Permitting Under the Clean Air Act: How Current Standards Impose Obstacles to Achieving Environmental Justice

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PERMITTING UNDER THE CLEAN AIR ACT: 
HOW CURRENT STANDARDS IMPOSE OBSTACLES TO 
ACHIEVING ENVIRONMENTAL JUSTICE

Annise Katherine Maguire*

Most studies about the environmental justice movement focus on the disproportionate share of environmental burdens minority and low-income populations bear, the negative effects of an unequal distribution of undesirable land uses, and how industry contributes to the adverse impacts suffered by the communities. Unfortunately, trying to prove that an injury was caused by actions of a nearby facility is difficult, and this approach has yielded few legal victories for environmental justice communities. While it is important to remain focused on how environmental justice communities are disproportionately impacted by undesirable land uses, the analysis must shift if the law is to provide any remedy for these communities. Rather than starting at the bottom and focusing on the negative effects that occur under the current system, this Note argues that a different approach should be adopted. Under this new approach the analysis begins by examining the cause of the problems—the statutes and regulations established by Congress and implemented by federal and state agencies. In particular, the Note focuses on how the current framework of technology-based permitting provides facilities with the legal ability to continue emitting dangerous levels of pollution that disproportionately harm environmental justice communities. The Note uses a case study from Michigan to illustrate the problems with the current permitting system. It concludes with suggested changes that could be implemented by states, or at the federal level, to provide adequate protections for environmental justice communities so that the environmental justice movement has a better chance of achieving its goals.

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INTRODUCTION

Most studies about the environmental justice movement focus on the disproportionate share of environmental burdens minority and low-income populations bear, the negative effects of an unequal distribution of undesirable land uses, and how industry contributes to the adverse impacts suffered by the communities. The focus is narrow, and is most often analyzed from a bottom-up approach: (1) identify the negative impacts, usually health-related, suffered by the environmental justice community; (2) establish the proximate cause of the problem and whether it is related to a nearby facility; and (3) focus on what the facility or corporation should do to improve these conditions.

Unfortunately, applying the bottom-up approach has yielded few legal victories for environmental justice communities. Success in the environmental justice movement has largely come from grassroots organizing, not the law. The few statutory protections that exist are broad and rarely enforced. Thus, while it is important to remain focused on how environmental justice communities are disproportionately impacted by undesirable land uses, the analysis must shift to a top-down approach if the law is to provide any remedy for these communities. Rather than starting at the bottom and focusing on the negative effects that occur in the current system, under a top-down approach the analysis begins by examining the cause of such problems—the statutes and regulations established by Congress and implemented by federal and state agencies. These statutes and regulations are what provide facilities with the legal ability to continue emitting dangerous levels of pollution that disproportionately harm environmental justice communities. Changing the laws and regulations, or changing how they are applied so that environmental justice communities are afforded adequate protections, will provide the environ-
mental justice movement with a much better opportunity to achieve its goals.

The environmental justice movement has been unable to accomplish many of its goals because it is fighting against a legal framework that both favors development over environmental protection and tends to ignore the negative impacts that development can have on surrounding populations. Without absolving corporations of responsibility for their actions and the resulting environmental pollution, the reality is that industry operates pursuant to statutes and particularly the regulations established by the Environmental Protection Agency ("EPA"). Unfortunately, the EPA has done little to integrate environmental justice principles into agency policies. While some corporations will go beyond the minimum requirements to protect the environment and community surrounding a facility, in a capitalist economy these corporations are most often the exception, not the rule.

The EPA, other federal agencies, and state governments set the minimum standards that industries must satisfy when applying for a permit to build a new facility or modify an existing one. Because these standards form the basis under which industries operate, the easiest way to affect real change for environmental justice communities is to focus on the cause of the negative impacts. The discourse must shift to a top-down approach and focus on changing the regulations that permit industries to pollute at levels that threaten the health of the surrounding community. Failing to make these changes will result in facilities being awarded permits for activities that can and will burden environmental justice communities and will leave these communities with no legal recourse—as evidenced by a recent case in Detroit, Michigan. The incident in Detroit and the permitting process in the state of Michigan, will serve as a case study to illustrate the problems of the current permitting process under the Clean Air Act ("CAA" or "the Act"), and will be referred to in depth later in this Note.

Although the CAA is motivated by a concern for public health, there are few tools in the Act that allow communities suffering from environmental injustice to remedy these problems. Title I of the CAA requires the EPA to define pollutants that are the most harmful to human health.\(^1\) Thus, the Act begins with a focus on the ways in which pollutants negatively impact human health. However, subsequent provisions—in particular, permitting requirements—focus on satisfying technological standards, with far too little attention devoted to negative health impacts. Perhaps more troubling is the fact that even the basic safeguards found in technology-based permitting requirements can be avoided if a facility qualifies for an exception to these standards. One such exception under the CAA that can have a devastating effect on the air quality of an entire

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region is netting. This exception will be discussed in more detail in Part II.

The permitting process under the CAA for the construction of a new facility, or expansion of an existing facility, is a primary example of how industry can operate within all legally established guidelines and still harm the surrounding community. Under the current permitting system there are few barriers standing in the way of a corporation that wants to construct or expand a facility located in a minority or low-income community. Changing the framework by moving away from technology-based permitting is a way to provide communities with legal rights and remedies that are not currently available. Establishing a new permit application process that mandates the consideration of environmental justice issues will remove many of the current obstacles faced by environmental justice communities.

Part I of this Note will examine the history of the environmental justice movement and will illustrate why and how environmental injustice exists. Part II will explore the current framework by analyzing the technology-based permit requirements under the CAA and applicable exceptions. Part III will illustrate the negative implications of technology-based permitting for environmental justice communities by using requirements in Michigan as an example, with a particular focus on issues raised in a recent permit application filed in Detroit, Michigan. The final section, part IV, will address issues ignored under the current permitting system, and will provide suggestions for ways to improve the current permitting process to facilitate the success of the environmental justice movement.

I. THE ENVIRONMENTAL JUSTICE MOVEMENT

A. History of the Movement

Environmental justice is the principle that no single group of people should have to bear a disproportionate share of the environmental burdens associated with development and government policies. The EPA defines environmental justice as:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial,
municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies.\(^2\) When individuals in minority and low-income communities became tired of bearing an unequal share of these burdens, the environmental justice movement was born. People of color wanted to address the inadequate environmental protections that existed in their communities, and did so by raising awareness of the public health concerns facing their families and their communities.\(^3\) These individuals relied on the "civil rights movement, the grass roots anti-toxics movement of the 1980s, organizing efforts of Native Americans and labor, and, to a lesser extent, the traditional environmental movement" when developing a strategy to combat environmental injustice in their communities.\(^4\)

Environmental justice advocates point to the PCB (polychlorinated biphenyl) landfill dispute in Warren County, North Carolina, as the impetus for the movement.\(^5\) A proposal to site a PCB landfill in Warren County ignited protests and resulted in more than 500 arrests.\(^6\) Although these protestors could not prevent the siting of the PCB landfill, their actions launched the environmental justice movement.\(^7\) This event also led to a landmark report published in 1987 by the United Church of Christ's ("UCC") Commission for Racial Justice titled "Toxic Wastes and Race in the United States."\(^8\) The UCC report concluded that people of color and individuals living in low-income communities faced disproportionate environmental burdens, sparking a national grassroots movement and a flurry of academic and government attention.\(^9\)

Events that followed the UCC report comprise the entire social, regulatory and legal history of the environmental justice movement. Although there was a great deal of activity during the first decade following the report, subsequent years have been most notable for a lack of government and regulatory actions to address environmental injustice.

\(^5\) Robert D. Bullard et al., Toxic Wastes and Race at Twenty: Why Race Still Matters After All of These Years, 38 ENVTL. L. 371, 373 (2008).
\(^6\) Id.
\(^7\) Id.
\(^8\) Id. at 371, 373.
\(^9\) Id. at 371.
Shortly after publishing the report, the UCC's Commission for Racial Justice helped organize the First National People of Color Environmental Leadership Summit.\(^\text{10}\) The Summit was held in 1991 in Washington, D.C., and was attended by 650 grassroots, national and international leaders.\(^\text{11}\) The Summit addressed environmental problems facing minorities in the United States and abroad, and culminated in the adoption of seventeen “Principles of Environmental Justice.”\(^\text{12}\) The continued development of the movement led to a Second People of Color Environmental Leadership Summit held in 2002, which was attended by more than 1400 individuals.\(^\text{13}\)

The significant increase in public support for the environmental justice movement did not go unnoticed by government agencies and officials. In 1992 the EPA created the Office of Environmental Justice and produced a report, “Environmental Equity: Reducing Risks for All Communities,” which acknowledged “the fact that some populations shoulder greater environmental health risks than others.”\(^\text{14}\) In 1993 the EPA established the National Environmental Justice Advisory Council, which marked the first time any group had been organized with representatives from communities, academia, government, tribes, environmental organizations and industry to discuss solutions to environmental justice problems.\(^\text{15}\)

February 11, 1994, marked one of the most significant gains to date for the environmental justice movement. President Clinton issued Executive Order 12,898 (“EO 12,898”), “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” to address problems of environmental injustice in existing federal laws and regulations.\(^\text{16}\) Unfortunately, EO 12,898 marks one of the last significant government actions to promote the integration of environmental justice into federal laws and regulations.

If the period between the mid-1980s to the late 1990s is notable for an increased awareness of, and legal rights granted to environmental justice communities, then the period from 2000 forward can best be characterized as a systemic dismantling of previous environmental justice initiatives. Although President George W. Bush made a commitment to address environmental justice problems during his Presidency,\(^\text{17}\) the con-

10. \(\text{Id. at 376.}\)
11. \(\text{Id. at 377.}\)
12. \(\text{Id.}\)
13. \(\text{Id.}\)
14. \(\text{Id. at 381.}\)
15. \(\text{Id.}\)
16. \(\text{Id.}\)
sensus among many environmentalists, academics, politicians and agency officials is that policies implemented during the last eight years have resulted in significant restrictions on the scope of federal and administrative support to address environmental justice problems.

Criticisms of President Bush's environmental justice policies have been based on several things. First, critics point to reports published by government agencies within President Bush's Administration that emphasize the Administration's failure to effectively address environmental justice issues. The government's failure to adequately address environmental burdens shouldered by minorities was highlighted in the U.S. Commission on Civil Rights ("USCCR") hearings held in January of 2003. In these hearings, experts discussed the environmental inequities affecting communities of color, culminating in the publication of a report titled "Not in My Backyard: Executive Order 12,898 and Title VI as Tools for Achieving Environmental Justice." In this report the USCCR concluded that "minority and low-income communities are most often exposed to multiple pollutants from multiple sources.... [T]here is no presumption of adverse health risk from multiple exposures, and no policy on cumulative risk assessment that considers the roles of social, economic and behavioral factors when assessing risk."

Additionally, in March 2004 the Office of Inspector General ("OIG") issued a report highlighting the EPA's failure to consistently implement EO 12,898, concluding that the EPA completely lacked a strategy for incorporating environmental justice concerns into its day-to-day operations. Of particular importance for this Note, in July 2005 the U.S. Government Accountability Office ("GAO") issued a report titled "Environmental Justice: EPA Should Devote More Attention to Environmental Justice When Developing Clean Air Rules," criticizing the EPA for the way it handles environmental justice issues when developing clean air rules. Criticism of the EPA's failure to integrate environmental justice issues into agency policies continued with a report published in 2006 by the OIG. The 2006 OIG report chastised "the agency for falling down on the job when it [came] to implementing environmental justice reviews."

Second, critiques were based on scientific opinions about the injurious effects of reducing the number of environmental justice factors considered in scientific tests. The EPA stated that it would change the Toxic Release Inventory program so significantly that the EPA's own

18. Bullard et al., supra note 5, at 383.
19. Id. (alteration in original)(quoting U.S. Comm'n on Civil Rights, Not in My Backyard: Executive Order 12898 and Title VI as Tools for Achieving Environmental Justice 27 (2003)).
20. Id.
21. Id.
22. Id. at 384.
Science Advisory Board Committee sent a "harsh letter" to then administrator, Stephen L. Johnson, in opposition to the changes.\textsuperscript{23}

Third, the Administration was criticized for general policy decisions that limited the scope of environmental justice issues. The most salient example is the Bush Administration's attempts in 2005 to remove race and income as considerations of environmental justice.\textsuperscript{24} Finally, criticism was voiced over EPA fiscal budgets proposed by President Bush that further decreased the amount of funding available to address environmental justice concerns. During the 2006 Congressional Hearings on the proposed EPA Budget, Representative Hilda Solis raised concerns about the fact that the proposed budget would cut "funding for environmental justice programs by 28 percent."\textsuperscript{25}

The result of policies implemented between 2000 and 2008 was a further reduction of legal tools available to environmental justice communities. Thus, in the fifteen years since President Clinton issued EO 12,898, it has become more—rather than less—difficult for environmental justice communities to prove injustice.

B. Evidence of Continuing Environmental Injustice

The difficulties faced by communities fighting environmental injustice do not end at agency inaction. Permitting under the CAA presents a substantial obstacle to successfully challenging agency actions that negatively impact minority and low-income communities. The ease with which companies have been able to obtain permits for the construction or modification of facilities that disproportionately burden minority and low-income communities is startling. Representative Hilda Solis highlighted the continuing problem of locating undesirable land uses in environmental justice communities in a 2006 statement to Congress.

For decades minority and low-income communities have lived in close proximity to industrial zones, power plants, toxic waste sites. These are the communities nationwide whose health and quality of life are negatively impacted most by environmental injustices. For example, 5.5 million Latinos live within a 10-mile radius of a power plant, and 68 percent of all African Americans live within 30 miles, the range where health impacts are most severe. Over 70 percent of all African Americans

\textsuperscript{23} Id. at 383.
\textsuperscript{25} Id. at H201.
and Latinos live in counties that violate the Federal air pollution standards, compared to 58 percent for nonminorities.26

Twenty years after the initial UCC study on toxic wastes and race, the authors conducted a follow up study that further demonstrates why environmental injustice is still a problem. The follow up study cites a September 2005 Associated Press ("AP") analysis of an EPA research project showing African Americans are '79 percent more likely than whites to live in neighborhoods where industrial pollution is suspected of posing the greatest health danger.'27 The AP study, titled "More Blacks Live with Pollution," also found that in nearly 40% of states blacks are "more than twice as likely as whites to live in neighborhoods where air pollution seems to pose the greatest health danger."28

The UCC follow-up study looked specifically at the incidence of siting waste facilities in metropolitan areas. The study examined data in all fifty states about the location of treatment, storage and disposal facilities ("TSDFs"), and the related racial and socioeconomic disparities associated with the location.29 The results showed that approximately four out of five commercial hazardous waste facilities are located in metropolitan areas.30 Of the 149 U.S. metropolitan areas that contain a waste facility, 105 (70%) "have host neighborhoods with disproportionately high percentages of people of color, and forty-six of these [metropolitan areas] (31%) have majority people of color host neighborhoods."31 Of all metropolitan areas examined, six have such a high proportion of people of color living near a commercial hazardous waste facility that these six alone account for 50% of all people of color living in proximity to a facility—Detroit is one of these areas.32

As the case study examined in this Note comes from a permit application filed in Michigan for the expansion of a facility located in Detroit, statistics concerning the location of TSDFs and the associated racial and socioeconomic disparities are particularly relevant. The UCC study ranked Michigan as having the fifth highest number of TSDFs in the United States.34 Sixty-six percent of these TSDFs have been sited in communities with a majority-minority population, and only 19% of people of color in Michigan live in areas without TSDFs.35 The disparity between people of color living in a host neighborhood and a non-host

26. Id. at H201-02.
27. Bullard et al., supra note 5, at 379.
28. Id.
29. Id. at 399-405.
30. Id. at 403.
31. A neighborhood containing, or in close proximity to, a waste facility.
32. Bullard et al., supra note 5, at 404.
33. Id. at 404-05.
34. Id. at 400.
35. Id.
neighborhood\textsuperscript{36} is the greatest of any state in the United States.\textsuperscript{37} The study concludes that "[p]eople of color are particularly concentrated in neighborhoods and communities with the greatest number of hazardous waste facilities. Furthermore, racial disparities are widespread throughout the country, whether one examines states or metropolitan areas. Race clearly still matters."\textsuperscript{38}

II. The Clean Air Act

A. Current Framework: Permitting Under the Clean Air Act

The CAA of 1963 marked the beginning of federal pollution law.\textsuperscript{39} However, the Act in its initial form scarcely resembles the modern law. The CAA has developed through a series of amendments, with the first significant amendments enacted in 1970.\textsuperscript{40} The 1970 amendments marked a major shift for the role of the federal government with respect to environmental regulation and protection.\textsuperscript{41} The 1970 CAA amendments established deadlines for the EPA to promulgate National Ambient Air Quality Standards ("NAAQS") to be implemented by the states, national emission standards for hazardous air pollutants, and auto emission standards, as well as authorized citizen suits.\textsuperscript{42} Additional amendments were enacted in 1977 and 1990, requiring the implementation of more rigorous controls in areas that had failed to achieve national standards.\textsuperscript{43} The relevant provisions of the CAA for the purposes of this analysis are the NAAQS.

Implementation of NAAQS can be divided into two phases. In the first phase, the EPA "promulgate[s] a list of air pollutants that are emitted by 'numerous or diverse' sources and whose presence in the atmosphere 'may reasonably be anticipated to endanger public health or welfare.'"\textsuperscript{44} The EPA is then required to issue air quality "criteria" for all pollutants designated for regulation under § 108.\textsuperscript{45} These criteria are intended to

\textsuperscript{36} A neighborhood that does not contain and is not located in close proximity to a waste facility.
\textsuperscript{37} Bullard et al., supra note 5, at 401.
\textsuperscript{38} Id. at 407 (emphasis added).
\textsuperscript{39} Robert V. Percival et al., Environmental Regulation: Law, Science & Policy 470 (5th ed. 2006).
\textsuperscript{40} Id.
\textsuperscript{41} Id.
\textsuperscript{42} Id. See also James L. Thompson, Note, Citizen Suits and Civil Penalties under the Clean Water Act, 85 Mich. L. Rev. 1656, 1656 (1987).
\textsuperscript{43} Percival et al., supra note 39, at 91.
\textsuperscript{45} Martineau & Novello, supra note 44, at 15.
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"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 expected from the presence of such pollutant in the ambient air." By the time the 1970 CAA Amendments were enacted, the EPA had identified five major pollutants as criteria pollutants: particulate matter ("PM"), sulfur dioxide ("SO2"), carbon monoxide ("CO"), hydrocarbons and photochemical oxidants (here, volatile organic compounds, "VOCs"). Although the EPA is required to review and revise its air quality criteria and the NAAQS at five-year intervals, only two pollutants have been added to those identified above. Nitrogen oxides ("NOx") were added by the EPA in 1971, and lead was added in 1976 as a result of litigation.

In the second phase, states develop State Implementation Plans ("SIPs"), designed to satisfy the NAAQS within their borders. An effective way of achieving the goals of the CAA "is through placing preconstruction review and permitting requirements on certain new and modified sources of air pollution to require control technology and to protect against degradation of air quality. These requirements are implemented through the new source review ("NSR") program." When a region satisfies the NAAQS it is designated as an attainment area ("AA"). If classified as an AA, a project is subject to the Prevention of Significant Deterioration ("PSD") Program.

The PSD program was designed to maintain healthy air quality and ensure economic growth, not as an extensive review standard, and therefore agency review is focused on whether an action will result in nonattainment. PSD review applies to both new sources and to major modifications of existing sources if the modification "will result in both (1) a defined 'significant emissions increase' of a [criteria] pollutant ... and (2) a significant 'net emissions increase' of that pollutant from the major stationary source." A proposed emission is considered "significant" when

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47. PERCIVAL, supra note 39, at 476.
48. Id. at 482.
49. Id. at 476. See also Nat’l Res. Def. Council v. Train, 545 F.2d 320 (2d Cir. 1976).
50. PERCIVAL, supra note 39, at 471.
51. MARTINEAU & NOVELLO, supra note 44, at 131.
52. Id. at 132.
53. Id. at 145.
54. MICH. DEP’T OF ENVTL. QUALITY, PSD WORKBOOK: A PRACTICAL GUIDE TO PREVENTION OF SIGNIFICANT DETERIORATION 1-1, 1-4 (2003), http://www.deq.state.mi.us/aps/downloads/permits/PSD%20Workbook.pdf [HEREINAFTER “MDEQ”] ("In these Attainment Areas, PSD attempts to prevent the degradation of air quality. To achieve this goal, PSD requires new major sources and major modifications at existing sources to implement stringent controls and to limit the impacts on ambient air quality to less than the NAAQS or PSD Increment Concentrations.").
55. MARTINEAU & NOVELLO, supra note 44, at 145.
the facility emits a particular criteria pollutant at a rate that exceeds the levels, measured in tons per year, set by the EPA. The significance levels for the various criteria pollutants are as follows: 40 for VOCs; 40 for NO2; 40 for SO2; 25 for PM; 15 for PM10; 100 for CO; and 7 for sulfuric acid ("H2SO4").

When a facility is subject to PSD review, that facility is required to utilize Best Available Control Technology ("BACT"). The purpose of a BACT analysis is to identify the best control technology available for a specific project. In this analysis all potential technologies are identified, technologically infeasible options are excluded, and a corporation is allowed to consider the energy, economic and environmental impacts of the remaining technologies.

Alternatively, an area is classified as a nonattainment area ("NAA") when it exceeds the NAAQS. When classified as a NAA, construction of a new source or the major modification of an existing source is subject to a much more comprehensive standard of review under the NSR process. Unlike the goals of AAs, the objective in NAAs is to improve existing air quality levels. If subject to nonattainment review analysis, the operator of a facility is required to satisfy the much more rigorous Lowest Achievable Emissions Rate ("LAER") standard for criteria pollutants. Under the LAER standard a facility is not permitted to take into account economic, energy or environmental factors; the only factor it may consider is whether it would be unreasonably cost prohibitive.

The designation of a region as either an AA or NAA determines the level of government involvement and oversight of a new project, and is particularly significant for the permitting process. In Michigan, as in all states, technology-based regulations specify that when a corporation applies to modify or expand an existing facility, the facility must satisfy the technology-based requirements that coincide with the area's designation as either an AA or NAA. However, under current laws, a facility may be able to avoid being subject to the NSR permitting requirements even if it proposes to exceed the significance levels established for the emission of pollutants. This is possible due to an exception known as netting.

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56. MDEQ, supra note 54, at 1–5.
57. Id.
58. Id.
59. Id.
60. Id.
61. Id. at 1–4.
63. Id.
64. See MDEQ, supra note 54, at 1–1, 1–4.
65. Id. at 3–6.
66. Id.
When a facility has previously, and voluntarily, reduced its emissions below the permitted level, future modifications may qualify for a netting calculation.\(^6\) The netting calculation is determined by subtracting a previous, voluntary decrease in emissions from the estimated emission level of a new project and then determining whether this number rises above the significance level.\(^7\) The concern is with the measured net effect and not whether the actual estimated level of emission exceeds the significance level and could therefore cause the ambient air concentrations to exceed the NAAQS.\(^8\) If a facility’s previous decrease in emissions qualifies it for netting, the project will not be subject to the NSR program.\(^9\) Without being subject to the NSR program, the only remaining safeguards are other regulatory requirements such as standards for toxic air contaminants and new source performance.\(^10\)

Unfortunately, the additional measures also fail to adequately protect environmental justice communities. For example, the permit application requirements for toxic air contaminants fall short of a comprehensive examination of the potentially harmful effects on communities living in areas surrounding a facility. Under the CAA and the Michigan air toxics rules, only major sources of toxic air contaminants must install the required technologies.\(^11\) In addition, the standards are set for each chemical individually.\(^12\) Under the current framework, a facility is not required to evaluate the potential cumulative or synergistic effects of the toxic air contaminants, although regulators may require lower emissions rates because of these effects.\(^13\)

B. Obstacles to Proving Discrimination in an Environmental Justice Lawsuit

What Michigan regulations and federal law do not require under the current permitting process is for corporations to conduct an analysis that goes beyond the technology-based factors, even when the construction of a new facility, or the expansion of an existing one, may pose

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67. Id.
68. Id.
69. Id.
70. Id. at 1–1.
71. See Marathon Petroleum Co. ("MPC"), Public Participation Documents for Permit Application Number 63-08 (March 26, 2008), http://www.deq.state.mi.us/aps/downloads/permits/pubnotice/63-08%20Fact20Sheet.pdf (the case study in Detroit examined in this Note is just one example of a project that was not subject to the NSR program).
72. Id. at 10–15. See also Martineau & Novello, supra note 44, at 235 ("The 1990 Amendments to Section 112 require the EPA to regulate air toxics emissions from all major stationary sources . . . .") (emphasis added).
73. MDEQ, supra note 54, at 9–1, 10–3.
environmental justice issues. Nor does the existing regulatory scheme mandate an analysis of technology-based factors if netting is permitted. In fact, the Michigan Department of Environmental Quality ("MDEQ") interprets its authority as limited to a narrow analysis of its permitting standards. The MDEQ believes that it cannot legally deny a permit (1) because of the failure to conduct an environmental justice analysis, or (2) if an analysis that was voluntarily completed demonstrates there will be environmental justice problems for the surrounding communities.\(^75\)

If an individual living in a community impacted by the MDEQ's decision to grant a permit wanted to file a lawsuit alleging that her community was targeted because of its racial composition, she cannot resort to any provisions under the CAA to address environmental justice concerns because none exist. Instead, she must rely on limited remedies available under civil rights laws. To win such a suit, a plaintiff must demonstrate that her rights were violated by showing either facial discrimination\(^76\) or a disparate impact resulting from an intentional act.\(^77\) This leaves a plaintiff with three options: (1) use the Equal Protection Clause in the U.S. Constitution for claims of intentional discrimination,\(^78\) (2) file a lawsuit alleging intentional discrimination under Title VI of the Civil Rights Act of 1964,\(^79\) or (3) allege a disparate impact and pursue an appeal through the administrative complaint process under EPA's Title VI regulations.\(^80\)

Environmental justice communities initially relied almost exclusively on the Equal Protection Clause as a basis for lawsuits alleging environmental injustice. These communities argued that, because the Equal Protection Clause provides that "[n]o State shall deny to any person within its jurisdiction the equal protection of the laws," their constitutional rights are violated when a company or agency engages in actions that continually place the environmental burdens of development onto minorities and individuals of lower socio-economic status.\(^81\) At first, courts appeared to be receptive to such arguments; however, their willingness to find a violation of the Equal Protection Clause was usually


\(^{78}\) See U.S. CONST. amend. XIV.


\(^{80}\) See Alexander v. Sandoval, 532 U.S. 275, 275 (2001). In Sandoval, the United States Supreme Court held that a plaintiff must prove discriminatory intent to show a violation of agency regulations under Title VI of the Civil Rights Act. Id. at 280, 293. Regulations alone will not provide a litigant with a cause of action under sections 601 and 602 of Title VI. Id. at 293.

\(^{81}\) See U.S. CONST. amend. XIV. See also Dowdell v. City of Apopka, 698 F.2d 1181 (11th Cir. 1983).
limited to cases dealing with the provision of municipal services. Courts were far more reticent about finding any such violation in cases challenging a decision to grant a permit for the siting of a facility.

A lack of success in using the Equal Protection Clause to remedy environmental injustice motivated environmental justice communities to look for other legal remedies. Section 601 of Title VI provides that "[n]o person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."84 Under the requirements of Title VI, a recipient of financial assistance, such as a state, may not act in a discriminatory manner against people of color.85 However, absent proof of intentional discrimination, a litigant is left with few options in court.

If the plaintiff wants to instead allege that the issuance of a permit has a disparate impact, she could rely on EPA regulations stating that

No person shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving EPA assistance on the basis of race, color, [or] national origin. . . . A recipient shall not use criteria or methods of administering its program or activity which have the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program or activity with respect to individuals of a particular race, color, national origin, or sex.86

However, as mentioned above, the plaintiff's only recourse is to file a claim with the EPA's Office of Civil Rights. Under the current system, few plaintiffs with environmental justice claims are successful in demonstrating that they are suffering discrimination because of a facility's emissions, or because of a state or federal decision regarding a permit for the construction of an additional facility, or the expansion or modification of an existing facility. Not surprisingly, of the hundreds of claims filed with the EPA since 1993 alleging discrimination under Title VI, the EPA "had processed a total of [only] 211 complaints . . . Of those, 40 (19%)

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82. See Dowdell, 698 F.2d at 1181.
85. This provision does not on its face grant a person the right to bring a lawsuit, but the U.S. Supreme Court has held that there is a private right of action. See Guardians Ass'n v. Civil Serv. Comm'n, 463 U.S. 582, 634 (1983).
were still pending, and 171 (81%) had been closed. Of the closed cases, 127 (60%) had been rejected and 44 (21%) had been dismissed.87

C. Permitting Process and Technology-Based Standards as an Obstacle to Proving Discrimination

In addition to the legal difficulties that plaintiffs have in successfully bringing environmental justice claims based on intentional discrimination or disparate impact, the permitting process itself poses additional obstacles for the environmental justice movement. Because environmental statutes and regulations governing the permitting scheme do not specifically require an environmental justice analysis, even when a corporation chooses to voluntarily conduct the analysis, the MDEQ will make no judgment or decisions about the analysis.88 This is the case even though Governor Jennifer M. Granholm enacted Executive Directive (“ED”) No. 2007-23: Promoting Environmental Justice (Nov. 21, 2007), which requires MDEQ to develop an environmental justice plan. Michigan has yet to develop the plan, and state agencies are operating under a system that has never required full consideration of environmental justice issues.

Consequently, it is quite possible that a corporation could conduct an environmental justice analysis and identify multiple environmental justice issues. However, even in this case the MDEQ would not alter its permitting decision. In essence, Michigan has adopted the rationale applied by the EPA in deciding a Title VI administrative complaint, Select Steel, as the State’s standard for evaluating claims of environmental injustice: if a facility satisfies the permit requirements then the permit will be issued regardless of other effects, including allegations of discriminatory impact.89

In Select Steel, a citizen group filed a complaint with the EPA’s Office of Civil Rights, alleging that the proposed facility by the Select Steel Corporation would have a discriminatory impact on minority residents living in proximity to the site.90 The EPA ultimately determined that the plaintiffs failed to demonstrate that emissions from the proposed Select Steel facility would have adverse environmental impacts on the surrounding community, and therefore it would not even consider whether the minority residents living near the site would be impacted in a discrimina-

88. Interview with Bryce Feighner, supra note 75.
90. Id.
Review was therefore limited to potential environmental harm; the EPA based its decision on the fact that, because the permitting criteria were designed to protect public health and the facility satisfied the criteria, there could be no health impacts.92

The Select Steel decision provides one example of how the current framework and permit requirements are far too lenient. Only when an area is designated as a NAA and a facility is subject to more stringent standards of review is there some consideration of environmental justice factors, as well as some legal recourse for individuals living in communities negatively impacted by a project. With the exception of the Title VI regulations, there is presently no legal requirement for state government agencies to consider the impact that a project will have with respect to environmental justice issues. Therefore, under the present permit application process in Michigan, the MDEQ will not look beyond the narrow permitting criteria, and environmental justice communities are left to continue shouldering a disproportionate share of environmental burdens associated with development and government policies.

III. IMPLICATIONS OF TECHNOLOGY-BASED STANDARDS ON ENVIRONMENTAL JUSTICE COMMUNITIES: DETROIT CASE STUDY

The problem with utilizing a technology-based permitting scheme as the basis for granting applications for industry projects is that this method ignores the significant impact a facility may have on surrounding communities. The problem is further exacerbated when one considers that a facility can be entirely exempted from even the most basic technology-based permitting requirements if that facility qualifies for a netting analysis. The disconnect between the current legal framework and its analysis of a project’s potential impacts, as compared with the actual impact on environmental justice communities, can be illustrated by examining a recent application for a facility expansion in Detroit, Michigan.93

On November 26, 2007, Marathon Oil Refinery in Detroit submitted a permit application for the Detroit Heavy Oil Upgrade Project

91. Id.
92. Although the Select Steel analysis did not come into play in the case study in Detroit examined below, it is still relevant for Michigan’s general approach to any claims that do not qualify for netting and therefore are subject to the permit requirements.
The purpose of the HOUP is to install new equipment at the existing facility, allowing the refinery to process a new source of crude oil and increase capacity by 15%. This application was withdrawn on February 20, 2008, and replaced with a second permit application for the HOUP, filed on March 13, 2008. The goals of the second HOUP permit application remain substantially the same as those stated in the first application, although some significant changes were made to the estimated levels of emissions for the criteria pollutants and to the method of calculating emissions and net differences.

The first HOUP application estimated that emissions of CO would increase by 199.8 tons per year, resulting in an exceedance of the significance level by nearly 100 tons per year. This level was dramatically reduced to an estimated increase of only 84.6 tons per year in the second permit application, resulting in estimated emissions below the significance level of 100 tons per year.

### Table 1

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>HOUP Increase (Tons/Year)</th>
<th>Previous Decrease (Tons/Year)</th>
<th>Net Emissions (Tons/Year)</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>6</td>
<td>19</td>
<td>-13.01</td>
<td>40</td>
</tr>
<tr>
<td>NO2</td>
<td>113</td>
<td>606</td>
<td>-82.13</td>
<td>40</td>
</tr>
<tr>
<td>SO2</td>
<td>204</td>
<td>785</td>
<td>-7.95</td>
<td>40</td>
</tr>
<tr>
<td>PM</td>
<td>35</td>
<td>132</td>
<td>-1.86</td>
<td>25</td>
</tr>
<tr>
<td>PM10</td>
<td>-3</td>
<td>13</td>
<td>-15.62</td>
<td>15</td>
</tr>
</tbody>
</table>


98. MPC Fact Sheet No. 1, supra note 95, at 2. See also infra Table 1.

99. MPC Fact Sheet No. 2, supra note 97, at 2-3.
However, with the revised emissions data, the level of CO was not the only criteria pollutant to change between the first and second permit applications. While the netting calculation results in all criteria pollutants remaining below the significance level, the actual, estimated HOUP emission increases for NOx, SO2, PM and H2SO4 all exceed the significance level by a substantial amount.

**Table 2**

**Permit Application No. 2**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>HOUP Increase (Tons/Year)</th>
<th>Previous Decrease (Tons/Year)</th>
<th>Net Emissions (Tons/Year)</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>-34.7</td>
<td>33.2</td>
<td>-1.5</td>
<td>40</td>
</tr>
<tr>
<td>NO2</td>
<td>200</td>
<td>611</td>
<td>-0.5</td>
<td>40</td>
</tr>
<tr>
<td>SO2</td>
<td>210</td>
<td>784</td>
<td>-0.8</td>
<td>40</td>
</tr>
<tr>
<td>PM</td>
<td>33</td>
<td>127</td>
<td>+.01</td>
<td>25</td>
</tr>
<tr>
<td>PM10</td>
<td>-11</td>
<td>10</td>
<td>-11.1</td>
<td>15</td>
</tr>
<tr>
<td>CO</td>
<td>85</td>
<td>n/a</td>
<td>+84.6</td>
<td>100</td>
</tr>
<tr>
<td>H2SO4</td>
<td>14</td>
<td>63</td>
<td>-3.3</td>
<td>7</td>
</tr>
</tbody>
</table>

Adding to the concerns that netting presents for environmental justice communities, because a netting analysis that results in predicted emissions below the significance level means no NSR is required, none of the technology-based permitting requirements mentioned in Section II(B) applied to Marathon. Thus, the specific issue is not whether the facility met all of the permitting requirements but that, because of netting, it did not need to meet them all.

The permitted exceedance of the NAAQS for the previously listed criteria pollutants could have a particularly devastating impact in Detroit, and is a concrete example of problems associated with evaluating the anticipated environmental effects of a project under the current legal framework instead of the actual impact a project will have on surrounding communities. Detroit has been designated by the EPA as a NAA for ozone and PM2.5. Classification as a NAA means that, at present levels

100. See infra Table 2.
101. MPC FACT SHEET No. 2, supra note 97, at 9.
of emissions, Detroit is unable to meet the standards established for safe levels of ozone and PM2.5 emissions. Because netting allows for increased emissions when there have been previous decreases, Marathon will be allowed to emit significantly higher levels of various criteria pollutants, and it can do so in an area that is presently incapable of satisfying EPA limits for ozone and PM2.5.

While it was not required to do so, in its permit application Marathon conducted an environmental justice analysis that considered the potential impacts the facility expansion would have based on populations of the surrounding communities, religious denominations of surrounding populations, community health indicator analysis, environmental impacts from existing facilities, and mitigating factors.103

In this analysis, Marathon rejects the notion that the facility expansion will add to the ozone problems in Detroit. First, Marathon avows that its contribution to the overall percentage of air pollution in the Detroit metro area is small in comparison to other facilities.104 Marathon then concludes that "[t]he proposed project represents a net reduction in emission rates of both NOx and VOC. . . . Due to a reduction in emission rates of ozone precursor compounds, the proposed project should not cause an increase in ambient ozone concentrations."105 While Marathon's argument is mathematically accurate—the net effect of the emissions will be well below the significance level—the fact that emissions of ozone precursor pollutants were previously reduced does not mean that present, increased emissions will not harm the citizens of Detroit.

Requirements for analyzing toxic air contaminants represent yet another example of how the present framework ignores substantial threats to surrounding communities. In addition to the estimated increases of the criteria pollutants, Marathon’s permit application includes a Toxic Air Contaminants Summary. The Summary identifies ninety-one different pollutants that will be emitted, including many chemicals known to have acute, and often carcinogenic and/or chronic effects, such as benzene, chromium, cadmium, formaldehyde and silica, just to name a few.106 However, because Marathon’s application states that all ninety-one chemicals individually satisfy the health-based screening levels, Marathon need not undertake any additional analysis.

Although the law regulating the emission of toxic air contaminants is insufficient because it does not require a comprehensive analysis of the

104. Id. at 3-25.
105. Id. at 22.
106. MPC Fact Sheet No. 1, supra note 95, at 10-12.
potential harms of all pollutants that will be affected in a facility expansion, it is not nonexistent. Under Rule 228 in the Michigan Air Toxics Rules, the MDEQ may consider both cumulative and synergistic effects of toxic air contaminants if there appears to be substantial health risks. In reviewing Marathon's permit application, the MDEQ toxicologist determined that there was such a risk and: (1) required Marathon to meet a combined screening level for some petroleum byproducts, (2) conducted a quick cumulative impact screening by combining various compounds and entering them into a hazard index, and (3) tested the results of the cumulative impact screening in a target organs hazard index.

While these actions may help ensure the potential environmental effects of a facility expansion do not pose a health risk to the public, the MDEQ toxicologist made sure to add that her review was "conservative" because she conducted her analysis based on emissions levels calculated by Marathon for all of the toxic air contaminants.

Despite the significant differences between how environmental justice communities and the MDEQ evaluate the permissibility of netting in a NAA and the testing methods used to evaluate the risks of toxic air contaminants, most precarious of all is the way the current legal framework disregards the importance of requiring environmental justice analyses in permit applications. This is the case even though EO 12,898 requires federal agencies to make the achievement of environmental justice part of the agency mission "to the greatest extent practicable . . . by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States."

The problem also persists at the state level, and even in Michigan, where a state directive to consider environmental justice issues exists. ED No. 2007-23 requires the MDEQ to develop and implement an environmental justice plan for all state agencies. While the state working group charged with developing the plan has made considerable progress toward that goal, a year and a half later no plan exists. The potential impacts that ED No. 2007-23 offers for the environmental justice movement are

109. See Interview with Mary Lee Hultin, supra note 108.
significant; the directive is broadly phrased and gives the MDEQ sufficient latitude to create any plan or policy it believes would further the goals of the directive—ensuring that all state agencies take into consideration potential environmental justice risks when performing agency duties. Notwithstanding clear policy directives intended to address environmental justice issues, the HOUP permit application illustrates the divide between policy declarations and actual practices.

Although the federal government and the state of Michigan have made public commitments to furthering the goals of the environmental justice movement, the practical reality is that there exist few legal consequences, and even fewer enforcement mechanisms, when environmental injustice is identified. In its environmental justice analysis Marathon conducted a comprehensive review of the primary indicators of an environmental justice problem, and the results of this analysis revealed significant disparities.

A. Population Data

The analysis provided for the population data examined the minority population, poverty level, income, and rate of unemployment in the geographic areas located within one mile, two miles, four miles and six miles from the facility.111

Table 3

<table>
<thead>
<tr>
<th>Proximity to Facility</th>
<th>Minority Population</th>
<th>Low-income Population</th>
<th>Unemployed Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mile</td>
<td>61.2%</td>
<td>22.5%</td>
<td>10.5%</td>
</tr>
<tr>
<td>2 Miles</td>
<td>51.7%</td>
<td>22.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>4 Miles</td>
<td>39.0%</td>
<td>20.0%</td>
<td>8.8%</td>
</tr>
<tr>
<td>6 Miles</td>
<td>42.3%</td>
<td>19.0%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Wayne County</td>
<td>50.1%</td>
<td>16.4%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Michigan</td>
<td>21.4%</td>
<td>10.5%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

The results of the data indicate that the communities located closest to the facility are overwhelmingly composed of minority and low-income populations, and have some of the state's highest unemployment rates.112 When compared with data compiled for Michigan as a whole, the percent of minorities living closest to the facility is 61.2% compared to the average minority population in Michigan equaling only 21.4%; low-income

111. Environmental Justice Analysis No.2, supra note 103, at 3–11. See also infra Table 3.
individuals represent 22.5% of the surrounding population, compared with the state average of 10.5%; and, unemployed individuals constitute 10.5% of the population in communities immediately surrounding the facility, while the state average is only 5.8%.\textsuperscript{113} Despite such a significant disparity between the state averages and the communities located in close proximity to the refinery, Marathon dismisses the notion that the project will create any disproportionate effects on environmental justice communities.\textsuperscript{114}

Although the EPA acknowledges that environmental justice communities often suffer disproportionate effects from a facility's expansion and the resulting pollution,\textsuperscript{115} because all net emissions under the second permit application are below the significance levels, the proposal is not subject to NSR. This paved the way for Marathon to conclude that "the future operations of the HOUP are not expected to cause disproportionate adverse impacts to low-income and minority persons in the vicinity of the refinery as the result of the significant emission control and mitigation/offset activities that are planned."\textsuperscript{116}

B. Community Health Indicator Analysis\textsuperscript{117}

The community health indicator analysis was a less comprehensive analysis than that conducted with respect to population data. In the initial report submitted with its first permit application, Marathon restricted its focus to comparing various health indicators of two communities nearest to the facility—Melvindale and River Rouge, the City of Detroit, and Wayne County.\textsuperscript{118} Data for other communities that are located in close proximity to the facility was not included in this analysis, nor was data for the state of Michigan. Additionally, the health indicators examined were limited in scope and did not take into account some of the more serious

\textsuperscript{113}. \textit{Id.}

\textsuperscript{114}. \textit{Id.} at 15–16, 25.


\textsuperscript{116}. Environmental Justice Analysis No.2, \textit{supra} note 103, at 25.

\textsuperscript{117}. Prior to examining health impacts, the permit application included an analysis of religious denominations of surrounding populations. \textit{Id.} at 12. The data did not evidence any environmental justice concerns. \textit{Id.}

health problems that often are correlated with, or are directly affected by, the presence of a nearby facility, such as cancer or lead poisoning.\(^{119}\)

In this analysis, Marathon compared the incidence of infant and adult mortality, rates of asthma for children and adults, and life expectancy for men and women.\(^{120}\) The results of the data indicate that the health of people living in Detroit is worse than Wayne County residents. The incidence of infant and adult mortality and the prevalence of asthma are significantly higher in the Detroit metro area, and the life expectancy for women living in Detroit is significantly lower than women living in Wayne County as a whole, although the life expectancy for men is greater in the Detroit area.\(^{121}\)

### Table 4

**Community Health Indicator Data**

<table>
<thead>
<tr>
<th></th>
<th>Melvindale</th>
<th>River Rouge</th>
<th>Detroit</th>
<th>Wayne County</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant Mortality (per 1000)</td>
<td>DNP*</td>
<td>19.1</td>
<td>16.3</td>
<td>7.3</td>
<td>7.4-8.5</td>
</tr>
<tr>
<td>Adult Mortality (per 100K)</td>
<td>996</td>
<td>746</td>
<td>1040</td>
<td>936.1</td>
<td>812</td>
</tr>
<tr>
<td>Life Expectancy at birth (Women)</td>
<td>DNP</td>
<td>DNP</td>
<td>76.7</td>
<td>79.2</td>
<td>79</td>
</tr>
<tr>
<td>Life Expectancy at birth (men)</td>
<td>DNP</td>
<td>DNP</td>
<td>73.6</td>
<td>70.1</td>
<td>74</td>
</tr>
<tr>
<td>Asthma Rate, child (0-17 yrs)</td>
<td>DNP</td>
<td>DNP</td>
<td>29</td>
<td>1</td>
<td>Less than 1 person</td>
</tr>
<tr>
<td>Asthma Rate, adult (18+ yrs)</td>
<td>DNP</td>
<td>DNP</td>
<td>14</td>
<td>1</td>
<td>DNP</td>
</tr>
<tr>
<td>Asthma Rate, average all ages</td>
<td>14.8-22.8</td>
<td>14.8-22.8</td>
<td>14-29</td>
<td>DNP</td>
<td>DNP</td>
</tr>
<tr>
<td>Lead Poisoning (% of children with confirmed elevated blood levels)</td>
<td>DNP</td>
<td>DNP</td>
<td>6.4%</td>
<td>1.7% (Excluding Detroit)</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

In connection with the second permit application, Marathon expanded its health analysis to include data for the state of Michigan and rates of lead poisoning.\(^{122}\) The additional information further confirms that individuals living in the Detroit metro area have much poorer health

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119. While the incidence of lead poisoning was not addressed in its first environmental justice analysis, Marathon incorporated this factor into the analysis submitted with the second permit application. *Environmental Justice Analysis No. 2,* supra note 103, at 12-13.

120. *Environmental Justice Analysis No. 1,* supra note 118, at 10-11. See also infra Table 4.


than those living in other parts of Michigan. The rates of infant and adult mortality, asthma and confirmed cases of lead poisoning are significantly higher in the Detroit area compared to Michigan averages, while female life expectancy is noticeably lower. Marathon attributed the disparate impact of the health data to the fact that inner cities have more unemployed or working poor and therefore have less access to adequate health care and coverage, and that low income population means lower participation in health insurance programs. Marathon also explained that the high incidence of lead poisoning was likely a result of building materials used to construct housing in the metro area.

C. Environmental Impacts from Existing Facilities

The next component to Marathon's environmental justice analysis was an evaluation of the environmental impacts that its existing facilities have on the air quality of the Detroit area. In the first analysis conducted by Marathon, the data provided shows that, within a one mile geographic study area, in 2005 Marathon contributed to just over 1% of total CO emissions, 14.6% of total SO2 emissions, 17.2% of PM emissions, 20.1% of all NOx emissions, and 56.7% of all VOCs' emissions. This was a significant reduction from 2001, where Marathon contributed to over 43.1% of NOx, 82.5% of SO2 and 71.7% of VOCs emitted into the general area. In conjunction with its second permit application Marathon did not provide the same detailed data for emissions within one mile of the facility, but instead referred to its previous reductions in emissions and provides a table illustrating the "Relative Contributions of Major Emission Sources within 2 Miles of the Marathon Refinery." The most significant impact that the increase in HOUP emissions will have for Detroit relates to the city's designation as a NAA for ozone. NOx and VOCs are regulated as precursors to ozone; at present emission levels, Marathon's emission of NOx and VOCs constitute a substantial portion of the total amount of these pollutants emitted in Detroit. Because Marathon's second permit application indicates that criteria pollutants are below the significance level once the net calculation is considered, Marathon is legally entitled to emit an additional 200 tons per

123. Id.
124. Id.
125. Id. at 14.
126. Id. at 12.
127. ENVIRONMENTAL JUSTICE ANALYSIS No. 1, supra note 118, at 14.
128. Id.
129. ENVIRONMENTAL JUSTICE ANALYSIS No. 2, supra note 103, at 18.
130. ENVIRONMENTAL JUSTICE ANALYSIS No. 1, supra note 118, at 14.
year of NOx,\footnote{Marathon estimates that the HOUP increase for VOCs is -34.7%, and therefore should not substantially add to the problem addressed here. \textit{ENVIRONMENTAL JUSTICE ANALYSIS No. 2, supra} note 103, at 19.} despite a significance level of 40 for this pollutant. The increased emission of a criteria pollutant that is also an ozone precursor chemical will likely further contribute to Detroit's excessive ozone levels. Despite such a significant risk, the current legal framework does not allow the MDEQ to take such a factor into consideration when issuing the air permit if the net calculation indicates that the estimated emission for an individual pollutant falls below the significance level.

D. Mitigating Factors

Marathon incorporated a number of mitigating factors into its permit application in the final part of its environmental justice analysis. Taking into consideration the concerns of the community, with no legal obligation to do so, Marathon agreed to: (1) conduct an enhanced air monitoring program at the facility to address citizen concerns. The program will consist of installing, operating and maintaining at least four air monitoring stations in and around the refinery and providing emissions data from the air monitoring to the City of Detroit to be available for the public; and, (2) an enhanced street sweeping program for paved roads in the vicinity of the refinery to reduce dust.\footnote{\textsc{Marathon Petroleum Co., Draft Permit to Install No. 63-08 82, 84 (2008), available at http://www.deq.state.mi.us/aps/downloads/permits/pubnotice/63-08.pdf. See also \textit{ENVIRONMENTAL JUSTICE ANALYSIS No. 2, supra} note 103, at 24–25.} Listing these factors in the permit application is significant because a failure to follow through with the implementation of the specified mitigating factors constitutes a permit violation and gives the community the legal authority to bring an enforcement action against Marathon.

In addition to the factors guaranteed within the permit application, Marathon has made several other promises to local communities to address concerns of potentially negative impacts that the facility expansion may have on these communities. In its description of the HOUP, Marathon stated that the expansion would create 135 new permanent jobs and an additional 800 short-term construction jobs.\footnote{\textit{Id.}} Marathon then declared that "to the greatest extent possible" it would hire individuals from Detroit neighborhoods to fill the new positions.\footnote{\textit{Id.}} However, no guarantees were made as to the number of new employees who would be hired from the communities surrounding the facility, nor was there any discussion of what positions these individuals would be hired to occupy.\footnote{\textit{Id.}}
In addition to the above-mentioned factors, on October 9, 2007, Marathon signed a Development Agreement under which it voluntarily committed to: install PM controls on trucks used to transport coke from the facility; participate in the city's reverse 911 system to alert individuals living in the surrounding communities of emergency information; assist the city in its development of evacuation plans in the area around the refinery; and, hold regular meetings with the Detroit Refinery Community Advisory Panel. Although Marathon has made a substantial number of concessions to the community, none of the factors promised offer any solution that will adequately address the likely health impacts of the facility expansion. Despite this apparent flaw, Marathon's efforts in this area go so far beyond what the current framework requires that its efforts have been described as "precedent setting" by officials at the MDEQ.

IV. Issues Ignored Under the Current Permitting Scheme and Alternatives Proposed to Improve Permitting under the CAA

Marathon's environmental justice analysis was comprehensive and exceeded the narrow environmental requirements. The analysis nonetheless revealed many significant environmental justice issues. In particular, nothing in the current air permitting framework requires the MDEQ to take environmental justice issues into consideration when evaluating a permit application, beyond a concern for violations of Title VI.

Because the current legal framework ignores additional impacts when the technology-based standards are satisfied, there is no consideration of other significant environmental harms that will almost certainly result from the expansion of the Marathon Refinery, including: the potential for accumulation of toxic build-up on cars, homes and food/farmed goods consumed within the community; the significant risk of decreased visibility due to an increase in emissions of ozone precursor chemicals combined with the fact that Detroit is presently in non-attainment for ozone; and, other qualitative factors such as increased traffic and noise in the surrounding communities.

For the environmental justice movement to achieve any measurable success, environmental justice communities can no longer be forced to fight against both the industry responsible for the environmental harm in their community and the legal framework that supports such practices. As long as the permitting process continues to place a greater emphasis on development and progress over sustainable development and the prevention of harmful health and environmental impacts, the law will continue

136. Id. at 24.
138. Interview with Stuart Batterman, supra note 74.
to be an obstacle for environmental justice communities. However, there are specific changes that can be made to improve the current permitting system, providing for a better balance between development and the protection of human and environmental health. These modifications range from minor changes in the way existing regulations are interpreted and applied to more significant changes that may require the implementation of new environmental statutes or regulations.

Congress provided the EPA and the states with more than enough authority to interpret the CAA as requiring more stringent standards than those which currently exist. Using this authority, the EPA and states could: (1) increase the number of criteria pollutants that must be evaluated in a permit application, (2) rethink the significance level for criteria pollutants; and, (3) omit exceptions, such as netting, that allow for legally permitted increases in emissions that could contribute to exceedances of the NAAQS. Additionally, ED No. 2007-23 provides the mechanism for Michigan to require the consideration of environmental justice issues when evaluating a permit application.

The Marathon case study and Michigan's permit application process offer many opportunities for improving the current permitting system—both within Michigan and for other states. To begin with, in the absence of legislation, the existence of a directive requiring state agencies to consider environmental justice issues when making decisions is a critical first step to increasing protections for environmental justice communities. For example, ED No. 2007-23 provides a mechanism for Michigan to require the consideration of environmental justice issues when evaluating a permit application.

Taking seriously the directive, the MDEQ should, at a minimum, include in its environmental justice plan one of the three following requirements: (1) the agency must consider the anticipated impacts of a project, and if any environmental justice concerns are raised, an applicant must offer sufficient concessions to mitigate these impacts; (2) an applicant must conduct a full environmental justice analysis when submitting any permit application to construct a new facility or for the expansion or major modification of an existing facility. The agency would then be required to review this analysis as an integral part of the application and must give some consideration to any anticipated environmental justice problems; or (3) change the existing permitting process so that the agency must give equal weight to both technology-based standards and the human- and environmental-health impacts of a project.

The first alternative proposal would be for the MDEQ to require corporations to offer concessions to surrounding communities when a new facility is to be constructed, or when an existing facility will be expanded. Additionally, these concessions should be incorporated into the permit to guarantee to the community that any mitigating factors offered will be enforceable. If the concessions offered are directly related to the
environmental impacts, the MDEQ and other state environmental agencies will likely possess the statutory authority necessary to implement such conditions with only minor changes to the existing permitting process. However, more substantial changes to the permitting process could allow for the inclusion of conditions that affect other aspects of a project. For example, a state could require that for any project that will have a noticeable impact on the surrounding community, X% of jobs—at all levels—that result from the project must be reserved for individuals living in the affected areas.

The second option would be for MDEQ to require a comprehensive environmental justice analysis be conducted as a part of the permit application. Further, the results of the analysis must be considered by the MDEQ when making a decision whether to grant the permit. ED No. 2007–23 requires the MDEQ to create an environmental justice plan with certain components, one of which could be the requirement that environmental justice factors be considered by state agencies that issue any type of environmental permit. Adopting this proposal may mean that the state will need to issue a new rule that allows for the full consideration of such issues in the permitting process. However, this administrative action may not be necessary if the process is limited to a consideration of the impacts, without specifying the degree to which the MDEQ must weigh this information when making a decision about whether to grant a permit application. Thus, although technology-based standards would likely remain the MDEQ’s primary basis for granting or denying a permit application, adopting this proposal would provide the agency with an authority it currently lacks—to factor environmental justice impacts into its decision of whether to grant a permit.

A final alternative would be for Michigan to overhaul its permit application process and give equal weight to technology-based factors and human and environmental impacts, identified as the social, health, economic and environmental factors that are the most problematic for environmental justice communities. Such a significant change would almost certainly require new laws. Nonetheless, a change of this magnitude is easily defensible as falling within the goals of ED No. 2007–23.

The new permitting process could be structured so that the decision whether to grant a permit is partially based on findings in the environmental justice analysis, including qualitative health impacts. Under the current framework, communities must prove that they are suffering a harm that is directly related to, and caused by, a nearby facility. The state could shift this burden onto the corporation applying for a permit and require it to demonstrate that the new project will not have an adverse effect on the community. Because the new permitting process would be equally concerned with the human and environmental impacts of a new project, Michigan and the MDEQ could require an analysis of the cumulative and synergistic effects of toxic air contaminants, as well as source
monitoring of existing and proposed new facilities. Finally, with the human and environmental impacts given equal weight in the permitting process, one component could be to ensure that the people who will be affected are properly informed of the project and its potential effects. The most effective way to do this would be to require corporations to increase the public participation of the affected communities.

CONCLUSION

In spite of the criticisms listed above, Marathon’s environmental justice analysis, the mitigating factors it included within its permit application, and the additional agreement with the city are “precedent setting.” This makes it all the more appropriate as an illustration of what is wrong with the current framework and with the technology-based permitting scheme. As Marathon stated in its draft permit and the environmental justice analysis, the additional measures taken were done so voluntarily and were not required for the permit application. Therefore, under existing law most corporations can get away with only meeting the bare minimum legal requirements, without taking into account the substantial risks that a new project poses to the individuals living nearby a facility. Yet, even when a corporation voluntarily conducts an environmental justice analysis and the results show that minority and low-income populations will be most significantly affected by the facility, and that the project poses real risks to the surrounding communities, the MDEQ is not required to use this data when making its decision about whether to grant or deny the permit application.

The current framework of technology-based permitting is blind to the concerns and burdens of environmental justice communities. To give these communities a voice and ensure that the legal system is able to provide the same protections for them as it does for corporations involved in the construction of a new facility, or expansion of an existing one, states must use their authority to implement policies protective of environmental justice communities. Michigan provides an example of the various types of mechanisms that could be implemented by any state to improve its permitting system—beginning with an executive directive. To be effective, the directive must be followed by a clear plan that sets forth requirements that will actually address the concerns of environmental justice communities. At a minimum, states must, to some degree, incorporate the human and environmental impacts of a new project into the permitting process for the environmental justice movement to stand a chance of achieving its goals.