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MEASURING BRIEF*

Civ. App. Nos. 06-2006 and 06-2007

IN THE UNITED STATES
COURT OF APPEALS FOR THE TWELFTH CIRCUIT

PROVINCE OF INUKSUK
and
VILLAGE OF AKULI,
Appellants,
v.
GENERGY CORP., ATOMIC ENERGY, INC.,
CENTENNIAL POWER CO.,
POWER SUPPLIERS CO., FIRST ENERGY, LTD.,
and
STEPHEN JOHNSON, ADMINISTRATOR,
U.S. ENVIRONMENTAL PROTECTION AGENCY,
Appellees.

ON APPEAL FROM THE
UNITED STATES DISTRICT COURT FOR THE DISTRICT
OF NEW UNION

BRIEF FOR APPELLANTS,
PROVINCE OF INUKSUK AND VILLAGE OF AKULI

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JURISDICTIONAL STATEMENT

These consolidated cases arise under the Clean Air Act, 42 U.S.C. § 7401 et seq. (2006), and the federal common law of nuisance. District courts have original jurisdiction over all cases arising under the laws of the United States. 28 U.S.C. § 1331 (2006). Appellants filed a timely appeal from a final judgment entered by a federal district court. Therefore, this Court has jurisdiction. *Id.* § 1291.

STANDARD OF REVIEW

Review of the grant or denial of summary judgment is de novo, applying the same legal standard used by the district court pursuant to Federal Rule of Civil Procedure 56(c). *Wolf v. Prudential Ins. Co.*, 50 F.3d 793, 796 (10th Cir. 1995). Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed.R.Civ.P. 56(c). The appellate court must determine, viewing the evidence in the light most favorable to the nonmoving party, whether the district court correctly applied the relevant substantive law. *Kees v. Wallerstein*, 161 F.3d 1196, 1199 (9th Cir. 1998).

STATEMENT OF THE ISSUES

I. Does section 115 of the Clean Air Act require the Environmental Protection Agency to notify New Union that it must reduce emissions from the power plants to the extent made possible by available control technology?

II. Does the *Trail Smelter* doctrine require the United States to reduce carbon dioxide emissions to the extent allowed by available control technology?

III. If the Clean Air Act does not apply, can the federal common law of nuisance be applied to carbon dioxide emissions in the wake of *Illinois v. City of Milwaukee*?

IV. Should the precautionary principle be considered when balancing benefits and harms in a nuisance analysis?

V. Should the *Landers v. East Texas Salt Water Disposal Co.* rule be applied if a public nuisance relating to carbon dioxide is found under either federal or state law?

VI. Is the harm to Inuksuk and Akuli sufficiently concrete to bring a nuisance action?

STATEMENT OF THE CASE

The Province of Inuksuk and the Village of Akuli brought suit for public nuisance against Genergy Corp., Atomic Energy, Inc., Centennial Power Co., Power Suppliers Co., and First Energy, Ltd. (collectively, "power companies"). Inuksuk also brought suit against the Environmental Protection Agency ("EPA") seeking enforcement of the Clean Air Act ("CAA"). Record ("R.") at 1. The court below consolidated these cases and granted summary judgment for the power companies and the EPA on all issues. R. at 2. First, the court ruled that there is no federal common law of nuisance for air pollution. R. at 8. Second, the court found that harm resulting from global warming is too speculative to make out a claim under the common law of New Union. *Id.* Third, the court held that the EPA properly exercised its discretion in declining to require that New Union revise its State Implementation Plan ("SIP"). R. at 11. The court declined to consider the United States' *Trail Smelter* obligations. R. at 12.

STATEMENT OF FACTS

Appellant Inuksuk is a northern province of Canada. R. at 4. It has fourteen villages, Appellant Akuli being the largest. *Id.* The villages are small and are not linked by roads. *Id.* The inhabitants, ninety percent of whom are Inuit, rely on sea ice not only to travel between villages but to support their subsistence, hunting-and-gathering lifestyle. R. at 5.

Anthropogenic greenhouse gases, including carbon dioxide, are accumulating in the Earth's atmosphere, causing air and ocean temperatures to rise. R. at 6. There is thirty-two percent more carbon dioxide presently in the atmosphere than there has been at any time in the past 400,000 years. R. at 6. The five Appellee power companies are the largest emitters of carbon dioxide in the United States. *Id.* Emissions from their New Union power

plants are responsible for at least five percent of all anthropogenic carbon dioxide released annually worldwide. *Id.*

A study conducted by hundreds of scientists under the auspices of the International Climate Change Research Panel ("ICCRP"), a duly constituted international agency, concluded that the Arctic region is experiencing the most rapid and severe climate change on Earth. R. at 6. In the early 1990s, hunters from Akuli began to notice that the sea ice persisted for less time each year than it had previously. R. at 5. The loss of sea ice has been accompanied by increased erosion and severe flooding. *Id.* A study of Inuksuk conducted by the Inuit Commission, a duly constituted international agency ("Inuksuk study"), predicts that rising temperatures will cause further erosion of Inuksuk's coastline as a result of lost sea ice, increased flooding, and the loss of fisheries and habitat for game animals upon which the Inuit depend. R. at 5-6. The Inuksuk study indicates that the current pace of flooding will destroy major portions of Akuli within three years. R. at 5. Additionally, the Inuksuk study agrees with most climate scientists' conclusion that global warming caused by increased carbon dioxide emissions is causing "widespread thawing" of permafrost, including the permafrost upon which eighty percent of Akuli is built. *Id.* Such thawing causes slumping of the soil, landslides, and severe erosion. *Id.*

Akuli is faced with relocating the entire village to higher ground at a cost of $260 million (U.S.). *Id.* Additionally, individual citizens of Akuli have suffered harms from the destruction of property, loss of native lifestyle, and interruption of business. R. at 6.

SUMMARY OF ARGUMENT

The EPA has a mandatory duty to require that New Union revise its SIP because carbon dioxide is a pollutant reasonably likely to damage the public welfare. The CAA does not allow the EPA the discretion to decline regulation once an air pollutant emitted in the United States has been demonstrated to harm either the citizens of this or a foreign nation.

The *Trail Smelter* doctrine applies to this case because the harm to Inuksuk and Akuli is of a serious magnitude and has been proven by clear and convincing evidence. *Trail Smelter* accords with the CAA by recommending that carbon dioxide emissions be reduced to levels that can be achieved through the application of current technology.

If this Court will not require the EPA to obey the mandate set out by the CAA to regulate the air pollutant carbon dioxide, there is no preemption and the federal common law of nuisance is properly applied. It is a function of the federal common law to fill the interstices that regulatory schemes fail to address. Further, as a true interstate dispute, the instant case requires the application of the federal common law.

As a rule of customary international law, the precautionary principle is part of the federal common law and is binding on the United States. The principle should be included in a nuisance balancing analysis. All of the preconditions necessary for the principle's application are present, and consideration of the precautionary principle will protect the reasonable expectations of Canadian citizens when balancing the equities.

The harm suffered by Inuksuk and Akuli is sufficiently concrete to provide standing for a suit in nuisance. The EPA and the power companies' conduct has caused significant cognizable harm to Inuksuk and Akuli's recognized interests. Moreover, the harm is indivisible, and the power companies are jointly and severally liable for the harms they have caused.

ARGUMENT

I. THE EPA HAS A MANDATORY DUTY TO REQUIRE THAT NEW UNION REVISE ITS STATE IMPLEMENTATION PLAN BECAUSE CARBON DIOXIDE IS A POLLUTANT REASONABLY LIKELY TO DAMAGE THE PUBLIC WELFARE

The 1970 amendments to the CAA were passed "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1) (2006). Section 115 of the Act explicitly grants protection to foreign countries harmed by emissions generated in the United States. *Id.* § 7415. Rather than providing a limited list of pollutants subject to regulation, Congress broadly defined the reach of the Act and left the precise constitution of regulated emissions to the EPA. *See id.* §§ 7408, 7602(g). This tasks the EPA with collecting and analyzing data to determine which pollutants are reasonably likely to endanger the public welfare. *See id.* § 7415(a). The Administrator of the EPA ("Administrator") has limited discretion, taking into account the

available data from "reports, surveys, or studies," to determine whether a pollutant is harmful enough to warrant regulation. *Id.* However, when a pollutant demonstrably endangers the public welfare, the Administrator has a mandatory duty to issue regulations limiting its harm by requiring states emitting the pollutant to revise their SIPs to limit its release. *Her Majesty the Queen in Right of Ontario v. EPA*, 912 F.2d 1525, 1528 (D.C. Cir. 1990).

The evidence linking anthropogenic carbon dioxide to global warming is clear: "Greenhouse gases are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise." Comm. on the Science of Climate Change, Nat'l Research Council, *Climate Change Science: An Analysis of Some of the Key Questions* 1 (National Academy Press 2001) ("NRC Report"). A recent report by the ICCRP concluded that the Arctic region is experiencing particularly rapid and severe climate change. R. at 6. The EPA agrees with Inuksuk and Akuli that it is more likely than not that global warming is responsible for the harms suffered by the citizens of Inuksuk generally and Akuli in particular. R. at 7.

Nevertheless, the Administrator argues that the EPA need not enforce the clear mandate of the CAA. R. at 2. The court below erred when it agreed with the Administrator that regulation of carbon dioxide is a political question. R. at 11. Nor is reliance on *Connecticut v. American Electric Power Co.*, which was brought under the common law of nuisance, applicable to claims falling under the CAA – even if the decisions of the Southern District of New York were binding on this Court. *See* 406 F. Supp. 2d 265 (S.D.N.Y. 2005). Rather, the instant case presents a mundane issue easily addressed by the courts, namely whether the EPA has complied with the CAA. It has not. The EPA has disregarded federal law and has failed to carry out its duty to regulate carbon dioxide in the face of convincing scientific evidence that anthropogenic carbon dioxide is causing harm to the health and welfare of the public.

A. The EPA Has the Authority to Regulate Carbon Dioxide as a Pollutant.

This Court should conclude that Congress has granted the EPA authority, through the CAA, to regulate the emission of carbon dioxide. "If a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be

given effect." *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 n.9 (1984). The inquiry "begins, as always, with the plain language of the statute in question." *Consumer Elecs. Ass'n v. FCC*, 347 F.3d 291, 297 (D.C. Cir. 2003). The CAA defines a "pollutant" as "any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." 42 U.S.C. § 7602(g). Carbon dioxide, a physical and chemical substance produced by the combustion of coal in the power companies' plants and emitted into the ambient air by their smokestacks, clearly falls within this straightforward and expansive definition. The "plain language" of section 115 of the CAA empowers the EPA to regulate "*any* air pollutant" that contributes to the endangerment of the public welfare, either in the United States or a foreign country. 42 U.S.C. § 7415 (emphasis added).

B. The Clean Air Act Requires the EPA to Consider the Balance of Scientific Evidence, Not Broad Policy, When Determining Whether a Pollutant Contributes to the Endangerment of the Public Welfare.

The EPA's analysis of whether an air pollutant contributes to the endangerment of the public welfare is bounded by limits set out by Congress in the CAA. *See Natural Res. Def. Council, Inc. v. EPA*, 824 F.2d 1146 (D.C. Cir. 1987) (holding that the EPA's discretionary judgment must be grounded by the statutory standard). Under the Act, the EPA must consider the best available scientific evidence to determine whether it "has reason to believe that any air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare . . . ." 42 U.S.C. § 7415. As noted in *Massachusetts v. EPA*, the Administrator's discretion to judge the effects of an air pollutant on the public welfare is limited to evaluating "conflicting credible evidence." 415 F.3d 50, 75 (D.C. Cir. 2005) (Tatel, J., dissenting). It is not within the EPA's purview to decide economic, national or international policy; these properly belong to the Congress and were not ceded to the EPA by the CAA.

The court below relied on the fractured majority opinion in *Massachusetts v. EPA* for the proposition that the EPA has unfettered authority to regulate or not regulate air pollutants based on broad policy concerns. R. at 11. Clean Air Act case law, however,

belies this assertion. Indeed, in *Ethyl Corp. v. EPA*, 541 F.2d 1, 29 (D.C. Cir. 1976), the court held:

> [T]his is not to say that congress left the Administrator free to set policy on his own terms. To the contrary, the policy guidelines are largely set, both in the statutory terms "will endanger" and in the relationship of that term to the other sections of the Clean Air Act. These prescriptions direct the Administrator's actions. Operating within the prescribed guidelines, he must consider all the information available to him. Some of the information will be factual, but much more of it will be speculative – scientific estimates and "guesstimates" of probable harm, hypotheses based on still-developing data, etc.[1]

That is, the EPA cannot make endangerment determinations about air pollutants based on broad or nebulous policy considerations neither related to the CAA nor enabled by statute. Where the *Ethyl* court stated that the EPA has the power to make "essentially legislative policy judgments," it did so only in the limited context of apportioning weight to uncertain biomedical evidence derived from several research approaches, not to decisions of broad policy. 541 F.2d at 26.

Similarly, in *Her Majesty the Queen in Right of Ontario*, the court held that the EPA was within its discretion under section 115 not to make an endangerment finding regarding emissions allegedly causing acid rain in Canada only because it had a statutory reason for doing so. There, the Administrator could not determine which states were responsible for emissions causing harm across the border, making the promulgation of an endangerment finding "largely pointless." 912 F.2d at 1533. The facts of *Her Majesty the Queen in Right of Ontario* and those of the instant case are distinguishable, however, because of the different nature of the air pollutants involved.

1. The "will endanger" statutory language at issue in *Ethyl* was replaced by "may reasonably be anticipated to endanger" by the 1977 amendments to the CAA. 42 U.S.C. § 115.

C. The Scientific Evidence that Anthropogenic Carbon Dioxide, Including That Generated Within New Union, Contributes to Global Warming and Endangers the Public Welfare of the People of Inuksuk is Compelling.

At issue in *Her Majesty the Queen in Right of Ontario* were sulfur and nitrogen oxide emissions that are "converted, by chemical processes, into acids that, in combination with water vapors, precipitate in the form of 'acid rain,' often many hundreds of miles from their source." 912 F.2d at 1528. In ruling that the EPA was within its discretion to decline regulation, the court cited continued debate "over the geographic areas affected by acid rain, the types and extent of damage involved, ambient concentrations and deposition levels, and the ability of scientists to identify the specific sources of the emissions." *Id.* None of these uncertainties are relevant to carbon dioxide or the instant case.

Unlike acid rain, "final removal [of carbon dioxide from the atmosphere] stretches out over hundreds of thousands of years." NRC Report at 10. "If the average survival time for a gas in the atmosphere is a year or longer, then the winds have time to spread it throughout the lower atmosphere, and its absorption of terrestrial infrared radiation occurs at *all* latitudes and longitudes." *Id.* (emphasis added). Burning fossil fuels such as coal is a "major" cause of the increase in ambient carbon dioxide. *Id.* In fact, the power companies' plants are responsible for more than five percent of the anthropogenic carbon dioxide released into the world's atmosphere every year. R. at 6. The carbon dioxide emitted from the power plants, unlike acid rain, clearly is present – and present in appreciable quantities – in the ambient air of the Province of Inuksuk.

The effect of carbon dioxide as a greenhouse gas is equally certain. The NRC report relied upon by the *Massachusetts* court and the court below equivocates only on the level of precision with which climatic predictions can be made, but its conclusions are clear from the very first lines: "Greenhouse gases, such as carbon dioxide, are accumulating in the earth's atmosphere as a result of human activities, causing surface air . . . and subsurface ocean temperatures to rise. Temperatures are, in fact, rising." NRC Report at 1. A recent report by the ICCRP concluded that "the Arctic region is experiencing some of the most rapid and severe climate change on Earth." R. at 6. This is confirmed by a study conducted by the Inuit Commission, which has linked the rapidly escalating

Arctic temperatures to loss of sea ice, increased shore erosion, and the melting of permafrost, all of which endanger the public welfare of the Province of Inuksuk. R. at 5. Under the weight of this data, it is at least "reasonably anticipated" that carbon dioxide is causing harm to the welfare of Inuksuk.

D. The EPA Has Abused the Authority Conferred on It by the Clean Air Act by Refusing to Require New Union to Better Regulate Carbon Dioxide Emissions from the Power Companies' Plants.

Carbon dioxide is a pollutant subject to regulation by the EPA. Because carbon dioxide persists for thousands of years and disperses globally, there is no question that the power companies' emissions are present in the atmosphere of Inuksuk. The overwhelming balance of scientific evidence indicates that anthropogenic carbon dioxide emissions contribute to global warming, causing harm to the welfare of the people of Inuksuk as their shoreline disintegrates and the permafrost beneath them dissolves. Under these circumstances, section 115 of the CAA imposes a mandatory duty on the EPA:

> Whenever the Administrator . . . has reason to believe that any air pollutant or pollutants emitted in the United States cause *or contribute* to air pollution which may reasonably be anticipated to endanger the public health or welfare in a foreign country . . . the Administrator *shall* give formal notification thereof to the State in which such emissions originate.

42 U.S.C. § 7415 (emphasis added). The plain language of the statute *requires* the Administrator to give formal notice to the governor of New Union to revise that state's SIP. *SeeHer Majesty the Queen in Right of Ontario*, 912 F.2d at 1528 (the EPA alleges, and the court agrees, that section 115 mandates that modifications to a state's SIP are compulsory when the source of air pollution which may be reasonably anticipated to endanger the public welfare is identified).

Ideally, the Administrator should require the power companies to reduce carbon dioxide emissions by fifty percent, consistent with the best technology can now achieve. R. at 1. Section 108(a)(2) of the CAA directs the Administrator to establish air quality criteria for an air pollutant to "accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be ex-

pected from the presence of such pollutant in the ambient air . . . ." 42 U.S.C. § 7408(a)(2). Given that the "latest scientific knowledge" predicts rising sea levels and the susceptibility of much of the globe to drought, a regulatory approach that leverages the best available control technology is prudent.

II. THE *TRAIL SMELTER* DOCTRINE REQUIRES APPELLEES TO REDUCE CARBON DIOXIDE EMISSIONS TO LEVELS THAT CAN BE ACHIEVED THROUGH THE APPLICATION OF CURRENT TECHNOLOGY.

The *Trail Smelter* doctrine, as noted by the court below, introduced the Roman law concept of *sic utere ut alenum non laedras* – one should use one's own property in such a manner as to not injure that of another – to international environmental law. R. at 11. The *Trail Smelter* arbitration arose out of damage caused to crops in the State of Washington by sulfur fumes which drifted south across the border from a smelter in Trail, British Columbia. The United States and Canada agreed that indemnification for harm caused to crops was appropriate and established an arbitration tribunal to determine whether damage had in fact occurred and what damages might be due. *Trail Smelter* (*United States v. Canada*), 3 R.I.A.A. 1905, 1908 (1949). Damages were subsequently found and apportioned by the tribunal, and a second decision on the question of continuing (prospective) relief was delivered three years later. *Id.* at 1963. In the second phase of the proceedings, the tribunal noted that it could find no instance of international law dealing with transboundary pollution and so relied on the United States Supreme Court's decisions of disputes over pollution between the states. *Trail Smelter Arbitral Tribunal Decision*, 35 Am. J. Int'l L. 684, 714-15 (1941).

A. The *Trail Smelter* Tribunal Applied U.S. Law to Create a Simple Rule: No State May Permit Its Territory to Be Used in Such a Way as to Cause Serious Harm to Another.

Citing *Missouri v. Illinois*, 200 U.S. 496, 521 (1906), and *New York v. New Jersey*, 256 U.S. 296, 309 (1921), the *Trail Smelter* tribunal stated that transboundary pollution must be of a "serious magnitude" and "shown by clear and convincing evidence" before a court may rightfully intervene to settle the dispute. 35 Am. J. Int'l L. at 714-15. In *Missouri*, the Court refused to enjoin sewage

discharge into the Mississippi for lack of proof that the harmful but short-lived typhoid bacillus it contained survived long enough to cause disease in Saint Louis. *Id.* at 525-26. Here, there is no question that carbon dioxide released into the atmosphere by power plants in New Union eventually pollutes the air of Inuksuk. From *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 238 (1907), the tribunal adopted the holding that "it is a fair and reasonable demand on the part of a sovereign that the air over its territory should not be polluted . . . from [a foreign] source." In that case, apropos to the instant dispute, the Court enjoined the pollution of Georgia's air by smelters located in Tennessee. *Id.* at 237.

Synthesizing these cases, the tribunal found that:

> The above decisions, taken as a whole, constitute an adequate basis for its conclusions, namely, that, under the principles of international law, as well as the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.

35 Am. J. Int'l L. at 716. This restatement of American and international law supports each of the three consensus elements of the modern customary law of transboundary pollution. First, a state may not permit the use of its territory for injurious transboundary pollution. Second, a state is liable for transboundary pollution only when it is of serious magnitude and is shown by clear and convincing evidence. Third, the tribunal suggested that liability is strict if causation is shown. The questions presented by the instant case are, therefore, whether the magnitude of harm is sufficient to invoke the authority of the court and whether Appellees are demonstrably responsible for that harm.

B. Pollution Generated in New Union Is Causing Serious Harm to Inuksuk and Akuli.

The magnitude of the harm caused by the power companies' emissions is certainly "serious." From a broad perspective, global warming threatens the weather patterns of the entire globe, imposing costs and harm planet-wide. On a smaller scale, global warming caused in part by the power companies' emissions have left a major portion of the Village of Akuli subject to destruction by flooding and erosion within three years. R. at 5. The cost of

relocating the Village is estimated to be $260 million. *Id.* The *Trail Smelter* dispute was settled for a mere $350 thousand. 35 Am. J. Int'l L. at 687. If the power companies are held liable only for the approximately five percent of anthropogenic carbon dioxide they contribute to the atmosphere, their pro rata share of this harm approaches fifteen million dollars, more than forty times the amount in dispute in *Trail Smelter*.

Causation under *Trail Smelter* presents a more complicated question. Carbon dioxide both contributes to global warming and disperses globally throughout the atmosphere. However, in both the cases cited by the tribunal and in the *Trail Smelter* dispute itself, the transboundary harms arising from pollution had unitary sources and so there was no discussion of the type of causation required or whether joint and several liability attached to environmental harm. Certainly, under at least some modern environmental regulations, such as the Comprehensive Environmental Response, Compensation, and Liability Act, joint and several liability is strictly imposed.[2] *See O'Neil v. Rohm & Haas Co.*, 883 F.2d 176 (1st Cir. 1989) (holding two companies jointly and severally liable for remaining cleanup costs at contaminated site after other responsible parties settled). *Trail Smelte*r itself, however, presents little guidance as to how the costs of relocating the Village of Akuli should be apportioned. Fortunately, the issue of whether the power companies should be enjoined from further pollution is much clearer.

C. *Trail Smelter* Recommends that the Best Available Technology Be Employed to Reduce the Harm of Continued Pollution.

The *Trail Smelter* tribunal emphatically stated that no state has the right to use or permit the use of its territory in such a manner as to create air pollution that harms the territory of another. 35 Am. J. Int'l L. at 716. To prevent further harm to Washington by the smelter, the court compelled the use of available emissions control technology. *Id.* at 726-31. After a multiyear study tracking the diffusion of sulfur dioxide from the smelter, the tribunal established a regime including instruments for determining both meteorological conditions and sulfur dioxide emissions,

2. The Trail Smelter is itself the current subject of litigation under the Comprehensive Environmental Response, Compensation, and Liability Act. *Pakootas v. Teck Cominco Metals, Ltd.*, 452 F.3d 1066 (9th Cir. 2006).

and also established minimum stack heights and maximum emissions based on the season and weather conditions. *Id.* At the time, limiting sulfur dioxide emissions meant limiting the activity of the smelter. *Id.* at 726. If the weather was particularly unfavorable, the operation of the smelter could be either limited or halted entirely. *Id.* at 728-29. Thanks to advances in technology, a more effective, less intrusive solution is available today. Although the total elimination of carbon dioxide emissions cannot be accomplished by modern technology, emissions can be cut in half without interrupting the operation of the power plants. R. at 1.

III. IF THE CLEAN AIR ACT IS INAPPLICABLE, THE FEDERAL COMMON LAW OF NUISANCE APPLIES TO INTERNATIONAL AIR POLLUTION CAUSED BY CARBON DIOXIDE EMISSIONS.

In *Illinois v. City of Milwaukee* ("*Milwaukee I*"), the Supreme Court unanimously reaffirmed a state's right to bring a federal common law action for the abatement of a nuisance caused by interstate pollution. 406 U.S. 91, 100 (1972). Illinois challenged Milwaukee's discharge of sewage into Lake Michigan, a body of interstate water, alleging significant public health issues. *Id.* at 93. The Court held that although "the remedy sought by Illinois is not within the precise scope of remedies prescribed by Congress" in the Federal Water Pollution Control Act ("FWPCA"), those remedies were not exclusive. *Id.* at 103. The Court held that "when we deal with air and water in their ambient or interstate aspects, there is a federal common law . . . ." *Id.* (citing *Texas v. Pankey*, 441 F.2d 236 (10th Cir. 1971)). The Court remitted the parties to a federal district court where the federal common law of nuisance could be applied to the particular facts of the case. *Id.* at 107-108.

Congress subsequently passed major amendments to the FWPCA, including the establishment of the National Pollutant Discharge Elimination System ("NPDES"). *See City of Milwaukee v. Illinois*, 451 U.S. 304, 307 (1981) ("*Milwaukee II*"). When the case returned to the Supreme Court, the Court held that the amendments preempted Illinois' federal common law remedy. *Id.* at 319-20. The Court emphasized the comprehensive nature of the amendments, which prohibit "*every* point source discharge . . . unless covered by a permit, which directly subjects the discharger to the administrative apparatus established by Congress to achieve its goals." *Id.* at 318 (emphasis in original). However, the

Court left the federal common law intact as "a necessary expedient when problems requiring federal answers are not addressed by federal statutory law . . . ." *Id.* at 319 n.14.

On the same day it upheld the federal common law nuisance action in *Milwaukee I*, the Supreme Court held that "air pollution is, of course, one of the most notorious types of public nuisance in modern experience." *Washington v. Gen. Motors Corp.*, 406 U.S. 109, 114 (1972). The Court acknowledged in *Washington* that Congress may preempt the federal common law of nuisance where ambient air quality standards have been established or where hazardous air pollutants have been defined. *Id.* at 115. However, such preemption does not exist here. Moreover, courts have preserved common law remedies when no irreconcilable conflict between statutory schemes and common law remedies exists. *See, e.g., Nader v. Alleghany Airlines*, 426 U.S. 290, 299 (1978). Because no irreconcilable conflict arises when applying federal common law to the circumstances here, federal common law is properly applied.

A. The Clean Air Act Does Not Preempt the Federal Common Law of Nuisance Because It Does Not Speak Directly to the Issue of Carbon Dioxide Emissions.

"In determining whether a federal statute pre-empts common-law causes of action, the relevant inquiry is whether the statute '[speaks] *directly* to [the] question' otherwise answered by federal common law." *County of Oneida v. Oneida Indian Nation of N.Y.*, 470 U.S. 226, 236-37 (1985) (quoting *Milwaukee II*, 451 U.S. at 315) (alterations and emphasis in original). "[F]ederal common law is used as a 'necessary expedient' when Congress has not 'spoken to a *particular* issue.'" *Id.* at 237 (quoting *Milwaukee II*, 451 U.S. at 313-14) (emphasis in original). In *Oneida*, the Supreme Court held that the Nonintercourse Act did not preempt federal common law because the Act did not speak directly to the issue of remedies for unlawful conveyances of Indian land. *Id.* While the Act provided that the purchase or grant of Indian lands without a treaty or convention was invalid, it contained no remedial provision. *Id.* at 238. The Act provided for criminal penalties and gave the President discretionary authority to remove illegal settlers from Indian lands. *Id.* at 238 nn. 10, 11. However, the Act "[did] not address directly the problem of restoring unlawfully conveyed land to the Indians, in contrast to the specific remedial

provisions contained in FWPCA." *Oneida*, 470 U.S. at 239 (citing *Milwaukee II*, 451 U.S. at 313-15). Therefore, the Indians' right of action under federal common law was not preempted by the Act. *Id.* at 240.

In *Milwaukee II*, there was no question that the FWPCA and NPDES addressed the particular issues of effluent limitations and overflows. 451 U.S. at 320. The Court held that "the problem of effluent limitations has been thoroughly addressed through the administrative scheme established by Congress" and therefore there was "no basis for a federal court to impose more stringent limitations than those imposed under the regulatory regime by reference to federal common law . . . ." *Id.* Further, the Court held that "all three of the permits issued to [the sewer operators] explicitly address the problem of overflows." *Id.* The permits identified the specific discharge points and the state permitting agency imposed conditions, provided for detailed progress reports, and brought enforcement action which was "specifically addressed to the overflow problem." *Id.* at 321, 323. Thus, federal common law was inappropriate because Congress had already regulated the specific pollutants at issue and the regulations were incorporated into the permit scheme.

In *New England Legal Foundation v. Costle*, the Second Circuit held that a federal common law nuisance action was preempted by the CAA on narrow grounds because the EPA had specifically approved the power company's emission levels. 666 F.2d 30, 32 (2d Cir. 1981). The court analogized the case to *Milwaukee II* in that both cases involved previously-approved emission levels for a specific pollutant – treated sewage effluent in *Milwaukee II* and sulfur fuel in *New England Legal Foundation*. *Id.* The court held that a nuisance claim was preempted because the EPA had approved a variance to the state's SIP which enabled the power company to burn fuel with a 2.8% sulfur content, the exact pollutant challenged as a nuisance. *New England Legal Foundation*, 666 F.2d at 32 n.1. The court left open "the broad question whether the [CAA] totally preempts federal common law nuisance actions," noting that "the [CAA] differs substantially from the [FWPCA] in areas which the majority of the Court in [*Milwaukee II*] found especially significant . . . ." *Id.* at 32 n.2. The court explained that the FWPCA regulates every point source of water pollution, whereas, under the CAA, the EPA and the states are only required to control emissions from those sources

which they find threaten national ambient air quality standards. *Id.* (citing 42 U.S.C. § 7410(a)(2)(d)).

The federal common law of nuisance applies to carbon dioxide emissions because the CAA, as administered by the EPA, does not speak directly to the issue. The CAA, as well as New Union's SIP, currently do not regulate carbon dioxide at all, let alone the emissions from the power companies' plants. This complete lack of regulation stands in marked contrast to the regulation of sewage effluent and overflow in *Milwaukee II*, where those specific pollutants were "thoroughly addressed" by the administrative scheme of the FWPCA. *New England Legal Foundation* is also distinguishable because, here, the EPA has not approved a variance to New Union's SIP that specifically addresses carbon dioxide emission levels by the power companies. Instead, the EPA has chosen not to regulate carbon dioxide at all. Thus, a federal common law nuisance action remains as affirmed in *Milwaukee I*.

B. Federal Common Law Is Properly Applied to Gaps in Statutory Schemes.

Although federal common law cannot be used to impose stricter standards in an area already regulated by statute, it should be applied to fill gaps in a regulatory scheme. *See Milwaukee II*, 451 U.S. at 324 n.18. In *Milwaukee II*, the Court explained that by invoking a common law remedy, Illinois sought to create a duplicate regulatory scheme that simply imposed stricter standards than the FWPCA. 451 U.S. at 324 n.18. A challenge to the adequacy of the FWPCA "does not suffice to create an 'interstice' to be filled by federal common law." *Id.* The Court noted that, under different circumstances, a downstream state could invoke the federal common law in an action where "permits under the Act cannot deal with [the] subjects [at issue]" or where the challenged permits do not do so. *Id.* Thus, where a statute does not speak directly to the issue, a federal court can fill the gap in the regulatory scheme with a common law remedy. *See id.*

Federal common law should be used to fill the interstice in the CAA for carbon dioxide emissions. Inuksuk and Akuli do not seek a duplicative regulatory scheme that simply imposes stricter limitations on the emission of carbon dioxide as did the downstream state in *Milwaukee II*. They do not challenge the inadequacy of any existing carbon dioxide regulations because there are no regulations to challenge. The EPA has declined to regulate carbon dioxide. As in *Oneida*, Inuksuk and Akuli seek a common law

remedy the substance of which is not addressed by the CAA's regulatory scheme. Because the CAA and New Union's SIP do not regulate carbon dioxide as an air pollutant, this Court should fill the gap with a common law remedy.

C. Federal Common Law Applies to the Uniquely Federal Interest in Resolving International Pollution Disputes.

In his dissenting opinion in *Milwaukee II*, Justice Blackmun explained that "where federal interests alone are at stake, participation by the federal courts is often desirable, and indeed necessary, if federal policies developed by Congress are to be fully effectuated." 451 U.S. at 334 n.2 (Blackmun, J., dissenting) (internal citations omitted). "Chief among the federal interests served by this common law are the resolution of interstate disputes and the implementation of national statutory or regulatory policies." *Id.* at 334-35. Thus, Justice Blackmun recognized that federal common law can serve two purposes. First, federal common law can implement and fully effectuate federal policies by "fill[ing] the interstices of a pervasively federal framework." 451 U.S. at 336 (Blackmun, J., dissenting) (internal citations omitted). Second, federal common law can "assure[ ] each State the right to be free from unreasonable interference with its natural environment and resources when the interference stems from another State or its citizens." *Id.* at 335 (internal citations omitted).

In *National Audubon Society v. Department of Water*, the Ninth Circuit mirrored Justice Blackmun's reasoning in the context of a federal common law nuisance claim for air pollution. The court held that "the Supreme Court has recognized the need and authority of courts to fashion federal common law" in those instances where "a federal rule of decision is 'necessary to protect uniquely federal interests' . . . ." 869 F.2d 1196, 1201 (9th Cir. 1988) (quoting *Tex. Indus., Inc. v. Radcliffe Materials, Inc.*, 451 U.S. 630, 640 (1980)). Uniquely federal interests include "interstate and international disputes implicating the conflicting rights of states or our relations with foreign nations . . . ." *Tex. Indus., Inc.*, 451 U.S. at 641. The court in *National Audubon Society* explained that *Milwaukee I* "centered on an interstate controversy which involved a state suing sources outside its domain which were causing pollution within the state." 869 F.2d at 1205. The court concluded that "true interstate disputes require application of federal common law." *Id.* (internal citations omitted). Because

the air pollution at issue in *National Audubon Society* was wholly contained within one state, the court held that there was no uniquely federal interest at issue and that federal common law did not apply. *Id.*

Here, the federal common law of nuisance applies because the power companies' carbon dioxide emissions implicate a uniquely federal interest. The emissions cross an international boundary, causing significant injury to a Canadian province and village. R. at 6. As framed by the court in *National Audubon Society*, this is a true interstate dispute. The international dispute at issue here implicates the United States' relations with a foreign nation. Thus, this Court should apply federal common law to abate the public nuisance caused by the power companies' emissions.

IV. THE PRECAUTIONARY PRINCIPLE SHOULD BE CONSIDERED IN APPLYING THE BALANCING TEST UNDER THE FEDERAL COMMON LAW.

The federal common law defines a nuisance as an activity that causes an injury or significant threat of injury to a cognizable interest of the plaintiff. 58 Am. Jur. 2d *Nuisances* § 72 (2006); *Puerto Rico v. Muskie*, 507 F. Supp. 1035 (D.P.R. 1981). The law of nuisance is guided by the principle that "the right of the owner to use his land is not absolute. He may not so use it as to create a public nuisance; and uses, once harmless, may, owing to changed conditions, seriously threaten the public welfare." *Penn. Coal Co. v. Mahon*, 260 U.S. 393, 417 (1922) (Brandeis, J., dissenting). The existence of a nuisance depends on whether the defendant substantially and unreasonably interfered with the plaintiff's use and enjoyment of his or her property. 58 Am. Jur. 2d *Nuisances* § 99; *Exxon Corp. v. Yarema*, 69 Md. App. 124 (1986). The essential inquiry in any nuisance action is whether the conduct of the defendant was unreasonable. 58 Am. Jur. 2d *Nuisances* § 73; *see Pub. Serv. Co. of Colo. v. Van Wyk*, 27 P.3d 377 (Colo. 2001).

Courts have specifically recognized that activities causing air pollution may create an actionable nuisance claim. 61C Am. Jur. 2d *Pollution Control* §§ 2034, 2036; *Dauberman v. Grant*, 198 Cal. 586 (1926); *Gruber v. Dodge*, 45 Mich. App. 33 (1973); *Ferguson v. City of Keene*, 111 N.H. 222 (1971); *Davis v. Izaak Walton League of America*, 717 P.2d 984 (Colo. Ct. App. 1985). Liability for air pollution will arise if the nuisance analysis finds that the infringement on the plaintiff's interest is greater than the benefits derived

from the challenged activity. *See City of Harrisonville v. W. S. Dickey Clay Mfg. Co.*, 289 U.S. 334 (1933); *Sussex Land & Live Stock Co. v. Midwest Ref. Co.*, 294 F. 597 (8th Cir. 1923); *Mountain Copper Co. v. United States*, 142 F. 625 (9th Cir. 1906). The determination of whether the defendant has acted wrongfully, therefore, involves a BALANCING of the utility derived by the actions taken against the plaintiff's reasonable expectations of the use and enjoyment of his property. *See Carhart v. Gas Co.*, 22 Barb. 297, 308 (N.Y. 1856); *Wesson v. Washburn Iron Co.*, 13 Allen 96, 104 (Mass. 1866).

A. Customary International Law, as Part of the Federal Common Law, Must Be Included in the Nuisance Balancing Test.

When considering disputes of an international character, in the absence of controlling legislative acts, this Court is required to apply the federal common law. "[F]ederal common law exists [in] areas as those concerned with the rights and obligations of the United States [and] interstate and international disputes implicating . . . our relations with foreign nations." *Tex. Indus. v. Radcliff Materials*, 451 U.S. at 641. The instant case directly implicates the foreign relations of the United States. Inuksuk and Akuli are located in Canada, and their claims center on the cross-boundary movement of air pollutants. Any decision in this case will have implications for the foreign relations between the United States and Canada.

The federal common law includes principles of customary international law. In *Sosa v. Alvarez-Machain*, the Supreme Court held that "[w]hen the United States declared their independence, they were bound to receive the law of nations." 542 U.S. 692, 714 (2004) (quoting *Ware v. Hylton*, 3 U.S. 199, 281 (1796) (Wilson, J.)). The Court specifically held that international customary law is part of the law of the United States. *Id.* ("The domestic law of the United States recognizes the law of nations."); *see also Banco Nacional de Cuba v. Sabbatino*, 376 U.S. 398, 423 (1964); *The Paquete Habana*, 175 U.S. 677, 700 (1899) ("International law is part of our law and must be ascertained and administered by the courts of justice."); *The Nereide*, 13 U.S. 388 (1815) ("[T]he Court is bound by the law of nations which is part of the law of the land."). The Court also recognized that the law of nations includes "a sphere in which the[ ] rules binding individuals for the benefit of other individuals overlap[s] with the norms of state relation-

ships." *Sosa*, 542 U.S. at 715. These holdings create the foundation for including the precautionary principle in a nuisance balancing analysis.

The precautionary principle is a recognized rule of customary international law. Customary international law is defined as that which is "the general and consistent practice of states that is followed out of a sense of legal obligation." Restatement (Third) of Foreign Relations Law of the United States §§ 102, 103 (1987); *The Paquete Habana*, 175 U.S. 677, 700 (1899). The fact that the precautionary principle has been codified in a number of international treaties is evidence of the consistent practice by nations followed out of a sense of legal obligation. *See* Robert V. Percival, *Who's Afraid of the Precautionary Principle*, 23 Pace Envtl. L. Rev. 21, 24 (Winter 2005-06) (citing the Int'l Conference on the Protection of the North Sea, *Bremen Ministerial Declaration* (1984), Treaty of Amsterdam Amending the Treaty of the European Union, the Treaties Establishing the European Communities and Certain Related Acts, art. 174(2), Oct. 2, 1997 (C 340)).

Most notably, the precautionary principle is included in both the U.N. Framework Convention on Climate Change and the 1992 Rio Declaration on Environment and Development. *See* U.N. Conference on Env't & Dev., June 3-14, 1992, UNFCC, art. 3(3), U.N. Doc. A/AC.237/18 (1992); Rio Declaration on Env't and Dev., U.N. Doc. A/CONF.151/26 (Aug. 12, 1992) ("Rio Declaration"). Principle 15 of the Rio Declaration states: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." The Rio Declaration has been adopted by 178 nations worldwide. As such, the precautionary principle is a binding rule of customary international law because it constitutes a regular and consistent practice of nations, followed out of a sense of legal obligation.

B. The General and Consistent Practice of the United States and Other Nations Affirms the Application of the Precautionary Principle in the Instant Case.

There is substantial evidence that the United States has adopted the precautionary principle through general and consistent practice. The United States has employed precautionary approaches in response to "mad cow disease in blood, diesel engine

exhaust, particulate air pollution, tobacco consumption, and terrorism." Jonathan B. Wiener, *Whose Precaution After All? A Comment on the Comparison and Evolution of Risk Regulatory Systems*, 13 Duke J. Comp. & Int'l L. 207, 261-62 (2003). In fact, federal courts have required the abatement of environmental hazards where "the evidence calls for preventive and precautionary steps." *Reserve Mining Co. v. EPA*, 514 F.2d 492, 500 (8th Cir. 1975). The United States has also taken a precautionary approach to environmental threats related to the atmosphere and stratospheric ozone depletion. *See* Seth Cagin & Philip Dray, *Between Earth and Sky: How CFC's Changed Our World and Endangered the Ozone Layer* 189-207 (Panthon Books 1993). These responses to environmental threats, spanning several decades, demonstrate the requisite regular and consistent practice followed by a sense of legal obligation by the United States necessary to adopt the precautionary principle as a binding rule of law.

Furthermore, the general and consistent practice of other nations affirms the application of the precautionary principle in the instant case. The Supreme Court has recognized that, even absent a consistent national consensus, the general practice of other nations may affect substantive domestic law. *See Roper v. Simmons*, 543 U.S. 551 (2005). In *Roper*, the Court considered the issue of sentencing minors to death. In holding this practice unconstitutional, the Court examined both the practice of the states, as well as the practice among foreign nations. *Id.* at 551. Even lacking an absolute national consensus against the use of the death penalty for minors, the Court held that the practice violated the Eighth Amendment. *Id.* at 566. Significant to the Court was the "consistency and direction of change" of the states' practices. *Id.* at 575-79. The Court rejected the argument that the refusal of the United States to join an international treaty prohibiting the practice constituted contrary federal law. *Id.* at 576. In so holding, the Court gave substantial weight to the international consensus against the practice. *Id.*

Here, the United States' use of the precautionary principle is reaffirmed by international practice. As in *Roper*, the United States has abstained from joining a treaty that mandates the application of the precautionary principle, namely the Rio Convention. However, the absence of a controlling domestic statute is overcome by a general movement toward a domestic precautionary approach coupled with an international consensus in favor of its application. Therefore, even lacking a definitive national con-

sensus, the precautionary principle should be applied due to the regular and consistent practice of nations.

Applying the precautionary principle as federal common law would not implicate any of the reasons "for great caution" the Supreme Court has traditionally invoked to refrain from "adapting the law of nations to private rights." *Sosa*, 542 U.S. at 731. The Court has acknowledged that the "general practice [is] to look for legislative guidance before exercising innovative authority over substantive law," and that creating law "is better left to the legislative judgment." *Id.* at 731. Here, this Court is operating in a legislative vacuum. A preemption analysis demonstrates that if this Court agrees that the EPA lacks authority to regulate carbon dioxide under the CAA, the legislature has avoided creating positive law this Court could apply. This Court may therefore look to other areas in which law has developed guiding principles of law. Customary international law may therefore be recognized to perform the balancing analysis to determine the existence of a nuisance in a transboundary pollution claim.

C. All of the Requisite Conditions Are Present for the Precautionary Principle to Operate.

In order for the precautionary principle to apply, four conditions must exist. A party must show that (1) the hazard is a "serious or irreversible damage" where (2) there is something short of full scientific certainty, (3) where there are cost effective preventative measures, and (4) where the lack of full scientific certainty is not a reason to postpone taking such action. *See* Percival at 32 (citing Per Sandin, *Five Charges Against the Precautionary Principle*, 5 J. Risk Research 287, 290 (2002)). The precautionary principle is operative here because each of these criteria is satisfied. The hazard created by the release of carbon dioxide risks an increase in global temperatures, which will have "serious or irreversible damage." R. at 6. While scientists agree that global warming is a documented phenomenon, no consensus exists on its full implications and long-term consequences. *Id.* Additionally, there are specific, existing, cost-effective methods of reducing the carbon dioxide emissions from the power companies' plants. R. at 1. Finally, the lack of absolute certainty is not a reason for delay. The consensus of the scientific community is that global warming will have profoundly negative effects; the only uncertainty is how catastrophic they will be. Therefore, the precautionary principle should be applied in assessing the balance of equities.

D. The Precautionary Principle of Federal Common Law Is Not Preempted by a Conflicting Rule of Federal Law.

Federal common law applies unless and until a federal statute preempts its application. The EPA's failure to regulate carbon dioxide under the CAA assures that the federal common law is not preempted. A legal opinion issued by EPA General Counsel Robert E. Fabricant concluded that the EPA does not have the authority to regulate carbon dioxide because, under the CAA, it does not qualify as a pollutant. Thomas W. Merrill, *Global Warming as a Public Nuisance*, 30 Colum. J. Envtl. L. 293, 318 (2005) (citing Memorandum from Robert E. Fabricant, EPA General Counsel, to Marianne L. Horinko, EPA Acting Administrator (Aug. 28, 2003), *available at* http://www.epa.gov/airlinks/co2petitiongcmemo8-28.pdf); *see also* EPA, Notice of Denial of Petition for Rulemaking, 68 Fed. Reg. 52,922 (Sep. 8, 2003) (adopting Fabricant's reasoning)). Therefore, should this Court agree with Mr. Fabricant, no conflicting domestic law exists to preempt principles of international customary law, and the precautionary principle should be considered in the nuisance analysis.

V. THE POWER COMPANIES ARE JOINTLY AND SEVERALLY LIABLE FOR PUBLIC NUISANCE BECAUSE CARBON DIOXIDE POLLUTION CAUSES INDIVISIBLE HARM.

A. The *Landers* Rule on Indivisible Harm Applies to Air Pollution.

"Where the tortious acts of two or more wrongdoers join to produce an indivisible injury. . . which from its nature cannot be apportioned with reasonable certainty to the individual wrongdoers, all of the wrongdoers will be held jointly and severally liable for the entire damages. . . ." *Landers v. E. Tex. Salt Water Disposal Co.*, 151 Tex. 251, 256 (1952). In *Landers*, the plaintiff owned a small lake which he had filled with fish. *Id.* at 252. The plaintiff claimed that two separate pipelines owned by two individual operators broke on or about the same day and that the pipelines' owners negligently allowed saltwater and oil to flow across his land and kill his fish. *Landers*, 151 Tex. at 252-53. Although "there was no concert of action or unity of design between the defendants in the commission of their alleged tortious acts," the court held them jointly and severally liable for the entire dam-

ages. *Id.* at 256. The court concluded that to hold otherwise would make it "impossible for a plaintiff, though gravely injured, to secure relief . . . by joining . . . all wrongdoers whose independent tortious acts have joined in producing an injury to the plaintiff" where the injury "as a practical matter and realistically considered is in fact but a single indivisible injury." *Id.*

In *Michie v. Great Lakes Steel Division*, the Sixth Circuit held that the *Landers* rule applied under Michigan law to indivisible injury caused by air pollution. 495 F.2d 213, 218 (6th Cir. 1974). Thirteen Canadian families filed a complaint against three corporations which operated plants across the border in the United States. *Id.* at 215. The families claimed that the plants emitted noxious pollutants into the air that damaged their persons and property in violation of state and municipal laws. *Id.* The corporations asserted the defense that "other corporations, persons and instrumentalities contributed to the pollution of the ambient air so as to make it impossible to prove whose emissions did what damage to plaintiffs' persons or homes." *Id.* at 218. The court held that where "pollutants mix in the air so that their separate effects in creating the individual injuries are impossible to analyze," the *Landers* rule shifts the burden of proof as to each polluter's responsibility from the injured party to the wrongdoers. *Id.* at 215, 218.

Similarly, the district court in *Illinois v. City of Milwaukee* held Milwaukee jointly and severally liable under federal common law for injuries caused by pathogens and nutrients polluting Lake Michigan. 1973 U.S. Dist. LEXIS 15607, at *22 (N.D. Ill. 1973). The court found that there were multiple sources of the pathogens found in Lake Michigan, including the sewage Milwaukee was discharging into the lake. *Id.* at *15. It was impossible to demonstrate that the residents of Illinois were infected by the pathogens released from Milwaukee because "viruses and bacteria do not bear labels . . . ." *Illinois*, 1973 U.S. District LEXIS at *16. Further, the court explained that although Milwaukee's phosphorous discharges might not cause a problem if they were the only source of pollution, other phosphorous was being discharged and the total amount of pollution was harmful. *Id.* at *22. The court held that "anyone who contributes to the injury is liable, even though his conduct, standing alone, might not have been sufficient to cause the injury." *Id.* Other courts have similarly imposed joint and several liability in multiple-polluter cases under the federal common law of nuisance. *See, e.g.*, *United States v. Luce*, 141 F. 385,

411-12 (D. Del. 1905) (holding one of two factories that contributed to air pollution jointly and severally liable for the nuisance). Thus, under federal or state common law, a polluter is liable for its contribution to a nuisance even if the injury caused by its individual acts is "inappreciable" and "it is probably impossible for a person in the plaintiff's position" to show the polluter's share of the harm. *Id.* at 412.

B. The Power Companies' Carbon Dioxide Emissions Cause Indivisible Harm to Inuksuk and Akuli.

Although the power companies have not acted in concert or with unity of design, they have caused an indivisible injury to Inuksuk and Akuli and should be held jointly and severally liable. The power companies operate five individual coal-fired power plants in New Union. R. at 6. They are the top five emitters of carbon dioxide in the United States and they account for over half of the carbon dioxide emissions from coal-fired power plants in the United States. *Id.* Carbon dioxide is a greenhouse gas that contributes to global climate change. R. at 5. The Inuksuk study found widespread thawing of the permafrost which is found over approximately eighty percent of Inuksuk. *Id.* The study attributed the thawing to global climate change caused by increased carbon dioxide emissions, "consistent with the findings of most climate scientists." R. at 5. The thawing and resultant coastal erosion and flooding have caused significant injury to Inuksuk and the coastal village of Akuli. *Id.* To prevent the inevitable destruction of the village, the residents voted to relocate the village further inland. *Id.*

The power companies' defense does not shield them from *Landers* liability. The power companies assert, as did the power companies in *Michie*, that they are only one source of carbon dioxide emissions and that there are numerous other sources. However, where carbon dioxide emissions mix in the air and their separate effects in creating the injuries are impossible to analyze, the burden of proof should shift to the power companies to determine the nature and extent of their individual liability. To hold otherwise would make it impossible for Inuksuk and Akuli, though gravely injured, to secure relief. It is realistically impossible for Inuksuk and Akuli to divide up their injuries from coastal erosion and attribute the divided injuries to each individual power company. Carbon dioxide molecules, like viruses and bacteria, do not bear labels. Moreover, as in *Illinois*, the power companies are

liable regardless of the extent of their contribution to the harm caused by carbon dioxide emissions. The power companies, as the top five emitters of carbon dioxide in the United States, should be held jointly and severally liable for the indivisible injury suffered by Inuksuk and Akuli from carbon dioxide emissions.

VI. THE HARM TO INUKSUK AND AKULI IS SUFFICIENTLY CONCRETE TO PROVIDE STANDING TO BRING A NUISANCE ACTION.

The harm to Inuksuk and Akuli is sufficiently concrete to provide standing to bring a nuisance action. In order to show standing under Article III of the United States Constitution, a party must satisfy three specific criteria. U.S. Const. Art. III, § 2, cl. 1; *see also Allen v. Wright*, 468 U.S. 737, 750 (1984). The plaintiff must (1) have suffered an injury in fact that is concrete and particularized and actual or imminent, which (2) has a causal connection with the alleged conduct, and (3) that would be remedied by a favorable decision by the court. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992). Because Inuksuk and Akuli have satisfied each of these criteria, they have standing to bring suit against the EPA and the power companies.

Inuksuk and Akuli's injuries are sufficiently concrete to satisfy Article III standing. An injury in fact is defined as an invasion of a legally protected interest that is concrete and particularized and actual or imminent, rather than conjectural or hypothetical. *Lujan*, 504 U.S. at 560. The purpose of the imminence requirement is to "ensure that the alleged injury is not too speculative." *Id.* at 564 n.2. In the context of environmental harms, the Supreme Court has held that the injury in fact requirement will be satisfied where the alleged conduct violates or threatens to violate the plaintiff's aesthetic and recreational enjoyment of his property. *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972); *Covington v. Jefferson County*, 358 F.3d 626, 639 (9th Cir. 2004). Alternatively, environmental injury can be "demarcated as a traditional trespass on property or a tortious injury to a person." *Parker v. Scrap Metal Processors, Inc.*, 386 F.3d 993, 1004 n.11 (11th Cir. 2004) (quoting *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 154 (4th Cir. 2004)). The proper consideration is the harm to the plaintiff, rather than the harm to the environment. *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc.*, 528 U.S. 167, 181 (2000).

Inuksuk and Akuli are uniquely situated to suffer substantial injury from the power companies' carbon dioxide emissions. According to the Arctic Climate Impact Assessment of 2004, a study conducted by hundreds of scientists under the authority of the ICCRP, the Arctic region is subject to the "most rapid and severe climate change on Earth." R. at 6. The Province of Inuksuk and the Village of Akuli are located in this region. R. at 4. The residents of Inuksuk and Akuli are uniquely situated within their communities to bear a significant, substantial, and unique injury due to this climate change. Sheila owns a store that is situated close to the water's edge. R. at 6. The rising water levels threaten her property. *Id.* Additionally, John is a professional fisherman who owns a wharf on the seashore, and whose sole source of income is selling his catch to local residents. *Id.* Because rising water levels are forcing the relocation of the town, John must endure a disruption of his livelihood and income, and a loss of his wharf and home. *Id.* These injuries are representative of those suffered by each of Akuli's residents as a result of the power companies' emissions, and a favorable decision by this Court will provide compensation for the harm to their livelihoods and properties.

Here, the imminence requirement is not a bar to standing because the harms have already occurred. The "court must distinguish between a threat that 'may' pose an imminent endangerment and a threat that is 'clearly impending'" only when no actual harm has occurred. *In re Methyl Tertiary Butyl Ether Prods. Liab. Litig.*, 175 F. Supp. 2d 593, 608 (S.D.N.Y. 2000) (quoting *Citizens for a Better Env't v. Caterpillar, Inc.*, 30 F. Supp. 2d 153, 1064 (C.D. Ill. 1998)). However, injury has already occurred in the case at bar. The residents of Inuksuk and Akuli are presently being forced from their village, their homes, and their livelihoods due to the power companies' actions. R. at 6. Therefore, because the harm is "actual," the question of the imminence of injury for standing purposes is not raised by this case.

Nor is the question of standing conditioned on the violation of an existing statute. "The relevant inquiry here is not whether there has been a breach of [a statute], but whether [the defendant's] actions have caused 'reasonable concern' of injury." *Covington*, 358 F.3d at 639; *see also Friends of the Earth, Inc.*, 528 U.S. at 183. The fact that the EPA has not regulated carbon dioxide emissions is not inapposite to finding a concrete injury under Article III standing. The power companies' plants emit the green-

house gas carbon dioxide. R. at 6. The climate changes resulting from the power companies' conduct has resulted in "flooding and erosion [that] will destroy a major portion of the Village of Akuli within three years." R. at 5. As a direct result of the power companies' actions, Akuli is forced to relocate, and the residents must abandon their traditional way of living. This constitutes a concrete injury for standing purposes.

Moreover, courts have recently cautioned against "conflating issues of standing and questions of proof." *Taliaferro v. Darby Township Zoning Bd.*, 458 F.3d 181, 189 (3rd Cir. 2006) (quoting *Society Hill Towers Owners Ass'n v. Rendell*, 210 F.3d 168, 176 (3rd Cir. 2000)). For standing purposes, a party's assertion of injury is sufficient where there is no showing that the "claims are disingenuous or that the Residents claim [the] injuries merely to manufacture a jurisdictional case or controversy." *Rendell*, 210 F.3d at 176-77. Rather, the standing requirement of a concrete injury in fact will be satisfied if there is a "reasonable probability of the challenged action's threat to [a] concrete interest." *Churchill County v. Babbitt*, 150 F.3d 1072, 1078 (9th Cir. 1998). Here, the balance of scientific evidence has demonstrated the necessary reasonable probability that the power companies' actions have caused a direct injury to a concrete interest, and thus, the standing requirements are satisfied.

The facts of this case are analogous to those of *Labauve v. Olin*, 231 F.R.D. 632 (S.D. Ala. 2005). In *Labauve*, the plaintiffs brought a nuisance claim for the discharge of mercury. Importantly, in favorably deciding plaintiffs' standing, the court did not "specifically hold that the mercury on [the plaintiff's] property originated from [the defendant]." *Id.* at 651 n.43. The court held that the plaintiffs had satisfied standing requirements, even though mercury is a naturally occurring substance, and other local or even international industrial activities could have contributed to the objectionable mercury levels. *Id.* at 646. Here, Inuksuk and Akuli have alleged damages resulting from the power companies' carbon dioxide discharges. Each of the power companies engages in conduct that releases significant quantities of anthropogenic carbon dioxide, which contributes to global climate change and proximately injures the citizens of Inuksuk and Akuli. Therefore, Inuksuk and Akuli have proven an injury in fact sufficient to satisfy Article III standing requirements.

Conversely, the facts here are distinguishable from cases in which the plaintiffs failed to demonstrate a concrete injury. In

Lujan, the plaintiffs argued that they sustained an injury in fact due to the government's failure to apply the Endangered Species Act abroad. 504 U.S. at 566. The Court held that, since the parties had no imminent intention to return to the sites of the challenged projects, the failure to apply the Act did not harm them. *Id.* at 564-66. Conversely, the effects of carbon dioxide emissions have a direct and substantial effect on the residents' property and livelihood as well as the environment of Inuksuk. R.at6. Inuksuk and Akuli's injury has already occurred, is occurring, and will continue to occur into the future. R. at 5.

The facts of this case are also distinguishable from global warming actions that have been dismissed for lack of standing. The courts have dismissed public nuisance actions on grounds that the purported injury was "within the realm of hypothetical or conjectural [rather than] actual or imminent." *Korsinsky v. EPA*, 2005 U.S. Dist. LEXIS 21778, at *8 (S.D.N.Y. 2005). Specifically, the court held the plaintiff's claims of increased vulnerability to disease and mental illness due to global warming to be insufficiently concrete to merit standing. *Id.* However, in the instant case, "[t]he injuries are not hypothetical because they have already occurred and will continue to occur." *American Wildlands v. Browner*, 94 F. Supp. 2d 1150, 1156 (D. Colo. 2000). In no way can these harms be considered hypothetical or conjectural. Rather, they are actual, concrete harms that establish Inuksuk and Akuli's standing to bring suit.

VII. CONCLUSION.

Ultimately, this case is about two issues: basic fairness and economic responsibility. Inuksuk and Akuli, by operation of geographic and climatological chance, happen to occupy the portion of the globe that is experiencing the first and most severe effects of incipient global warming. The consequences of the unregulated emission of greenhouse gases are being borne, if only for the moment, by them. Inuksuk and Akuli do not question the right of power companies to operate coal-fired power plants or to emit greenhouse gases, nor do they seek to prevent their future operation. Rather, they ask only that the costs of running these plants be properly apportioned to those generating a profit from their operation and that those companies conduct their businesses in a responsible fashion that does not cause avoidable harm to innocent parties.

If the power companies insist upon passing the cost of conducting their businesses to the innocent citizens of Akuli, it is left to the EPA to impose a solution. If the EPA refuses to obey the mandate to protect the public given to it by Congress and the CAA, it falls upon this Court to remind the EPA that its duty should not be shirked. If, however, this Court decides that the global pollution of the atmosphere is beyond the scope of the CAA, it must agree that there remains the long-accepted remedy of suit under common law and the law of nations. While no one solution will halt or reverse global warming, just as putting one criminal in jail will not stop crime, the good should not be the enemy of the perfect. Akuli is just the tip of the proverbial iceberg, and if Akuli is allowed to bear the costs for others' unremedied pollution, it will not be long before those costs are passed onto the broad sweep of American society.

CONCLUSION

For the aforementioned reasons, Appellants respectfully request that this Court reverse the district court's grant of summary judgment and remand for further proceedings.