

The tourism industry's contribution to land-based marine pollution is significant and takes place in a number of ways. One result of developing tourism infrastructure, such as hotel complexes, commercial developments, and water-sport activities, is an increase in waste production levels. Waste from the tourism industry may take the form of inadequately treated wastewater; fertilizers and pesticides used on golf courses, gardens, and recreational grounds; oil spills from marine leisure craft; air pollution from the burning of fossil fuels (especially prominent in many forms of tourism transportation); and litter.

International regulation of land-based marine pollution is limited by notions of state sovereignty because pollutants are sourced from within national boundaries. UNCLOS imposes a general obligation on states to "prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures," but provides no detail on how this should be achieved. One example of where the issue receives more comprehensive coverage at the regional level is the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention). Parties to

153. Reports and Studies No. 39, supra note 147, at 88.


155. See, e.g., Thomas A. Mensah, The International Legal Regime for the Protection and Preservation of the Marine Environment from Land-based Sources of Pollution, in INTERNATIONAL LAW AND SUSTAINABLE DEVELOPMENT 297–324 (Alan Boyle & David Freestone eds., 1999); CHURCHILL & LOWE, supra note 146, at 277–78 ("Although pollution from land is the most important source of marine pollution, it is the source in respect of which least international legislative action has so far been taken.").

156. UNCLOS, supra note 74, art. 207(1). The Convention only adds that states "shall endeavour to establish global and regional rules and standards" in order to achieve this objective. Id. art. 207(4). Article 213 adds that states shall adopt laws to ensure enforcement in respect of land-based marine pollution. Id. art. 213.

157. The 1992 OSPAR Convention incorporates and replaces the 1974 Paris Convention on the Prevention of Marine Pollution from Land-Based Sources and the 1972 Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft. Note also that the UNEP Regional Seas Programme would clearly extend to tourism based development and activities, although there is
this Convention are required to “prevent and eliminate pollution from land-based sources,” using the “best available techniques for point sources, and the best environmental practice for point and diffuse sources.” Accordingly, parties to the OSPAR Convention are under an international obligation to address pollution from land-based sources which would include pollution occurring as a result of tourism.

In 2003 the OSPAR Commission issued the Background Document on Tourism (Background Document), which examines “the impact of tourism on the marine environment, its species, habitats, and biological diversity.” The study recognizes tourism as one of the world’s fastest growing industries, while acknowledging the great variety and fragility of the coastal environment. A number of the negative environmental impacts of tourism in coastal zones are highlighted.

Next, the Background Document suggests measures for managing environmental impacts, identifying existing actions related to sustainable tourism in coastal zones, and recommending that an integrated coastal zone management strategy (ICZM) be implemented in relation to tourism. Considered a “tool for the achievement of sustainable development in coastal zones,” the ICZM embodies a set of general principles, many of which are already in common use within international environmental law.

In light of this, the OSPAR Commission makes a number of recommendations. Of particular importance is the control of coastal tourism development, including the implementation of planning and development strategies; the monitoring and combating of pollution; raising environmental awareness via campaigns, training programs and documentation; and the use of economic instruments and incentives to promote sustainable tourism.

little specific attention paid to the tourism industry itself. For an overview of the UNEP Regional Seas Programme see, for example, P. Akiwumi & T. Melvasalo, UNEP’s Regional Seas Programme: Approach, Experience and Future Plans, 22 MARINE POL’Y 229, 229–34 (1998).


159. Id. Annex 1, art. 1. Note the term “land-based sources” is defined at article 1(e).

160. A list of the sixteen contracting parties and the seventeen governmental organizations with observer status can be found at http://www.ospar.org/eng/html/cp/welcome.html.

161. The Commission is the governing body of the OSPAR Convention.


163. Note that the Background Document on Tourism also identifies some positive impacts of tourism, including “revenue creation for the maintenance of natural areas,” “environmental awareness raising,” and “alternative employment.” Id. § 2.2.

164. Id. § 3.

165. ICZM incorporates, among others, the precautionary principle, monitoring, localized solutions, participation, cooperation, and the adoption of a combination of instruments. Id. § 3.

166. Id. § 5.
Reconciling Tourism and the Environment offers a clear example of a scenario where an international treaty has established initial standards for state parties to consent to and then further developed more specific and substantive guidance on relevant issues through the Convention's structural framework. Although the Background Document is not legally binding on parties, it provides valuable guidance, management plans, and conservation strategies for addressing the problem of tourism-generated, land-based, marine-pollution activities in the Northeast Atlantic.

Land-based pollution occurring from the discharge of sewage and garbage into the marine environment is a serious threat to, among many other things, local coral reefs and their biodiversity. The discharge of sewage, waste materials, garbage, and silting from construction work has resulted in significant reef degradation in Kaneohe Bay, on the island of Oahu, Hawaii. A "large, shallow embayment with restricted water circulation that was once known for its flourishing coral reefs," Kaneohe Bay suffered "total destruction of the coral reef communities in two-thirds of the bay" as a direct result of urbanization and tourism development. In situations such as these, the effective regulation of tourism development and management of subsequent recreational activities makes a significant contribution to the avoidance of environmental degradation.

B. Vessel-Sourced Marine Pollution

A second type of marine pollution, which is aggravated by the tourism industry, originates from vessels. The operation of cruise ships alone generates an enormous volume of waste while accommodating an estimated ten million passengers per year, more than seventy percent of which are from the United States. A typical cruise ship carrying 3000 passengers


and crew can generate up to 130,000 liters of human waste (sewage)\textsuperscript{169} and over one million liters of gray water\textsuperscript{170} every day. The United States Environmental Protection Agency estimates that there are more than 230 cruise ships currently operating worldwide.\textsuperscript{171} Combined with the discharge of approximately 37,000 gallons of oily bilge water, 30,000 gallons of sewage, and 25,000 gallons of gray water each day, a cruise ship has the potential to generate copious quantities of polluting waste.\textsuperscript{172}

While there are a number of international treaties that address the issue of marine pollution from vessels,\textsuperscript{173} the 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) is of most relevance to tourism.\textsuperscript{174} The text of the MARPOL Convention contains the main body of the agreement, which is then supplemented by six technical annexes detailing the regulations for the prevention of various types of marine pollution.\textsuperscript{175} MARPOL imposes a general obligation on state parties to “prevent the pollution of the marine environment by the discharge of harmful substances” or effluents containing specific substances.\textsuperscript{176} Of particular interest to the tourism industry are the annexes on the prevention


\textsuperscript{170} Grey water includes non-sewage waste water from sources such as sinks, showers, laundries, and dishwashers. Oasis Design, Grey Water Central, http://www.oasisdesign.net/greywater/index.htm (last visited Sept 20, 2007).


\textsuperscript{172} KLEIN, supra note 168, at 90; see also Schulkin, supra note 168, at 108–09 ("[I]n a one week trip, a typical cruise ship generates approximately 50 tons of garbage, one million gallons of gray water, 210,000 gallons of sewage, and 25,000 gallons of oil wastewater each week."). Note that estimates vary depending on the source and method of data collection. The figures provided here represent an overall average indication of the data available.


\textsuperscript{175} MARPOL, supra note 174, Annex 1.

\textsuperscript{176} Id. art. 1.
of sewage, garbage, and air pollution.\textsuperscript{177} In terms of sewage,\textsuperscript{178} ships must be equipped with an acceptable sewage management system (such as a sewage treatment plant, a sewage comminuting and disinfecting system, or a sewage holding tank) where the discharge of sewage is prohibited except where the correct treatment has taken place and is disposed of at the requisite distance from land.\textsuperscript{179} The disposal of garbage\textsuperscript{180} at sea is regulated by reference to the type of garbage and the distance of the ship from the nearest land. The disposal of garbage in special areas, which tend also to be popular tourist destinations, is largely prohibited.\textsuperscript{181} Finally, air pollution from ships is regulated by setting limits on sulfur oxide and nitrogen oxide emissions from ship exhausts and prohibiting deliberate emissions of ozone depleting substances.\textsuperscript{182} Notably, the provisions of the MARPOL Convention must be applied by states not only to their own ships, but also to violations within their jurisdiction.

Increasingly, cruise ships are receiving fines for causing environmental damage, most often as a result of illegal discharges into the ocean.\textsuperscript{183} The Norwegian Cruise Line company pleaded guilty to circumventing the oily water separator, thereby allowing oily bilge to be discharged directly into the sea on numerous occasions from 1997 to 2000. The company was fined $1.5 million, while the individuals responsible for falsifying log books in an attempt to conceal the dumping of waste oil are being prosecuted in the United States, each facing imprisonment terms of up to fifteen years if convicted.\textsuperscript{184} Nevertheless, concerns remain that many cruise ships are not complying with legal regulations and, as with many other areas of

\textsuperscript{177} Id. Annex I–VI. Note that Annex III regulates the prevention of pollution by harmful substances in packaged form, but is not directly relevant to the present discussion on tourism. Id. Annex III.

\textsuperscript{178} Id. Reg. 3, Annex IV, at 256 ("Sewage includes waste from toilets, drainage from medical premises, drainage from spaces containing living animals, and waste waters when mixed with the drainage above.").

\textsuperscript{179} Id.

\textsuperscript{180} "Garbage includes all kinds of victual, domestic and operational waste (excluding fresh fish) generated during the normal operation of the ship and liable to be disposed of continuously or periodically." Id. Reg. 1(1), Annex V.

\textsuperscript{181} Id. Reg. 5, Annex V, at 264.

\textsuperscript{182} Id. Annex VI.


environmental regulation, it is inevitably difficult for (substantive and appropriate) penalties to be successfully applied.185

IX. THE ANTARCTIC ENVIRONMENT

Especially vulnerable due to its sensitive ecosystems, Antarctica is another aspect of the natural environment to have received increased attention in recent years on account of a proliferation of tourist numbers. The majority of the approximately 26,000 tourists to visit Antarctica during the 2005–2006 season did so by cruise ship. A typical itinerary includes visits to penguin colonies, scientific stations, and historic sites, along with excursions to view native wildlife on and around the continent.186 As a result, tourists generally visit the Antarctic region as part of a self-contained cruise expedition where all facilities are provided on board the ship. Up to 100 people are taken to shore for one to three hours at variable intervals.187

Both land-based and vessel-sourced marine pollution have been addressed in the context of the Antarctic environment, the legal regulation of which is the subject of the Antarctic Treaty System (ATS).188 The core


186. For statistics on tourism numbers visiting Antarctica see the INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS (IAATO), http://www.iaato.org/ (last visited Sept. 25, 2007). For an introduction to Antarctic tourism, see THOMAS BAUER TOURISM IN ANTARCTICA: OPPORTUNITIES, CONSTRAINTS AND FUTURE PROSPECTS (2001); Mike G Richardson, Regulating Tourism in the Antarctic: Issues of Environment & Jurisdiction, in IMPLEMENTING THE ENVIRONMENTAL PROTECTION REGIME FOR THE ANTARCTIC, 71, 71-72 (Davor Vidas ed., 2000); Robert K. Headland, Historical Development of Antarctic Tourism, 21 ANNALS TOURISM RES. 269 (1994); and Nigel Wace, Antarctica: A New Tourist Destination, APPLIED GEOGRAPHY 327, 327 (1990) ("The scenic beauty and wildlife attractions of Antarctica, in conjunction with its remoteness, have encouraged the growth of tourism in the region.").

187. INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATIONS, Scope of Antarctic Tourism—A Background Presentation, available at http://www.iaato.org/tourism_overview.html. Note that a small but increasing minority are now looking for other activities in Antarctica, including sky diving, climbing, surfing, diving, and ski walking.

substantive provisions regarding protection of the Antarctic environment are contained within the 1991 Protocol on Environmental Protection to the Antarctic Treaty. The main text of the Protocol outlines basic overarching environmental principles which are then supplemented by six specialist annexes. Although there has been some debate regarding the inclusion of an annex on tourism, the idea has never reached fruition and, accordingly, tourism activities in the Antarctic Treaty area have been specifically recognized as being subject to the general environmental principles of the Protocol.

In respect to pollution of the Antarctic environment from land-based sources, activities must comply with the environmental principles of the Protocol. In particular, activities in the Antarctic Treaty area must be planned and conducted so as to limit adverse impacts on the environment and avoid significant adverse effects on water quality and significant changes in the glacial or marine environments. Moreover, Annex III of the Protocol on waste disposal and waste management applies to "activities undertaken in the Antarctic Treaty area pursuant to scientific research programmes, tourism and all other governmental and non-governmental...

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192. E.g., Redgwell, supra note 189, at 632–33; Peter Beck, Regulating One of the Last Tourism Frontiers: Antarctica, 10 APPLIED GEOGRAPHY 343 (1990).

193. 1991 Antarctic Protocol, supra note 190, art. 3(4).

194. Id. art. 3(2)(a).

195. Id. art. 3(2)(b)(ii)–(iii).
However, as Antarctica lacks the level of development and infrastructure commonly associated with coastal tourism destinations—there are no hotels or tourism facilities on the continent—the particular environmental threats from land-based marine pollution created by, for example, commercial development activities, sewage outfalls, or waste disposal, do not exist. Thus, land-based marine pollution attributable to the Antarctic tourism industry is most likely to come from discarded litter while tourists are on-shore, or pollution from the introduction of foreign diseases into the Antarctic environment.

While the Environmental Protocol is of only general application to tourism-generated, land-based marine pollution, its treatment of vessel-sourced pollution is considerably more comprehensive. Shipping accidents in the polar environment have particularly devastating consequences due to the sensitive nature of the ecosystem. Thus, legal regulation must anticipate not only standard operational discharge from ships, but also the threat posed by maritime accidents.

The Environmental Protocol has a specific Annex on the Prevention of Marine Pollution that is to be read in addition to the general environmental provisions set out in the main body of the Protocol. The Annex essentially aims to introduce to the Antarctic environment similar standards as those established in MARPOL. The discharge of oil, noxious liquid

196. 1991 Antarctic Protocol, supra note 190, Annex III, art. 1(1). Note however that the type of waste targeted by the Annex is largely orientated towards that created by scientific research stations. (For example article 2 outlines provisions for waste disposal by removal for, inter alia, radio-active materials, electrical batteries, fuel, and wastes containing harmful levels of heavy metals).

197. Note that there have been some initiatives to satisfy tourists’ increasing consumer demands, such as a souvenir t-shirt shop on King George Island and the installation of two ATM machines at McMurdo Station. Woodruff A. Polk, Welcome to the Hotel Antarctica, 12 EMORY INT’L L. REV. 1401-02 (1998).

198. For a study on the bacteria which still occurs when tourists travel on Antarctica soil despite disinfection attempts, see C. Curry et al., Could Tourists Transmit Infectious Agents in Antarctica?, (June 2001) (study assessing threat of tourist activities to Antarctic wildlife) (on file with VJEL).


200. 1991 Antarctic Protocol, supra note 190, Annex IV.


202. 1991 Antarctic Protocol, supra note 190, Annex IV art. 3(1) (stating that the discharge of oil or oily mixture is only permitted where in accordance with Annex I of MARPOL).
substances,\textsuperscript{203} garbage,\textsuperscript{204} and sewage\textsuperscript{205} is prohibited, although loopholes exist within the Annex for exploitation.\textsuperscript{206}

Moreover, Antarctica has been accorded “special area” status in respect of Annexes I and V of MARPOL, which effectively prohibits the discharge of the most polluting substances in the area.\textsuperscript{207} The importance of these marine pollution provisions becomes apparent when the extent of the Antarctic cruise industry is exposed. Approximately eighty-five percent of visitors to Antarctica during the 2005–2006 season were cruise ship passengers, the vast majority of visitors landed on sites located on the Antarctic Peninsula, thereby significantly consolidating the number of vessels in one area.\textsuperscript{208} With the carrying capacity of some ships in the Antarctic now exceeding 1000 passengers, the same vessel pollution issues that face standard cruise ships, such as sewage, grey water, garbage, and chemical waste disposal, are similarly prevalent in the sensitive Antarctic environment.\textsuperscript{209}

The highlight of any trip to Antarctica commonly involves time ashore, where passengers are able to physically “stand on the Antarctic continent,” photograph the wild flora and fauna, and explore the local environment.\textsuperscript{210} However, such landings also represent potentially high-risk activities for the Antarctic environment as tourists threaten to damage vegetation, import

\begin{thebibliography}{99}
\bibitem{203} Id. art. 4.
\bibitem{204} Id. art. 5.
\bibitem{205} Id.
\bibitem{206} Id. art. 3(2)(a)(i) (exempting oil discharged as a result of damage to a ship where all reasonable precautions have been taken); art. 5(5)(a) (exempting “the escape of garbage resulting from damage to a ship or its equipment provided all reasonable precautions have been taken”); art. 6(1) (exempting discharge of untreated sewage “within twelve nautical miles of land or ice shelves” if “it would unduly impair Antarctic operations”); art. 7(1) (exempting from Annex IV of the Protocol “cases of emergency relating to the safety of a ship and those on board or saving life at sea”); art. 11(1) (exempting “any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service”).
\bibitem{208} For details and tourism statistics, see the International Association of Antarctica Tour Operators (IAATO) website at http://www.iaato.org/tourism_stats.html (last visited Sept. 13, 2007).
\bibitem{210} Many Antarctic tour operators follow the “Linblad” pattern of tourist management when making landings. Usually no more than 100 passengers are allowed ashore at once where they are “usually free to wander from their parties, but required to keep off glaciers, avoid climbing and other hazardous pursuits, and stay within easy reach of the embarkation point.” B. Stonehouse, Ecotourism in Antarctica, in ECOTOURISM: A SUSTAINABLE OPTION? 202 (Erlet Cater & Gwen Lowman eds., 1995).
\end{thebibliography}
disease, discard litter, or interfere with wildlife. All of these activities have the potential to negatively impact the Antarctic ecosystem and local habitats, thereby threatening the sustainability of flora and fauna. This is especially relevant for popular landing sites, such as many of those on the Antarctic Peninsula, which may receive tourists "every second or third day throughout the summer by successive cruise ships."

For example, Whalers Bay on Deception Island received 13,749 tourist visitors throughout the 2005-06 season with most of those tourists going ashore. Of the five Annexes to the Antarctic Treaty's Environmental Protocol, two focus on the conservation of biodiversity and habitat preservation in respect to tourism activities: Annex II on the Conservation of Flora and Fauna, and Annex V on Area Protection.

Annex II effectively prevents tourists taking "souvenirs" from Antarctica in the form of wild fauna and flora, although the qualification attached to the taking of native plants—the action must significantly affect the local distribution or abundance—creates a potentially significant loophole. In an attempt to prevent disturbances of concentrations of birds and seals, "harmful interference" of Antarctic’s native flora and fauna is prohibited. Although these provisions are equally applicable to both

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211. Id. at 202-04.
213. Activities for landed tourists at Whalers Bay included small boat landing, walking, kayaking, remote underwater vehicle, ship cruise, scuba diving, station visit, and small boat cruising. Id.
214. The 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) also recognizes the importance of safeguarding the environment and protecting the integrity of the ecosystem of the seas surrounding Antarctica. However, this Convention was concluded primarily in response to the conservation of krill, in recognizing its vital role in the Antarctic food-chain and greater eco-system. Thus, it is of little relevance to the tourism industry. For an overview of the Convention, see, for example, Nakib Nasrullah, The Convention on the Conservation of Antarctic Marine Living Resources: A Critical Review, 41 INDIAN J. OF INT’L L. 111 (2001) (“With the adoption of [CCAMLR], the Contracting Parties aimed to establish a Regime for waters around Antarctica.”) (alteration in original)); WATTS, supra note 188, at 215-21 (linking the creation of the Convention to the exploitation of krill); Mathew Howard, The Convention on the Conservation of Antarctic Marine Living Resources: A Five Year Review, 38 INT’L & COMP. L.Q. 104 (1989) (discussing the operation of the CCAMLR); CCAMLR, http://www.ccamlr.org (last visited Sept. 5, 2007).
216. 1991 Antarctic Protocol, supra note 190, art. 3.
217. The term includes the use of helicopters or vehicles, including small vessels such as zodiac boats, and the willful disturbances of breeding or molting birds by persons on foot. Id.
218. Id. Furthermore, the significant damage to native plants by landing aircraft, driving vehicles, or walking on them is similarly prohibited. Id. art. 1(h)(v), Annex II.
scientific staff and tourists, the restrictions should establish a clear benchmark for the behavior of tourists during Antarctic site visits. Annex V of the Environmental Protocol deals with area protection and management of sites in Antarctica. Consolidating earlier conservation attempts, the Annex allows for the “designation of Antarctic Specially Protected Areas (ASPA) or Antarctic Specially Managed Areas (ASMA), where activities can be prohibited, restricted or managed.” While an ASPA can be designated to protect areas of “outstanding environmental, scientific, historic, aesthetic or wilderness values,” where entry is prohibited, except with a valid permit, a permit is not required for entry to an ASMA, which may be designated to “assist in the planning and co-ordination of activities, avoid possible conflicts, improve co-operation between parties or minimize environmental impacts.”

One area in Antarctica to be designated an ASPA is Deception Island in the South Shetland Islands off the Antarctic Peninsula. The relevant management plan outlines the five sites on the Island that constitute the specially protected area and recommends that tourists be excluded and entry limited to research scientists. In terms of tourism, Deception Island, an active volcano in which ships must cruise through a narrow passage to enter its flooded caldera, is one of the most popular places to land tourists. Visitors are able to explore a derelict Norwegian whaling station, remains of the British Operation Tabarin war base, the distinctive native fauna and flora, and enjoy a swim in the volcanic hot pools. The designation of sites on Deception Island, in accordance with the Environmental Protocol, thereby regulates the activities of Antarctic tourism by restricting the areas in which tourists may visit under the management plan. While there are more than sixty designated ASPAs there are currently only four areas recognized as ASMA under Annex V.

In addition to the legal obligations described above, there also exists a voluntary member organization, the International Association of Antarctica

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221. Id. Annex V arts. 3(1),(4).
222. Id. Annex V art. 4.
Tours Operators (IAATO), which establishes guidelines and operational procedures for tour operator members.\footnote{226} The Association endorses the provisions set down in the ATS, and provides further elaboration on more specific procedures.\footnote{227} In particular, IAATO provides "guidance for those organizing and conducting tourism and non-governmental activities in the Antarctic," including details on procedures to be undertaken prior to departure, behavior while in the Antarctic Treaty area, and post-visit reporting requirements.\footnote{228} Before departure, tour operators must provide advance notice to the competent national authority of the planned activities, conduct environmental assessments, provide the necessary information regarding waste management and marine pollution, and obtain any entry permits required by the Environmental Protocol.\footnote{229} On completion of the visit, operators must then submit an Antarctic post-visit report to the competent national authority outlining details of expedition members, the sites visited, and the activities undertaken.\footnote{230} While the IAATO is a voluntary member organization, it offers valuable guidance and support for Antarctic tour operators and demonstrates a notable level of persuasion in affecting compliance by industry participants.

The legal framework surrounding the regulation and management of the Antarctic environment is largely well developed. There has been an evolving system of environmental management for Antarctica in place now for a number of decades which has facilitated the recognition of, and response to, contemporary issues facing the continent such as tourism. Enforcement and compliance remain problematic in a region that lacks national sovereignty structures and responsibilities. However, the particularly fragile nature of the Antarctic environment and the "self-interest factor" involved for many industry participants appear to make effective substitutes. In terms of international environmental law responding to the pressures created by the tourism industry, Antarctica provides an encouraging case study for consideration.

\footnote{226} The IAATO is a "member organization founded in 1991 to advocate, promote and practice safe and environmentally responsible private-sector travel to the Antarctic." IAATO, supra note 186.

\footnote{227} Id. at http://www.iaato.org/operational.html (last visited Sept. 13, 2007) (listing operational procedure documents for Antarctica tours).

\footnote{228} See ANTARCTIC TREATY CONSULTIVE, REPORT OF THE INTERNATIONAL ASSOCIATION OF ANTARCTIC TOUR OPERATORS 2005–06, at 1, 9 (implementing Recommendation XVIII–1).

\footnote{229} Id. at 8.

\footnote{230} IAATO, supra note 186 (follow "Operational Procedures" hyperlink, then follow "2007–08 Post Visit Site Report Form" hyperlink) (last visited Sept. 13, 2007).
X. CLIMATE CHANGE

The relationship between tourism and climate change has now been acknowledged on numerous occasions. The direct impacts of climate change on tourism are made apparent by increasing temperatures, rising sea levels, increased precipitation, and an elevated snow line, among others, while the indirect impacts include conflict over water resources, health effects, and impacts on the built environment. Small island states, commonly heavily reliant on tourism, provide one of the most obvious examples of an environment threatened by climate change as beach erosion, high sea levels, damage from sea surges and storms, and reduced water supply contribute to those islands’ environmental problems. Moreover, the tourism industry is highly dependent on fossil fuels and is thus responsible for contributing a significant volume of greenhouse gas emissions.

Climate change has been addressed, in general terms, by the 1992 Framework Convention on Climate Change (UNFCCC) and its 1997 Kyoto Protocol. The ultimate objective of the UNFCCC is to achieve the

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232. Martin Hickman, Mass Tourism and Climate Change Could Lead to Destruction of World's Wonders, INDEPENDENT, Sept. 22, 2006, at 28, available at 2006 WLNR 16427355. Note that climate change may be considered to provide a benefit for tourism; some countries are enjoying warmer climatic conditions more favorable to the tourism industry.

233. Alexander Gillespie, Small Island States in the Face of Climate Change: The End of the Line in International Environmental Responsibility, 22 UCLA J. ENVTL. L. & POL'Y 107 (2003). Also note the impact of climate change on the Maldives, where the highest point of the islands is just eight feet above sea level. A one degree rise in temperature would kill the coral reef, exposing the islands to the ocean. Rory Ross, Splash Out in Style, INDEPENDENT, Feb. 21, 2004, at 10, 11.

234. For example, domestic and international tourism in France now accounts for seven to eight percent of the country's total road transport emissions. World Tourism Organization Report, supra note 231, at 36.

“stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”

All state parties are required to satisfy general commitments (taking into consideration their common but differentiated responsibilities), while developed states (those in Annex I) are called upon to make additional commitments to limit anthropogenic emissions of greenhouse gases with the aim of returning to their 1990 emission levels.

The Kyoto Protocol then aims to strengthen commitments for developed state parties by setting “quantified limitation and reduction objectives within specified time-frames” for anthropogenic emissions. Moreover, the Protocol establishes various mechanisms and techniques to aid states in reaching their reduction targets.

The World Tourism Organization acknowledged the link between climate change and tourism in 2003 by convening the first international conference on the relationship, providing an opportunity for tourism participants and scientists to “exchange views on the consequences, opportunities and risks presented to the tourism sector as a result of changes in the world’s climate.”

The conference participants (perhaps somewhat predictably) reiterated the scientific uncertainties surrounding global climate change and recognized the two-way relationship between climate change and tourism.


237. Id. art. 4(1). General commitments include the development of national inventories of anthropogenic emissions, programmes containing measures to mitigate climate change, technologies to manage anthropogenic emissions of greenhouse gases, and general principles of cooperation and integration.

238. Id. art. 4(2).


243. Djerba Conference, supra note 241, at 5 (“The Conference brought together over 140 delegates from some 45 countries, drawn from representatives of the scientific community, various United Nations agencies, the tourism industry, NGOs, national tourism offices, national and local governments.”).
tourism and climate change. The resulting Djerba Declaration on Tourism and Climate Change (Djerba Declaration) addresses this relationship and urges governments to subscribe to "all relevant intergovernmental and multilateral agreements, especially the Kyoto Protocol" to prevent this phenomenon from spreading further or accelerating. In addition to promoting the standard environmental requirements of further research, financial support, technical assistance, awareness, and information exchange, the Djerba Declaration encourages participants within the tourism industry to "adjust their activities, using more energy-efficient and cleaner technologies and logistics, in order to minimize as much as possible their contribution to climate change." Despite its non legally-binding status and largely non-contentious principles, the Djerba Declaration offers an important framework within which global, national, and regional organizations can address the relationship between tourism and climate change, and implement appropriate structures for the regulation and management of the tourism industry.

In addition to efforts made on the international level, the UNWTO has also introduced specific initiatives for countries experiencing particular difficulties in respect to climate change, in order to develop and demonstrate adaptation policies and techniques at beach destinations and coastal ecosystems. Initial proposals on climate change adaptation in tourism for Fiji and the Maldives have been approved by the Global Environmental Facility. Clearly, while climate change poses the most immediate threat to small island developing states, it remains inevitable that tourism will both further facilitate and suffer the impacts of unbridled climate change development in the foreseeable future.

A significant aspect of tourism, and reportedly one of the fastest growing contributions to global greenhouse gas emissions, is the aviation industry. An integral part of the global tourism industry, "air transport

244. World Tourism Organization Report, supra note 231, at 7-8. The two-way relationship between tourism and climate change is explained as tourism's "adverse impact on the environment" and climate change's "direct impact on many tourism destinations." Id. at 8.
246. Id. ¶¶ 2, 3, 7-9.
247. Id. ¶ 5.
249. Id.
250. See, e.g., Susanne Becken, Tourism and Transport: The Sustainability Dilemma, 14 J. SUSTAINABLE TOURISM 113, 113 (2006) (stating that increasing greenhouse gas emissions by the aviation industry is a result of the tourist industry demand on airline travel).
has been estimated to be between two and four times more polluting per passenger carried than road transport." 251 The impact of aviation on the global atmosphere has been explored by the Intergovernmental Panel on Climate Change (IPCC) and its findings have subsequently been adopted by the International Civil Aviation Organisation (ICAO). 252

The ICAO was established by the 1944 Chicago Convention on International Civil Aviation (Chicago Convention). 253 Although much of the Chicago Convention sets out the boundaries for civil aviation law, a number of international standards and recommended practices are outlined in the various Annexes to the Chicago Convention, including one that focuses on environmental protection. 254 In 2001 the ICAO Assembly adopted Resolution A33-7, recognizing the environmental impact of civil aviation on the atmosphere and reinforcing the objectives of the Climate Change Convention and Kyoto Protocol. 255 The Resolution requests the ICAO Council to continue to study policy options to limit or reduce the environmental impact of aircraft engine emissions and calls for special emphasis to be placed on the "use of technical solutions while continuing its consideration of market-based measures, and taking into account potential implications for developing as well as developed countries." 256 Furthermore, the Kyoto Protocol specifically recognizes the significance of aircraft engine emissions by requiring Annex I parties to limit or reduce emissions of greenhouse gases from aviation (and marine) bunker fuels by working through the ICAO. 257

The projected growth of aviation and its subsequent role in climate change, has been identified and addressed within international law. 258 Much relies on technological advancement of the aviation industry to reduce the quantity and improve the quality of aircraft engine emissions and

253. For a general discussion on the Convention, see, for example, I.H. PH. Diederiks-Verschoor, AN INTRODUCTION TO AIR LAW 9–58 (7th ed. 2001).
256. Id. app. H.
258. Penner et al., supra note 252, at 4–6.
consequently, the associated environmental impact. States, international organizations, and scientific bodies are encouraged to continue research into this area, with a view to minimizing climatic change. In this sense, the aviation industry, which plays a significant role within tourism, is being shaped and influenced by elements of international environmental law.

CONCLUDING COMMENTS

The tourism debate has now clearly established itself within the international environmental legal system. In recognizing the vast, and in many cases irreversible, damage the tourism industry inflicts upon the natural environment, the international legal system has responded and addressed many of the problematic aspects of tourism, albeit in a somewhat ad hoc fashion. In many cases, existing international agreements provide a framework for the further development of rules and guidelines targeting specific issues or problem areas, such as tourism. In this way, although there may not be any specific legal obligation established, “soft-law” tourism initiatives are able to capitalize on the momentum, coordination, and resources of a pre-existing agreement and current state participation.

This perhaps represents an approach better suited to the regulation of tourism activities rather than attempts to coordinate a new, single international agreement addressing the tourism-environment conflict. Factors including the vast scope of activities and the various participants involved in the tourism industry mean that a single international agreement is unlikely to be an effective control mechanism for regulating tourism.

However, an approach that harnesses pre-existing agreements and conservation efforts would allow for tourism problems to be addressed effectively and efficiently without the logistical, funding, and resourcing challenges commonly faced when creating a new international regime. While this approach offers many valuable and promising characteristics there is clearly a need for greater central coordination in order to capitalize on the largely independent initiatives developing in the international arena. In this respect, there is capacity for further development of the World Tourism Organization, especially given its new role as a specialized agency of the UN.

Nevertheless, while there remains potential for further development, the above critique indicates international environmental law has responded with some success to the tourism-environment debate and, confirms, in this case at least, the responsive and malleable nature of the international legal system.
INTRODUCTION

On November 14, 2006, the International Paper Company (IP) concluded a test burn of tire-derived fuel (TDF) at its Ticonderoga Mill facility, which is located on the shores of Lake Champlain in Ticonderoga, New York.¹ The test, originally scheduled to last a full two weeks, ended after only five days when IP officials determined that the addition of TDF to IP's fuel mix was economically impracticable.² The move capped a three-year cross-border dispute between IP and Vermont residents and officials who argued that IP's use of TDF (and its failure to install the

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² Id.
appropriate pollution-control technology) would significantly and unjustifiably increase air pollution in Vermont.\(^3\)

The struggle between Vermont residents and IP seemed to take on a life of its own. It spawned lawsuits in both state and federal court\(^4\) and challenges to permits granted by the New York Department of Environmental Conservation (NYDEC), which were allowed to stand by the United States Environmental Protection Agency (EPA).\(^5\) Residents of the affected area in Vermont created their own advocacy group, People for Less Pollution, to fight IP's planned test burn.\(^6\) Even state and federal political officials entered the fray, with Vermont officials denouncing the test burn and New York officials supporting it.\(^7\) The public debate

\(^3\) Id.

\(^4\) Opposition to IP’s plans include challenges to the modification of its Clean Air Act Title V operating permit and challenges to the New York Department of Environmental Conservation’s (NYDEC) classification of the test burn as a Type II action under the New York State Environmental Quality Act (SEQRA), which exempts the plan from comprehensive environmental review. On August 10, 2006, a New York court denied Vermont’s SEQRA challenge. Vermont v. N.Y. Dept’ of Envtl. Conservation, No. 01-05-ST6443, slip op. (N.Y. Sup. Ct. Aug. 2006) (dismissing the State of Vermont’s petition to enjoin NYDEC from permitting the test burn and remanding the case back to NYDEC for a new determination of the environmental significance of the proposed burn). While the court did find that Vermont had standing to appeal the NYDEC decision under SEQRA, it found no error in the NYDEC’s classification of the project as a Type II action requiring no comprehensive environmental review. Id. at 5–6, 9.

\(^5\) See Vt. Att’y Gen., Petition Requesting that the Administrator Object to the Issuance of the Proposed Title V Permit Modifications for the International Paper Ticonderoga Mill Facility at 1, 3, Int’l Paper Title V Permit (No. 5-1548-00008/00081) (N.Y. Dep’t of Envtl. Conservation) [hereinafter Vermont Petition] available at http://www.epa.gov/rgytgrnj/programs/artd/air/title5/petitiondb/petitions/international_paper_permition2006.pdf (showing the Vermont Attorney General’s objection to the permit modifications was based on the argument that the proposed tire burning is unlawful under Title V and § 401(2) of New York’s State Administrative Procedures Act (SAPA) and would affect the “pristine quality of the air Vermonter breathe”). On September 11, 2006, the time frame lapsed for EPA to object to IP’s proposed test burn and the NYDEC’s permit was validated. VT. DEP’T OF ENVTL. CONSERVATION, INTERIM DRAFT REPORT, AIR QUALITY DATA AND OBSERVATIONS MADE IN VERMONT DURING THE NOVEMBER 2006 TRIAL BURN OF TIRE DERIVED FUEL AT THE INTERNATIONAL PAPER COMPANY, TICONDEROGA, NEW YORK 8 (2007) [hereinafter ANR, INTERIM REPORT].


\(^7\) See Press Release, Sen. Patrick Leahy & Rep. Bernie Sanders, Leahy and Sanders Call on EPA to Reject IP Tire Burn (Aug. 31, 2006) (on file with Sen. Leahy) (“Allowing IP to begin burning tire-derived fuel without upgrading its emission control equipment is a very dangerous decision that could have serious consequences for Vermonters.”) (quoting Rep. Sanders); Press Release, Governor Jim Douglas, Governor and Attorney General Announce Next Legal Action to Halt Proposed Tire Burn (Oct. 10, 2006) (“My resolve to pursue all available legal remedies is firm.”). But see, e.g., Letter from Rep. John E. Sweeney et al. to Denise M. Sheehan, Acting Comm’r, N.Y. Dep’t Envtl. Conservation (Feb. 18, 2005) (on file with author) (“We are strongly committed to doing all we can to ensure that IP’s
surrounding the IP test burn quickly devolved into that familiar dialogue which pits jobs and economics against environmental safeguards.  

Unfortunately, the overly simplistic public debate fails to reflect the many technical and nuanced issues raised by IP's test burn. One issue of fundamental importance is whether the air quality detriments of burning tires are outweighed by the land use benefits of disposing an ever-increasing number of discarded tires through energy-generating incineration. Another basic issue involves the interplay between the specific fuel mix, the specific boiler type being used, and the emissions control technology employed on site. These issues, among others, though critically important to the overall debate about the wisdom of using TDF, are reserved for another day. This Note will instead focus on a more discrete topic raised by IP's specific plan to burn TDF at the Ticonderoga Mill.

In order to begin its proposed TDF test burn, IP had to comply with both state and federal laws. Insofar as state law is concerned, IP had to comply with New York's State Environmental Quality Review Act (SEQRA). The New York Supreme Court deferred to NYDEC's classification of the project as having no significant environmental impact and therefore requiring no further environmental review. Although the SEQRA portion of the IP test burn raises significant state environmental law questions, this Note will instead focus on the federal aspect of the Ticonderoga mill continues to thrive and that they continue to provide hundreds of good paying jobs in Ticonderoga and the surrounding communities for generations to come.

8. See Kieman, supra note 6, at 19 ("Is this one more chapter of the familiar story, one more time that the only apparent avenue for protecting threatened jobs is to compromise a public resource? In part, yes.").


10. See generally RIESMAN, supra note 9 (comparing different types of tire incinerators and their respective air emissions). See also GREENPEACE TOXICS & INFORMATION UNIT, TIRE INCINERATION AND TOXIC EMISSIONS: NEW DATA FROM THE MODESTO INCINERATOR, WESTLEY, CA, available at http://www.energyjustice.net/tires/files/greenpeaceletter/html (last visited Sept. 6, 2007) (arguing that data from test burns of TDF inadequately represent emissions during actual plant operations due to tighter control of predictable variables during the test burns).

11. N.Y. ENVTL. CONSERV. LAW §§ 8-0105(4), 8-0109(2) (McKinney 2005) (requiring an environmental impact statement for any "project or activities involving the issuance to a person of a . . . permit . . . for use or permission to act by one or more agencies."). SEQRA is essentially the New York State analogue to the National Environmental Policy Act (NEPA), in which the level of pre-project environmental review depends on the legal classification of the project.

12. Vermont v. N.Y. Dept' t of Envtl. Conservation, No. 01-05-ST6443, slip op. at 8–9 (N.Y. Sup. Ct. Aug. 2006) ("The petitioner . . . pleads this Court to remand this case back to NYSDEC for further determination under SEQRA. This Court finds that the determination by NYSDEC was not arbitrary and capricious and fully complied with the requirements of SEQRA.").
controversy—whether NYDEC's issuance (and the EPA's tacit approval) of IP's Title V Clean Air Act operating permits were scrutinized and granted in a legally tenable manner. Thus, this Note seeks to examine the Title V permitting process through the lens of the IP test burn controversy. Such a high profile and high stakes case study provides a unique opportunity to reevaluate the goals of the Title V program vis-à-vis its current implementation. Specifically, this Note seeks to determine whether Title V—as originally envisioned—contemplates the sort of testing that IP proposed with its two-week test burn, ultimately concluding that it does not.

Part I begins with a brief summary of the test burn controversy, focusing primarily on IP's efforts to obtain an operating permit under Title V of the Clean Air Act. Next, Part II discusses Title V, focusing on three areas: the legislative history of the Clean Air Act Amendments of 1990; the EPA's implementing regulations; and current implementation and practice. Part III identifies problems with the Title V permitting process. Specifically, it examines problems with IP's permit application and the permit subsequently issued by NYDEC. This Note concludes that this type of emissions testing, while lauded by industry as responsible and diligent business activity, is actually an attempt by large-scale polluters to roll back the intended environmental gains of the Clean Air Act in the name of economic efficiency.

I. INTERNATIONAL PAPER'S TICONDEROGA MILL AND TITLE V

In 1926, International Paper purchased the pulp mill in Ticonderoga, New York. In 1970, the company moved to a new location—the site of the current facility—ten miles north of the old mill. Since that time, IP has had a long—and some might say ignominious—history of sacrificing environmental quality for economic gain. Such action on the part of a


14. Id.

15. See id. (chronicling instances in which IP released untreated or partially treated wastewater into Lake Champlain); Int'l Paper v. Ouellette, 479 U.S. 481 (1987) (case originating from nuisance suit brought against company by Vermont landowners); Kiernan, supra note 6 at 20.

Since the mill opened in 1970, IP has spilled waste water or fuel into Lake Champlain eight times, according to People for Less Pollution. Pipes have broken, collection ponds have overflowed, the landfill has been breached. In 1990, a burst pipe poured landfill leachate into wetlands, where they were trapped by a beaver dam.

Id.
major corporation has become a familiar tale in the history of environmental regulation in the United States. Economic prosperity is pitted directly against environmental gains, resulting in an awkward debate in which the parties fail to responsively address the other side's arguments.16

The current controversy began in September 2003, when IP first requested permission from NYDEC to conduct a test burn of TDF.17 Although IP's long-term goal involved burning TDF on a permanent basis, IP initially applied for a permit to test the use of TDF as a fuel supplement for a two-week period.18 Early in 2004, NYDEC informed IP that it would have to submit a formal application to amend its Clean Air Act Title V permit.19 IP submitted a permit application early in 2005, and after an initial determination by NYDEC that the application was incomplete, resubmitted a satisfactory application on July 6, 2005.20 After public hearings, NYDEC issued a "Draft" Title V Permit.21 During the second round of public hearings, opponents of the draft permit filled the public hearings by presenting a laundry list of grievances about the draft permit's inadequacy.22 The most common grievance was that if IP wants to burn

16. One need only look to the debate among elected officials in New York and Vermont over the TDF test-burn for an example of this unresponsive debate. See Leahy & Sanders Press Release, supra note 7 (illustrating the Vermont contingent's single-minded focus on the environmental costs of performing the test burn and the New York contingent's equally single-minded focus on the economic and social costs of not performing the test burn). While this rhetorical battle between businesses and environmentalists is not the focus of this Note, it is a theme that will recur throughout. The author simply wishes to highlight the issue at this point in order to acknowledge that both sides of the debate have merit. The parties can fashion a reasonable political solution only when the arguments are addressed head on. See Bill McKibben, Workers, Residents Should Both Breathe Easier, NEWSLETTER 1 (People for Less Pollution, Middlebury, Vt.), Aug. 2005, at 2, available at http://www.lesspollution.org/pdf/PLP_News-1-Web.pdf. It's crucial that Vermonter campaigning for less pollution not insist that their air is more important than the jobs that support hundreds of families on the other side of the narrow lake. Instead, they need to stress that their campaign for plant modernization is the best chance those families have that those jobs will still be there a generation hence. Id.

17. ANR, INTERIM REPORT, supra note 5, at 7.

18. See Kieman, supra note 6, at 21 (noting that IP's ultimate goal was to replace ten percent of its fuel oil with TDF, saving almost $4 million per year).

19. ANR, INTERIM REPORT, supra note 5, at 7.

20. Id.

21. Id.

22. Kieman, supra note 6, at 30; see also Holly D. Ferguson et al., Serious Issues of Concern with IP's Draft Permit to Burn Tires, NEWSLETTER 2 (People for Less Pollution, Middlebury, Vt.), Nov. 2005, at 2 (listing thirteen specific issues that the draft permit allegedly did not take into account, such as a failure to monitor for fine particulate matter, failure to specify the composition of TDF to be used, and failure to account for emissions of specific pollutants).
tires, it should install the most effective pollution control technology, i.e., an electrostatic precipitator. In a surprise move, Vermont Governor Jim Douglas offered to help IP pay for an electrostatic precipitator. IP rejected the offer. As Governor Douglas stated: “We offered them an olive branch, and they burned it.”

On July 27, 2006, NYDEC issued a proposed permit to IP, which triggered a forty-five day review period during which the EPA could object to the permit. The EPA did not object to IP’s proposed permit, and NYDEC issued a final permit on September 20, 2006. The final permit was the fifth modification of IP’s currently-in-force Title V operating permit.

This modification authorizes a two week trial and testing period during which tire-derived fuel (TDF) will be combusted in the power boiler along with number 6 fuel oil and bark/wood. During the first week, TDF will be added in gradually increasing amounts while the boiler operators adjust the boiler to achieve optimum combustion conditions. Particulate Matter emissions will be measured (using USEPA Method 5) when the TDF feed rate reaches 1 ton per hour, then again at 2 tons per hour and again at 3 tons per hour to ensure compliance with the permit limit during this period. During the second week, extensive stack testing will be performed to characterize emissions.


24. Kieman, supra note 6, at 30.

25. Id.

26. Id.

27. ANR, INTERIM REPORT, supra note 5, at 8. Under Title V of the Clean Air Act, the EPA has 45 days in which to object to a state-issued permit. Clean Air Act § 505(b)(2), 42 U.S.C. § 7661d(b)(2) (2006) (“If the Administrator does not object in writing to the issuance of a permit pursuant to paragraph (1), any person may petition the Administrator within 60 days after the expiration of the 45-day review period specified in paragraph (1) to take such action.").

28. Id.


30. Id. at Description.
As noted above, Vermont continued to object to IP's test burn. The State took its case to federal court, seeking an injunction from the Court of Appeals for the Second Circuit to allow the EPA time to consider Vermont's petition to reject the final permit. The court denied Vermont's request for an injunction. With all of the legal impediments out of the way, IP began burning TDF on November 7, 2006.

II. CLEAN AIR ACT'S TITLE V

Prior to 1990, the federal government did not require air polluters to obtain an operating permit. In that year, however, Congress passed the Clean Air Act Amendments of 1990, which required that the EPA develop a comprehensive operating permit program. The model for the program was the Clean Water Act's National Pollutant Discharge Elimination System. The goal of the program is simple:

[T]he permit issued under this Title is intended by the Administration to be the single document or source of all the requirements under the Act applicable to the source . . . . [T]he permittee, the permitting agency, and the citizen all should be able to look to the permit and know what are the requirements applicable to the source under the Act.

32. In re Vermont, No. 06-4704, slip op. (2d Cir. Nov. 2, 2006).
34. See ARNOLD W. REITZE, JR., AIR POLLUTION CONTROL LAW: COMPLIANCE & ENFORCEMENT 209 (2001) [hereinafter REITZE, COMPLIANCE & ENFORCEMENT] (noting that in the absence of federal regulation, forty-eight states had stepped into the void and required polluters to obtain some form of operating permit).
36. REITZE, COMPLIANCE & ENFORCEMENT, supra note 34, at 209. But see D. R. Van der Vaart & John C. Evans, Compliance under Title V: Yes, No, or I Don't Know?, 21 VA. ENVTL. L.J. 1, 3 (2002) (stating that the program was based on the NPDES but noting the major differences between the corollary air and water programs).
Although the Title V operating permit program may seem like an administrative formality insofar as it imposes no additional substantive requirements on polluters, many senators saw the administrative nature of Title V as significantly advancing both the government's and the public's ability to enforce requirements of the Clean Air Act. At the same time as ensuring compliance with other provisions of the Clean Air Act, Title V also was intended to, among other things: make the Clean Air Act more consistent with other federal environmental statutes; increase emissions data, including developing baseline data from air pollution sources; and provide money through permit fees to fund state air pollution control programs.

A. Overview of Title V's Permit Program

When Congress passed the Clean Air Act Amendments of 1990, it required that states, the primary stewards of the Act's enforcement, develop and implement an operating permit program. The Act first required the EPA to promulgate guidelines for state implementation programs in order to give the states appropriate guidance in program development. After the states submitted programs to the EPA, the Agency had one year to approve or reject the program. "As of June 1997, the EPA

38. See N.Y. Pub. Interest Research Group v. Whitman, 321 F.3d 316, 320 (2d Cir. 2003) (explaining that "Title V Permits do not impose additional requirements").
39. See S. REP. NO. 101-228, at 346 (1990), reprinted in 1990 U.S.C.C.A.N. 3385, 3729. ("Operating permits are needed to (1) better enforce the requirements of the law by applying them more clearly to individual sources and allowing better tracking of compliance, and (2) provide an expedited process for implementing new control requirements.").
40. REITZE, COMPLIANCE & ENFORCEMENT, supra note 34, at 209–10.
41. See N.Y Pub. Interest Research Group, 321 F.3d at 320 ("[The Clean Air Act] places the primary responsibility for enforcement on the state and local governments, but it also provides for 'Federal financial assistance and leadership... for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollutions.'") (quoting Clean Air Act § 101(a), 42 U.S.C. § 7401(a)(3), (4) (2006)).
42. See Clean Air Act § 502(d)(1), 42 U.S.C. § 7661a(d)(1) ("Not later than 3 years after November 15, 1990, the Governor of each State shall develop and submit to the Administrator a permit program under State or local law or under an interstate compact meeting the requirements of this subchapter.").
43. See 42 U.S.C. § 7661(b) (allowing the EPA one year to develop these regulations).
44. 42 U.S.C. § 7661a(d)(1). The Clean Air Act required state plans to contain a specified list of components, among them:
[A] standard permit application form (§ 502(b)(1)), adequately staff and fund the permit program (§ 502(b)(4)), develop a plan to ensure permit compliance (§ 502(b)(5)), provide public access to documents submitted in support of permit applications (§ 502(b)(8)), and provide for review in state courts of permitting decisions (§ 502(b)(6)).
had approved permit programs for all 114 submissions by states, local agencies, and territories.\textsuperscript{45}

1. Applicability: Whether a Polluting Source Must Obtain a Title V Permit

Title V establishes the sources that must obtain an operating permit by reference to other Clean Air Act sections.\textsuperscript{46} As a general matter, sources must obtain an operating permit if they are a “major source” subject to regulation promulgated under New Source Performance Standards (NSPS); National Emission Standards for Hazardous Air Pollutants (NESHAP); Prevention of Significant Deterioration of Air Quality (PSD); and Plan Requirements for Nonattainment Areas (NSR).\textsuperscript{47} “Major sources” are defined in the regulations as those that emit or have the “potential to emit” a certain threshold level of pollutants.\textsuperscript{48}

Potential to emit means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator.\textsuperscript{49}

Thus, a polluter must obtain a Title V operating permit if it is subject to one of the Clean Air Act’s other listed sections and it has the potential to emit a predetermined quantity of certain pollutants. Absent any physical or

\textsuperscript{45} CLAUDIA COPELAND, CLEAN AIR PERMITTING: STATUS OF IMPLEMENTATION AND ISSUES 4 (2007), available at http://www.ncseonline.org/NLE/CRSreports/07Apr/RL33632.pdf. This report contains and informative and more in-depth summary of the decade-plus long process in which EPA and the states worked toward full (non-interim) approval of all plans. “Nationally, as of March 31, 2006—10 years after the first program approvals—97% of all original permits required for 16, 726 Title V sources had been issued.” \textit{Id.} at 6.

\textsuperscript{46} Clean Air Act § 502(a), 42 U.S.C. § 7661a(a).

\textsuperscript{47} \textit{Id.; see also} DAVID R. WOOLEY & ELIZABETH M. MORSS, CLEAN AIR ACT HANDBOOK: A PRACTICAL GUIDE TO COMPLIANCE § 5:8 (16th ed. 2006) (providing a plain language discussion of sources that must comply with the provisions of Title V). The additional sources regulated under section 502, and those listed in text are not the relevant sources for the purposes of this Note. For additional information on exactly which sources are regulated, see State Operating Permit Programs 40 C.F.R. § 70.3 (2007), which provides detailed guidance on the applicability of the Title V permitting program.

\textsuperscript{48} State Operating Permit Programs, 40 C.F.R. § 70.2 (2007). Title I contains the “substantive” elements of the Clean Air Act’s enforcement scheme. Because these aspects of the Clean Air Act are so lengthy and complex, a discussion of Title I programs is not included in this Note.

\textsuperscript{49} \textit{Id.}
operational limitation, the potential to emit presumes that the facility is operating at full capacity, 24 hours a day, 365 days a year.\(^5\)

The definition of "potential to emit" has generated much controversy throughout the years.\(^5\) In recent guidance for the printing industry, the EPA has stated that "the [potential to emit] calculation should reflect the maximum hourly usage rate times the worst-case [volatile organic compound] / [hazardous air pollutant] content times the maximum feasible hours of operation. The PTE would be reduced after consideration of any enforceable limits on emissions, such as hours of operation and material throughput."\(^5\)

2. Title V Application

Title V requires the sources described above to submit a timely and complete application for an operating permit.\(^5\) Operating permit applications must contain a great deal of information, including: descriptions of the facilities' products and processes; "[a]ll emissions of pollutants for which the source is major, and all emissions of regulated air pollutants"; descriptions of all emissions points; emissions rates in terms of tons per year; descriptions of fuels, fuel use, and operating schedules; descriptions of air pollution control devices and limitations on source operation.\(^5\) Additionally, the permit application must include descriptions of all applicable requirements, test methods for determining compliance, and any other specific information necessary to implement and enforce those requirements.\(^5\)

As part of the application, sources must also submit "a compliance plan describing how the source will comply with all applicable requirements under [Title V]."\(^5\) The regulations set out detailed guidance regarding the

50. Wooley & Morss, supra note 47, at 366.
51. See, e.g., Nat'l Mining Ass'n v. U.S. Envtl. Prot. Agency, 59 F.3d 1351, 1363 (D.C. Cir. 1995) ("Congress thus acted in 1990 against a backdrop of over a decade of skirmishing between the agency and affected companies, during which the issue of whether and to what extent state and local controls were to be credited in calculating a source's 'potential to emit' was very much in the forefront.").
54. 40 C.F.R. § 70.5(c)(2), (3) (2007).
55. Id. § 70.5(c)(4).
nature and scope of the compliance plan required in a permit application,\textsuperscript{57} as well as requiring assurances and schedules of compliance for all applicable requirements.\textsuperscript{58} Finally, the application must be signed by a "responsible official," certifying the "truth, accuracy, and completeness" of the application.\textsuperscript{59}

These pieces of information represent the minimum requirements for any Title V program. States may augment these requirements in their individual permit programs.\textsuperscript{60} Typically, states have developed their own standard application forms in order to aid polluting sources in complying with the program's requirements.\textsuperscript{61}

Once the applicant submits a Title V application to the permitting authority, that authority has sixty days to determine whether the application is complete.\textsuperscript{62} The application will be found to be "complete" only if it contains all of the information specifically required by 40 C.F.R. § 70.5(c).\textsuperscript{63} Such information must be "sufficient to evaluate the subject source and its application and to determine all applicable requirements."\textsuperscript{64}

3. Title V Permit

The EPA estimates that roughly 17,000 industrial sources are regulated under Title V, making these operating permits a significant tool in the enforcement of federal and state air pollution programs.\textsuperscript{65} A permit must contain essentially all of the pieces of information that the application must contain,\textsuperscript{66} and it is established for a fixed period of time, not to exceed five

\textsuperscript{57} See 40 C.F.R. § 70.5(c)(8) (requiring that the compliance plan contain: "A description of the compliance status . . . a compliance schedule . . . [and] a schedule for submission of certified progress reports").

\textsuperscript{58} Id. § 70.5(c)(8)(iii)(C). The type and extent of these compliance plans and assurances differ according to whether the source: is already in compliance with the applicable requirement; out of compliance with the requirement; and whether the requirement will become effective during the permit period. Id.

\textsuperscript{59} Id. § 70.5(d).

\textsuperscript{60} WOOLEY & MORSS, supra note 47, at 367.

\textsuperscript{61} Id.

\textsuperscript{62} 40 C.F.R. § 70.5(a)(2).

\textsuperscript{63} Id.

\textsuperscript{64} Id.

\textsuperscript{65} COPELAND, supra note 45, at 2.

\textsuperscript{66} See Clean Air Act § 504(a), 42 U.S.C. § 7661c(a) (2006).

Each permit issued under this subchapter shall include enforceable emission limitations and standards, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring, and such other conditions as are necessary
years. The permit has essentially two functions, depending on who is utilizing the permit and to what end it is being used. On the one hand, a permit can be used by citizens and regulators to enforce permit provisions to which the source is not in compliance. On the other hand, a permit can be used by the polluting source as a shield against prosecution for any putative regulation not contained in a validly issued permit. These aspects of Title V operating permits are generally recognized as a good thing, allowing for greater certainty for all concerned.

The regulations describing permit requirements do so in excruciating detail. This Note will not discuss regulations concerning compliance and monitoring, as they are not relevant to the discussion of IP's Title V Permit modification below. It is sufficient to note that the regulations require that operating permits state "[a]ny permit noncompliance constitutes a violation of the Act and is grounds for enforcement action." Thus, if a source violates any item contained in its permit, citizens and permitting authorities may maintain an enforcement action against the polluter. Additionally, "[i]t shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit."

Congress did give industry the benefit of an "operational flexibility" regulation. The Clean Air Act requires that states include provisions in to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.

Id. at 3730.

71. 40 C.F.R. § 70.6(a)(6)(i) (2007).

72. See 40 C.F.R. § 70.6(b)(1) ("All terms and conditions in a part 70 permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act.").

73. 40 C.F.R. § 70.6(a)(6)(ii).

their implementation plans that allow sources to make internal changes as long as "the changes are not modifications under any provisions of subchapter I of this chapter and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions)," if the facility provides timely notice of the change.\footnote{75}{Id.}

Thus, the Title V permitting process, through its application requirements and the legal effect of a properly issued permit, strives to create a comprehensive document containing both an emissions inventory and a catalogue of relevant legal and operational limitations and requirements. Although operating permits contain no new substantive requirements, the value of the administrative function should not be underestimated. The increased access to detailed and accurate emissions information through the Title V program serves a valuable purpose in the form of increased government and citizen oversight.\footnote{76}{See COPELAND, supra note 45, at 6 ("Incorporating applicable requirements in one document that consolidates duplicative and redundant requirements is beneficial to regulatory agencies, the public, and regulated sources.").

Additionally, it is reasonable to infer that Congress highly valued the goal of increasing compliance with the Clean Air Act through the Title V program because it provided for the self-sufficiency of the program through a discrete funding mechanism.\footnote{77}{GOV'T ACCOUNTABILITY OFFICE, AIR POLLUTIONS: STATUS OF IMPLEMENTATIONS AND ISSUES OF THE CLEAN AIR ACT AMENDMENTS OF 1990, at 43 (2000), available at http://www.gao.gov/archive/2000/rc00072.pdf [hereinafter GAO, STATUS REPORT]; see also S. REP. NO. 101-228, at 346 (1990), reprinted in 1990 U.S.C.C.A.N. 3385, 3729 ("Operating permits are needed to (1) better enforce the requirements of the law by applying them more clearly to individual sources and allowing better tracking of compliance . . . ").

Congress required states, through their implementation programs, to collect fees sufficient to fund the program.\footnote{78}{See S. REP. NO. 101-228, at 346 (1990), reprinted in 1990 U.S.C.C.A.N. 3385, 3731. Congress noted that this aspect of Title V would "greatly augment" state resources in enforcing the Clean Air Act. Id.

Throughout the 20-year history of the current Clean Air Act, inadequate State and local agency resources have increasingly hampered pollution control efforts. The permit fees provisions of this title will ameliorate this problem by requiring sources of pollution to pay a share of the costs of state air pollution programs, including, as discussed below, the costs of issuing the permit as well as the costs of modeling, monitoring, and preparation of attainment demonstrations and regulations that form the basis for air pollution control requirements.\footnote{79}{Clean Air Act § 502(b)(3)(A), 42 U.S.C. § 7661a(b)(3)(A).}
pollutant, to be adjusted annually according the Consumer Price Index.80 Some states, however, charge fees in the $30 to $40 range.81

Yet, while Title V is often portrayed by industry as an administrative burden with costs exceeding its value, it is important to keep the costs of Title V in perspective. Total costs to industry imposed by the Clean Air Act Amendments of 1990 reached $19.4 billion (1990 dollars) in 2000.82 At $300 million, the costs of Title V represented roughly 1.5% of total costs in 2000.83 By 2010, those costs are projected to decrease to roughly 1.1% of total costs.84 While $300 million is a considerable sum, the relatively low percentage cost is a reasonable price to pay in order to achieve the express goals of Title V, namely, increased compliance with the Clean Air Act.

III. INTERNATIONAL PAPER'S TITLE V PERMIT MODIFICATION

A brief chronology of IP's permit process has been provided above and will not be repeated here.85 This section will discuss the arguments advanced by parties to the administrative actions and lawsuits regarding IP’s Title V permit for the TDF test burn. The IP test burn presents a unique opportunity to revisit the fundamental precepts of Title V and the policies supporting them. The ultimate question that this section seeks to answer is whether Title V of the Clean Air Act envisions this manner of "testing" new processes, fuels, etc. on a temporary basis for planned permanent use.

As a preliminary matter, it should be noted that IP’s application was not for a new permit, but for a modification (the fifth) to its current permit.86

80. Id. § 7661a(b)(3)(B). The costs to industry of Title V are no small matter. EPA estimates that the total cost to industry was $300 million (1990 dollars) in 2000, estimated to stay constant through 2010. GOV'T ACCOUNTABILITY OFFICE, CLEAN AIR ACT: EPA SHOULD IMPROVE THE MANAGEMENT OF ITS AIR TOXICS PROGRAM 26 (2006) [hereinafter GAO, AIR TOXICS PROGRAM]. More specifically, EPA estimates that the average cost to a polluting source is $10,000 per year, ranging to $100,000 for larger, more complex sources. GAO, STATUS REPORT, supra note 77, at 45–46.


82. GAO, AIR TOXICS PROGRAM, supra note 80, at 26.

83. Id. (percentages calculated from Table 9).

84. Id.

85. See supra Part I.

86. Int'l Paper Title V Permit (Modification) (No. 5-1548-00008/00081), at 1 (N.Y. Dep't of Envtl. Conservation Sept. 20, 2006), available at http://www.dec.ny.gov/dardata/boss/afs/permits/515480000800081_r1.pdf. Interestingly, by the time the permit modification was finally authorized by NYDEC on September 20, 2006, a full three months had passed after the underlying permit it modified had expired. Id. Instead of including the TDF test burn in one comprehensive renewal permit application, IP applied for a renewal of its permit in addition to the permit modification, creating two parallel permitting proceedings. Int'l Paper (Renewal) (No. 5-1548-00008/00081) (N.Y. Dep't of Envtl. Conservation) (undated). The State of Vermont objected to this method of splitting the
Title V treats a modification in the same manner that it treats an initial or renewal permit application.\textsuperscript{87} Thus, lessons learned from the IP experience should be applicable to Title V licensing in general. However, as a practical matter, such temporary test burns would typically arise only in the setting of a permit modification.

\textbf{A. New Source Review and Title V}

The core of the argument against both IP's application for a Title V permit modification and the subsequently issued permit is that they fail to adequately consider the applicability of other programs under the Clean Air Act's New Source Review (NSR) program, specifically, the New Source Performance Standards (NSPS) and the National Emissions Standards for Hazardous Air Pollutants (NESHAP).\textsuperscript{88} If the project triggers NSR review, it would be forced to comply with the rigorous technological requirements of Title I.\textsuperscript{89} Thus, opponents of the test burn tried to show that it would fall within the Title I definition of "modification."

By any measure, the process involved in IP's proposal to perform a two-week test burn under a Title V permit modification was a close legal call. In such situations, the fact that a polluting source can obtain a modification to its Title V permit provides a means by which polluters can obtain what amounts to administrative, rather than substantive, review, especially when the polluter is a keystone of the local economy.\textsuperscript{90} The effect of this "administrative review" is to afford the polluter the appearance of legitimacy, insofar as it meets all the requirements of a valid (Title V) permitting process, while at the same time allowing the polluter to escape strict review under the substantive programs that may otherwise apply.

\textsuperscript{87} 40 C.F.R. § 70.7(b) (2007).
\textsuperscript{90} See Kiernan, \textit{supra} note 6, at 30.

"I represent for the working man and the working class," Patrick Robert McBride of Ticonderoga said at the December hearing. "I work for Christopher Chevrolet. If we lost this mill, we'll lose our business, too. We've been conducting a wasteful energy policy the last 30 years. That's why it has to go to a [tire-derived fuel] policy."

\textit{Id.}
The manner in which it does so is complex. As stated above, the Clean Air Act requires that state Title V permitting programs incorporate an "operational flexibility" provision. This provision allows polluters the flexibility to make minor changes in operating methods while remaining under the umbrella of the original permit. Provisions also are included for administrative permit amendments and permit modifications. These various methods of amending operating plans permitted in the original action all provide industry with operational flexibility by requiring incrementally more review as the nature of the modification increases. This flexibility, however, can be a double-edged sword. While it rightfully allows businesses the flexibility to compete and adapt to current circumstances, it can also be abused. Such an abuse would involve a company that is permitted (literally) to bypass the substantive requirements of a Title I program because it was able to categorize a modified activity as "major" for one aspect and not "major" for another.

In the case of IP's test burn, NYDEC explained its decision to issue the Title V permit modification to IP in a Responsiveness Summary. NYDEC explained that "[w]hile the test does not involve a 'major modification' under the Clean Air Act, [NY]DEC treated IP's application as a 'major project' under the U[niform] P[rocedures] A[ct]." These initial classifications have serious consequences in terms of what pollution control equipment will be required if and when a permit is issued.

NYDEC treated IP's test burn application as a "major project" under its Uniform Procedures regulations. The Department stated, however, that "[w]hen used in connection with the NSPS, PSD, and NNSR programs, the term 'modification' contemplates a physical change or change in the

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92. Id.
93. See 40 C.F.R. § 70.7(d) (applying to areas such as typographical mistakes in the original permit, more frequent monitoring, change in ownership, additions resulting in compliance with other air permits, etc.); § 70.7(e) (describing two categories of permit modification (minor and significant) and requiring greater amounts of scrutiny as the categorization of the modification changes).
94. Id.
96. Id. at 6.
97. Id. at 5 (citing N.Y. COMP. CODES R. & REGS. tit. 6, pt. 621 (2007)). As explained in the Responsiveness Summary, "[w]hile IP's permit application to conduct the . . . test does not involve a 'major modification,' as envisioned by the Clean Air Act, it is being processed by the Department as a 'major project' under . . . 6 NYCRR Part 621 given the degree of public interest." Id. at 6. Once treating the application as "major" insofar as it required a hearing, the regulations required that it be treated as "major" for the duration of the application process. Id. (citing N.Y. COMP. CODES R. & REGS. tit. 6, §§ 621.3(e), 621.7(e)).
method of operation at a facility which is of a permanent nature and which results in a threshold increase in emissions of specified pollutants.”

Interestingly, NYDEC’s definition of modification distorts somewhat the meaning of the regulations cited, at least to the extent that there is no mention of the word “permanent” in the regulations. The result of these initial classifications is that the polluting source triggers Title V review, but avoids Title I review. As a general matter, this is not an unsurprising result. Not every Title V permit modification should undergo a comprehensive Title I NSR review. In the case of IP’s test burn, however, these initial classifications may have led to perverse results.

The controversy surrounding the definition of “modification” in the NSR program is now almost legendary. A classic example of this debate is a recent case decided by the D.C. Circuit, which rejected an attempt by the EPA to exempt “the replacement of components with identical or functionally equivalent components that do not exceed 20% of the replacement value of the process unit and does not change its basic design parameters.” The court focused on a couple of key aspects of the definition, including the fact that the EPA’s rule neglected to account for emissions increases for those projects under the 20 % cap. “Indeed, the EPA’s interpretation would produce a ‘strange,’ if not an ‘indeterminate,’ result: a law intended to limit increases in air pollution would allow sources operating below applicable emission limits to increase significantly the pollution they emit without government review.”

The logic used by the court in New York v. U.S. Environmental Protection Agency echoes the arguments made by the State of Vermont in opposition to the IP test burn. Vermont argued that IP should not be allowed to perform the test burn because not only was it a “modification,” the simple fact that it increased emissions merited substantive review under

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98. Id. at 5 (citing definitions of modification under the PSD program (40 C.F.R. § 52.21(b)(2)(i)), the NSPS program (40 C.F.R. § 60.14(a)), and New York’s definition under N.Y. COMP. CODES R. & REGS. tit. 6, § 200.1(a)).

99. Id.

100. See WOOLEY & MORSS, supra note 47, § 1:125 (discussing the history of how increased enforcement actions by the EPA resulted in years of litigation and debate as to the proper meaning of “modification”).


102. Id. at 890 (referring to the definition of modification in the Clean Air Act § 111(a)(4), 42 U.S.C. § 7441(a)(4) (2006)).

103. Id. at 886.

104. See Vermont Petition, supra note 5, at 9 ("As acknowledged by IP’s application, IP’s Proposed Project constitutes a physical change and an operational change that is expected to result in increased emissions and the emissions of regulated pollutants not previously emitted at the facility.").
the Clean Air Act's definition of the term.\textsuperscript{105} Quoting the EPA's own language, Vermont argued:

Any other construction of the statute would turn the preconstruction permitting program on its head and would allow sources to construct (modify) without a permit while they wait to see if it would be proven that emissions would increase. Clearly Congress did not intend such an outcome, which would eviscerate the preconstruction dimension of the program.\textsuperscript{106}

Vermont went on to argue that IP should provide the permitting authority (NYDEC) with projections and estimates of emissions from the use of TDF as a fuel, rather than test TDF on a temporary basis to assess the level of pollution.\textsuperscript{107} Vermont also argued that NYDEC should not allow IP to apply for a temporary test burn permit when its stated plans involved burning TDF on a permanent basis.\textsuperscript{108}

Thus, Vermont's arguments, both legal and political, sought to require more of IP than simple assurances that it would comply with the terms of its currently issued permit. Neither the NYDEC, EPA, nor state and federal courts agreed with this assessment.\textsuperscript{109} Although none say as much, the sense throughout the decisions by these agencies is that the project is too small to merit substantial Title I review.\textsuperscript{110} The NYDEC saw the benefits in the permit modification, on the other hand, as significant.\textsuperscript{111}

Importantly, the test burn is expected to provide valuable information with respect to: (1) whether the power boiler can handle TDF under its current configuration; (2) whether the use of TDF will require the installation of additional pollution control measures or equipment; (3) the maximum feed rate at which the boiler can burn TDF without causing an exceedance of applicable emission limits or violating air quality standards; and (4) the type

\textsuperscript{105} \textit{Id.} at 10.
\textsuperscript{107} \textit{Id.} (citing in support United States v. Louisiana Pacific Corp., 682 F. Supp. 1141, 1166 (D. Colo. 1988)).
\textsuperscript{108} \textit{Id.} at 12–13.
\textsuperscript{109} \textit{See}, e.g., N.Y. DEP'T ENVTL. CONSERVATION, RESPONSIVENESS SUMMARY, INT'L PAPER TICONDEROGA MILL, PROPOSED TIRE DERIVED FUEL TEST 6, 7 (DEC # 5-1548-00008/00081) (2006) (referring to the project as a "temporary" and "one-time" test).
\textsuperscript{110} \textit{Id.}
\textsuperscript{111} \textit{Id.} at 8.
and quantity of pollutants that will be emitted as a result of including TDF in the fuel mix.\textsuperscript{112}

Although these goals are laudable when viewed in isolation, the way in which NYDEC used them allowed the polluting source to modify its operations in the hopes that a new permit would not be needed.\textsuperscript{113}

With the unclear state of the law regarding the term "modification," it is desirable for industry and permitting authorities to avoid the issue altogether. In the case at hand, NYDEC determined that this modification was significant enough to classify it as a "major project" for administrative purposes, yet it did not rise to the level of "modification" under the Clean Air Act.\textsuperscript{114} These classifications allowed IP to proceed with its test burn while avoiding the technological requirements, which likely would have required an expensive electrostatic precipitator. Of course, it is perfectly rational for different Clean Air Act programs to be triggered by specific circumstances. However, in the case at hand, the very existence of the Title V operating permit regime allowed IP the opportunity to undergo a purely administrative review, thereby gaining the legitimacy afforded by the administrative process, while avoiding a significant inquiry into different technological choices that could significantly decrease emissions. As will be noted in the next section, this decision goes against the intent of the Clean Air Act and sound environmental policy.

\textit{B. Initial Classifications Lead to Poor Procedural Choices}

The abovementioned arguments are not the extent of the objections that the State of Vermont and citizens groups raised with regard to the IP test burn. However, they were the most emphasized and most repeated arguments advanced by opponents of the test burn. It is important now to recall the policy reasons supporting the Clean Air Act's passage and its subsequent amendments, as well as EPA and court guidance in implementation of the Act. The following is an excerpt of the Senate Report from the Clean Air Act Amendments of 1990:

\begin{quote}
Except under narrow circumstances, section 353(f) provides that a permit may not be issued or revised in a manner that results in a relaxation from the previous
\end{quote}

\textsuperscript{112} \textit{Id.}


\textsuperscript{114} N.Y. DEP'T ENVTL. CONSERVATION, RESPONSIVENESS SUMMARY, INT'L PAPER TICONDEROGA MILL, PROPOSED TIRE DERIVED FUEL TEST 5–7 (DEC # 5-1548-00008/00081) (2006).
permit, the applicable implementation plan, or any federal requirement under the Act. Such a relaxation is allowed only if the applicant demonstrates that the relaxation is consistent with any attainment demonstration, progress requirement, or new source permit requirement, and does not interfere with any other requirement under the Act. The applicant must also demonstrate that the existing limitation is not appropriate because changes occurred at the source, new information became available, the existing limitation resulted from a mistake, or the permittee demonstrates, in accordance with procedures prescribed by EPA, that it is unable to achieve the emissions limitation notwithstanding the proper installation, operation, and testing of all required controls.\textsuperscript{115}

This language from the Senate Report to the Clean Air Act Amendments of 1990 clearly shows that Congress intended air regulation in the United States to be of a forward-moving character. Once permitting schemes were established and sources received their initial permits, Congress generally intended that regulations would be revised to become more strict, and that as a market for pollution reducing technology grew, overall pollution would decrease. Thus, in the language quoted above, Congress stated that permit conditions should not be relaxed unless pursuant to some kind of exigent circumstance.

To be clear, in IP's situation, the NYDEC was not relaxing any permit conditions and IP's new permit required that it remain within its current emissions limitations.\textsuperscript{116} However, despite the rhetoric, IP's test burn had essentially one goal—to see how much TDF the company could burn before it reached the maximum allowable under the company's current Title I and V permits. In IP's case, that is not an insignificant amount.\textsuperscript{117} Thus, IP's action, as sanctioned by the NYDEC through the Title V permitting scheme, has the overall effect of increasing actual air pollution largely because it might result in a costs savings to the industry.

The company complied with the process prescribed by the Act and the permitting authority found that "it [was] both appropriate and necessary for IP to conduct a test burn prior to submitting any application for a permanent


\textsuperscript{117} See Kieman, supra note 6, at 20 ("The [Ticonderoga] mill reported releasing 436,078 pounds of regulated materials into the air in 2004, more that all of Vermont's emissions sources combined, including vehicles.")
permit modification." However, one need only play out the alternative scenario to see what is wrong with using the Title V permitting process to turn communities into what is essentially a laboratory for large-scale polluters intent on profit maximization. If IP had found a way to burn enough fuel to make the endeavor economically viable, while at the same time remaining within its current emissions limitations, NYDEC would have effectively been forced to grant an application for permanent use of TDF. This result would have two problems. First, it would likely produce a relaxed permitting regime when IP applies to burn TDF on a permanent basis. Second, it would yield an overall increase in net emissions.

The problem with both of these results is plain to see. As stated numerous times in discussions about the Clean Air Act’s requirements, the overall goal of the Act is to reduce the amount of pollution in the air. Allowing a polluting source to increase its overall emissions limitations through an administrative permitting system does not achieve the goals of increasing compliance with the Act. Rather, it simply waters down those requirements already in existence. Additionally, if IP were to return to NYDEC with successful results from its test burn (“success” being measured in terms of pollution maximization under the current permit), NYDEC would have little, if any, choice but to approve the project. After all, one of the reasons NYDEC approved the test burn was to determine “whether the use of TDF will require the installation of additional pollution control measures or equipment.” However, determining what type of pollution control equipment should be based on the permitting regimes of Title I and Title V, not the results of a test burn. Thus, the risk of bootstrapping the permanent TDF permit off of the test burn is both very real and very dangerous.

CONCLUSION

This Note has discussed the IP test burn as a case study under Title V of the Clean Air Act. While acknowledging that this is but one example of a widespread program, its high-profile nature serves to isolate and highlight problems with the current system. This Note concludes that Title V, as an administrative permitting scheme, can actually undercut the effectiveness of the substantive Title I programs. It does so by providing the industry with the appearance of legitimacy by virtue of the fact that a government agency

119. Id. at 8.
authorizes the permit. However, the danger still exists that even permitted sources can undercut congressional policy in emissions limitations and increased compliance with air pollution laws.
I asked him if he saw any downside to biotechnology. Someone from Monsanto was with us at the table; Young’s reply was a long time in coming, and the moment grew uncomfortable. What he finally said silenced the table, and made me think again about the image of mastery he’d projected—about the computer-controlled fields, the chemical distributorship, the miles of patented high-tech spuds framed in his living room’s picture window, reaching clear to the horizon.
“Oh, there is a cost all right,” Young said darkly. “It gives corporate America one more noose around my neck.”

INTRODUCTION

In August of 2006, officials from the U.S. Department of Agriculture (USDA) announced that they had detected a strain of genetically engineered (GE) rice called “Liberty Link” not approved for human consumption in supplies of long-grain rice in Arkansas and Missouri. That announcement triggered a chain reaction of regulatory decisions, trade negotiations, and class-action litigation that perfectly illustrates the complexity, risks, and regulatory conundrums of GE crops in the global agricultural market. The European Community (EC), which in 2005 imported $72.7 million worth of U.S. rice, responded within a week by establishing a new requirement

1. MICHAEL POLLAN, THE BOTANY OF DESIRE 234–35 (2001); see also VANDANA SHIVA, BIOPRACY: THE PLUNDER OF NATURE AND KNOWLEDGE 45 (1997) (“Biotechnology, as the handmaiden of capital in the postindustrial era, makes it possible to colonize and control that which is autonomous, free, and self-regenerative. Through reductionist science, capital goes where it has never been before. The fragmentation of reductionism opens up [new] areas for exploitation and invasion.”). The relevance to this Note of the epigram and the above quote is in their expression of a fundamentally socioeconomic concern about the dangers of genetic engineering, rather than an ecological concern based in a scientific risk assessment.


The Race to Geneva

that all shipments of long-grain rice from the United States over the next six months be certified free of genetically modified organisms (GMOs). Japan banned rice shipments from the United States altogether. In August of 2006, 229 U.S. rice farmers, representing 125,000 acres of farmland in the Midwest, filed twin class-action suits in federal courts in St. Louis and Arkansas against Bayer CropScience, the manufacturer of the "Liberty Link" rice strain. They have alleged, among other things, that the contamination has already had a significant effect on the price of wholesale rice, that it has exposed rice farmers to enhanced regulatory burdens, and that the level of property loss due to the contamination threatens entire rice-farming operations. The unauthorized presence of GMOs in crop exports to the EC countries, Japan, and other countries with strict regulations on GMOs is, in the words of one farmers' advocate, "economic suicide."

The farmers' worst fears came to pass that same month when three barges of U.S. long-grain rice sitting at port in Rotterdam, Netherlands tested positive for the presence of the "Liberty Link" rice. The barges, which the United States had certified to be free of the GE rice under the EC's new certification protocol, were forced to return to U.S. soil without unloading their cargo. Because the United States had incorrectly certified the shipment GMO-free, the EC government in Brussels called for national regulators in Europe to do their own testing from then on, with costs borne by the exporters, undermining the competitiveness of U.S. rice on the European market. The United States and the EC then held negotiations on the testing protocol, but could not reach agreement on the level and degree of accuracy of the testing.

As of January 2007, the EC continues to keep in place mandatory testing for the presence of GMOs in U.S. rice. In reality, however, the

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6. Id.
8. See In re LLRice 601 Contamination Litigation, 466 F. Supp. 2d 1351 (E.D. Mo. 2006) (noting that the "twin" lawsuits were consolidated into one suit to be heard in Missouri).
11. FDA WEEK, supra note 4.
13. FDA WEEK, supra note 4.
failure to reach agreement on testing has left an even greater burden on U.S. rice farmers: there are simply no longer any U.S. rice shipments to Europe.\footnote{15}

The sad saga of the "Liberty Link" rice—whose name ironically conjures memories of the great transatlantic alliance between Western Europe and the United States throughout the wars of the past century—illustrates the difference in regulatory attitude the United States and the EC have taken to biotechnology.\footnote{16} More specifically, it reveals the significant burdens the EC's current regime of GMO labeling and traceability (L&T) requirements continues to impose on U.S. exporters. The "Liberty Link" controversy demonstrates that the September 29, 2006, release of the final panel report (\textit{Biotech Panel Report})\footnote{17} of the World Trade Organization's (WTO) Dispute Settlement Body (DSB), which resolved claims by the United States, Canada, and Argentina challenging the EC's restrictions on GMO imports, will by no means mark the end of transatlantic dissension over GMO regulation. Indeed, before the ink was dry on the \textit{Biotech Panel Report},\footnote{18} the U.S. biotechnology and agriculture industries—smarting from the "Liberty Link" controversy—began clamoring for U.S. Trade Representative (USTR) Susan Schwab, to bring another complaint in the WTO, this time against the EC's current GMO L&T requirements, which took effect in 2003.\footnote{19}

\footnote{15. \textit{Id.}}
\footnote{19. See, e.g., Letter from House and Senate to USTR, Nov. 13, 2006 ("We urge you to exercise the United States' full rights under the WTO to ensure full compliance on the part of the EU with the findings of the dispute panel in this case."); \textit{Agriculture, Trade Chairs Press USTR for Tough Line on EU GMO Case}, \textit{Inside U.S. Trade}, Nov. 17, 2006, available at 2006 WLNR 19972904 (noting further that the letter states that since no action has been taken on the moratorium, suppliers are outsourcing to companies outside the US); see also \textit{Agriculture, Trade Chairs Press USTR for Tough Line on EU GMO}
It remains unclear whether the United States will bring a second case. However, a future WTO challenge is a real possibility because of the "Liberty Link" controversy and larger biotech concerns within U.S. agribusiness. Those concerns stem from the EC's current GMO regulations and their potential to provide a potent regulatory model for other countries.

This Note will analyze the legal arguments on which the EC could base a jurisdictional defense of its GMO L&T requirements in the event of a WTO complaint against them by the United States or another WTO member. Part I provides an overview of the environmental and political controversies that surround biotechnology, the WTO’s ongoing dilemma in adjudicating trade disputes involving environmental and health regulations, and a short synopsis of the key holdings of the Biotech Panel Report. Part II examines the Biotech Panel’s jurisdictional definition of “measures” covered by the WTO’s Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Panel’s subsequent analysis of the GMO L&T requirements the EC had in place at the time the Biotech dispute was brought before the WTO. Those regulations will be compared with current EC GMO regulations and a recommendation made for amendment of the new regulations’ statements of purpose.

Part III presents a recommendation for how the WTO's Dispute Settlement Body (DSB) should resolve future disputes that implicate laws serving purposes both inside and outside the jurisdictional coverage of a WTO agreement. By clarifying that GMO labeling serves valid purposes related to consumer autonomy that go beyond environmental and public health concerns, the EC may be able to resist the powerful gravitational pull of the WTO's trade-tilted dispute settlement process; it may slow down the race to the WTO's "courthouse door" in Geneva, Switzerland. Conversely, if the WTO exercises jurisdiction to invalidate laws intended to give effect

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20. See Soy Bean Growers Fail to Win USTR Support for GMO Case Against EU, FDA WEEK, Aug. 25, 2006, available at 2006 WLNR 14748250 [hereinafter Bean Growers] (noting that USTR officials were not convinced they could win under the "relatively untested" requirements of the TBT Agreement); Chairs Press USTR, supra note 19 (noting USTR’s hesitancy to bring a claim out of diplomatic interest in retaining the EU’s cooperation in the “lagging Doha round of WTO negotiations”).

21. See STUART SMYTH ET AL., REGULATING THE LIABILITIES OF AGRICULTURAL BIOTECHNOLOGY 137 (2004) (“At present, over twenty-eight countries plus the EU have either developed or publicly declared their intent to introduce mandatory labeling legislation for [GMOs].”); Bean Growers, supra note 20 (citing Chile as a country that might soon follow the EC's lead on GMO labeling).

22. SMYTH ET AL., supra note 21, at 137.
to the moral concerns of individual consumers—a ruling that would be inconsistent with the Panel’s reasoning in Biotech—the WTO’s SPS Agreement jurisprudence will become an ultra vires golem,\(^\text{23}\) taking the WTO well beyond the mandate given to it by its member countries.

I. OVERVIEW OF THE ISSUES SURROUNDING GMO LABELING

A. Genetically Modified Organisms

Genetically modified organisms (GMOs), also known as "biotechnology," "biotech," or "agbiotech,"\(^\text{24}\) remain a relatively new and untested technological development in methods of agricultural production.\(^\text{25}\) GMOs are essentially "crops contain[ing] specific gene sequences artificially inserted into their genome."\(^\text{26}\) Genetic engineering (GE), the development and manufacture of GMOs, can exponentially accelerate the development of new crop varieties (compared to traditional methods of crop breeding) to exhibit desired traits such as resistance to diseases, pests, pesticides, herbicides, drought, and other environmental conditions.\(^\text{27}\) GE varieties of major staple crops such as corn, potatoes, rice, and soy are already in widespread use, particularly in the United States, Canada, and Argentina.\(^\text{28}\)

But the very newness of GMO technology has sparked both political and scientific controversies over their use.\(^\text{29}\) Environmentalists, farmers’

\(^{23}\) In Jewish mythology, a "golem" is a being created by man to accomplish some charitable deed, which then grows beyond the control of its creators, wreaking unforeseen chaos and destruction. The golem figure is often interpreted as a metaphor for hubris. Monstropedia.com, Golem, http://www.monstropedia.org/index.php?title=Golem (last visited Feb. 4, 2007).

\(^{24}\) See R.E. EVENSON & V. SANTANIELLO, Editor’s Introduction to THE REGULATION OF AGRICULTURAL BIOTECHNOLOGY, at xv (R.E. Evenson & V. Santaniello eds., 2004) (noting that the "agbiotech revolution [has] stalled" since the first GMO products were introduced onto the market in 1996).

\(^{25}\) See id. at xv–xvi (discussing the failure of major research institutions as well as regulatory systems to adequately respond to the new challenges posed by biotech); SMYTH ET AL., supra note 21, at 4–5 (dating the beginning of "genetically based innovations" to 1985 and placing them in historical context as the third "wave" of agricultural developments in the 20th Century, following mechanization (1930s–1960s) and the explosion in use of chemicals (1950s–1990s)).

\(^{26}\) Robert L. Paarlberg et al., Regulation of GM Crops: Shaping an International Regime, in THE REGULATION OF AGRICULTURAL BIOTECHNOLOGY, supra note 24, at 3.

\(^{27}\) Id.

\(^{28}\) For example, by 2001, GM maize had grown to 46% of total production in major corn-growing countries; GM soybeans represented 59% of total production; and GM tobacco represented 38% of total production in China. SMYTH ET AL., supra note 21, at 63 tbl.5.3.

\(^{29}\) Paarlberg et al., supra note 26, at 1.
advocates, and others opposed to the use of GMO technology have based their criticism on the potential threats GMOs pose to human health and the environment, as well as the global socio-economic implications of their use.\textsuperscript{30} Defenders of the biotech industry counter that fears over GMOs are unscientific,\textsuperscript{31} self-defeating,\textsuperscript{32} and elitist,\textsuperscript{33} and that the EC’s restrictive laws on GMOs reflect little more than the economic self-interest of protectionist European agriculturists.\textsuperscript{34}

Recently, the biotech industry and its supporters have begun emphasizing the humanitarian benefits of GMOs. For example, the Donald Danforth Plant Science Center in Creve Coeur, Missouri, has undertaken a major research project to develop a GE cassava plant resistant to a type of virus that is destroying the crop throughout Central Africa.\textsuperscript{35} The Danforth Center is a nonprofit organization whose stated goal is to develop and “freely license” varieties of biotech crops that would be unprofitable in the private sector due to their primary application in developing countries.\textsuperscript{36} Nonetheless, a series written on the cassava project in the \textit{St. Louis Post-Dispatch} failed to note that the Danforth Center is literally across the street from the world headquarters of Monsanto,\textsuperscript{37} one of the major corporate players in the biotech industry. The Center receives the bulk of its funding in direct corporate gifts from its for-profit “partner” on the other side of Olive Boulevard.\textsuperscript{38}

\textsuperscript{30} See, e.g., \textsc{Brian Halweil}, \textsc{Eat Here: Reclaiming Homegrown Pleasures in a Global Supermarket} 72 (2004) (emphasizing food security risks of large-scale crop monocultures); \textsc{Michael Woodin & Caroline Lucas}, \textsc{Green Alternatives to Globalisation: A Manifesto} 169–70 (noting the ecological risks of cross-pollination of GM crops with their undomesticated relatives).

\textsuperscript{31} \textsc{Smyth et al.}, supra note 21, at 40 (citing two studies of GMO ecological impacts based on what the authors call “incomplete science” that have led to costly regulations).


\textsuperscript{33} See Kim JoDene Donat, Note, \textsc{Engineering Akerlof Lemons: Information Asymmetry, Externalities, and Market Intervention in the Genetically Modified Food Market}, 12 MINN. J. GLOBAL TRADE 417, 451 (2003) (“In the balance between the right of culinary sovereignty and the rights of individuals to be free from hunger, the rights of the hungry must be given greater weight.”) (footnotes omitted).

\textsuperscript{34} \textit{Trade—Caution Needed}, \textsc{Economist}, Feb. 5, 2000, at 69 (“[T]he Biosafety Protocol opens up a loophole for protectionists. European governments, for instance, could use it to protect inefficient farmers from American competition on the pretext of protecting consumer health.”).

\textsuperscript{35} Eric Hand, \textit{A St. Louis Team Fights a Crop Killer}, \textsc{St. Louis Post-Dispatch}, Dec. 10, 2006, at A1.

\textsuperscript{36} \textit{Id}

\textsuperscript{37} The author has personal knowledge of this fact, having grown up in West St. Louis County about a mile from the Monsanto Campus.

Another case study in the use of GE technology to advance humanitarian ends is the successful effort of professors Peter Beyer and Ingo Potrykus, working in Germany and Switzerland respectively, to develop a strain of rice with increased levels of beta-carotene. This GE rice could be used to stave off chronic vitamin deficiency in developing parts of the world. While such scientific advances betoken promising humanitarian applications on their face, the response of the environmental community to this alleged "miracle" marks well the contours of the political battle the "Biotech Revolution" has joined. This response is captured in the popular literature by journalist Peter Pringle, who writes:

The two scientists were corporate dupes, trapped in the folly of "industrial agriculture." Certainly, if golden rice were ever to be an effective weapon against malnutrition, it would have to be grown on millions of acres. Such monocultures, the critics argued, encouraged crop failure, destroyed traditional varieties, favored the rich at the expense of poor farmers, and put the production of the world's food supply into the hands of a few. The spectacular failures of monocultures were well known. More than a million people starved to death in Ireland in 1845 because of the blight that rotted an entire season's monoculture crop of potatoes. More than a century later, another blight hit the cornfields of America when certain widely used hybrids in 1970 produced a scant half of the projected yields. Monoculture encouraged farmers to abandon their traditional varieties and plant 'miracle' crops; the practice threatened the survival of seeds that had been carefully cultivated over centuries. Without these landraces, or heritage seeds, it would also be impossible to pump new genetic life into crops to fight off plagues and pests.

40. Id. at 21.
41. Id. at 22.
While the response to each new genetically engineered product has
been visceral among many environmentalists, farmers, and governments, it
is less clear what the appropriate regulatory response should be.

Mandatory GMO L&T requirements—which are the basis of the
current EC regulatory framework discussed in this Note—are regarded by
many as an effective compromise between those who demand outright bans
on GMOs and those who believe they require no special regulatory
attention at all.\(^\text{42}\) The EC’s L&T requirements, however, have become a
thorn in the side of the U.S. biotech industry, which complains they serve
no valid purpose and impose high, unnecessary costs.\(^\text{43}\) Indeed some
estimates suggest the compliance costs of the EC requirements currently in
place would be more than the exports themselves are worth.\(^\text{44}\) But
consumers throughout the industrialized world appear to be
overwhelmingly in favor of such labels.\(^\text{45}\) There are indeed a host of
important policy goals undergirding mandatory GMO L&T requirements.
These include the right of consumers to make informed choices, the
political use of market transactions by consumers to express socioeconomic

\(^{42}\) The “no special regulatory attention” position has been staked out by the U.S. government.
In a 1992 Statement of Policy, the Food and Drug Administration (FDA) hewed to the “substantial
equivalence” doctrine first developed by the Organization for Economic Cooperation and Development
(OECD), which holds that methods of food production are not “material” such that a consumer label is
required if there is no significant difference in the characteristics of the end product. Exercise of Federal
Oversight Within Scope of Statutory Authority: Planned Introductions of Biotechnology Products into
the Environment, 57 Fed. Reg. 6753, 6760 (Feb. 27, 1992); see also ORG. FOR ECON. CO-OPERATION
& DEV., SAFETY EVALUATION OF FOODS DERIVED BY MODERN BIOTECHNOLOGY: CONCEPTS AND
PRINCIPLES 14–16 (1993) (outlining the theory of “substantial equivalence”); Douglas A. Kysar,
Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice,
a pastiche of existing statutes”); Peter Burchett, A Castle in the Sky: The Illusory Promise of Labeling
the equivalence doctrine “prevent[s] deception”).

\(^{43}\) U.S. Pressures Europe to Drop GMO Labeling Rules, ENVTL. NEWS SERVICE, Jan. 16,
statement that “[p]roducts from biotechnology crops do not pose any new or unique risks . . . . [Labels]
could mislead consumers by implying that there is a risk”). See also Burchett, supra note 42, at 192–93
(arguing that segregation and labeling requirements would impose unacceptably heavy costs throughout
the supply chain). For an unfavorable critique of ecolabeling generally, see JULIAN MORRIS, THE
INSTITUTE OF ECONOMIC AFFAIRS, GREEN GOODS? CONSUMERS, PRODUCT LABELS AND THE
ENVIRONMENT (1997).

\(^{44}\) Paarlberg et al., supra note 26, at 7.

\(^{45}\) Peter W.B. Phillips & Heather McNeill, Labelling for GM Foods: Theory and Practice,
reprinted in VITTORIO SANTANIELLO ET AL., MARKET DEVELOPMENT FOR GENETICALLY MODIFIED
FOODS 246 (2002) (citing an OECD study finding that 94% of consumers in the UK, 74% in the EU,
91% in Australia and New Zealand, 83–99% in Canada, and 45–93% in the U.S. (depending on the
phrasing of the question) were in favor of labeling). But see SMYTH ET AL., supra note 21, at 50 (citing
one study purportedly proving that, “unprompted, only 2% of citizens in surveys call for mandatory
GMO labeling”).
values, the inequitable result of shifting costs onto non-GMO producers to label their products as such, and the value of GMO labeling as a balanced precautionary approach that achieves environmental protection in a manner not unduly restrictive of trade. This Note’s defense of the EC’s mandatory GMO L&T requirements on legal grounds is thus more fundamentally rooted in a normative premise that such laws serve an important democratizing function in the increasingly obscure power structures of global food networks.

B. The WTO and the Trade-Environment Dilemma

The WTO is an international organization that came into existence on January 1, 1995, at the completion of the Uruguay Round of Negotiations (1986–1994) between the 128 signatory nations to a predecessor treaty, the General Agreement on Tariffs and Trade (GATT). In its own words, the WTO is “the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.” The WTO, with its foundation in the GATT legal framework, imposes a collection of disciplines on its members to encourage international economic exchange and discourage domestic economic protectionism in order to optimize efficiency in the global economy.

46. Kysar, supra note 42, at 598 (defending the right of individual consumers to make “moral objections to extraterritorial conditions, none of which tangibly impact a domestic nation’s environment or threaten physical harm to its citizens, but many of which might viscerally impact the willingness of consumers in that nation to accept imported goods”).


48. World Trade Organization, The WTO in Brief, http://www.wto.org/english/thewto_e/whatis_e/inbrief_e/inb00_e.htm (last visited Dec. 3, 2007). The WTO, like the GATT before it, is founded upon the theory of “comparative advantage,” a concept first articulated by the English economist David Ricardo nearly 200 years ago. DAVID RICARDO, ON THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION (1817). This theory, which still enjoys popularity among economists, holds that the unique circumstances of each country give it an advantage over other countries in producing certain products. Because each country is better at producing one type of product rather than another, it is mutually beneficial for all countries to specialize their economy and trade with other countries for their specialized products. By allocating production tasks to the countries able to accomplish them without sacrificing more valuable productive activity (that is, with the lowest opportunity cost), efficiency is maximized, and each trade partner becomes commensurately wealthier. See generally CHRIS WOLD ET AL., TRADE AND THE ENVIRONMENT: LAW AND POLICY 25–35 (2005) (explaining the theory and discussing its strengths and weaknesses); P.K. RAO, THE WORLD TRADE ORGANIZATION AND THE ENVIRONMENT 6–15 (2000) (surveying the development of the theory and discussing late 20th Century scholarship establishing that empirical data reveal deficiencies in its predictive force).

These rules operate similarly to the Dormant Commerce Clause of the United States Constitution. That is, they create a loose type of "customs union" within which member states may not impose tariffs or other barriers to commerce in order to protect domestic interests. Not unlike the jurisprudence of the dormant Commerce Clause in the United States, however, these rules against protectionism can have a downward-ratcheting effect on public health and environmental regulations. A WTO member upset that another member may be imposing trade barriers to protect domestic constituencies has legal recourse under the WTO's Dispute Settlement Understanding (DSU) to challenge the law—referred to as a "measure" in WTO parlance—as a violation of WTO trade rules and may gain the right to impose trade sanctions on the other member equal to the "nullification and impairment" of trade rights suffered by itself. However, when the alleged trade barrier is a public health or environmental protection law, rules to protect the public welfare end up exposed to a rigorous level of scrutiny in the WTO. As some have wryly observed, there is no reciprocal approach in any international forum when it comes to the environmental impact of economic policies.


51. Compare City of Philadelphia, 437 U.S. at 631 (Rehnquist, J., dissenting) (declaring that the majority's holding forces New Jersey to make a "Hobson's choice" between prohibiting "all landfill operations" or accepting "waste from every portion of the United States, thereby multiplying the health and safety problems which would result if it dealt only such wastes generated within the State") (emphasis in original), with Panel Report, United States—Restrictions on Imports of Tuna (Tuna/Dolphin I), ¶ 5.15, DS21/R (Sept. 3, 1991) (unadopted), reprinted in 30 I.L.M. 1594 (finding the United States in violation of the GATT for discriminating between tuna caught in a dolphin-safe manner and tuna caught in a manner that kills dolphins, because the end product was the same).


53. See Steve Chamovitz, Improving the Agreement on Sanitary and Phytosanitary Standards, in TRADE, ENVIRONMENT, AND THE MILLENNIUM 185–86 (Gary P. Sampson & W. Bradnee Chambers
Considering the emphasis on warding off protectionist discriminatory measures in the basic WTO trade disciplines, a complaint against the EC's GMO L&T requirements under those trade rules alone would probably not prevail.\textsuperscript{54} Despite the fact that the EC's L&T regulations tend to benefit European farmers who do not use GMOs, and they hinder farmers in the U.S. and elsewhere who do use GMOs, the regulations are not discriminatory on their face. They do not single out U.S. GMO crops or foreign GMO crops due to their place of origin but on the basis of their being genetically modified.

In this respect, the GMO controversy resembles the situation in one of the classic dormant Commerce Clause cases, \textit{Minnesota v. Clover Leaf Creamery Co.}\textsuperscript{55} In that case, the Supreme Court upheld a state law enacted to promote conservation that banned the use of non-returnable plastic milk containers.\textsuperscript{56} Even though the law would clearly prove beneficial to many in-state pulpwood firms (who produced permitted milk containers) and hurt out-of-state plastic milk container manufacturers, the Court refused to treat the law as a protectionist measure. The Court stated that "the Commerce Clause 'protects the interstate market, not particular interstate firms, from prohibitive or burdensome regulations.' A nondiscriminatory regulation serving substantial state purposes is not invalid simply because it causes some business to shift from a predominantly out-of-state industry to a predominantly in-state industry."\textsuperscript{57} Likewise, in adjudicating any claims against the GMO labeling requirements, a panel should consider that just because benefits accrue to
domestic firms through operation of a nondiscriminatory measure, such benefits do not prove *ipso facto* protectionism. 58

Indeed, a GATT panel made a similar determination in 1991 in the only dispute involving food labeling tried under the GATT disciplines, *U.S.—Restrictions on Imports of Tuna.* 59 The question arose from a voluntary labeling scheme the United States implemented in conjunction with its import ban on tuna caught in a manner that killed significant numbers of dolphins. 60 The U.S. measure, the Dolphin Protection Consumer Information Act, 61 forbade use of a “Dolphin Safe” label for tuna not caught according to dolphin protective fishing methods. 62 Applying the disciplines of GATT 1947, the panel found no violation of the marking requirements of article IX:1, which obligates members to apply the same marking standards for “like” products “no less favorable than the treatment accorded to ‘like’ products of any third country.” 63 The panel did not find any intention to discriminate against the complainant, Mexico, or any other country, but only an intention to save dolphins. 64 In addition, the panel noted, “[A]ny advantage which might possibly result from access to this label depends on the free choice by consumers to give preference to tuna carrying the ‘Dolphin Safe’ Label.” 65

The *Tuna/Dolphin* dispute was resolved under GATT 1947. It predates the WTO and two additional agreements adopted at the end of the Uruguay negotiating round in 1995: the *Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)* 66 and the *Agreement on Technical Barriers to Trade (TBT Agreement).* 67 These two agreements

58. But see id. at 476 n.2 (Powell, J., concurring in part and dissenting in part) ("Under the Commerce Clause, a court is empowered to disregard a legislature's statement of purpose if it considers it a pretext.").

59. *Tuna/Dolphin I,* supra note 51, ¶¶ 5.41–5.44; see also generally Kysar, supra note 42, at 541–46 (discussing the questionable product/process distinctions underlying the panel’s decision in *Tuna/Dolphin I*).

60. Kysar, supra note 42, at 548–49.


62. Id. § 1385(d)(1).


64. *Tuna/Dolphin I,* supra note 51, ¶ 5.43.

65. Id. ¶ 5.42 (emphasis added).


67. *Agreement on Technical Barriers to Trade,* Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments—Results of the Uruguay
took the WTO's disciplines governing domestic, environmental, and public health regulations beyond the relatively narrow concern of preventing economic protectionism and interposed new bases for WTO invalidation: (1) whether an allegedly trade-restrictive public health measure was grounded in objective science; and (2) whether it conformed to internationally recognized health standards. If not, the measure would be subject to WTO invalidation through the dispute settlement process.

The GATT contained its own short but powerful provisions to protect laws for public health, morals, and the environment. GATT article XX(b) provides an exception for domestic laws that would otherwise be invalidated under other GATT provisions to the extent they are "necessary to protect human, animal or plant life or health." Article XX(a) exempts from WTO invalidation those laws "necessary to protect public morals." And article XX(g) protects laws "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production and consumption."

The SPS Agreement was intended to supplement article XX's provisions with more details on the scope of permissible public health and environmental regulations. In reality the SPS Agreement has done little more than set stricter standards for what types of public welfare regulations are acceptable in the WTO, meanwhile eclipsing and eviscerating the article XX exceptions on which it is based.

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68. See Kysar, supra note 42, at 550–51 ("[W]hereas previously countries did not violate GATT rules 'as long as product standards [were] applied nondiscriminarily,' now such standards must conform to the dictates of the TBT and SPS Agreements even when they are applied in a nondiscriminatory manner.") (quoting John J. Barcelo III, Product Standards to Protect the Local Environment—the GATT and the Uruguay Round Sanitary and Phytosanitary Agreement, 27 CORNELL INT'L L.J. 755, 761 (1994)); see also David Winickoff et al., Adjudicating the GM Food Wars: Science, Risk, and Democracy in World Trade Law, 30 YALE J. INT'L L. 81, 122 (2005) (questioning the ability of the WTO to make sound scientific evaluations of domestic public health and environmental laws and recommending as a "proper direction for judicial doctrine [in the WTO] . . . enhance[ing] the sensitivity of judicial tools for detecting protectionism masquerading as health and environmental values, while preserving cultural autonomy in important societal domains").

69. GATT 1947, supra note 49, art. XX(b).

70. Id. art. XX(g).

71. Id. art. XX(g).


73. Hal Shapiro, who served as Associate General Counsel to USTR, writes:
The *SPS Agreement* applies to sanitary and phytosanitary (SPS) measures, laws passed by WTO members for the *purpose* of protecting plant, animal, or human life or health.\(^7\) Note that SPS measures are defined in part by their purpose. This is significant, for as discussed below, this forced the *Biotech* Panel—for the first time in the Dispute Settlement Body’s (DSB’s) *SPS Agreement* jurisprudence—to analyze the extent of its jurisdiction over domestic regulations like the EC’s GMO directives, which arguably serve *multiple* purposes, some relating to the environment and public health but others not.\(^7\) The *SPS Agreement* requires, among other things, that “[m]embers shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence.”\(^7\) Article 3.1 of the *SPS Agreement* requires that “[m]embers shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations, where they exist.”\(^7\) Article 5.1 requires that SPS measures be “based on an assessment

What appears to have been an effort to bring clarity to the scope and application of a given exception to GATT obligations has become the source of a host of new possible violations and, importantly, the resulting new rules reject the application of other GATT exceptions that previously applied to food or animal health or safety measures. As a result, a measure that is subject to the SPS Agreement cannot be defended on a number of grounds that were available in the past. These defenses covered areas such as national security, environmental protection and other broad policy interests, but also more parochial trade concerns such as guarding against products made by prison labor, enforcing domestic customs laws, or maintaining adequate domestic supplies of important goods.

*Id.* at 201-02.

74. Annex A(1) of the *SPS Agreement* provides a formal definition of an SPS measure as one applied:

(a) to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms;
(b) to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;
(c) to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or
(d) to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

*SPS Agreement*, supra note 66, at Annex A(1).

75. *Biotech Report*, supra note 17, ¶ 7.150 (“The issue is whether a law, or a requirement contained therein, may, if it meets the applicable conditions, be considered to incorporate an SPS measure as well as a distinct measure which fails to be assessed under a WTO agreement other than the *SPS Agreement*.”).

76. *SPS Agreement*, supra note 66, art. 2.2.

77. *Id.* art. 3.1.
... of the risks to human, animal or plant life or health."\(^7\) The SPS *Agreement* also contains a savings clause that many commentators view as an expression of the precautionary principle.\(^7\) Article 5.7 allows governments to take *interim* SPS measures "[i]n cases where relevant scientific evidence is insufficient," on the condition that they "obtain the additional information necessary for a more objective assessment of risk and review the [SPS] measure accordingly within a reasonable period of time."\(^8\)

To summarize, when the SPS and TBT Agreements took effect in 1994, the WTO gained a new power to invalidate domestic regulations, even if they are not facially protectionist or discriminatory, on the basis that they do not conform to sound science or are more restrictive than international standards require. It is now an open question whether a WTO panel would invalidate a mandatory ecolabeling scheme such as the one the *Tuna/Dolphin I* Panel found legitimate under GATT 1947. Would a panel adjudicating a dispute implicating the EC's GMO L&T regulations give deference to a regulation whose negative trade impacts are strictly a result of a *free choice by consumers* not to buy GMO products? Or might the WTO wield the *SPS Agreement* to strike down GMO L&T requirements by finding them scientifically unjustified? We turn now to a summary of the Panel's key conclusions in the *Biotech* dispute, whose jurisdictional analysis (discussed in Part II) might present a method by which GMO L&T regulations can avoid analysis under the *SPS Agreement* altogether.

**C. Key Holdings in the Biotech Dispute**

The *Biotech* dispute, resolved by the 2006 DSB Panel Report,\(^8\) has been the most closely watched WTO case of the new millennium. The dispute pits two global economic powerhouses—traditional allies in the cause of trade liberalization—against each other over the question of whether the European restrictions on GMO imports were unjustifiable barriers to trade, or a wisely precautionary approach to a new and risky technology.\(^2\) The Panel reviewed three distinct EC measures: the so-called

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78. *Id.* art. 5.1.
79. See, e.g., OREN PEREZ, ECOLOGICAL SENSITIVITY AND GLOBAL LEGAL PLURALISM: RETHINKING THE TRADE AND ENVIRONMENT CONFLICT 143–48 (2004) (interpreting art. 5.7 as an expression of the "precautionary principle" but noting that it essentially imposes two procedural and two substantive requirements on members seeking to invoke it).
80. *SPS Agreement*, supra note 66, art. 5.7.
82. The Panel did not, however, adjudicate virtually any of the substantive questions at the heart of the GMO debate. *See id.* ¶ 8.3.
"de facto moratorium" on GMO imports caused by a political impasse in Europe, which resulted in a four-year delay in approvals between 1999 and 2003; product-specific denials of approval at the EC level; and EC member-state safeguards banning the entrance of various GMO products into their countries. The Panel found procedural violations of the SPS Agreement at the EC level due to the delays in GMO approvals. In addition, the Panel found substantive violations of the SPS Agreement at the member state level due to a failure to base the measures on scientific risk assessments. Notably, the Panel did not even discuss the public health, morals, and environmental exceptions of GATT article XX, even though they were raised as defenses by the EC. Instead, the Panel focused exclusively on the SPS Agreement—proof of how far the Agreement had eclipsed article XX.

At 1100-pages, the Panel Report is far too involved to even attempt summary for the limited purposes of this Note. The Biotech dispute did not involve a direct challenge to the EC’s L&T requirements, but these requirements were relevant to the threshold jurisdictional issue whether the EC regulations in question, Directives 90/220, 2001/18, and Regulation 258/97, were SPS measures within the definition of the SPS Agreement.90

[T]he Panel did not examine: whether biotech products in general are safe or not; whether the biotech products at issue in this dispute are ‘like’ their conventional counterparts . . . ; whether the [EC] has a right to require pre-marketing approval of biotech products . . . . whether the [ECs’] approval procedures . . . are consistent with the [ECs’] obligations under the WTO agreements; or . . . the conclusions of the relevant EC scientific committees regarding the safety evaluation of specific biotech products.

Id. 83. Id. ¶¶ 8.12–8.14.
84. Id. ¶¶ 8.14(a), 8.18(a), 8.34(a), 8.38(a), 8.53(a). The EC was found in violation of article 8, which requires members to “observe the provisions of Annex C. Annex C(1)(a) requires that procedures to check and ensure the fulfillment of sanitary or phytosanitary measures be “undertaken and completed without undue delay.”
85. Id. ¶¶ 8.22(a), 8.42(a), 8.57(a). The Panel found violations of articles 5.1, 5.7, and the second and third requirements of 2.2. See supra notes 76–79 and accompanying text for a discussion of these articles.
86. Biotech Report, supra note 17, ¶ 4.386.
89. Council Regulation 258/97, 1997 O.J. (L 43) 1 [hereinafter Regulation 258/97].
90. This issue is dealt with in detail below. The time it took the EC to develop its labeling requirements was tangentially related to the issue of whether the delays in approval of GMO imports into Europe were justified. The Panel answered that issue in the negative, and held that the Group of Five countries (Denmark, Italy, France, Greece, and Luxembourg) had precipitated a de facto moratorium on imports of GMO products into the EC by halting approval processes until the EC adopted new labeling and traceability requirements. Biotech Report, supra note 17, ¶ 7.1271(b).
Thus even with a biotech-friendly ruling from the WTO calling for the EC to bring its approval procedures into conformity with the _SPS Agreement_, the EC's current L&T requirements remain intact. The _Biotech Report_ offers some hints as to how a future WTO panel might handle a claim against the EC's GMO L&T requirements. In particular, the Panel seemed to leave open the possibility that any multipurpose regulation that includes purposes covered under the WTO agreements, as well as those not covered, could not be required by the WTO's Dispute Settlement Body (DSB) to be withdrawn or revised if that would frustrate the non-covered purposes.

In other words, based on the limited purposes of the _SPS Agreement_, the DSB apparently and uncharacteristically conceded that there may be limits to its _SPS_ jurisdiction. Such jurisdictional limits would provide a much needed check on the _SPS Agreement_’s wrecking-ball like trajectory through the GATT article XX(b) health and environment exceptions it was meant to support. In the case of the EC’s GMO L&T laws, should the U.S. initiate a WTO dispute resolution process, whether on the basis of the “Liberty Link” controversy or some other, the EC has a strong legal argument for the legitimacy of the GMO L&T laws under WTO rules on the grounds that they achieve valid legislative objectives outside the narrow scope of the _SPS_ and _TBT_ Agreements.

II. A JURISDICTIONAL DEFENSE OF GMO LABELING AFTER THE _BIOTECH_ REPORT

A. What Is an SPS Measure?

Recall that SPS measures are defined in part by the purposes they serve; we may also agree for the sake of argument that laws often serve multiple purposes. Thus the _SPS Agreement_’s manner of definition proved problematic for the Panel in the _Biotech_ dispute, which focused on three EC regulations: Directive 2001/18 (2001/18); its predecessor Directive 90/220 (90/220); and Regulation 258/97 (258/97). All three regulations contained language in their statements of purpose or preambular paragraphs that suggested they served multiple purposes. Article 1 of Directive 2001/18, which governs deliberate releases of GMOs into the environment or their

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91. _See supra_ notes 74–75 and accompanying text.

92. Directive 90/220 will not be discussed in depth as it was superseded by Directive 2001/18, the two contained similar language, and the Panel directed its focus to the latter. _See Directive 2001/18, supra_ note 88 (repealing 90/220) and _Biotech Report, supra_ note 17, ¶ 7.382 n.518 (noting a slight difference between the two in that 90/220 did not require labels to explicitly state a GMO to be present).
placement on the market, states a purpose “to protect human health and the environment.” The preamble, however, contained broader language on the need to “provide information to the public,” “to ensure that the presence of GMOs . . . is appropriately identified,” and to establish a public consultation process on the “ethical issues” of biotechnology use generally.

Regulation 258/97, which governed placement onto the market of “novel” foods and ingredients, was even more clearly intended to serve multiple purposes than 2001/18. Article 3 of 258/97 lists three prohibitions on novel foods: they may not “present a danger for the consumer, mislead the consumer, [or] differ from foods or food ingredients which they are intended to replace to such an extent that their normal consumption would be nutritionally disadvantageous for the consumer.” Furthermore, the preamble of 258/97 stated that certain “populations” ethically opposed to the consumption of GMOs should be informed of their presence in order that they might avoid purchasing products containing them, and that food suppliers retain the right to inform consumers through labeling that their products do not contain GMOs.

Relying on the fact that both 2001/18 and 258/97 appeared to serve multiple purposes, the EC argued that in situations where a WTO member passes an act serving multiple purposes, at least one of which is within the definition of an SPS measure and at least one of which is not, then the act “contains or includes” but “is not itself an SPS measure.” The EC used this conception of the relationship between “measures” and “acts” (the former are incorporated by the latter, and they may incorporate more than one) to conclude that “[w]hen a WTO member adopts a single, indivisible act that pursues multiple legitimate objectives, some falling under the SPS Agreement and some falling under other WTO Agreements, that member cannot be directed to withdraw or revise its measure unless it is found to be inconsistent with all relevant agreements.”

94. Id. pmbl. ¶ 27.
95. Id. ¶ 40; see also Biotech Report, supra note 17, ¶ 7.385 n.521 (noting the phrase “appropriately identified” does not make clear whether the purpose of identification is protection of human health or the environment or some other purpose).
97. Regulation 258/97, supra note 89, art. 3.
98. Id. pmbl. ¶ 8.
99. Id. ¶ 10.
100. Biotech Report, supra note 17, ¶ 4.754.
101. Id. ¶ 4.753.
The Panel ultimately accepted this view. At least it agreed that where one regulatory “act”—which the Panel termed a “requirement,” following language in the SPS Agreement—serves multiple purposes, not all of which are SPS purposes, it should be treated as containing both an SPS measure and a non-SPS measure, rather than being an SPS measure alone. The Panel also held that, contrary to the positions of the United States and Argentina, this conclusion was not inconsistent with article 1.5 of the TBT Agreement, which states, “[T]he provisions of [this agreement] do not apply to sanitary and phytosanitary measures as defined in Annex A.”

The Panel interpreted that provision to mean that to the extent a “requirement” imposed by a member was an SPS measure within the definition of Annex A, the TBT Agreement would not apply. This is not to say that an act or requirement serving both SPS and non-SPS purposes could not be evaluated under the TBT Agreement should its non-SPS purposes place it within the definition of a TBT measure.

The Panel’s final rationale for its conclusion was based on a refutation of the alternative approach to enactments serving multiple purposes, which would necessitate that a “requirement” embodying both SPS and non-SPS measures could only be defended as an SPS measure. The Panel supposed that member countries faced with this circumstance “would not want to forgo the opportunity of defending the requirement at issue also as a non-SPS measure.” If members wanted to enact a “requirement” for multiple purposes, and wanted to be able to argue that despite an SPS violation, the “requirement” still served other legitimate purposes, they could “enact[|] the requirement at issue twice, either in different laws with a statement of the appropriate purpose or in the same law as separate provisions with a statement of their different purpose.”

The enactments could theoretically be identical in every respect except for their respective statements of purpose. If one law were invalidated under the SPS Agreement, the other—which imposes the same requirement but for a different purpose—would still stand.

102. See id. ¶ 7.165 (“[O]ur view is premised on the circumstance that the requirement at issue could be split up into two separate requirements which would be identical to the requirement at issue, and which would have . . . a different purpose which would provide an independent basis for imposing the requirement.”).
103. SPS Agreement, supra note 66, Annex A(1).
105. Id. ¶ 7.167.
106. Id.
107. Id. ¶¶ 7.168-7.171.
108. Id. ¶ 7.169.
109. Id.
110. Id.
This was merely a *reductio ad absurdum*. The Panel was cognizant that such an approach would be confusing and "the result would be a more fragmented domestic legal order."\(^{111}\) The Panel concluded that it would not force upon members an absurd choice between passing laws multiple times with different statements of purpose or opening themselves to "legal risk" in the WTO.\(^{112}\)

**B. Were the EC L&T Requirements SPS Measures Only or Something More?**

The Panel’s discussion of the jurisdictional question of how a member’s domestic regulation should be treated if it was found to contain both SPS and non-SPS measures, while arcane, was relevant to its subsequent analysis of the L&T requirements found in Directive 2001/18 and Regulation 258/97. If the L&T requirements were found to serve purposes not covered by the *SPS Agreement* or any other WTO agreement, then the Panel seemed to imply the regulations would be upheld to the extent they served those other purposes.\(^{113}\) This in turn will be relevant to any future case brought against the EC challenging its current GMO L&T requirements in Regulations 1829/2003\(^{114}\) and 1830/2003,\(^{115}\) the purposes of which will be discussed below.

The Panel addressed the question whether the L&T requirements of 2001/18 and 258/97 were SPS measures, and if so, whether they might also contain non-SPS measures.\(^{116}\) The L&T requirements were not challenged by the complaining parties; however, their status under the WTO agreements was relevant to the questions of jurisdiction and remedy, particularly if those requirements were found to serve non-SPS purposes.\(^{117}\)

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111. *Id.*
112. *Id.* ¶ 7.171. One wonders whether the Panel really did believe it would be within its power to require members to pass multiple enactments of the same legislation on the basis of judicial economy in the WTO.
113. *Id.* ¶ 7.173. The Panel did not make this explicit. It merely noted that separating out the purposes of EC GMO rules "may have implications for the implementation of a possible adverse [Dispute Settlement Body] ruling in this dispute." *Id.*
116. It is important to stress again that the L&T requirements were not being challenged in themselves. The analysis of labeling and traceability was only directly relevant to the Panel’s jurisdictional conclusions with respect to 258/97; the analysis of labeling requirements under 2001/18 should properly be considered obiter dicta. *See Biotech Report, supra* note 17, ¶ 7.381 (justifying its analysis by noting that "consistency requires" the Panel to decide whether the labeling requirements of 2001/18 are SPS Measures).
117. The non-SPS purposes served by the EC GMO rules became relevant to the remedial actions the Panel recommended for the de facto moratorium generated by implementation of the
The Panel concluded that, based on the statement of purpose in article 1 of Directive 2001/18 ("to protect human health and the environment"), that law was an SPS measure within the definition of Annex A(1)(a), (b), and (d), because 2001/18 "is applied to protect human health and the environment from possible unanticipated effects of GMOs." The Panel also found that "the record does not contain sufficient indications of a purpose different from, or additional to, protection of human health and the environment." In reaching this conclusion, the Panel was clearly discounting language in 2001/18's preamble regarding ethical considerations, provision of consumer information, and identification of GMO presence. Had these purposes been placed explicitly in the statement of objectives found in article 1 of 2001/18, rather than simply as preambular language, the Panel may have concluded that 2001/18 did serve non-SPS purposes in addition to SPS ones.

The Panel pointed out that 2001/18's L&T requirements only came into play after a GMO product had been found to be safe for human health and the environment, and thus "may not at first glance appear to be a measure that would fall within the scope of the SPS Agreement." However, the Panel concluded that the L&T requirements were indeed "rationally related" to the stated purposes of 2001/18 on three separate bases. First, in the event of unanticipated adverse human health or environmental impacts from a GMO product coming to light after it has been approved for the market, the identification requirements would alert product users "to return it to the seller or to discontinue using it." Second, the identification requirements could help lead to the identification of the cause of unusual health or environmental impacts from the use of a GMO product; if the presence of GMOs was not identified, it could be much more difficult to determine the cause of the negative impacts, should there be any. Third, "in situations of unexpected, accidental release of a GMO [product]," identification of GMO presence in the product "will result in

directives and regulation, as well as the effects of that moratorium on specific GMO products (both measures were found to be in violation of the SPS Agreement), because the Panel limited the remedy to bringing the moratorium and the product-specific measures "into conformity with its obligations under the SPS Agreement." Id. ¶¶ 8.16, 8.20, 8.36, 8.40, 8.55. The Panel was not recommending that the EC regulations be withdrawn altogether. Id. ¶ 8.12.

118. See supra SPS definition note 74.
120. Id.
121. See supra text accompanying notes 93–95.
123. Id. ¶ 7.386.
124. Id.
125. Id. ¶ 7.387.
consent holders and competent authorities being more promptly and more effectively informed [of potential consequences of the incident]."  

Note that the Panel deduced these objectives from the overall objective of 2001/18, which the Panel concluded did not include any purposes beyond protection of human health and the environment. In this connection, however, the Panel did point out that Annex A(1) of the SPS Agreement references "labeling requirements directly related to food safety." The labeling requirements of 2001/18 were covered by the SPS Agreement because they were for the protection of human health and the environment. However, in a footnote, the Panel acknowledged that the language in Annex A(1) permits an inference "that some food-related labeling requirements would not be subject to the SPS Agreement, for example, food labeling required to provide quality assurance, volume of contents, or to reflect consumer preferences or moral considerations."  

The Panel next analyzed 258/97 to determine its purposes. It relied solely on the objectives listed in article 3 of that regulation to determine these. The objectives were that foods within the scope of the regulation not "present a danger for the consumer, mislead the consumer, or differ from foods or food ingredients which they are intended to replace to such an extent that their normal consumption would be nutritionally disadvantageous for the consumer." The Panel found the first objective to be an SPS measure under Annex A(1)(b); however, the second and third objectives were not. The Panel concluded that "not misleading the consumer" for the purpose of preventing harm to the consumer was covered by the first objective of 258/97. Therefore, labeling for the purpose of not misleading the consumer must be for some other objective, namely,

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126. Id. ¶ 7.388.  
127. Id. ¶ 7.391. "We have also observed that the Panel record does not contain sufficient indications of a purpose different from, or additional to, the protection of human health and the environment." Id.  
128. Id. ¶ 7.390 n. 527 (emphasis added).  
129. Id. (emphasis added).  
130. Id. ¶ 7.395. As with 2001/18, the Panel did not rely on the Preamble of 258/97 for clues as to its purposes. The preamble expressed concern, inter alia, that "defined population groups associated with well established practices regarding food should be informed when the presence in a novel food of material which is not present in the existing equivalent foodstuff gives rise to ethical concerns as regards those groups." Regulation 258/97, supra note 89, pmbl. ¶ 8.  
132. Id. ¶ 7.407. "[T]o the extent [258/97] seeks to protect consumers from dangerous foods, it may . . . be considered as a measure applied to protect the life or health of consumers from risks arising from additives (including antibiotic resistance marker genes), contaminants (e.g., pesticide residues in pesticide-producing or resistant GM plants), or toxins (including allergens) in foods. . . . [It] is covered by Annex A(1)(b)." Id.  
133. Id. ¶ 7.411.
"that those consumers who have a preference for food not containing or consisting of GMOs are not misled into purchasing food containing or consisting of GMOs." The objective, the Panel held, falls outside the definition of an SPS measure under Annex A(1).

The third objective, that food containing GMOs not be "nutritionally disadvantageous" to consumers, was not held to be an SPS measure either. The Panel reasoned that this concern was separate from a concern that genetically modified foods not endanger the life or health of a consumer, an SPS purpose. The latter, however, was fully covered by the first objective found in article 3. Thus, avoiding "nutritional disadvantage" could not be said to be a purpose within Annex A(1), since it was an objective unrelated to protecting "human life or health." The final result of the Panel's analysis of 258/97's purposes was that the regulation, including its labeling requirements, was found to embody one SPS measure and two non-SPS measures.

To summarize, the Panel concluded that both Directive 2001/18 and Regulation 258/97 were SPS measures, but that 258/97 also served non-SPS purposes. The Panel determined (in dicta) that the labeling and traceability requirements in 2001/18 were SPS measures (and only SPS measures) because they were rationally related to the objectives stated in article 1 of 2001/18 (to protect human health and the environment), and there was no evidence they were intended to serve any non-SPS purposes. The Panel determined that 258/97's protocols for labeling novel GMO foods, on the other hand, were non-SPS measures to the extent they were intended to prevent consumers from being "misled" and to alert consumers to "nutritionally disadvantageous" GM substitutes for conventional foods. The rules established by 2001/18 and 258/97 have been amended and augmented by two new EC Regulations on GMO products, 1829/2003 and 1830/2003. We turn now to the stated objectives of these new regulations.

134. Id. In the accompanying footnote, the Panel qualified this by noting, "We do not mean to suggest that the absence of information about the presence of a GMO would necessarily lead to consumers being misled." Id. ¶ 7.411 n.543. The Panel thus seems to have reserved the right to determine in the future that information about the presence of GMOs is not so important that the lack of such information would qualify as being misleading. Cf. Foods Derived from New Plant Varieties, 57 Fed. Reg. 22,984, 22,991 (Food & Drug Admin. May 29, 1992) ("To date, FDA has not considered the [recombinant DNA] methods used in the development of a new plant variety . . . to be material information within the meaning of section 201(n) of the [Federal Food Drug and Cosmetic Act] [codified at] 21 U.S.C. 321(n).") (emphasis added).

136. Id. ¶ 7.414.
137. Id. ¶ 7.413.
138. Id. ¶ 7.414. The reader who finds this distinction questionable would not be alone.
139. Id. ¶ 7.416.
in order to determine whether a future WTO Panel might conclude that they serve non-SPS purposes such that they could be maintained despite possible inconsistency with the SPS Agreement.

C. The Purposes of 1829/2003 and 1830/2003: SPS Only or Something More?

Regulations 1829/2003 (1829) and 1830/2003 (1830) took force on November 7, 2003. Their enactment and the subsequent approval of Syngenta’s Bt-11 maize—a type of GMO corn—signaled the end of the EC’s de facto moratorium on GMO products. The new measures were put in place at least in part out of Europe’s growing concern about the WTO complaint the United States was initiating at the time. Both 1829 and 1830 were adopted by the European Parliament on September 22, 2003, just four months after the U.S. and Canada requested consultations with the EC as part of the WTO’s dispute settlement process on May 13, 2003.

Regulation 1829 lays out updated procedures for the “authorization and supervision” of GMO food and animal feed. The new procedures were intended to ensure traceability of GMO products throughout the supply

140. See Regulation 1829/2003, supra note 114, art. 13 (20 days after publication); Regulation 1830/2003, supra note 115, art. 13 (same); see also Brian Schwarz, Note, WTO and GMOs: Analyzing the European Community’s Recent Regulations Covering the Labeling of Genetically Modified Organisms, 25 Mich. J. Int’l L. 771, 780–784 (2004) (providing an overview of the regulations and characterizing them as essentially a “labeling scheme”). For a contemporary analysis of the pending legislation that was enacted in these two Regulations, see generally Scott, supra note 16.

141. See Commission Hopes New Labeling Will Ease GM Approval, Farmers Guardian, Apr. 23, 2004, at 4 (noting that the new labeling rules were intended by the European Commission to ease and speed the GMO approval process); Sticky End for Our Honey Hives?, Western Daily Press (UK), Apr. 26, 2004, available at 2004 WLNR 4215606 (predicting that the impending introduction of GMO crops into the UK would be the effective demise of its organic honey industry because the pollen the bees collect will become GMO-contaminated); cf. Paul Geitner (AP), Europe Begins Enforcing Genetic Food Label Laws, The Intelligencer, Apr. 18, 2004, at 6E (claiming that the new labeling laws are stricter because they include highly processed foods in which the genetically modified DNA is no longer present in the final product).

142. EU Commission to Seek Approval for GMO Corn; Avoids Fight on Coexistence, Inside U.S. Trade, Oct. 31, 2003, available at 2003 WLNR 96031 (“The Commission would like to have a few GMOs approved in the coming months because of the U.S. WTO challenge filed last summer against the moratorium. Having several GMOs newly approved would show that the moratorium is no longer in place and would undercut the U.S. case, sources said.”). Neither Regulation 1829 or 1830 was directly at issue in the dispute.

143. Biotech Report, supra note 17, ¶¶ 7.104–7.105 (and accompanying timeline); see also DSU supra note 52, art. 4(5) (“In the course of consultations in accordance with the provisions of a covered agreement, before resorting to further action under [the DSU], members should attempt to obtain satisfactory adjustment of the matter.”).

144. Regulation 1829/2003, supra note 114, art. 1(b).
Article 1 of 1829 states its objective, in part, to “provide the basis for ensuring a high level of protection of human life and health, animal health and welfare, environment and consumer interests in relation to genetically modified food and feed, whilst ensuring the effective functioning of the internal market.” This language differs from the objectives language of Directive 2001/18 and Regulation 258/97 as it explicitly lists a purpose to serve “consumer interests” that are apart from “protection of human life and health.” Those interests are flushed out in other areas of the regulation. Paragraph of the Preamble 17 notes that, “[i]n addition to other types of information to the public provided for in this Regulation, the labeling of products enables the consumer to make an informed choice and facilitates fairness of transactions between seller and purchaser.” Paragraph 20 also notes the importance of giving end users the ability to make informed choices. Paragraph 21 of the Preamble explains that “[c]lear labeling . . . meets the demands expressed in numerous surveys by a large majority of consumers, facilitates informed choice and precludes potential misleading of consumers as regards methods of manufacture or production.” Paragraph 22 expresses a need to expose any disparate nutritional value between GMOs and conventional foods, “as well as any characteristic or property which gives rise to ethical or religious concerns.” Under article 5, governing procedures for applications for authorization, one requirement is “a reasoned statement that the food does not give rise to ethical or religious concerns, or a proposal for labeling it in accordance with article 13(2)(b).” Article 13(2) provides a list of GMO product properties that must be included in a label, such as properties that give rise to “ethical or religious concerns.” All of these are arguably non-SPS purposes.

145. See Burchett, supra note 42, at 185–86 (the regulations are for traceability from “farm to table”); Comment, A Tale of Two Systems: A Comparison Between U.S. and EU Labeling Policies of Genetically Modified Foods, 15 SAN JOAQUIN AGRIC. L. REV. 193, 205–06 (2006) (describing 1829’s mechanisms in detail); see Regulation 1830/2003, supra note 115, art. 3 (defining traceability as “the ability to trace GMOs and products produced from GMOs at all stages of their placing on the market through the production and distribution chains”).
146. Regulation 1829/2003, supra note 114, art. 1 (emphasis added).
147. Id.
148. Id. pmbl. ¶ 17.
149. Id. pmbl. ¶ 20.
150. Id. pmbl. ¶ 21.
151. Id. pmbl. ¶ 22.
152. Id. art. 5(3)(g).
153. Id. art. 13(2)(b).
Regulation 1830 lays out additional L&T requirements. Interestingly, 1830 contains no mention of any purposes to be served by the L&T requirements other than the need to protect human life and health and the environment. The stated objective of 1830 is to provide:

[A] framework for the traceability of products consisting of or containing [GMOs], and food and feed produced from GMOs, with the objectives of facilitating accurate labeling, monitoring the effects on the environment and, where appropriate, on health, and the implementation of the appropriate risk management measures including, if necessary, withdrawal of products.

There is no mention of consumer interests in labeling that go beyond concern for human life or health. Nor is there acknowledgment of ethical or religious considerations, informed decision-making, or fair market transactions in the preamble. Likewise, the definitional and operative sections of 1830 make no mention of these objectives. However, because article 1 explains its objective as providing “a framework for traceability” in order to effectuate the goals of the L&T requirements, the EC could argue this regulation also incorporates the objectives for labeling, as expressed in article 1 of Regulation 1829, which include non-SPS related “consumer interests.”

D. A Recommendation to Amend 1829 and 1830

If the EC wants to ensure that these GMO regulations are better insulated from a potentially adverse WTO ruling, it should amend article 1 of 1830 to clearly state that the regulation serves non-SPS purposes, such as ensuring that consumers can make informed choices based on ethical or religious values. The EC would do well to move such language explicitly into article 1 of 1829 as well in order to make as clear as possible that the “consumer interests” served by GMO labeling go well beyond the SPS purposes defined in Annex(A)(1). By highlighting their non-SPS nature, the EC could convince a future WTO panel that these regulations should be

154. Both 1829 and 1830 recognize that there could be “adventitious [i.e., from an outside source] or technically unavoidable” trace amounts of GMOs appearing incidentally in non-GMO foods. Both regulations exempt products with less than 0.9% GMO content from the labeling requirements. Id. art. 12(2); Regulation 1830/2003, supra note 115, art. 7(3); see also Christopher Booker, Seeds of Chaos: Who Knows if These Are GMOs?, SUNDAY TELEGRAPH (UK), Apr. 25, 2004, available at 2004 WLNR 4215606 (criticizing the British government for bringing the new regulation into force without having technology available to enforce the restriction).

evaluated by the WTO, if at all, under other agreements or GATT provisions. Indeed, it may even convince a future panel to reinvigorate the basic exceptions for public health, morals, and environmental protection in GATT article XX that should have governed Europe’s GMO laws all along.

III. A Recommendation On Remedy: Resolving the Dispute, Keeping the Labels

As noted above, the Biotech Panel’s discussion of the effect on the resolution of a WTO dispute involving a regulation that is both an SPS measure and a non-SPS measure is equivocal. According to the DSU, where a measure has been found to be “inconsistent with a covered agreement, [the panel] shall recommend that the member concerned bring the measure into conformity with that agreement.” The Panel in Biotech chose not to exercise its discretionary ability to suggest to the EC a method

156. Part III proceeds on the assumption that the SPS Agreement is the only WTO agreement implicated in a future dispute over GMO L&T requirements. As discussed above at note 67, jurisdictional analysis of such laws under GATT 1994, the TBT Agreement, or any other WTO agreement is outside the scope of this Note. Nonetheless, there is a wealth of literature on the topic. The breadth of jurisdiction of the TBT Agreement was made clear in the European Communities-Sardines dispute, where the Appellate Body declared that giving a product a name was enough to bring it within the TBT Agreement’s scope. Appellate Body Report, European Communities—Trade Description of Sardines, ¶ 191, WT/DS231/AB/R (Sept. 26, 2002) (adopted Oct. 23, 2002); see also Wold et al., supra note 48, at 420 (discussing whether ecotags are within the TBT Agreement); Doaa Abdel Motaal, The Agreement on Technical Barriers to Trade, the Committee on Trade and Environment, and Eco-labelling, in TRADE, ENVIRONMENT, AND THE MILLENIUM 223-24 (1999) (explaining that extensive discussions at the WTO had been held pertaining to eco-labeling, but no decisions had been made); Arthur E. Appleton, ENVIRONMENTAL LABELLING PROGRAMS: INTERNATIONAL TRADE LAW IMPLICATIONS 91 (1997) (“Because of [the TBT Agreement’s] extensive breadth and its explicit applicability to labeling requirements, it is likely to become the single most important portion of the WTO Agreement affecting the use of environmental labeling schemes.”); Atsuko Okubo, Environmental Labeling Programs and the GATT/WTO Regime, 11 Geo. Int’l Econ. L. Rev. 599, 623 (1999) (noting a growing concern that the TBT Agreement might be applied to eco-labeling schemes focused on non-product-related process and production methods); Kysar, supra note 42, at 551 n.80 (noting that either the SPS or TBT Agreements might be applied to an eco-labeling scheme). The fact that the Biotech Panel focused almost exclusively on the SPS Agreement and made no holdings with respect to the TBT Agreement suggests that either the DSB or particular WTO members may be trending away from use of the latter in scientific-type trade disputes such as that created by the GMO labeling controversy.

157. See supra notes 100–01 and accompanying text.
158. See DSU, supra note 52.
for bringing its procedures into compliance. The DSU states a preference that measures found inconsistent with WTO obligations be withdrawn or revised by the offending member; however, the EC has officially stated it believes its current GMO regime under Regulations 1829 and 1830 does not violate its WTO obligations. Further complicating the matter is that 2001/18 and 258/97 were not themselves at issue in the Biotech dispute, only the de facto moratorium their enforcement (or lack of enforcement) generated. Out of this morass of procedural confusion, at least one question is clear: in the event a future WTO panel finds the EC's L&T regulations embody both SPS and non-SPS measures, and also that the SPS measures are inconsistent with the SPS Agreement, how will the Dispute Settlement Body propose enforcement of a ruling against the measures given the continued validity of their non-SPS purposes?

A. No Guidance from Past WTO Disputes

The issue of appropriate remedy for a law in violation of a WTO agreement that also serves purposes outside WTO jurisdiction appears to be a case of first impression. A survey of how the DSB has handled this jurisdictional-remedial dilemma in previous disputes involving the SPS Agreement does not answer the question, but does provide some clues as to how the DSB might proceed. So far, there have only been four major

160. DSU, supra note 52, art. 19.1 ("[T]he panel . . . may suggest ways in which the member concerned could implement the recommendations."). The Panel merely stated that it "recommends that the Dispute Settlement Body request the European Communities to bring the general de facto moratorium on approvals into conformity with its obligations under the SPS Agreement, if, and to the extent that, that measure has not already ceased to exist." Biotech Report, supra note 17, ¶ 8.16. Thus, the Panel did not even resolve whether there were any outstanding WTO inconsistencies to remedy, much to the consternation of the United States. "Winning the WTO case without achieving any positive changes in the approval process would greatly erode the credibility of the WTO in the eyes of U.S. agriculture." Letter from House and Senate Trade Chairs to USTR, Nov. 13, 2006, reprinted in INSIDE U.S. TRADE, supra note 19.

161. See DSU, supra note 52, art. 3.7 ("The provision of compensation should be resorted to only if the immediate withdrawal of the measure is impracticable and as a temporary measure pending the withdrawal of the measure which is inconsistent with a covered agreement."). As a "last resort" the DSB may permit an aggrieved member to impose its own trade barriers against the offending member. Id.

162. Press Release, European Commission, Europe's Rules on GMOs and the WTO (Feb. 7, 2006), available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/61 ("The EU remains confident that its regulatory regime over GMOs and GM food and feed is fully compatible with its international commitments including those under the WTO. The US has not at any stage challenged the EU's [current] legal framework.").
disputes under the *SPS Agreement*.

None have dealt with the issue of remedy in the context of a measure serving non-SPS purposes.

In *EC—Measures Concerning Meat and Meat Products (Hormones)*, the United States and Canada challenged the EC’s bans on beef and other meat derived from animals given hormone treatments. The EC conceded that its regulations on hormone-treated meats were indeed SPS measures under Annex A(1)(b). The *TBT Agreement* did not apply under article 1.5 of that agreement, which precludes TBT claims against measures within the scope of the *SPS Agreement*. Neither the parties nor the Panel addressed whether the regulations at issue might also encompass non-SPS measures. To the contrary, the Panel stressed that the EC “strictly construed [the import ban] as a sanitary measure, for the protection of human life or health.”

The Appellate Body also failed to address the issue. The Panel found that the EC had violated articles 5.1, 5.5, and 3.1 of the *SPS Agreement* because its bans were not properly based on scientific risk assessments. As a result, the Panel recommended that the DSB request the EC to bring its measures into conformity with the *SPS Agreement*. Because the parties could not reach agreement on the length of time the EC had to bring its measures into compliance, an arbitrator was appointed to determine it. Since the bans had not been found per se invalid, but only invalid due to their inadequate basis in risk assessment, the EC’s strategy for compliance was to undertake the proper risk assessments and then implement new legislation based on them. The only question before the arbitrator was the appropriate length of time the EC had to do this.
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arbitrator set this at fifteen months, the default time period provided in the DSU.\textsuperscript{173} By May 13, 1999, the end of the fifteen-month period, the EC had still not brought its measures into compliance with the \textit{SPS Agreement}.\textsuperscript{174} Under the procedures of article 22 of the DSU, the United States was authorized to suspend its GATT and WTO obligations to the EC up to $116.8 million (U.S.), the amount of "impairment and nullification" of trade rights caused by the European bans.\textsuperscript{175}

In a second \textit{SPS Agreement} dispute, \textit{Australia—Measures Affecting Importation of Salmon}, Canada sought to compel Australia to lift its restrictions on salmon imports. Australia's restrictions were spurred by its concern that the salmon may carry diseases that would spread among native fauna.\textsuperscript{176} The Panel, as in the \textit{EC—Hormones} dispute, did not dwell long on the issue of jurisdiction under the \textit{SPS Agreement}. Indeed, Australia itself \textit{argued} that its regulations were \textit{SPS} measures under both Annex(1)(a) and (1)(b).\textsuperscript{177} The Panel concluded that the Australian measures were most

\hspace{1in} impracticable to comply immediately with the recommendations and rulings, the Member concerned shall have a reasonable period of time in which to do so." \textit{Id.} \textsuperscript{178} 38.

\textsuperscript{173} \textit{Id.} (the fifteen month provision is found in article 21.4 of the DSU). The arbitrator was not swayed by the EC's arguments that it needed additional time to conduct risk assessments (which might provide a scientific basis for retaining the import prohibitions consistent with the \textit{SPS Agreement}).

\hspace{1in} It would not be in keeping with the requirement of \textit{prompt} compliance to include in the reasonable period of time, time to conduct studies or to consult experts to demonstrate the \textit{consistency} of a measure already judged to be inconsistent.... [S]uch considerations are not pertinent to the determination of the reasonable period of time.

\textit{Id.} \textsuperscript{179} 39 (emphasis added). This reasoning conflicts with the findings of the Panel and Appellate Body; the bans were not per se invalid, but were simply not justified by the risk assessments that had so far been done. Concluding that the time needed for additional risk assessments that might justify the measure should not be included in article 21.4's "reasonable time" for compliance is thus incongruous with the apparently process-focused judgment.

\textsuperscript{174} Report of the Arbitrator, \textit{European Communities—Measures Concerning Meat and Meat Products (Hormones),} WT/DS26/ARB (July 12, 1999), available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm. Note that article 3.7 of the DSU states, "[T]he first objective of the dispute settlement mechanism is usually to secure the withdrawal of the measures concerned if these are found to be inconsistent with the provisions of any of the covered agreements." DSU, \textit{supra} note 52, art. 3.7.

\textsuperscript{175} \textit{Id.} \textsuperscript{180} 83-84.


\textsuperscript{177} \textit{Salmon Panel, supra} note 176, \textsuperscript{181} 8.31. This is in sharp contrast to the approach of the EC in the \textit{Biotech} dispute, which sought to limit the application of the \textit{SPS Agreement} to as few of the regulatory components as possible. \textit{Biotech Panel, supra} note 17, \textsuperscript{182} 7.185-.187.
appropriately defined as SPS measures under Annex (1)(a). Again, no
discussion was given to whether the regulations as issue might also
encompass non-SPS purposes. The measures were found to violate articles
5.1, 2.2, 5.5, 2.3, and 5.6 of the SPS Agreement since they were not based
on a valid risk assessment, were thus arbitrary and unjustifiable, and were
more trade restrictive than was required. Having found the measures to
be inconsistent with the SPS Agreement, the Panel called on the DSB to
request Australia to bring its measures in line with the Agreement.

Australia did not raise as a defense before the Appellate Body that any non-
SPS purpose was involved.

The Panel and Appellate Body reports in Japan—Measures Affecting
the Import of Apples cover the topic of the exact definition of a “measure”
in greater depth than the previous reports had. The Panel was faced with
the novel question of whether the slew of regulations being challenged by
the U.S. were all individually SPS measures each requiring a separate
analysis, or whether there was really only one measure at issue instantiated
by the different regulations. Japan maintained that the nine requirements
at issue could not be considered separately as they were all part of one
larger regulatory “system.” The United States agreed that it was an “all
or nothing” case. In short, the Panel concluded, “[T]here is no legal,
logical or factual obstacle to treating the requirements identified by the
United States as one single phytosanitary measure within the meaning of
the SPS Agreement.” The Panel noted, however, that since the SPS
Agreement contained a variety of obligations, and the single measure at
issue was multifaceted in application, it could find that some of the
Japanese requirements violated the SPS Agreement while others did not.

Notably, this still does not provide an answer to the problem presented by

178. Salmon Panel, supra note 176, ¶ 8.37.
179. Id. ¶ 9.1.
180. Id. ¶ 9.2.
181. Appellate Salmon Panel, supra note 176, ¶¶ 88–89. The Appellate Body did observe,
however, that “the SPS measure at issue can only be the measure which is actually applied to
the product at issue.” Id. ¶ 103 (overruling the Panel’s conclusion that two different regulations for two
types of salmon products were merely “two sides of the same coin”) (emphasis in original).
182. Panel Report, Japan—Measures Affecting the Import of Apples, WT/DS245/R (July 15,
183. See Apples Panel Report, supra note 182, ¶ 8.13 (noting that the SPS Agreement’s
definition of an SPS measure was unavailing to answer this question).
184. Id. ¶ 8.15.
185. Id. ¶ 8.17.
186. Id. ¶ 8.16.
187. Id. ¶ 8.19.
the EC’s GMO labeling requirements: how to enforce an adverse DSB ruling where the very same requirements serve multiple purposes, some SPS-related, others not. The Panel only resolved that it could choose to untangle and evaluate requirements separately that it originally found to comprise one single SPS measure. Our conundrum is the inverse: different measures within one requirement.

B. Reigning in the WTO: A New Rule for Disputes Involving Non-Covered Measures

The WTO’s broadly worded disciplines, particularly the significant new obligations imposed by the SPS and TBT Agreements, are creating a jurisdictional creep with the potential to gobble all domestic laws that have any impact on international trade. In addition to the WTO’s expanded mandate resulting from the agreements produced by the Uruguay Round, the WTO is now recognized as a potent forum for complainant countries interested in expanding their trade. When countries win a dispute, they are guaranteed economic and financial benefits in the form of rights to increase tariffs on imports from the member found in violation. Thus, even though international disputes can be framed as environmental or cultural, as tort cases or criminal cases, they tend to end up in the WTO as trade-related cases because forum-shopping complainant members would be foolish to go anywhere else.

The jurisdiction of the WTO’s Dispute Settlement Body is indeed broad and its powers of remediation equally so. Under article 4.7 of the DSU, any member who wishes to convene a panel may do so unless an absolute consensus exists not to. In other words, once a member decides they wish to take a case to the WTO, in practical terms, it cannot be stopped. Furthermore, the threshold for standing in the DSU process is remarkably

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188. See, e.g., SPS Agreement, art. 1(1) (“This Agreement applies to all [SPS] measures which may, directly or indirectly, affect international trade.”); see also Chairman’s Summary, UNEP Meeting on Compliance, Enforcement, and Dispute Settlement in Multilateral Environmental Agreements and the WTO, WT/CTE/W/199 (June 26, 2001) (noting that the DSB’s “compulsory nature [and] exclusive jurisdiction... could lead to the WTO attracting disputes it was not properly equipped to resolve”).

189. See JAMES CAMERON, Dispute Settlement and Conflicting Trade and Environment Regimes, in TRADE AND THE ENVIRONMENT 16, 18 (Agata Fijalkowski & James Cameron eds., 1998) (noting the popularity of the WTO forum for giving victorious complainants “benefits which you can cash in”).

190. Id. at 19. The famous Shrimp/Turtle dispute, for example, could have been adjudicated under Asia-Pacific Economic Cooperation (APEC), the Convention on Biodiversity (CBD), the Law of the Sea Convention (LOSC) Tribunal, the Court of Arbitration, or the International Court of Justice (ICJ). Id.

191. Id. at 135.
low; the member need not even establish that a “legal interest” has been impaired, only that there may be some impact on its international trade.\footnote{192}{Id. at 134 (citing Appellate Body Report, \textit{European Communities—Regime for the Importation, Sale and Distribution of Bananas (Bananas III)}, ¶ 132, WT/DS27/AB/R (Sept. 9, 1997)).} DSB panels do have the power to raise the issue of their own subject matter jurisdiction \textit{sua sponte}.\footnote{193}{Id.}

However, once a panel has convened, and has found jurisdiction to lie under at least one of the covered agreements, many commentators argue that it does not have jurisdiction to consider other provisions of international law—it only applies WTO law.\footnote{194}{Id. at 136.} Thus, the WTO’s jurisprudence of its own jurisdiction is unbalanced. There is a very low threshold for a complaining member to establish a panel, and such a panel will have the power to invalidate a domestic law (or at least impose harsh economic penalties for failure to bring it into conformity with WTO disciplines),\footnote{195}{DSU, \textit{supra} note 52, art. 22.6 (stating that a panel will be established if the Member “objects to the level of suspension proposed, or claims”).} yet there is little chance the WTO in adjudicating a dispute will consider any legal factors governing member behavior other than its own trade rules. Couple this with the concerns noted above—that the WTO’s DSB is a magnet for many disputes that may only implicate trade tangentially (due to its compulsory jurisdiction, efficiency of process, and potential for lucrative trade sanction rights)—and the members of the WTO may confess they have created a black hole forum in the DSB, one that could draw all sorts of disputes into its narrow orbit.

One practical and simple recommendation arises from this apparent imbalance in the WTO’s jurisdiction-remedy formula: future WTO panels and the Appellate Body of the DSB should simply refuse to invalidate a member’s law or allow for the imposition of sanctions where that law is
found to serve a purpose outside the coverage of the WTO agreements. In the context of the GMO labeling controversy, this means that if the EC's L&T requirements under Regulations 1829 and 1830 can be shown to fulfill purposes related to the protection of consumer autonomy and that they give effect to individuals' moral and ethical commitments, then a WTO panel hearing the dispute must not allow sanctions to the extent they would in effect punish the EC for the operation of regulations outside the WTO's jurisdiction. This approach to remedies would be an effective check on the race to Geneva in which WTO members frame international conflicts as trade-related to score economic benefits when such conflicts arise out of much deeper cultural differences.

CONCLUSION

Justice Oliver Wendell Holmes famously quipped in his dissent in  
*Lochner v. New York*, "The 14th Amendment does not enact Mr. Herbert Spencer's *Social Statics*." The same cannot be said for what the General Agreement on Tariffs and Trade does with David Ricardo's theory of comparative advantage. The WTO continues to operate on an economic

196. This is based on the premise that the individual exists as the final consumer in a complex global economic system whose injustices can be masked in the obscurity of continent-spanning supply chains.

197. *Lochner v. New York*, 198 U.S. 45, 75 (1905) (Holmes, J., dissenting). Given this Note's discussion of a WTO ruling invalidating laws passed at least in part for the protection of human health, it is worth noting that the majority in *Lochner* struck down a public health measure which regulated hours for bakers as an invalid exercise of the police power. "The act is not, within any fair meaning of the term, a health law, but is an illegal interference with the rights of individuals, both employers and employees, to make contracts regarding labor upon such terms as they may think best . . . ." *Id* at 61. Notice how the Court there, like the WTO here, performs a "framing" function antecedent to substantive analysis. The law is an interference with contracts, not a health measure; likewise, the WTO assumes the EC's GMO regulations sink or swim on scientific validity, rather than other frames of reference, such as cultural perceptions of risk. While Holmes focused his dissent on the inappropriate invasion of economic theory into constitutional law, the other dissent, penned by Justice Harlan, drew attention to the majority's studied ignorance of the real health concerns the invalidated law sought to protect. The long hours of toil to which all bakers are subjected produce rheumatism, cramps and swollen legs. . . . Nearly all bakers are pale-faced and of more delicate health than the workers of other crafts . . . . The average age of a baker is below that of other workmen . . . most of them dying between the ages of forty and fifty. *Id.* at 70 (Harlan, J., dissenting) (internal quotations omitted). See also Patricia Isela Hansen, *Transparency, Standards of Review, and the Use of Trade Measures to Protect the Global Environment*, 39 Va. J. Int'l L. 1017, 1046-47 (1999) (comparing the *Lochner* Era Supreme Court to the WTO and cautioning that decisions "provok[ing] widespread political opposition" threaten the legitimacy of an institution).

198. See WTO, *supra* note 47.
theory that came to preeminence in the early Nineteenth Century and that has undergone critical theoretical scrutiny in the last quarter century. It is already past the time that the WTO and its members should have responded to these concerns.

The WTO has become in the last half century the international institution “enforcing” “free” trade on a global scale. Yet it has also become the forum de jour for many disputes that may not be best assessed under the trade-oriented rules of the WTO. The EC’s GMO L&T regime is a striking example of a law that arises from and serves multiple social and environmental purposes, but stands exposed under a brooding storm of broadly-worded WTO trade rules designed to maximize economic efficiency at the expense of a multitude of other regulatory concerns. Is it just to require that a European consumer’s moral opposition to GMO food products should be evaluated for its scientific validity? Such a consumer might respond:

The final food product containing GMOs is but the last link in a socioeconomic chain connecting multinational agribusiness firms to large-scale industrial farmers to unsustainable yields; this, in turn, causes ecological upset in the form of increased parasitic resistances, the spread of genetically modified invasive plant varieties into local ecosystems, the entrance and bioaccumulation of poisons within food webs, potential threats to human health, and growing economic dependency on monoculture crops and diets, which threaten to rupture environmentally and socially superior farming methods. I refuse to play a role in this.199

While the scientific basis for some of those assertions may require more study, the WTO would be far a field of its expertise if it determined to weigh in on the merits of this essentially normative debate under a document as science-specific as the SPS Agreement. How could agricultural science answer whether Europe’s governments and consumers

199. See Margaret Rosso Grossman, Multifunctionality and Non-Trade Concerns, in AGRICULTURE AND INTERNATIONAL TRADE: LAW, POLICY AND THE WTO 85, 85 (Michael N. Cardwell et al. eds., 2003) (defining “multifunctionality” as “the ability of agriculture to provide goods and services valued by society, in addition to the production of marketable food and fibre,” i.e., rural employment, spiritual values, maintenance of ecological wisdom, animal welfare, crop diversity and food security, among others); Michael Cardwell, Multifunctionality of Agriculture: a European Community Perspective, in AGRICULTURE AND INTERNATIONAL TRADE: LAW, POLICY AND THE WTO, supra, at 131, 151, (discussing compatibility of the EC’s comprehensive multifunctional agricultural and rural programs with WTO rules).
are wrong to protect their farmers from an American "noose around the neck"?  

Finally, a ruling that GMO labeling is invalid under trade rules would be a blow to our American political values as much as it would be a blow to Europe's millennia-old agricultural traditions. Such a ruling undermines the primary argument of free-market advocates for the role of the consumer as democratic power-broker through the ability to influence economic and social trends by the exercise of buying power. This power is only effective when consumers have the necessary information to make informed choices in the market that reflect their values and desires—exactly what GMO L&T requirements seek to provide. More fundamentally, a regime of trade rules that would hamper the ability of individuals to know or understand the nature of what they are putting into their bodies should be regarded as untenable by all countries where personal autonomy is still sacrosanct and the liberty of the individual revered.

200. See, e.g., Winickoff et al., supra note 68, at 85 (arguing that "WTO judges charged with interpreting the SPS Agreement should use anti-protectionism [rather than scientific sufficiency] as their guiding norm"). See generally sources cited supra note 1 and accompanying discussion.