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Via E-Mail

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CC: Shawn LaTourette, Commissioner, DEP
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Re: Comments on Proposed Environmental Justice Rules, DEP Docket No. 04-22-04

I. INTRODUCTION

For years the Environmental Justice (EJ) community in New Jersey and nationally has insisted that, at some point, applications for pollution permits must be denied for new facilities seeking to locate in Of Color communities and low-income communities already suffering from more than their fair share of polluting facilities. However, these protestations were seemingly falling on deaf ears in legislatures and the governmental policy making community. Until now.

The New Jersey Legislature signaled that it heard the EJ community when it adopted a law to address pollution permits in an EJ context and stated in the EJ Law's legislative findings and declarations that "historically, New Jersey's low-income communities and [C]ommunities [O]f [C]olor have been subject to a disproportionately high number of environmental and public health stressors," and that this "legacy of siting sources of pollution in overburdened communities continues to pose a threat to the health, well-being, and economic success of the State's most vulnerable residents."[1] The New Jersey Department of Environmental Protection (DEP) has signaled that it heard both the EJ community and the State's Legislature by proposing rules that

[1] *See* N.J.S.A. 13:1D-157; Proposed Rule, 54 N.J.R. 971(a) (June 6, 2022).

will implement the New Jersey EJ Law in a manner that will protect New Jersey EJ communities, i.e., Communities Of Color[2] and communities with low income.

While the New Jersey community and its close allies believe that overall, the Proposed Rule will be a significant step towards addressing disproportionate levels of pollution in New Jersey EJ communities, there are portions of the Rule that can be improved. The Ironbound Community Corporation, New Jersey Environmental Justice Alliance (NJEJA), Clean Water Action, South Ward Environmental Alliance, Earthjustice, Tishman Environment and Design Center at the New School, and the Center for the Urban Environment of the John S. Watson Institute for Urban Policy and Research at Kean University submit the following comments in support of DEP's Proposed EJ Rule, and to provide concrete ways in which the Rule can be improved.

Our comments begin with specific recommendations for changes that DEP should make when finalizing the EJ Rule, covering the categories of the "compelling public interest" component of the Law (Section II), public participation (Section III), facility definitions (Section IV), cumulative impacts analysis and disproportionality (Section V), permit conditions (Section VI), general permits (Section VII), and cross-references with other DEP rules (Section VIII). The comments end with additional background on the association between pollution burden and Communities Of Color in Section IX. In each section, specific recommendations to DEP are in bold.

II. COMPELLING PUBLIC INTEREST

In informal comments submitted in March of 2021,[3] we discussed how the compelling public interest exception mandated by the New Jersey EJ Law[4] should be treated in regulations issued pursuant to the Law. We argued that requiring a facility to demonstrate that it is fulfilling a compelling public interest before it would be granted an exception to the Law is a very high standard to meet.[5] We further reasoned that the regulations should interpret this exception extremely narrowly so that very few are granted, because otherwise the very purpose of the Law, which is to protect communities Of Color and low-income communities from disproportionate pollution loads, would be flaunted and defeated.[6] We reiterate those arguments here and adopt our previously submitted informal comments by reference. In addition, we have identified concerns

[2] We prefer to use the terms "People of Color," "Communities Of Color," and simply "Of Color" instead of "minority," but we use the term "minority" when referring to the EJ Law and Proposed Rule for consistency.
[3] Comments of Ironbound Community Corporation et al. on New Jersey Environmental Justice Law Rulemaking: Stakeholder Comments, at 17-24 (March 10, 2021) (Attachment 1) ("March 2021 Stakeholder Comments"); *see also* Comments of Ironbound Community Corporation et al. on New Jersey Environmental Justice Law Rulemaking: Compelling Public Interest Addendum Comments (May 21, 2021) (Attachment 2); Comments of Ironbound Community Corporation et al. (Sept. 8, 2021) (Attachment 3).
[4] N.J.S.A. 13:1D-157, *et seq*.
[5] March 2021 Stakeholder Comments, *supra* note 3, Att. 1 at 17-18.
[6] *See id.* at 18-19.

with the compelling public interest exception as it is detailed in the Proposed Rule. Those concerns are discussed below.

A. Economics Should Not Be A Consideration When DEP Is Deciding If A Compelling Public Interest Exception Should Be Granted.

Even though the narrative that accompanies the Proposed Rule states that economic considerations will not be taken into account by DEP when deliberating on whether or not to grant a compelling public interest exception,[7] industry and some union members have testified at public hearings held on the Proposed Rule that polluting facilities which produce jobs should be eligible for the exception. The New Jersey EJ community and its allies adamantly oppose this suggestion since it would undermine the entire Law with persistent requests for exceptions that would most likely be granted if DEP were to finalize an EJ Rule that allows economic reasons as a basis to obtain the compelling public interest exception. Allowing consideration of economics would also be profoundly unfair to overburdened Communities Of Color and low-income communities since it would essentially be allowing our state to attempt to bribe these communities with the promise of needed jobs if they are willing to accept health-harming and life-ending pollution. In reality, such a proposition delivered to a community comes closer to extortion than bribery. Other communities do not have to make a choice between needed jobs and dangerous pollution and these communities should not have to make that choice either. There are other aspects of trading jobs for pollution that are problematic, and they are presented briefly below in a bulleted format.

- Unfortunately, we also feel it is important to point out that false promises have been made before regarding jobs and other benefits that will be produced by polluting facilities, which far too often fail to materialize.[8] If they don't materialize how will the facilities be held accountable? Or will the host communities be left with the pollution but without the promised benefits? However, we must reiterate our position: trading jobs for pollution is problematic and not fair to Communities Of Color and low-income communities. Even if the promised jobs were actually produced by the polluting facility it is still unacceptable to offer EJ communities a pollution for jobs trade-off.

- Polluting industry is not how we want to grow the economy in communities that already have more than their fair share of pollution. In fact, they are probably not the preferred way to improve the economy in any community. Our society must deliver jobs to communities without them being accompanied by dangerous pollution. There is industry that produces good jobs without pollution and many of them, such as hotels, hospitals, schools, and public infrastructure, do not fall under the auspices of the New Jersey EJ Law. The facilities that will be affected by the law are those that will add pollution to an already overburdened neighborhood.

- In addition to communities rejecting the idea of sacrificing lives for jobs, DEP has a history of finding that other economic reasons are not sufficient for industry to obtain a

[7] Proposed Rule at 973 (narrative section on "compelling public interest").
[8] *See* John Ribeiro-Broomhead & Neil Tangri, *ZeroWaste and Economic Recovery: The Job Creation Potential of Zero Waste Solutions*, Global Alliance for Incinerator Alternatives (2021), https://www.no-burn.org/zerowastejobs.

"compelling public interest" waiver from environmental laws.[9] DEP must not change course now and allow economic reasons to provide a "compelling public interest" exception for the EJ Law.

For all these reasons, **DEP's Chapter 7:1C regulations must expressly state that the supposed economic benefits of the proposed facility cannot be considered when determining whether the facility serves a compelling public interest.**

B. Other Potential Problems With the Compelling Public Interest Exception.

There are other potential problems with the compelling public interest exception that should be addressed. One is that proposed N.J.A.C. 7:1C-5-4(a) might be interpreted as allowing the control measures that are enumerated in proposed N.J.A.C. 7:1C-5-4(b) to be considered when DEP is deciding if it will grant a compelling public interest exception. Such an interpretation could be based on the language of N.J.A.C. 7:1C-5-4(a), which states, "An applicant for a proposed new major source facility that *seeks* to demonstrate a compelling public interest, shall propose control measures in accordance with N.J.A.C. 7:1C-7.1."[10] What is noteworthy regarding the wording of this section of the Proposed Rule is that it refers to an applicant who "seeks" the exception as opposed to one who has already been granted an exception. **Control measures should not be one of the factors considered when DEP is deliberating on whether or not to grant the exception, and the Proposed Rule should be changed to clarify this point.**

The language in the Proposed Rule regarding what constitutes an essential environmental, health, or safety need should also be clarified.[11] Currently the only activity that is specifically identified as constituting an essential need is the direct reduction of adverse environmental and public health stressors in the overburdened community (OBC).[12] However, even this language could be problematic since, for example, it could allow the reduction of two stressors to be considered fulfilling an essential need even if granting a permit for the facility would result in increasing two or more other stressors. Perhaps under these circumstances, the applicant facility would not be given an exception because reducing these two stressors would not be its "primar[y]" purpose as would seem to be required by N.J.A.C. 7:1C-5.3(b)(1). However, the meaning of "primary purpose" could also be disputed. To prevent future confusion and to provide more precise guidance for future administrations that will have to implement the regulations, **we recommend more specificity regarding what comprises a compelling public interest.**

Perhaps the best way to achieve this specificity would be to delineate what type of activities will constitute a compelling public interest and then restrict granting an exception to facilities that are engaged in those specific activities. **The activities that we believe should qualify for an exception are the following: (1) Municipal or neighborhood scale food waste composting**

[9] For example, DEP has found that being a "major source of property tax revenue," causing an "increase [to a] financial rate of return," or providing "access for customers" or "needs of . . . tenants" do not show a "compelling public need" that justifies exemption from freshwater wetland protection regulations. *Twp. of Wayne & Farcal Realty, Inc., Petitioners*, No. ESA 392, 2003 WL 21362758, at *6 (EFPS May 13, 2003); *Tanurb, an Ontario Gen. P'ship, Petitioner*, No. ESA 118, 2002 WL 512145, at *14 (EFPS Mar. 20, 2002).

[10] Proposed N.J.A.C. 7:1C-5-4(a) (emphasis added).

[11] *See* proposed N.J.A.C. 7:1C-5.3(b)(1), (b)(2) and (b)(3).

[12] Proposed N.J.A.C. 7:1C-5.3(c).

facilities[13] or small to medium scale (i.e., institutional, neighborhood, municipal) food waste anaerobic digesters;[14] (2) Public water infrastructure;[15] and (3) Photovoltaic Arrays or On-Shore Wind generators and related infrastructure.[16] The facilities involved in these types of activities would most likely improve the quality of life in the neighborhood in which they are located, and probably in other neighborhoods as well, without significant negative impacts. However, we are not proposing a blanket exception for facilities that further these activities. Instead, any facility applying for such an exception would have to undergo significant individual scrutiny. If DEP wanted to add other activities that would also be eligible for a compelling public interest exception, it should do so only after an extensive public stakeholder process.

Other New Jersey regulations come very close to setting a precedent for detailing what should constitute a compelling public interest under the New Jersey EJ Law regulations. For example, regulations implementing the Highlands Water Protection and Planning Act[17] set a "compelling public need" standard that must be met before expedited development can occur in areas protected by the Act. The implementing regulations provide specific examples of what could constitute a compelling public need, although it is important to note that in this instance activities that fulfill the standard are not limited to those identified in the regulations.[18] However, in the case of the New Jersey EJ Law, as stated above, we believe it would be important to limit fulfillment of the compelling public interest standard to those activities specified in the regulations.

Another part of the compelling public interest exception of the Proposed Rule that we want to address is proposed N.J.A.C. 7:1C-5.3(d) which states that DEP "may" consider public input as it is pondering whether or not to grant an exception. **We recommend that "may" be changed to "shall" in Section 7:1C-5.3(d) to help ensure that political administration changes will not leave communities without a voice in this important matter.**

Finally, we recommend above that **control measures should not be part of the calculus when DEP is deciding if it should grant a compelling public interest exception.** We further recommend that even when it is appropriate for control measures to be considered by DEP, **the concept of "net environmental benefit" which is currently contained in N.J.A.C. 7:1C-5.4(b)(5) is insufficiently defined and should be removed from the Proposed Rule.** We discuss

[13] In combination with other efforts this type of facility should, among other benefits, help to significantly reduce the use of incineration.
[14] These facilities cannot be associated with sewage treatment plants, or otherwise cannot be industrial-scale operations designed to produce methane for export.
[15] This type of facility would include sewage treatment plants and combined sewage overflow infrastructure. Even though our society as a whole needs these types of facilities, it should be ensured that any new infrastructure which falls in this category that receives an exception under the EJ Law is needed by the overburdened block group in which it would be located for a beneficial purpose, such as flood mitigation or improving climate resiliency.
[16] Renewable energy installations that benefit the local host community and help to displace fossil fuel energy generating units should qualify for consideration. Along with these facilities, consideration can also be given to the infrastructure related to wind or solar energy production such as renewable battery storage or microgrids, charging stations for light, medium and heavy-duty electric vehicles, and electrification infrastructure needed for non-road and port-related equipment.
[17] N.J.S.A. 13:20-1 *et seq*.
[18] *See* N.J.A.C. 7:38-6.5.

this in more detail below in the EJ analysis section of the comments and note that **it should also be removed from the section of the Proposed Rule that addresses facility expansions.**[19]

III. PUBLIC PARTICIPATION

It is extremely important that the outreach to the community is honest and fair. **Residents in EJ communities deserve to be notified of polluting facilities being proposed within five kilometers of their communities, since DEP's Technical Manual 1002 recognizes that air emissions from facilities can have impacts out to five kilometers (distance of required modeled receptors).** The Proposed Rule's current notification to residents within only 200 feet is insufficient.[20] The EJ Law was written to protect the communities most impacted. As such, community residents need text messages and phone calls, in addition to newspaper notification, informing them of potential facilities being sited in their neighborhood. Communities that are aware and given a chance to participate are better able to shape their neighborhoods.

Communities are hampered if they do not receive the comprehensive and complete communication necessary for them to engage in projects that directly impact their public health. For example, on July 21, 2022, the Covanta Essex Resource Recovery Facility sent its first direct email notice to community members of any information about the public participation process for Covanta's permit renewals under DEP Administrative Order No. 2021-25 (AO-25), which implements some aspects of the EJ Law participation process before finalization of the EJ Rule. But Covanta's email – which merely referenced a "Virtual Public Information Session" – failed to indicate that this "Information Session" was intended to be the AO-25 public hearing, failed to provide a link to the permit application materials, failed to indicate that the 60-day AO-25 public comment period would end on September 8, 2022, and failed to indicate that Covanta had already opened the 60-day comment period on July 8 – some two weeks before the email.[21] This notice was clearly insufficient, and were it not for EJ advocates raising the issue with DEP, the agency would have let this insufficient notice stand, and the affected communities would not have been given adequate opportunity to participate. It should not be the burden of community members and community groups to daily scour all local newspapers in order to be notified of applications under the EJ Law. Future notifications under the EJ Law must be better than this poor example.

It is also essential that the manner in which notice is provided for proposed new projects and renewals of major permits be updated so it reaches more members of the community, especially the next generation of EJ advocates. The future EJ advocates (many of whom are less than 30 years old) are more likely to become aware of an issue via Instagram, TikTok, and other social media platforms. DEP must strive to include these forms of communication in their outreach plans, and the **Department should continually be updating outreach to be more inclusive of**

[19] *See* Proposed N.J.A.C. 7:1C-6.3(b)(5).
[20] *See* Proposed N.J.A.C. 7:1C-4.1(a)(1)(iv).
[21] *See* Covanta Essex, Virtual Information Session Notice (Attachment 4).

technological changes and the evolving way that residents receive information. DEP should also allow for the submission of comments via video, voice memos, and other, newer forms of feedback.

Additionally, the number of EJ advocates in any given overburdened community (OBC) may be quite limited. However, there will often be advocates in adjacent OBCs who can assist in understanding and responding to a proposed permit and the related Environmental Justice Impact Statement (EJIS). Therefore, **we recommend that DEP include advocates in adjacent OBCs in the public participation procedures** as described in Subchapter 4 of the Proposed Rule, and in other guidelines established by the DEP.

In addition, and as we previously recommended to DEP in our March 10, 2021 Stakeholder Comments:[22]

- **It is critical that DEP work closely with municipalities and their staff to help translate and communicate the materials generated by the EJIS review process.** This can be achieved by offering training(s) to key municipal staff such as the zoning officers, planning staff, environmental commission, and planning and zoning boards, for example.
- **The public process must ensure that local community groups and residents are properly notified beyond just the notification to municipal officials or the clerks.** A successful public process requires investing in DEP's capacity to conduct community-friendly outreach and then use that to ensure that industry applicants adhere to this model.
- **DEP staff should work with the applicant to ensure that the information and technical assistance disseminated prior to the public hearing to the public and local officials is clear and can be easily understood in the context of the EJ Law.** This information is required by the Law, which directs DEP to assess permit application fees that cover "costs to provide technical assistance to . . . overburdened communities," among other costs.[23] Thus, we recommend that the DEP develop internal processes for conducting enhanced outreach along with the applicant in the public process leading up to the hearing. This includes sharing educational materials regarding regulation processes (orienting maps and existing conditions), the definition of cumulative impacts, information about the impact of regulated pollutants, etc. to help residents have a baseline understanding prior to the hearing. DEP should invest in public education that is accessible to make the whole process much more engaging.
- **DEP should maintain a list of active community groups and use that list to notify them about hearings.** The agency should allow residents to easily sign up to receive email and text alerts for new EJ Law applications for their municipalities/counties of interest, for example by signing up on the DEP website. DEP should also convey information about

[22] *See* March 2021 Stakeholder Comments, *supra* note 3, Att. 1.
[23] N.J.S.A. 13:1D-160(g).

new applications to existing municipality text alert/reverse 911 systems so that these can send out information.

- **DEP should ensure that the applicant provides clear, accurate, and complete information about the proposed new, expanded, or renewing facility by reviewing all the public hearing presentation materials for accuracy and completeness prior to the meeting.** Any fact sheets, presentations, or other supporting materials should be reviewed by DEP prior to dissemination to the public.
- **Notifications to community members and community groups need to be specific and clear about the operations of the facility, the pollution that would be emitted, and the EJ Law process the facility is engaged in.**
- **Automated phone calls or text messages, the use of social media platforms and other methods of communication should be considered in addition to, or instead of, the newspaper ads.** If newspaper ads are included, they should be issued multiple times and in newspapers with wide readership in the community where a facility is proposed, as well as adjacent communities.
- **Notification must be available in the languages of the local community.** This is particularly important given that the EJ Law expressly applies in communities with limited English proficiency.
- **Notification to the municipality via the clerk should also include a notification to the municipality's Environmental Commission or Municipal Green Team if such a Commission or Team is established in the host community.**
- In order for community members to have a "meaningful opportunity" to participate in permitting decisions as required by the EJ Law,[24] they must be informed whether the applicant will claim the facility will serve a "compelling public interest in the community where it is to be located."[25] **DEP must require that the permit applicant's notice of public hearing explicitly state whether the applicant will seek a "compelling public interest" determination from DEP, along with a brief summary of the EJIS and any other information the Department thinks is necessary to include.**
- To enable the public participation and transparency intended by the Legislature, **DEP must maintain a publicly accessible record, both online and in-person at applicable public libraries, of any findings of a "compelling public interest" under N.J.S.A. 13:1D-160(c).**
- The EJ Law requires an EJIS to "assess the potential environmental and public health stressors" associated with the facility, and **DEP must make clear that "potential" stressors are not limited to those stressors which "cannot be avoided if the permit is granted."**[26]

[24] N.J.S.A. 13:1D-157.
[25] N.J.S.A. 13:1D-160(c).
[26] N.J.S.A. 13:1D-160(a)(1).

In summary, to adequately and sincerely engage the community, DEP should expand public notice requirements to communities within five kilometers of any proposed facility, and revamp the channels through which they interact with and inform the public, among other things. For additional, more in depth suggestions regarding public comments, please refer to the Stakeholder Comments document in Attachment 1.

IV. FACILITY DEFINITIONS

A. The Final EJ Rule Should Continue to Treat a Change of Use at an Existing Facility as a "New Facility."

We strongly agree with the inclusion of "a change in use at an existing facility" in the Proposed Rule's definition of "new facility."[27] Such a provision will help ensure that entirely new sources of pollution in an OBC do not escape the highest level of EJ Law protections simply because the new source happens to be built within the property line of an existing facility or use existing equipment.

A recently proposed gas plant in the Ironbound section of Newark – one of the most overburdened communities in the state – shows just how critical this provision is. The Passaic Valley Sewerage Commission wastewater treatment plant is proposing to build a gas-fired power plant – an entirely new operation – within the wastewater facility's site.[28] But the wastewater treatment plant is already a "major source" of air pollution that "possesses a valid approved registration or permit from [DEP] for its operation or construction and is in operation," so the wastewater treatment facility itself would be an "existing facility" under the EJ Rule.[29] Thus, without DEP's clarification of the definition of "new facility," the proposed, entirely new source of pollution in the Ironbound – the *fourth* gas plant in the neighborhood – could be considered a facility expansion instead of a new facility, and Ironbound residents would be deprived of the heightened EJ Law protections that apply to new facilities.

B. The EJ Rule Needs No "De Minimis" Exception for Facility Expansions.

We also agree with the EJ Rule's definition of facility expansion, which includes expansions that have "the potential to result in an increase of an existing facility's contribution to any environmental and public health stressor in an overburdened community," but not necessarily any facility expansions or modifications that decrease or cause no change to such contribution.[30]

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[27] Proposed N.J.A.C. 7:1C-1.5 (definition of "new facility"); *see also id.* (defining "change in use" as "a change in the type of operation of an existing facility that increases the facility's contribution to any environmental and public health stressor in an overburdened community, such as a change to waste processed or stored.").
[28] *See* Passaic Valley Sewerage Commission, Standby Power Generation Facility Project, http://www.bit.ly/SPGFProject.
[29] Proposed N.J.A.C. 7:1C-1.5 (definitions of "facility" and "existing facility").
[30] Proposed N.J.A.C. 7:1C-1.5 (definition of "expansion").

This definition properly balances the intent of the law to scrutinize *any* potential increase in stressors in an OBC, while also not requiring EJ Law documentation and submittals for *decreases* in stressor contributions, which do not carry regulatory implications under the EJ Law anyway. **Accordingly, no "de minimis" exception to the definition of facility expansion is warranted**, since the proposed definition already properly furthers the intent of the EJ Law without overreach.

C. The "Incinerator," "Sludge Incinerator," and "Resource Recovery Facility" Categories Should Include Pyrolysis, Gasification, and Similar Technologies.

The New Jersey Legislature passed the EJ Law to address "numerous" polluting facilities concentrated in OBCs which, "by the nature of their activity, have the potential to increase environmental and public health stressors."[31] DEP must define the categories of facilities in the EJ Law in a way that avoids "frustrat[ing] the policy embodied in the statute."[32]

To implement the legislative intent of the statute, DEP should clarify that "incinerator," "sludge incinerator," and "resource recovery facility" definitions include pyrolysis, gasification, plasma processing, chemical recycling, vitrification, and other forms of incineration and similar technologies or processes by another name. As with traditional incinerators, these facilities use high temperatures and combustion to break down or transform waste.[33] These facilities also emit many of the same pollutants as traditional incinerators, including carbon monoxide, dioxins, furans, sulfur dioxide, hydrogen sulfide, benzene, particulates, nitrogen oxides, and chloride.[34]

DEP should directly address these facilities by adding the definition of "incinerator" from N.J.A.C. 7:27-8.1 – which expressly includes facilities utilizing "pyrolysis" – to the EJ Rule's definition of incinerator.[35] Currently, the Proposed Rule's definition of "incinerator" points only

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[31] N.J.S.A. 13:1D-157.
[32] *T.H. v. Div. of Developmental Disabilities*, 189 N.J. 478, 491 (2007).
[33] Friends of the Earth, *Pyrolysis, Gasification and Plasma* (September 2009), https://reclaimpower.net/images/2016/resources/waste-to-energy-incineration/Pyrolysis,%20gasification%20and%20plasma%20-%20FoE.pdf.
[34] *Id.* (explaining that "[a]ir emissions include acid gases, dioxins and furans, nitrogen oxides, sulphur dioxide, particulates, cadmium, mercury, lead and hydrogen sulphide."); Sue Alston et al., *Environmental Impact of Pyrolysis of Mixed WEEE Plastics Part 1: Experimental Pyrolysis Data*, 45 Env't Sci. & Tech. 9380, 9381 (2011), https://doi.org/10.1021/es201664h (describing pyrolysis as producing waste gas composed of "42% carbon monoxide," in addition to producing sulfur dioxide and benzene.); Umberto Arena, *Process and Technological Aspects of Municipal Solid Waste Gasification. A Review*, 32 Waste Mgmt. 625, 626 (2011), https://doi.org/10.1016/j.wasman.2011.09.025 (describing syngas, a byproduct of gasification, which is "generally contaminated by undesired products such as particulate, tar, alkali metals, chloride and sulphide."); Aysan Safavi et al., *Dioxin Formation in Biomass Gasification: A Review*, 15.3 Energies 700 (2022), https://doi.org/10.3390/en15030700 ("[A] recent assessment of the literature indicates that gasification cannot always reduce [dioxin and furan] emissions to acceptable levels, and thus a common belief on the replacement of incineration with gasification in order to reduce [dioxin and furan] emissions seems overly simplistic.").
[35] N.J.A.C. 7:27-8.1.

to definitions in N.J.A.C. 7:26-1.4, and 7:27-11.1, but neither of these definitions expressly mention "pyrolysis" or similar terms.[36]

In addition, and at the very least, DEP must recognize that even its definitions of incineration that do not expressly reference "pyrolysis" or "gasification" do indeed apply to these facilities because these processes also involve combustion – a high-temperature chemical reaction between a fuel and oxygen. Pyrolysis, gasification, chemical recycling, and similar industries often claim that they are not subject to incinerator regulations based on their assertions that their processes are done in the absence of oxygen and so do not involve combustion. But "it is not possible to eliminate the presence of all oxygen in real-world pyrolysis units," and so "some combustion is inevitable during pyrolysis/gasification and always occurs."[37] For this reason, EPA has described these facilities as "two chamber *incinerators* with a starved air primary chamber followed by an afterburner to complete *combustion*."[38] Thus, even DEP's definitions of "incinerator," like those in N.J.A.C. 7:26-1.4 and 7:27-11.1 that use terms like burning, fire, or combustion, equally apply to pyrolysis and gasification facilities, and the final EJ Rule should make that clear.

These principles similarly apply to the Proposed Rule's definition of "sludge incinerator," defined as "any facility that incinerates or combusts sludge in an enclosed device."[39] The final EJ Rule should make clear that sludge pyrolysis facilities, sludge gasification facilities, and similar facilities are covered under the Rule's definition of "sludge incinerator."

Given the emissions from facilities utilizing pyrolysis and similar thermal processes, DEP's omission of these facilities would ultimately be harmful to OBCs, and thus would contravene the central intent of the EJ Law. DEP cannot implement a law designed to correct a "legacy of siting sources of pollution in overburdened communities" by unnecessarily excluding pyrolysis-based incinerators and similar facilities from the protections of the EJ Law.[40]

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[36] *See* proposed N.J.A.C. 7:1C-1.5 (definition of "incinerator").
[37] Comments of Earthjustice et al. on Potential Future Regulation Addressing Pyrolysis and Gasification Units: Advanced Notice of Proposed Rulemaking, Ex.M Sahu Decl. ¶¶ 8, 11 [EPA-HQ-OAR-2021-0382-0165 ex. M] (Attachment 5); *see also* Federal Remediation Technologies Roundtable, Remediation Technologies Screening Matrix and Reference Guide, 4.24 Pyrolysis, https://frtr.gov/matrix2/section4/4-25.html ("[I]n practice, it is not possible to achieve a completely oxygen-free atmosphere; actual pyrolytic systems are operated with less than stoichiometric quantities of oxygen. Because some oxygen will be present in any pyrolytic system, nominal oxidation will occur.")
[38] Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units, 70 Fed. Reg. 74870, 74,776-77 (Dec. 16, 2005).
[39] Proposed N.J.A.C. 7:1C-1.5 (definition of "sludge incinerator").
[40] N.J.S.A. 13:1D-157.

D. "Sludge Processing Facility" Should Include Land Application of Sludge.

The EJ Law provides OBCs with protections against "sludge processing facilities," but this term is not defined in the statute or elsewhere in New Jersey law. DEP has defined this term using components of the New Jersey Pollutant Discharge Elimination System (NJPDES) regulations to include facilities that store, process, treat, or transfer sludge, but excludes "the land to which residual is applied or will be applied."[41]

This exclusion of land application sites arbitrarily departs from existing NJPDES regulations, which recognize that land application of sludge poses public health risks that deserve elevated scrutiny.[42] Accordingly, DEP regulations require the review of applications for land application of residuals, including an analysis of the residual for signs of chemicals such as arsenic, lead, and mercury.[43] Indeed, by DEP's own account, DEP chose to promulgate a residual land application program that is even more "stringent" and "restrictive" than the federal baseline because of the heightened need to protect "New Jersey's high population density [and] limited agronomic land base," etc.[44] But despite these heightened regulations, New Jersey still allows for the land application of more hazardous residuals like industrial residuals or Class B / non-"exceptional quality" residuals.[45] **Given DEP's recognition of the potential harms and need for overview of land-application sites, land application sites should not be excluded from the protections of the EJ Law.**

If DEP intended to exclude land application sites from the EJ Law for fear of administrative burden, that should not be the case. The NJPDES Active Permit List from DEP Dataminer shows only 10 permits for the land application of industrial residuals, 5 permits for land application of Class A Biosolids, and 4 permits for land application of Class B Biosolids. And of course, only those land application sites located in OBCs would be covered by the EJ Law. Thus, inclusion of land application permits under the EJ Law would not add a long list of new sites that would be covered by the Law.

E. "Transfer Station" Should Include Intermodal Container Facilities.

The final EJ Rule should clarify that "intermodal container facilities" are also covered by the EJ Law. The Proposed Rule defines "transfer stations," by applying the definition

[41] Proposed N.J.A.C. 7:1C-1.5 (definition of "sludge processing facility").
[42] *See* N.J.A.C. 7:14A–20.7 (creating specific NJPDES permit review requirements for land application of sludge); U. Krogmann et al., Land application of sewage sludge: perceptions of New Jersey vegetable farmers, https://journals.sagepub.com/doi/abs/10.1177/0734242X0101900204 (noting New Jersey farmer's concerns about land application of sludge because of "heavy metals in sewage sludge (soil-build up, crop-uptake), negative public perception, odour complaints, and increase of contaminants in the water supply.").
[43] N.J.A.C. 7:14A–20.7(a)(1)(ii).
[44] DEP, *New Jersey Statewide Sludge Management Plan*, at K-16, https://www.nj.gov/dep/dwq/pdf/NJSSMP_Section_K.pdf.
[45] N.J.A.C. 7:14A–20.7.

from DEP's solid waste regulations at N.J.A.C. 7:26-1.4. But DEP regulations define "intermodal container facilities" in such a way as to make clear that they are a subset of "transfer stations" that transfer solid waste in containers, and so they should also fall under the EJ Law definition of "transfer station."[46] And DEP's regulations require the registration and licensing of intermodal container facilities,[47] so these facilities must obtain the "permit, registration, or license issued by the department" that triggers the EJ Law process.[48] Thus, DEP's final EJ Rule should make clear that these intermodal container facilities are also covered by the EJ Law.

V. EJ ANALYSES AND DISPROPORTIONALITY

A. Defining Facility "Contributions"

It is important that the Department clearly define what constitutes a "contribution" to a stressor since the term is critical in making a determination if a facility is creating or furthering adverse cumulative stressors. DEP does not specify exactly how it will interpret the contribution of the facility to the impacted stressors. **We believe that the intent of the law and the appropriate interpretation of "contributing to" should be that any detectable, absolute amount of a pollutant or density increase related to affected stressor categories would constitute a contribution to or creation of an adverse environmental or public health stressor in an OBC.** This determination should not necessarily require modeling.

For example, if an OBC is adverse for "Ground Level Ozone," then a facility that emits any detectable amount of ozone precursors would "contribute" to that stressor, and no modeling is needed to determine how those emissions would affect the OBC's three-year average days above the EPA ozone standard (the stressor metric). Similarly, a facility that contributes any level of lead into the environment would "contribute" to the "Potential Lead Exposure" stressor, and there is no need to show an increase in the stresor metric of "percent houses older than 1950" – indeed, it is impossible for the percentage of housing older than 1950 in an OBC to *ever* increase, let alone show how a facility would contribute to an increase in this percentage. So the principle that "contribution" means *any* pollution or density increase – and not a change in the metric – is especially important to stressors like "Potential Lead Exposure" where facility operations are tenuously tied to the stressor metric, even if facility operations are directly tied to pollution increases.

[46] *See* N.J.A.C. 7:26-1.4 (defining "transfer station" as "a solid waste facility at which solid waste is transferred from one solid waste vehicle to another solid waste vehicle, including a rail car, for transportation to an off-site solid waste facility . . ." and defining "intermodal container facility" as "a facility where containerized solid waste is transferred from one mode of transportation, such as trucks, rail cars, ships and barges, to another, or from one vehicle to another within one mode of transportation.").
[47] N.J.A.C. 7:26–3.6.
[48] N.J.S.A. 13:1D-158.

In addition, **DEP should add a definition of "contribute" and "contribution" to the Rule's definitions section at N.J.A.C. 7:1C-1.5, defining these terms to mean "any detectable, absolute amount of a pollutant or density increase related to a stressor."** Including this definition in the Rule would assist with the Rule's clarity and ensure that a consistent definition of "contribute" is used throughout as the Law is applied.

B. Modeling Impacts to Stressors

With respect to permit applicants for new facilities in an OBC without adverse cumulative stressors, and where disproportionate impacts can be avoided, the Proposed Rule states the following concerning modeling: "In assessing a facility's ability to avoid a disproportionate impact that would occur by creating adverse cumulative stressors in an overburdened community, an applicant would *conduct modeling of the facility's operations to determine how those operations would impact levels of stressors identified as affected,* by utilizing the data and metrics set forth at the chapter Appendix."[49]

This section of the Proposed Rule raises questions about how and under what circumstances the applicant will be directed to conduct "modeling" of the facility's operations' impact on the stressors. An assessment of a facility's contribution to, or creation of, an adverse impact in an OBC doesn't necessarily entail modeling. For example, when the facility will effectively increase the density of adverse environmental and public health stressors such as permitted air facilities or scrap metal facilities, modeling would not be required. Rather, a simple calculation of density could be submitted. **Where the term "modeling" is applied, the language should also include the additional term "calculate" or "assess," so as to not only refer to modeling. It should also specify that if the modeling, calculation, or assessment yields any detectable addition to the stressor, then this constitutes a contribution to that stressor.**

C. Stressor Measures

The proposed measurements of the fine particulate matter ($PM_{2.5}$) and ozone stressors as a "three-year average of Air Quality Index (AQI) days greater than 100" will not be sufficiently sensitive to facility contributions that impact health. Neither of these pollutants has an established threshold below which there is no risk of adverse health effects.[50] For both $PM_{2.5}$ and ozone, health risks have been found at concentrations below the current EPA National Ambient Air Quality

[49] Proposed Rule at 972, 983, 985; *see also* proposed N.J.A.C. 7:1C-2.2(b)(1).
[50] *See* Georgia Papadogeorgou et al., *Low Levels of Air Pollution and Health: Effect Estimates, Methodological Challenges, and Future Directions*, 6 Current Envtl. Health Rep. 3 (2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7161422/; Michelle L. Bell et al., *The Exposure–Response Curve for Ozone and Risk of Mortality and the Adequacy of Current Ozone Regulations*, 114 Envtl. Health Perspectives 4 (2006), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1440776/.

Standards (NAAQS) (i.e., below AQI 100 values).[51] The AQI 100 concentration for $PM_{2.5}$, established in 2012, is 35 ug/m^3 averaged over 24-hours.[52] But the recently revised World Health Organization (WHO) guidelines for 24-hour $PM_{2.5}$ is 15 ug/m^3.[53] As for ozone, when the EPA updated the eight-hour ozone standard in 2015, the EPA Clean Air Scientific Advisory Committee (CASAC) had recommended 60-70 ppm and noted that the 70 ppm standard might not protect vulnerable populations as the law required.[54] The WHO guideline for ozone is 50 ppb over 8-hours compared to the EPA AQI 100 value of 70 ppb.[55] Based on the WHO guidelines and the CASAC recommendations, EPA should strongly consider lowering the 24-hour EPA $PM_{2.5}$ standard and the eight-hour EPA ozone standard, thus making them both more health protective. $PM_{2.5}$ certainly remains a threat to health in New Jersey communities even though the 24-hour EPA standard is rarely exceeded. Urban OBCs in the state where there is concern about local sources of air pollution could receive a "zero" value for $PM_{2.5}$ using the proposed stressor standard (number of days above the EPA standard) even if there are polluting facilities emitting harmful $PM_{2.5}$. Although the eight-hour ozone standard is exceeded more frequently than the 24-hour $PM_{2.5}$ standard, it remains an unstable metric. Rather than a threshold-based metric, continuous metrics such as annual mean $PM_{2.5}$ and peak season ozone (averaged eight-hour values over the ozone season) would be more appropriate for comparing overburdened communities to non-overburdened communities at their geographic point of comparison for determining the presence of adverse $PM_{2.5}$ and ozone levels.

DEP should strongly consider using the CalEPA CalEnviroScreen $PM_{2.5}$ indicator instead of the days above the National Ambient Air Quality Standard (NAAQS) (i.e., 100 AQI) as a measure of the $PM_{2.5}$ stressor. CalEnviroScreen uses a combination of air monitoring, modeling, and satellite observations to assign ambient mean $PM_{2.5}$ concentrations to census tracts in California. Three years of data from the air monitors are used to calculate mean ambient $PM_{2.5}$ concentrations. A model was created using a combination of the air monitoring data and satellite observations to estimate ambient $PM_{2.5}$ concentrations for census tracts that are within 50 km of an air monitor. If a census tract is more than 50 km from a monitor, then satellite observations are utilized to assign a $PM_{2.5}$ concentration to the census tract.[56] The CalEnviroScreen $PM_{2.5}$ indicator is the annual ambient mean $PM_{2.5}$ concentration for a census tract. **We recommend that DEP**

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[51] Qian Di et al., *Air Pollution and Mortality in the Medicare Population*, 376 New England J. of Medicine 2513 (2017), https://www.nejm.org/doi/full/10.1056/NEJMoa1702747.
[52] National Ambient Air Quality Standards for Particulate Matter, 78 Fed. Reg. 3086 (Jan. 15, 2013).
[53] World Health Organization, *WHO Global Air Quality Guidelines: Particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide,* at 4 (2021), https://apps.who.int/iris/bitstream/handle/10665/345334/9789240034433-eng.pdf.
[54] Union of Concerned Scientists, *EPA's Clean Air Scientific Advisory Committee Comes Agreement on Ozone Standard Recommendation* (June 4, 2014), https://blog.ucsusa.org/gretchen-goldman/epas-clean-air-scientific-advisory-committee-comes-to-agreement-on-ozone-standard-recommendation-555/.
[55] World Health Organization, supra note 53 at 4.
[56] *See* Lauren Zeise, Ph.D. and Jared Blumenfield, *CalEnviroScreen 4.0,* at 41, https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf.

replace the current proposed $PM_{2.5}$ stressor with the annual mean $PM_{2.5}$ concentration for a block group.

Similar to the $PM_{2.5}$ stressor, the ozone stressor should be changed from the three-year average number of days above the ozone NAAQS to the three-year mean ambient summer ozone concentration for each block group. This would mimic the ozone stressor used in CalEnviroScreen and would be more protective of communities. The additional protection is created because an increase in an ozone concentration can be harmful to health even if the NAAQS is not violated. This is especially so when you consider that the increased ozone concentration is contributing to cumulative impacts in neighborhoods where cumulative impacts is an important potential or actual issue. In California the daily maximum eight-hour ozone concentration for the months from May to October is calculated using data collected by air monitors over a three-year period. An air model was created utilizing air monitoring data that estimates ozone concentrations for every census tract in the state within 50 km of a monitor. Any census tract that is more than 50 km from an air monitor is assigned the ozone concentration measured by the nearest monitor.[57] **We recommend that the DEP replace the current proposed ozone stressor with the mean eight-hour ozone concentration during the peak ozone season.** DEP should use whatever resources are available and the scientific methods it believes are the most appropriate to establish and assign these annual mean $PM_{2.5}$ and peak ozone season concentrations.

The methods for how one would reasonably model or account for contributions from facilities for impacts to the $PM_{2.5}$ stressor and the ozone stressor are unclear. For example, a community that is already overburdened by ambient concentrations of $PM_{2.5}$, for which there is no known threshold for health effects, will be adversely impacted by any detectable increase in these emissions. Furthermore, as noted above, the three-year average of days exceeding the AQI 100 value will often not be useful in assessing the impact to the community, because there are so few days per year that the state has exceeded the 24-hour NAAQS for $PM_{2.5}$.[58] The adequacy of modeling is particularly concerning for secondary pollutants such as ozone and secondary formation of $PM_{2.5}$. **It would be preferable if, instead of modeling, the Department stipulates that the applicant can "quantify or express," in some reasonable manner, the impact of the facility's operations on stressors**. Instead of modeling, the applicant could account for the net emissions profile and absolute contributions to each stressor using specific annual pollutant totals and density measures. For example, if a facility applying for a new permit under the Rule where the OBC is already subject to adverse cumulative stressors is expected to emit $PM_{2.5}$ and the facility cannot demonstrate the elimination of $PM_{2.5}$ emissions to zero on-site, then the contribution of any amount of $PM_{2.5}$ pollutants would be considered a "facility contribution" to the $PM_{2.5}$ stressor.[59]

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[57] *See* California Office of Environmental Health Hazard Assessments, *Air Quality: Ozone,* https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone.
[58] DEP, *2021 New Jersey Air Quality Index (AQI) Exceedance Days* (Mar. 23, 2022), https://www.nj.gov/dep/airmon/pdf/2021-nj-aqi-exceedence-days.pdf.
[59] *See* Proposed N.J.A.C. 7:1C Subchapter 5.

In addition to primary emissions of $PM_{2.5}$, emissions of precursors, such as NO_x and SO_2, to the formation of secondary $PM_{2.5}$ should also be considered contributions from a facility to the $PM_{2.5}$ stressor.[60] **DEP should determine and declare all pollutants it considers secondary $PM_{2.5}$ precursors and consider any detectable emissions of any of the identified precursors as contributions from a facility to the $PM_{2.5}$ stressor.**

Similarly, the emissions of ozone precursors, such as NO_x and VOCs, should be considered contributions from a facility to the ozone stressor.[61] As with $PM_{2.5}$, DEP should determine and declare all pollutants it considers ozone precursors and consider any detectable emissions of any of the identified precursors as contributions from a facility to the ozone stressor.

We recognize that the formation of secondary $PM_{2.5}$ and ozone may not occur in the immediate vicinity of precursor emissions. However, we still believe that precursor emissions should be considered contributions to stressors in the block group where they occur since controlling these precursor emissions is the only way to lower concentrations of secondary $PM_{2.5}$ and ozone anywhere. Ensuring they are considered as contributors to stressors in the block group of their emission could lead to reduction in their emissions levels due to the New Jersey EJ Law and its regulations. NO_x, SO_2, VOCs, and other precursors also cause harm within OBCs before they react to create secondary $PM_{2.5}$ and ozone. In addition, the formation of secondary $PM_{2.5}$ and ozone in the block group where the precursors are emitted cannot be totally excluded.

The Department should also detail how specific pollutant emissions associated with a facility will relate to multiple stressor categories. For example, if a facility emits benzene, DEP should consider any emissions above zero of benzene from a proposed new facility in an OBC that is already subject to adverse cumulative stressors as a "facility contribution" to the Air Toxics Non-Cancer Risk stressor and the Non-Cancer Risk stressor.

Regarding the "air toxics noncancer risk" stressor, while the chart in the proposed Appendix lists this stressor's metric as "Combined Hazard Quotient,"[62] the Proposed Rule's preamble states that "the Department proposes to consider the air toxics non-cancer stressor in risk per million from the 138 air toxics."[63] Noncancer risk is usually expressed as a Hazard Quotient or Hazard Index, and it is not clear how the DEP is proposing to measure this stressor in risk per million. A continuous scale of the cumulative hazard index for all 138 air toxics would seem to be

[60] *See* EPA, Particulate Matter (PM) Basics (last updated July 18, 2022), https://www.epa.gov/pm-pollution/particulate-matter-pm-basics.
[61] *See* EPA, Ground-level Ozone Basics (last updated June 14, 2022), https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics.
[62] Proposed N.J.A.C. Chapter 7:1C Appendix.
[63] Proposed Rule at 976.

a reasonable metric, although it would presume additive effects of compounds with many different modes of action and health effects.

D. Net Environmental Benefit

DEP proposes consideration of a "net environmental benefit" for those new facilities that trigger a compelling public interest or for expansions where the permit is to be conditioned. DEP defines a net environmental benefit as "either a reduction of baseline environmental and public health stressors in an overburdened community, or another action that improves environmental and public health conditions in an overburdened community."[64] This construction leaves open the definition of a baseline reduction in environmental and public health stressors by allowing "another action that improves environmental and public health conditions in an overburdened community."[65] In addition, the definition is unclear about whether a facility that decreases some stressors could meet the "net environmental benefit" standard even if it increases other stressors, and there is no indication whether the reduced stressors must be stressors considered adverse in the OBC. **Net benefits should be removed altogether from consideration in new facilities, expansions, and compelling public interest considerations because the definition is unclear.** At the very least, DEP should clarify the use of the term "baseline" in the definition here, which could be confused with DEP's use of the terms "baseline" stressor versus "affected" stressor in the chart in the proposed Appendix.

E. EJIS Information

The Rule's section on EJIS components requires "[e]vidence of satisfaction of any local environmental justice or cumulative impact analysis with which the applicant is required to comply."[66] It is important that the **EJIS include evidence of satisfactory completion of any local EJ analysis, law, or policy requirement, as well as the local body's resulting determination**. DEP should consider any recommendations or determinations made by the governing body or oversight group with authority to review the submission of local EJ analyses. Consideration should be given to the ruling or recommendations from these local entities with respect to acceptance, denial, or modifications to the local application submitted in compliance with the local law or policy. Thus, the submission of an applicant's proposal is not sufficient - a completion of the local review should be required for the EJIS to be complete. If the local review recommends declining or significantly modifying the proposal, the Department should consult with local authorities before moving forward with the EJIS review.

[64] Proposed N.J.A.C. 7:1C-1.5 (definition of "net environmental benefit").
[65] *Id.*
[66] Proposed N.J.A.C. 7:1C-3.2(a)(5).

Under proposed Section 7:1C-3.3 on supplemental information for submission with the EJIS, there is a listing of all the relevant site mapping the applicant must submit.[67] **This section should also include a description and the location of any sensitive receptors** such as hospitals, daycares, schools, senior living facilities, dialysis centers, public recreation sites, detention centers, and any other locations where particularly vulnerable populations may be concentrated. Also relevant for this section may be the inclusion of any local land use controls or overlay zones that pertain to the area where the proposed facility will be located.

F. Risk Assessment

The facility-wide risk assessment section should include criteria pollutant emissions in addition to hazardous air pollutants[68] and should be a cumulative assessment of all emissions from all sources that impact an OBC, not just emissions from the facility in question. Section 7:1C-8.4(c) states, "If the outcome of the facility-wide assessment is above a negligible level…"[69] However, "negligible" is not defined. The significance level of the risk assessment should be examined from a cumulative impact perspective to be as protective as possible in determining if a facility's emissions are impactful. While this type of cumulative risk assessment should not be required of new facilities, it should be mandated for facilities seeking to expand operations as well as facilities applying for pollution permit renewals.

G. Reasonableness of Approach

Finally, it seems to the New Jersey EJ community and its allies that the method DEP is proposing to utilize to determine if there is a disproportionate level of pollution in an OBC is extremely reasonable and could even be described as conservative. We believe this is true because there must be multiple stressors in excess of the 50th percentile, as opposed to just one or even several, before there is a disproportionate pollution finding.[70]

VI. CONDITIONING PERMITS

The EJ Law provides for DEP's imposition of permit conditions on new, expanded, or renewing facilities to eliminate or reduce their environmental impact,[71] but DEP must strengthen the Proposed Rule's provisions about conditions in order to meet the EJ Law's goal to address "the legacy of siting sources of pollution in overburdened communities."[72]

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[67] Proposed N.J.A.C. 7:1C-3.3(a).
[68] Proposed N.J.A.C. 7:1C-8.4(a).
[69] Proposed N.J.A.C. 7:1C-8.4(c).
[70] *See* proposed N.J.A.C. 7:1C-1.5 (definition for "adverse cumulative stressors").
[71] N.J.S.A. 13:1D-160(c), (d).
[72] N.J.S.A. 13:1D-157.

A. DEP Cannot Impose More Lenient Permit Condition Standards on Permit Renewals.

DEP must apply the same standards to renewal applications as it applies to other facilities subject to the EJ Law. The EJ Law treats facility expansions and renewals equally, with N.J.S.A. 13:1D-160(d) setting forth one set of requirements for "apply[ing] conditions to a permit for the expansion of an existing facility, or the renewal of an existing facility's major source permit."[73] And while the EJ Law imposes additional requirements on new facilities in OBCs, such as the required showing of a compelling public interest, the Law does not indicate that the "conditions" imposed on new facilities that demonstrate a compelling public interest differ from the "conditions" imposed on expansions or renewals.[74] But DEP's Proposed Rule would impose less stringent requirements for renewal applications compared to the requirements for permit expansions. For example, renewal applications need not undergo the Localized Impact Control Technology (LICT) analysis that expansions must undergo.[75] DEP is not permitted to deviate from the text of the statute in this manner by treating conditions on renewals different from conditions on new facilities or expansions. Further, the purpose of the EJ Law is not only to prevent the addition of new pollution in OBCs, but also to reduce the pollution from existing facilities in OBCs wherever possible. As written, the Proposed Rule places *the least* amount of scrutiny on existing sources of pollution by subjecting renewals to less stringent requirements, frustrating this legislative purpose. For these reasons, **the EJ Rule must require all permit renewals to undergo the same heightened analysis of permit conditions currently required of new and expanding facilities.**

It is critical that DEP require conditions for renewals to meet the heightened requirements of conditions for new and expanding facilities particularly because the Proposed Rule's current provisions for renewal conditions are especially weak. The "technical feasibility analysis" that DEP proposes to apply to renewals falls far short of the requirements for new and expanding facilities like the LICT analysis. First, the technical feasibility analysis would apply only to equipment or control apparatuses that are at least 20 years old, and the analysis itself is required only once every 15 years.[76] This means that OBCs would have to wait decades for the protections of the EJ Law even if better control technology is developed just a year or two after the most recent technical feasibility review, and facilities will therefore evade the review required by the EJ Law. **DEP should require renewing facilities to review all control technology with every renewal, no matter how old the equipment is or how recently the last analysis was conducted.** An analysis at that frequency should not be particularly burdensome to facilities, who could reuse portions of the prior analysis for technology and processes that have not seen technological advancements in the interim.

[73] N.J.S.A. 13:1D-160(d).
[74] Compare N.J.S.A. 13:1D-160(c) with *id.* 13:1D-160(d).
[75] Compare proposed N.J.A.C. Subchapter 6 & 7 with Subchapter 8.
[76] Proposed N.J.A.C. 7:1C-8.5(a)(1), (2).

Second, to trigger the technical feasibility analysis, a piece of equipment's emissions of fine particulate matter, nitrogen oxide, and volatile organic compounds must represent more than 20% of the facility's emissions for that pollutant.[77] This provision is unclear as to whether emissions of other health-harming pollutants, such as SO_x, CO, mercury, dioxins, or lead, must also go through such an analysis. As currently written, this provision may allow control technology specifically designed for these other pollutants to fall through the cracks, like activated carbon to control mercury and dioxins. **The Proposed Rule must require renewing facilities to review equipment emissions of all pollutants, not merely particulate matter, NOx, and VOCs.**

An additional deficiency of the technical feasibility analysis standard is that it expressly allows facilities to not adopt the most protective technology because of cost considerations.[78] The LICT standard, on the other hand, does not include such direct cost considerations.[79] As noted in Section II above, the EJ Law was written so that cost and economic considerations do not override the protection of already overburdened communities from more pollution. **DEP should do away with cost exceptions for control technology required of renewals.**

And as noted above in Section V, **DEP should require facilities seeking expansion applications to complete a facility-wide risk assessment.** Currently, the Proposed Rule requires facility-wide risk assessments solely for renewal applications.[80] If the findings of a risk-assessment are above a "negligible" level, the facility must include an emissions reduction plan in its EJIS.[81] However, "negligible" is not defined. In addition, the significance level of the risk must be examined through a cumulative impact lens to accurately measure the impact of a facility's emissions. To maximize protections in overburdened communities, this revised, cumulative risk assessment must be required for renewal applications *and* expansions.

B. DEP Must Expand the Scope of the Localized Impact Control Technology Standard.

DEP must expand the scope of the Localized Impact Control Technology (LICT) standard to include additional types of pollution, not just air pollution. While the novel LICT standard includes strong, protective measures that reduce or eliminate air pollution, DEP must expand the scope of the standard's reach by requiring an LICT analysis for additional pollutants. After all, the EJ Law applies to all manner of DEP permits, not just air permits,[82] so the LICT process should not be limited to air pollutants only. For example, if a facility would emit water pollution or contaminate soil, that facility should be required to complete an LICT analysis to identify and adopt the best methods to eliminate or mitigate such pollution.

[77] Proposed N.J.A.C. 7:1C-8.5(a)(3).
[78] Proposed N.J.A.C. 7:1C-8.5(c)(2)(iii).
[79] Proposed N.J.A.C. 7:1C-7.1(c)(2).
[80] Proposed N.J.A.C. 7:1C-8.4.
[81] *Id.*
[82] N.J.S.A. 13:1D-158 (definition of "permit").

C. Principles for Consideration in Permit Conditioning

While the Proposed Rule outlines DEP's considerations for permit conditions, it does not explicitly include a number of important principles to ensure efficacy of the EJ Law. DEP must adopt the following principles when identifying permit conditions for new facilities, expansions, and renewals: (1) specificity to directly address the stressors that the facility causes or contributes to, (2) additionality, and (3) conditions must be included in the facility's permit.

i. Specificity to address stressors that the facility causes or contributes to.

The Proposed Rule states that DEP would impose conditions that "reduce" environmental and public health stressors. Of utmost importance is *what* pollutants will be reduced and *where* those reductions will occur. Regarding which pollutants will be reduced, permit conditions must address stressors that the facility directly causes or contributes to, rather than stressors unrelated to the facility's operations. Regarding where emission reductions will occur, the EJ Law requires conditions that "avoid or reduce the environmental or public health stressors affecting the overburdened community."[83] Indeed, the permit conditions must reduce environmental and public health stressors *within* the overburdened community.

The Proposed Rule requires facilities to list proposed control measures in a specific order,[84] but the Proposed Rule does not expressly state that control measures will be prioritized in that order. Direct emission reductions at the facility should be prioritized first and foremost before the facility then considers offsite emission reduction measures. **DEP must amend the language of the aforementioned provisions so that "facility measures" and "onsite" control measures are *expressly* prioritized.** For example, DEP could add language to N.J.A.C. 7:1C-5.4(b), 7:1C-6.3(b), and 7:1C-8.6(b) indicating, "The Department shall prioritize requiring all possible requirements in the first listed category before moving onto the next category."

ii. Additionality

The Proposed Rule states the DEP would impose conditions "necessary" to avoid or minimize contributions to adverse and environmental and public health stressors. **The final regulations must emphasize that conditions must go *above and beyond* conditions that the facility would already be subject to.** The permit condition must not be generally applicable or conditions that would otherwise have been applied anyway if the facility was not in an overburdened community. Benefits provided under the "permit conditions" provision must be in addition to requirements that the facility is already subject to.

[83] N.J.S.A. 13:1D-160(d).
[84] Proposed N.J.A.C. 7:1C-5.4(b), 7:1C-6.3(b), and 7:1C-8.6(b).

iii. Conditions must be included in the facility's permit

DEP must ensure all conditions required under the EJ Rule are incorporated into the permit and enforceable. Conditions must have the same monitoring, recordkeeping, and reporting requirements that DEP uses to ensure enforceability. Though the Proposed Rule requires DEP to issue a written summary of its analysis and any conditions to be imposed in subsequently issued permits, it does not explicitly mention that permit conditions will be included in the facility's permit.[85] The Proposed Rule should clearly state that all permit conditions must be incorporated into the facility's permit. Community members should not have to search far and wide to learn what additional protections DEP requires of polluting facilities in their OBC. Enshrining these conditions within the facility's permit improves accessibility, transparency, and public engagement.

DEP must make the edits above to ensure that communities with renewing facilities and facilities with non-air permits are not subject to weaker protections, and to ensure that conditions required under the EJ Rule are additional, enforceable, and directly related to the facility's pollution.

VII. GENERAL PERMITS

The final EJ Rule must make clear that facilities are not exempt from the EJ Law merely because they seek coverage under a general permit instead of an individual permit. The EJ Law defines "permit" to include not only "any individual permit . . . issued by [DEP]" but also "any . . . registration, or license issued by [DEP]."[86] Thus, the Law broadly covers *any* document issued by DEP that allows pollution, including authorization under a general permit. Indeed, the Law's definition of "facility" includes facilities like New Jersey's "scrap metal facilit[ies]," most or all of which are currently covered by NJPDES general permits only, and not individual NJPDES permits. So to exempt all facilities covered by general permits from the EJ Law process would effectively write "scrap metal facility" out of the law, and is therefore inconsistent with the statutory text. Thus, **any application from a facility in an OBC for coverage under a general permit must go through the EJ Law process, and the final EJ Rule should make that clear.**

VIII. CROSS-REFERENCES WITH OTHER REGULATIONS

In addition to setting forth the EJ Law implementing rules in new Chapter 7:1C, DEP should also amend its regulations for all permitting programs covered by the EJ Law to cross-reference the Chapter 7:1C regulations. For example, since the EJ Law says DEP "shall not consider complete" any application for a permit in an OBC that has not completed the Law's

[85] Proposed N.J.A.C. 7:1C-9.3.
[86] N.J.S.A. 13:1D-158.

requirements,[87] DEP regulations that set forth when an application for a particular permit is "complete"[88] should cross reference the Chapter 7:1C regulations. This would ensure that applicants do not overlook the critical requirements of the EJ Law when completing permit applications. Since these cross-references are not necessary for Chapter 7:1C to fully apply to all permit applications, if necessary, DEP could so amend its permitting regulations in later rulemaking proceedings so as not to delay finalization of the EJ Rule.

IX. BACKGROUND ON NEW JERSEY'S OVERBURDENED COMMUNITIES

A. Race Is the Strongest Predictor of Pollution Burden.

i. Nationwide Studies Show Race is the Strongest Predictor of Pollution Burden.

The State of New Jersey made the right choice by taking a three-pronged approach to the classification of OBCs. Including English proficiency, income, and minority categories are crucial to achieving the objectives of the EJ Law: addressing and alleviating the inordinate pollution burden that continues to be placed on these communities. However, multiple nationwide studies have shown that race is frequently found to be the most determinative factor for pollution exposure.[89] A formative study on $PM_{2.5}$ pollution found that $PM_{2.5}$ disproportionately and systemically affects People of Color in the United States regardless of income.[90] The study concluded that "POC at every income level are disproportionately exposed by the majority of sources."[91] Even though race and income are correlated, race can, and does, act independently of

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[87] N.J.S.A. 13:1D-160(a).

[88] *See, e.g.* N.J.A.C. 7:27–22.30(d) (setting forth requirements for air operating permit renewal to be deemed administratively complete).

[89] *See* Abdulrahman Jbaily et al., *Air pollution exposure disparities across U.S. population and income groups*, Nature (2022), https://www.nature.com/articles/s41586-021-04190-y ("[A]s the Black population increased in a ZCTA [zip code tabulated area], the PM2.5 concentration likewise consistently increased, with a steep incline seen for ZCTAs with more than 85% of their population being Black. The trend for the Hispanic or Latino population is similar…") (Attachment 6); Jiawen Liu et al., *Disparities in air pollution exposure in the United States by race-ethnicity and income, 1990 – 2010*, https://chemrxiv.org/engage/api-gateway/chemrxiv/assets/orp/resource/item/61953348a831ec6f51d2c065/original/disparities-in-air-pollution-exposure-in-the-united-states-by-race-ethnicity-and-income-1990-2010.pdf ("[R]acial-ethnic exposure disparities were distinct from, and were larger than (on average, ~6× larger than), absolute exposure disparities by income. The findings here are inconsistent with the idea that racial-ethnic exposure disparities can be explained by, or are "merely" a reflection of, income disparities among racial-ethnic groups.") (Attachment 7); Christopher W. Tessum et al., *$PM_{2.5}$ polluters disproportionately and systemically affect people of color in the United States*, Science Advances (2021), https://www.science.org/doi/full/10.1126/sciadv.abf4491 (Attachment 8).

[90] Tessum et al., *supra* note 89, Att. 8; *see also* EPA, *Study Finds Exposure to Air Pollution Higher for People of Color Regardless of Region or Income* (Sept. 20, 2021), https://www.epa.gov/sciencematters/study-finds-exposure-air-pollution-higher-people-color-regardless-region-or-income; Paul Mohai & Robin Saha, *Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice*, Environmental Studies Faculty Publications (2015), https://scholarworks.umt.edu/environstudies_pubs/7 (Attachment 9).

[91] Tessum et al., *supra* note 89, Att. 8 ("[W]e find that racial disparities are not simply a proxy for economic-based disparities. POC at every income level are disproportionately exposed by the majority of sources. Exposures vary

income. Lower and middle-class Communities Of Color are still more likely to have disproportionate pollution burden than non-minority communities.[92] Likewise, a thirty-year study of toxic waste treatment, storage, and disposal facilities (TSDFs) revealed that "race variables remain statistically significant predictors of TSDF siting throughout all the siting periods in spite of controlling for mean property values and other socioeconomic characteristics of the census tracts."[93] When analyzing the patterns of disparate citing of TSDFs nationwide, decades-long studies have revealed the same truth repeatedly: "Race continues to be the predominant explanatory factor in facility locations and clearly still matters."[94] Nationwide, Superfund sites, like TSDFs, are also mostly located in or near Communities Of Color that are often low-income and/or have limited English proficiency.[95] New Jersey is home to high numbers of these disparately-located facilities, being one of the top ten states with the highest number of TSDFs[96] and *the* state with the most Superfund sites.[97]

ii. New Jersey data show a direct correlation between the percentage of minorities in a neighborhood and the amount of polluting activity DEP allows.

Paralleling the national studies, studies specific to New Jersey also show a strong association between race and pollution burden within the state. For example, a 2001 study by Dr. Michel Gelobter submitted as evidence in litigation surrounding a proposed cement processing facility in an environmental justice community (*South Camden Citizens in Action v. NJDEP*) concluded: "the state of New Jersey, at both the Zip Code and County level, shows a strong, highly statistically significant, and disturbing pattern of association between the racial and ethnic composition of communities, the number of EPA-regulated facilities, and the number of facilities with Air Permits."[98] Specifically, the Gelobter Study found that zip codes with a higher than average Of Color population had about 2 to 2.4 times more air-permitted and EPA-regulated facilities than zip codes with below average Of Color populations,[99] and predominantly Of Color

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more by race-ethnicity than by income: The difference in average exposure between POC and Whites is 2.4 times larger than the range in average POC exposure among income levels.").

[92] *See* Jiawen Liu et al., *supra* note 89, Att. 7.

[93] Paul Mohai & Robin Saha, *supra* note 90, Att. 9.

[94] Robert D. Bullard et al., *Toxic Wastes And Race At Twenty: Why Race Still Matters After All Of These Years,* 38 Environmental Law, Vol. 371, at 372 (2008), https://www.jstor.org/stable/43267204 (Attachment 10).

[95] Stephen McBay, *EPA Updates Superfund National Priorities List to Clean Up Pollution, Address Public Health Risks, and Build a Better America*, EPA, https://www.epa.gov/newsreleases/epa-updates-superfund-national-priorities-list-clean-pollution-address-public-health-1 (last visited Aug. 3, 2022) (Attachment 11).

[96] Bullard et al., *supra* note 94, Att. 10 at 399-400 ("California has the greatest number of TSDFs (45) followed by Texas (33); Pennsylvania (23); Ohio (21); Michigan (19); New York (18); Illinois (16), Indiana (16); Missouri (15); and New Jersey (14). These ten states host 220 TSDFs in total. This constitutes a majority (53%) of the nation's commercial TSDFs.").

[97] *Toxic Sites in Newark: Ironbound is the Sacrifice Zone*, NJ PBS (Oct. 12, 2020), https://www.njtvonline.org/blog-post/toxic-new-jersey-ironbound-area/; Jeff Tittel, *Study Shows Over 1,000 Superfund Sites at Risk of Flooding by 2100*, Sierra Club New Jersey Chapter (July 29, 2020), https://www.sierraclub.org/new-jersey/blog/2020/07/study-shows-over-1000-superfund-sites-risk-flooding-2100.

[98] *S. Camden Citizens in Action v. NJDEP*, 145 F. Supp. 2d 446 (D.N.J. 2001), Gelobter Cert. ¶ 24 (Attachment 12).

[99] *Id.* ¶ 16 (finding that "in New Jersey Zip Codes with less than the state average population of non-whites (20.6%), there are an average of 6.7 [air-permitted] facilities, compared to those above the state average population of non-

zip codes (70% or greater People Of Color) similarly had twice as many air-permitted facilities as predominantly white zip codes.[100] The correlation between Of Color populations and number of EPA-regulated facilities was positive and highly statistically significant, with even higher correlation when looking at Hispanic population.[101] A regression analysis showed that every 10% increase in a zip code's percentage of People of Color resulted in approximately 6 more EPA-regulated facilities in the zip code, and a 10% increase in the Hispanic population resulted in 14 more EPA-regulated facilities – a 37% increase.[102] The *South Camden* Court found Dr. Gelobter's conclusions to be "sound," "reveal[ing] a statistically significant association between the permitting and placement of environmentally regulated facilities in New Jersey and the percentage of minority residents in those communities."[103]

Another study considered in that case by Dr. Jeremy Mennis similarly found that New Jersey's Communities Of Color bore a higher brunt of the state's polluting facilities. That study found that in New Jersey, census tracts within one, two, or three kilometers of an air-permitted facility consistently had minority populations about 2 to 2.8 times larger than the minority populations of tracts that were not near these facilities,[104] and that "[p]ercent minority is highly significant in estimating the density of [air-permitted] facilities even after controlling for other factors."[105] Dr. Mennis therefore concluded that "race is a significant predictor of the density of polluting facilities in New Jersey," that "[t]he evidence clearly shows that air polluting facilities tend to be located nearby high percent minority tracts; those tracts farther away from these facilities tend to be disproportionately non-minority,"[106] and that "minorities are disproportionately exposed to environmental risk in New Jersey."[107]

DEP's own research echoes Dr. Gelobter's and Dr. Mennis's findings that New Jerseyans Of Color are exposed to higher rates of pollution. Some 20 years ago, DEP scientist Dr. Robert E.

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whites with 13.7 facilities."); *id.* ¶ 18 (finding "an average of 37.8 EPA-regulated facilities per Zip Code in New Jersey. Zip Codes that have a higher percentage of white residents than the state average have an average of 32.3 EPA-regulated facilities. Zip Codes that have a higher than average percentage of non-white residents have a mean of 78 EPA-regulated facilities.").

[100] *Id.* ¶ 17 (finding that "[z]ip codes that are 70% and greater non-white have an average of 14 [air-permitted] facilities. Zip codes that are 70% and greater white have an average of 7.1 [air-permitted] facilities.").

[101] *Id.* ¶ 20 (finding a 0.40 correlation coefficient between number of EPA-regulated facilities and non-white residents in a zip code, indicating a "strong linear relationship between these two variables" which was "highly statistically significant," and that "the correlation for all EPA-regulated facilities and Hispanics at the Zip Code level to be even higher, 0.42, and even more statistically significant."); *id.* ¶ 21 (finding that the correlation between EPA-regulated facilities and non-white residents in New Jersey counties was "0.49, again indicating a strong linear relationship" and "very statistically significant," while "the correlation for all EPA-regulated facilities and Hispanics at the County level to be even higher, 0.63, with a high level of significance (about 2 in 1,000)," and that "the correlation between non-whites and [air-permitted] facilities at the County level is 0.69, and between Hispanics and [air-permitted] facilities at the County level 0.73" at "a very high level of statistical significance.").

[102] *Id.* ¶ 22.

[103] *S. Camden Citizens in Action v. New Jersey Dep't of Env't Prot.*, 145 F. Supp. 2d 446, 492, 93 (D.N.J.), *opinion modified and supplemented*, 145 F. Supp. 2d 505 (D.N.J. 2001), *rev'd*, 274 F.3d 771 (3d Cir. 2001).

[104] Jeremy L. Mennis, *The Distribution and Enforcement of Air Polluting Facilities in New Jersey*, 57 Professional Geographer 3, at 416 & tbl.2 (2005), https://doi.org/10.1111/j.0033-0124.2005.00487.x (Attachment 13) ("Mennis Study"); *S. Camden Citizens in Action v. NJDEP* (D.N.J. 2001), Doc. 311, Mennis Cert. ¶ 6 (Attachment 14).

[105] Mennis Cert., *supra* note 104, Att. 14 ¶ 8.

[106] *Id.* ¶¶ 8, 11; Mennis Study, *supra* note 104, Att. 13 at 419.

[107] Mennis Study, *supra* note 104, Att. 13 at 420.

Hanzen created a screening model to test whether different ethnic groups in New Jersey were exposed to different levels of environmental hazards and air pollutants.[108] Dr. Hanzen found disproportionate pollution burden among New Jersey's People of Color – as the court explained,

> Dr. Hazen testified that statewide "African–Americans and Hispanic Americans . . . had more than average exposure to air toxics." *Id*. at 47:22–24. Dr. Hazen also identified areas in the state where exposure to one ethnicity was at least three to four times as high as was exposure to another ethnicity, an area roughly two percent of the area of the state. *Id*. at 60:12–17, 61:14–16. . . . Using the screening model to determine where risk borne by people of color was above that borne by whites, Dr. Hazen found that roughly one-third of the state, including Camden, fit that pattern. *Id*. at 63:5–16.[109]

It was because of this compelling evidence that the *South Camden* Court granted the plaintiffs' request for preliminary injunction and declaratory judgment, finding that "NJDEP's permitting practices result in an adverse, disparate impact on the basis of race, color, or national origin . . . [and] that Plaintiffs have made a prima facie case of disparate impact discrimination under Title VI."[110] Though the U.S. Supreme Court subsequently limited the legal theory on which this *South Camden* decision relied,[111] the decision has continued relevance today, e.g., being used in recent EPA Office of External Civil Rights Compliance trainings.[112]

A few years later, in 2009, DEP followed up with additional research about the connection between demographics and cumulative impacts, which DEP calculated using a score of stressors such as NATA cancer risk and density of known contaminated sites.[113] As the DEP table below shows, the agency found that as the percentage of residents Of Color in a New Jersey census block group increased, so too did the cumulative impact score increase for that block group:[114]

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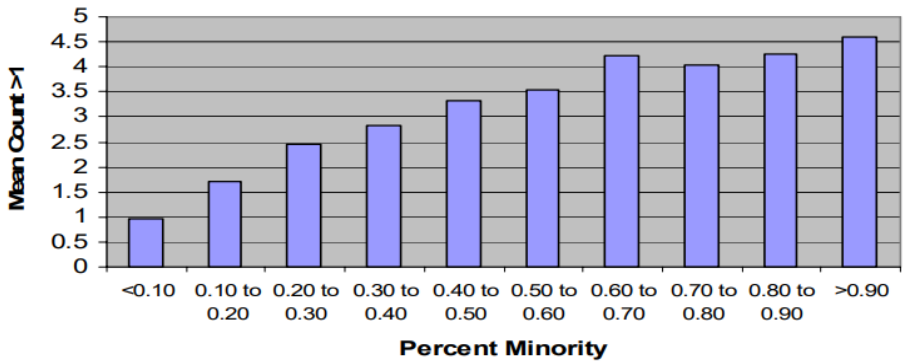
[108] *S. Camden Citizens in Action v. NJDEP*, No. CIV.A. 01-702 (FLW), 2006 WL 1097498, at *9 (D.N.J. Mar. 31, 2006) (citing Hazen Dep. Tr. at 30:1–20 (Attachment 15)).
[109] *Id.*
[110] *S. Camden*,145 F. Supp. 2d at 495.
[111] Shortly after the *South Camden* holding, the U.S. Supreme Court held that private individuals can no longer sue to enforce disparate impact regulations promulgated under Title VI, so the *South Camden* Court subsequently explored other legal theories for plaintiff's disparate impact claims. *See S. Camden Citizens in Action v. NJDEP*, 145 F. Supp. 2d 505, 508-09 (D.N.J.), *rev'd*, 274 F.3d 771 (3d Cir. 2001).
[112] EPA External Civil Rights Compliance Office, Powerpoint Presentation: Civil Rights Compliance: Title VI of the Civil Rights Act of 1964, at 19 (May 20, 2022), https://www.ecos.org/wp-content/uploads/2022/06/Final-Title-VI-Workshop-3_ECOS-ECRCO-SLIDES.pdf.
[113] DEP, A Preliminary Screening Method to Estimate Cumulative Environmental Impacts at 3 (Dec. 22, 2009), https://www.state.nj.us/dep/ej/docs/ejc_screeningmethods20091222.pdf.
[114] *Id.* at 5; *id.* App. B Powerpoint Presentation: A Preliminary Screening Tool to Estimate Cumulative Environmental Impact at 19 (Dec. 2, 2009), https://www.state.nj.us/dep/ej/docs/ejc_screeningmethods_pp20091222.pdf.

Figure 1: Relationship Between Cumulative Impact and Percent Minority



Thus, just like nationwide studies, studies specific to New Jersey similarly find a correlation between race and pollution, with at least one study finding that race is a "significant predictor" of pollution burden in the state.[115]

When analyzing the location of facilities that are covered under the EJ Law, we are met with a similar truth.[116] Of the 449 facilities in OBCs, 94% (or 421) are in cumulatively adverse OBCs, and of these 421 facilities, 350 (83%) are in a cumulatively adverse OBC that meets the minority criterion (whether or not the OBC also meets another criterion), with 212 (50%) in a cumulatively adverse OBC that meets the minority criterion only. Thus, the minority criterion effectively furthers the objectives of the EJ Law by single-handedly doubling the number of covered facilities in cumulatively adverse OBCs, compared to if only the low-income and limited English proficiency criteria were used.

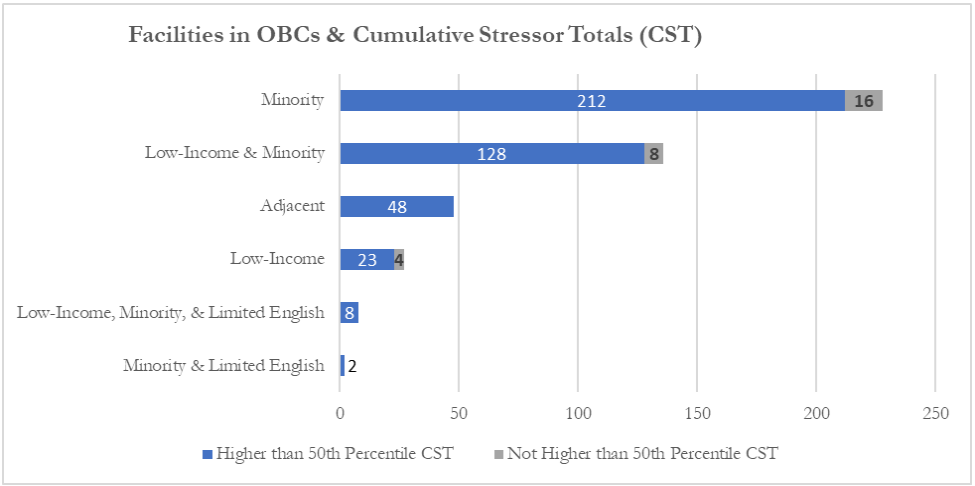


Table 1: Number of Facilities in OBCs and their Respective Cumulative Stressor Totals (CST)

[115] Mennis Cert., *supra* note 104, Att. 14 ¶¶ 8, 11.
[116] *See* DEP, *Environmental Justice Mapping, Assessment and Protection Tool (EJMAP): Facilities*, https://experience.arcgis.com/experience/548632a2351b41b8a0443cfc3a9f4ef6 (last visited Aug. 12, 2022).

This analysis of DEP's EJ Law tool, especially when viewed within the context of the nationwide and statewide studies provided above, highlights the importance of race as the main predictor of pollution burden in the state.

B. Government action contributed to New Jersey's decades-long problem of environmental racism and disproportionate pollution.

The disparate pollution burden faced by People of Color nationwide and in New Jersey did not occur by happenstance, but was furthered by government action. New Jersey's enabling of redlining and racially restrictive covenants, in combination with DEP's refusal to acknowledge its responsibilities under Title VI of the Civil Rights Act of 1965 in the permitting context and disparities in environmental enforcement, set the stage for the predatory cycle we see today in which polluters flock to Communities Of Color. Just as the State allowed racially restrictive covenants to persist on land records up until recent legislation required their removal from deeds statewide,[117] polluting actors could not have burdened Communities Of Color to the extent they have if DEP had not also allowed the patterns of disproportionate pollution and facility siting in Communities Of Color to persist, despite Title VI mandates.

i. Government-sanctioned programs of redlining and racially restrictive covenants laid the blueprint for segregation in New Jersey that polluters have exploited.

New Jersey's disproportionate pollution burdens did not come about simply because of facility siting decisions, but also because of government-sanctioned programs that led to racial segregation in the first place. One of the government programs that led to the State's disparate pollution burdens is redlining. Redlining — the post-Great Depression practice of the federal Home Owners' Loan Corporation delineating which neighborhoods should be targeted for real estate development and investment by grading the "desirability" of neighborhoods by race, with Black and "Foreign" neighborhoods marked as undesirable — was actively practiced in New Jersey.[118] This practice set the tone for property ownership and development across New Jersey, creating a self-perpetuating cycle in which residents Of Color could not get home loans for homes in "good neighborhoods" due to discrimination, and the most affordable land and housing were in areas that were considered undesirable because they were majority People of Color or "foreign," experiencing minority "infiltration" or "invasion," and/or had undesirable industry present.[119] In

[117] An Act concerning discriminatory restrictive covenants in deeds and supplementing Title 46 of the Revised Statutes, NJ SB2861, P.L.2021, c.274 (Nov. 8, 2021), https://legiscan.com/NJ/text/S2861/id/2462537.
[118] Raymond Zhong and Nadja Popovich, *How Air Pollution Across America Reflects Racist Policy From the 1930s*, The N.Y. Times, Mar. 9, 2022, https://www.nytimes.com/2022/03/09/climate/redlining-racism-air-pollution.html?referringSource=articleShare; *Erasing New Jersey's Red Lines*, New Jersey Institute for Social Justice (May 2020), https://d3n8a8pro7vhmx.cloudfront.net/njisj/pages/689/attachments/original/1588358478/Erasing_New_Jersey's_Red_Lines_Final.pdf (Attachment 16).
[119] *Mapping Inequality: Redlining in New Deal America*, University of Richmond, https://dsl.richmond.edu/panorama/redlining/#loc=5/39.1/-94.58 (last visited Aug. 11, 2022) (See maps for Bergen Co., NJ; Camden, NJ; Essex County, NJ: Hudson County, NJ; Union County, NJ. This list is not exhaustive as

turn, the property values in these "C" (categorized as "definitely declining") or "D" (categorized as "hazardous") graded communities remained low because they were deemed undesirable for housing development, which further attracted industry due to the cheaper land and sometimes outright lack of zoning restrictions.[120] While the federal government pioneered the creation of redlining maps which were then used by private parties such as banks, investors, and developers nationwide, individual states such as New Jersey failed to protect their citizens from predatory and discriminatory practices of private actors under this redlining regime. When analyzing redlining maps of various counties throughout New Jersey, a visible pattern emerges in which "detrimental influences" such as freight and coal yards, factories, sewage disposal plants, and other "heavy industry" were most often located in low-income neighborhoods and neighborhoods Of Color, the combination of factors resulting in the areas being labeled "declining," "slum areas," and "on the down-grade," which in turn successfully redirected healthy investment out of those neighborhoods while simultaneously luring more polluters.[121] Redlined communities were also identified as having sparse tree cover and greater impervious surface cover, and those patterns persist today as formerly redlined communities continue to be denied these government-sponsored environmental benefits.[122]

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additional redlining maps for New Jersey are being researched and digitized.); *Erasing New Jersey's Red Lines*, *supra* note 118, Att. 16 at 10 ("Redlining's impact lingered well after the HOLC went defunct in 1954, affecting New Jersey urban centers like Atlantic City and Camden. Recent examples of redlining highlight this pattern. For example, the U.S. Department of Justice in 2015 determined that the Hudson City Savings Bank denied qualified borrowers of color access to fair mortgage loans in communities throughout New Jersey, New York, Connecticut, and Pennsylvania. The racially discriminatory redlining practices of the New Jersey-based bank were so egregious that the U.S. Department of Justice issued the largest redlining settlement in its history, requiring Hudson to pay $33 million in restitution."); *see also* Zhong & Popovich, *supra* note 118.

[120] Zhong & Popovich, *supra* note 118; *see generally Mapping Inequality: Redlining in New Deal America*, *supra* note 119.

[121] *See e.g.*, *Mapping Inequality: Redlining in New Deal America*, *supra* note 119, at D2 Union Vauxhall, Union Co., NJ ("Negroes and poor classes of Italians are scattered throughout the area. It is estimated that 80% of the recipients of relief in Union Township live in this area. Foreclosure experience has been heavy. B & L share trading for properties and dumping appear to be the only means of making sales. Because of the mixed population, congestion, poor, non-conforming types of property, narrow streets, and lack of pride, this is a fourth grade area."); *id.* at D17 Linden, Union Co., NJ ("Smoke, soot, and odors from industry and the B&O Railroad are unfavorable … Negroes are scattered throughout the area."); *id.* at D1, Kearney, Hudson County, NJ ("An old and congested neighborhood which has deteriorated into a slum area and which is being encroached upon by industry."); *id.* at D3 Ironbound, Essex County, NJ (80% "Foreign Families [of] Italian descent, etc." and 20% "Negro." "The largest and poorest section of the Ironbound district of Newark. It is a slum area, although not as bad as the Third Ward. Being primarily industrial it is largely the residence of the poorer paid employees of the local plants."); *id.* at D22 Montclair North Side, Essex County, NJ ("This area also houses a substantial portion of Montclair's large negro population … There is some local industry, coal yards, etc.").

[122] David J. Nowak, Alexis Ellis, Eric J. Greenfield, *The disparity in tree cover and ecosystem service values among redlining classes in the United States*, USDA Landscape and Urban Planning 221 (2022), https://www.fs.usda.gov/nrs/pubs/jrnl/2022/nrs_2022_nowak_001.pdf ("[R]edlined areas (class D) have lower tree cover, greater impervious cover and lower forest ecosystem service values than other classes, with tree cover declining and impervious cover increasing as security risk class increased… Summertime land surface temperature differences among redline classes in 108 urban areas reveal that 94 % of studied areas had elevated land surface temperatures in formerly redlined areas (Class D) relative to their non-redlined neighbors, by up to 7◦ C."); *see also Mapping Inequality: Redlining in New Deal America*, *supra* note 119, at C50 Garfield, Bergen Co., NJ ("The land is low and flat with few trees. Houses are close together on small lots with no set-back."); *id.* at D2

Hand-in-hand with redlining practices were racially restrictive covenants, which the New Jersey government tacitly condoned, and at one point, actively enforced. Racially restrictive covenants are limitations placed on land that prevent its transfer to, or use by, people of specific racial, ethnic and/or religious groups.[123] These covenants were historically used on the local level by white communities trying to keep others out and enforced by community associations.[124] New Jersey courts enforced these covenants until a 1948 U.S. Supreme Court case found them judicially unenforceable,[125] though even after that decision, New Jersey courts continued to uphold the covenants themselves as constitutional.[126] These covenants remained on the books until 2021 when the New Jersey Legislature finally took the initiative to eradicate restrictive covenants based on race, national origin, and more, decreeing they be removed from deeds pursuant to the State's 1945 Law Against Discrimination.[127] When taking both restrictive covenants and redlining into account, it is no surprise that industry has been excessively polluting Communities Of Color for decades, and DEP has perpetuated this through their permitting program.

Enforcing racist property restrictions is one way the State of New Jersey has perpetuated systemic racism within its borders. As uncomfortable of a truth as it may be, the New Jersey EJ community and its close allies believe that racism is endemic in New Jersey and the United States. The racially restrictive covenants and redlining discussed in these comments are explicit examples of how racism operates and has operated in our state. Racism also operates on an unconscious level.[128] The combination of explicit and unconscious racism makes it a very insidious force in our

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Westwood, Bergen Co., NJ ("This is a sparsely built up area, rolling and open with few trees… borders on Westwood sewage disposal plant and wells… have been condemned for typhoid… Negro development…"); *id.* at D3 Union, Union Co., NJ ("The northern part of the area has a mixed population of Negroes and Italinas. Houses are… in a disorderly arrangement… Roads are muddy and ill-kept. There is a public dump in the middle of the area. Obnoxious odors come from a cork manufacturing plant in Hillside adjacent… Schools are remote, and the children must cross the highway.").

[123] Cheryl W. Thompson et al., *Racial covenants, a relic of the past, are still on the books across the country*, Nat'l Public Radio, Nov. 17, 2021, https://www.npr.org/2021/11/17/1049052531/racial-covenants-housing-discrimination ("While most of the covenants throughout the country were written to keep Blacks from moving into certain neighborhoods — unless they were servants — many targeted other ethnic and religious groups, such as Asian Americans and Jews, records show."); *see also Erasing New Jersey's Red Lines*, *supra* note 118, Att. 16 at 8 ("While the Supreme Court held in 1917 that racially exclusionary zoning mandated by municipalities was unconstitutional, the ruling did not apply to individuals or private agreements. As a result, due to New Jersey's strong local control through home rule, racially restrictive covenants flourished throughout the state. Only with the Supreme Court's 1948 Shelley v. Kraemer decision—which held that judicial enforcement of racially restrictive covenants in private agreements was unconstitutional—did enforcement of such covenants end.").

[124] *Erasing New Jersey's Red Lines*, *supra* note 118, Att. 16 at 8; Steven Lemongello, *Black History Month: Whites-Only 'Covenants' Shaped Region's Racial Makeup*, Press of Atlantic City, Feb. 13, 2012, https://pressofatlanticcity.com/news/top_three/black-history-month-whites-only-covenants-shaped-regions-racial-makeup/article_09232f80-55dc-11e1-9e40-0019bb2963f4.html (updated June 20, 2019); *Decades-old racist covenants on property deeds have lasting effect in New Jerse*y, News12 New Jersey, Feb 14, 2022, https://newjersey.news12.com/decades-old-racist-covenants-on-property-deeds-have-lasting-effect-in-new-jersey (stating that property deeds in New Jersey from the 1940s included clauses such as: "No person of any race other than the Caucasian race shall use or occupy any building or lot" and "No person of the negro blood or race shall be permitted to own rent or occupy any part of said premises.").

[125] *Shelly v. Kraemer*, 334 U.S. 1, 20 (1948).

[126] *See Rich v. Jones*, 142 N.J. Eq. 215, 215 (Ch. 1948).

[127] SB2861, P.L.2021, c.274, *supra* note 117.

[128] *See* C.R. Lawrence, *The Id, the Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 Stan. L. R. 317 (1987).

society. Using race to partly define overburdened communities in the New Jersey EJ Law is an acknowledgement by elected officials in the state that race has played a role in the siting of polluting facilities, and in order to successfully address the problem of disproportionate pollution in EJ communities, race must be part of the solution.

ii. Historically, DEP's Permitting Program Ignored its Obligations Under Civil Rights Law.

Of course, government action not only allowed the segregation of New Jerseyans Of Color into discrete communities, but also permitted polluting facilities to be placed in those same communities, since these facilities needed DEP permits and authorization to be built and to operate. Title VI of the federal Civil Rights Act of 1965 was designed to prevent such a disparate impact on Communities Of Color. That law, and EPA's implementing regulations, prohibit recipients of federal funding, like DEP, from discriminating "on the ground of race, color, or national origin" in any of their programs or activities, including permitting programs.[129] But DEP has historically refused to incorporate Title VI considerations in its permitting actions. In *South Camden*, for example, the court concluded that "it is abundantly clear . . . [that EPA's Title VI regulations] impose a burden on recipients of EPA funding, such as the NJDEP, to consider the potential adverse, disparate impacts of their permitting decisions which are independent of environmental regulations."[130] But DEP nevertheless failed to consider these adverse, disparate impacts in its permitting, "insist[ing] that it is neither obligated to consider the data [on disproportionate health conditions], nor conduct its own inquiry before permitting" the facility in question.[131] The court found DEP's legal interpretation that it need not consider the disproportionate effects of its permitting decisions "not only erroneous, but [it] would eviscerate the intent of Title VI, namely, to prevent agencies which receive federal funding from having the purpose or effect of discriminating in the implementation of their program on the basis of race, color, or national origin."[132] DEP's refusal in *South Camden* to recognize its obligation to consider the disparate impacts of its programmatic actions unfortunately parallels other New Jersey state agencies' attempts to similarly disavow their Title VI obligations in other legal proceedings.[133] So not only did DEP ignore, for decades, its obligations under federal law to consider the disparate

[129] 42 U.S.C. § 2000d; 40 C.F.R. Part 7; *see also* EPA, *Interim Environmental Justice and Civil Rights in Permitting Frequently Asked Questions* at 6 (Aug. 2022), https://www.epa.gov/system/files/documents/2022-08/EJ%20and%20CR%20in%20PERMITTING%20FAQs%20508%20compliant.pdf ("State, local, and other recipients of federal financial assistance have an independent obligation to comply with federal civil rights laws with respect to all of their programs and activities, including environmental permitting programs").

[130] *S. Camden*, 145 F. Supp. 2d at 480.

[131] *Id*. at 487–88.

[132] *Id.* at 481 (citing 42 U.S.C. § 2000d–1).

[133] *See, e.g.*, *Bryant v. New Jersey Dep't of Transp.*, 987 F. Supp. 343, 346 (D.N.J.), *order vacated in part on reconsideration*, 998 F. Supp. 438 (D.N.J. 1998) (New Jersey Department of Transportation (NJDOT) and other state agencies argued that residents of African-American neighborhood that would be demolished by a new highway and tunnel were not with the "zone of interests protected by Title VI" and so did not have standing to bring Title VI challenge); *Bryant v. New Jersey Dep't of Transp.*, 1 F. Supp. 2d 426, 429 (D.N.J. 1998) (NJDOT and other state agencies argued that Title VI review was unconstitutional to avoid court review of decision to demolish African-American neighborhood to build a highway and tunnel).

racial impacts of its permitting decisions, DEP went so far as to disclaim any such obligation at all in court.

iii. DEP Data Shows Disparities in Environmental Enforcement Based on Race.

DEP's action – and inaction – not only helped cause the disproportionate siting of polluting facilities in Communities Of Color, but also allowed more pollution to occur in those communities once the facilities were built because of unequal enforcement. In addition to finding disparity in the siting of air-permitted facilities, the Mennis Study discussed above also analyzed disparities in DEP's enforcement of these facilities, and found that "[h]igh-percent minority areas tend to have a weaker record of environmental enforcement as compared to low-percent minority areas."[134] Specifically, the study found that "facilities in areas with high minority concentrations are associated with higher rates of significant violation, lower rates of state administrative orders issued, and lower penalty amounts assessed as compared to those facilities in areas with lower minority concentrations," and that among all socioeconomic and land use variables analyzed, the high-percent minority category was "unique" for having the counterintuitive combination of high significant violation and low penalty amount.[135] The Mennis Study stressed that, while many factors outside of a state agency's control may explain, in part, the siting of polluting facilities, "[e]nvironmental enforcement…is a direct result of decisions made by environmental enforcement agencies."[136] Thus, DEP action and inaction had a hand not only in the disparate siting of polluting facilities, but also in disparities in enforcement and levels of pollution emanating from those facilities.

C. New Jersey's Prior Attempts to Address Environmental Justice and Race-Neutral Attempts to Address Pollution Have Not Solved Environmental Injustices in the State.

While the EJ Law is not the State's first attempt to address environmental justice concerns, it is by far the most promising. Since at least the 1950's, New Jersey has passed many race-neutral laws and regulations to directly address pollution and its permitting,[137] but they have failed to address the disparity because DEP did not consider racial disparity in the decision-making (and refused to recognize an obligation to do so under Title VI, as explained above). The State has also adopted several executive orders that directly address race and environmental justice,[138] but they

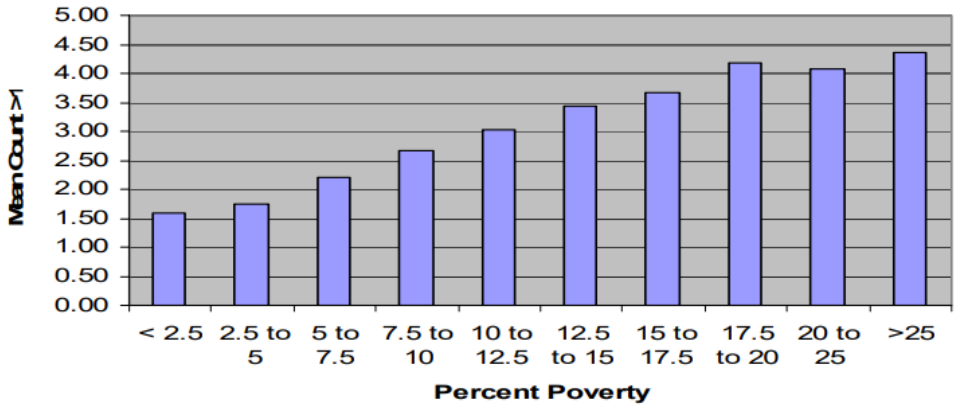
[134] Mennis Study, *supra* note 104, Att. 13 at 420.
[135] *Id.* at 419.
[136] *Id*. at 420.
[137] *See generally*, Air Pollution Control Act (N.J.S.A. 26:2C-1 *et seq.*); Water Pollution Control Act (N.J.S.A. 58:10A-1 *et seq.*); Solid Waste Management Act (N.J.S.A. 13:1E-1 *et seq.*); Comprehensive Regulated Medical Waste Management Act (N.J.S.A. 13:1E-48.1 *et seq.* and 13:1E-99.21a *et seq.*); Coastal Area Facility Review Act (N.J.S.A. 13:19-1 *et seq.*); Flood Hazard Control Act (N.J.S.A. 58:16A-50 *et seq.*); Pesticide Control Act of 1971 (N.J.S.A. 13:1F-1 *et seq.*), to name a few statutes, in addition to their implementing regulations..
[138] *See generally*, Exec. Order No. 96, N.J. Gov. James E. McGreevey (2004), https://nj.gov/infobank/circular/eom96.htm (Creation of a multi-agency EJ Task Force with which communities can file a petition asserting that they are being subject to disproportionate exposure. Task Force must develop an Action Plan and monitor its implementation.); Exec. Order No. 131, N.J. Gov. Jon S. Corzine (2009), https://www.state.nj.us/infobank/circular/eojsc131.htm (Created an EJ Advisory Counsel in DEP to make

too have often lacked the force of law or did not directly address pollution sources. Despite decades of implementation, these various state actions failed to adequately protect the most vulnerable communities in the state, which is precisely why a law that specifically identifies and directly protects overburdened Communities Of Color and overburdened low-income communities was necessary and long overdue. The State's new EJ Law is promising because it is the first time the State both considers race and also impacts permitting and pollution directly.[139] The clear, historic correlation between race and pollution demands that race be named forthright when addressing environmental justice and be used in environmental justice analyses.

D. Income Is a Secondary Indicator of Pollution Burden.

The EJ Law's inclusion of income in the definition of OBC, in addition to race, reflects the association between lower income areas and increased pollution exposure. For example, DEP's 2009 study discussed above in Section IX.A.ii, shows a relationship between increased percentage of low-income population and increased cumulative impact score within the state:[140]

Figure 2: Relationship Between Cumulative Impact and Poverty



But studies comparing both race and income with pollution burden find that race is the stronger predictor of pollution exposure. Nationwide studies find racial disparities in pollution exposure are up to six times larger than economic disparities in pollution exposure, and that racial

recommendations to DEP's commissioner about EJ, which DEP is required to review and consider. Also required all bodies of the State's executive branch to "provide appropriate opportunities for all persons, regardless of race, ethnicity, color, religion, income, or education level to participate in decision-making", and that programs promoting and protecting human health be periodically reviewed to ensure they are meeting "the needs of persons living in low-income communities and communities of color" and are addressing "disproportionate exposure to environmental hazards"); Admin. Order No. 2016-08, Comm'r Bob Martin (Sept. 12, 2016), https://www.nj.gov/dep/ej/docs/ao2016-08.pdf (expanding upon E.O. 131).

[139] Tishman Environment and Design Center, *Cumulative Impacts Definitions, Indicators and Thresholds in the US*, (May 24, 2022), https://tishmancenter.github.io/CumulativeImpacts/cumulative_impacts.html (Similar to New Jersey, many other states have recognized the need to tackle the cumulative impacts faced by EJ communities without mincing words. As of May 2022, twelve states other than New Jersey have legislation, mapping tools, or agency guidance that specifically include consideration of cumulative impacts.).

[140] DEP, *A Preliminary Screening Method to Estimate Cumulative Environmental Impacts* at 5 (Dec. 22, 2009), https://www.state.nj.us/dep/ej/docs/ejc_screeningmethods20091222.pdf.

disparities are not merely a proxy for economic disparities.[141] Even just looking at New Jersey data, the Gelobter Study discussed in Section IX.A.ii similarly found that, while there did exist a correlation between higher income and fewer EPA-regulated facilities, income contributed "significantly less" as a causal factor than race.[142]

Additionally, DEP's facility and OBC mapping tool also reinforces that income is only secondarily determinative. While 374 (or 83%) of all facilities are in OBCs that meet the minority criterion, only 171 facilities (or 38%) are in OBCs that meet the low-income criterion. When looking at OBCs that meet only the low-income criterion, and not any other criteria, only 27 facilities (6%) fall in this category.[143] This data further reinforces that the minority criterion plays a more significant role in the OBC classification.

Indeed, attempts to identify disproportionately burdened communities without explicitly using race are not as sufficiently predictive. Prime examples are the EJ tools created by California[144] and the federal government, both of which use a collection of factors that do not explicitly recognize race, have resulted in significant gaps in application that exclude many vulnerable peoples who most need the protections and assistance that the tools aim to provide.[145]

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[141] Jiawen Liu et al., *supra* note 89, Att. 7; Tessum et al., *supra* note 89, Att. 8; Mohai & Saha, *supra* note 90, Att. 9 at 14.

[142] Gelobter Cert., *supra* note 98, Att. 12 ¶ 23 ("I found that for every $1,000 increase in a Zip Code area's median income, the number of facilities dropped by approximately 1.5% (0.55 facilities) from the state average for Zip Code areas. This result was also highly statistically significant. When income was hypothesized as a causal factor with percent non-white or percent Hispanic for EPA-regulated facilities in a Zip code area, it proved to be less important than the latter two factors. This was demonstrated in two ways. First, the median income of a Zip Code area contributed significantly less to the statistical strength of the overall regression than did either percent non-whites or percent Hispanics. Second, the statistical significance of median income as a causal variable dropped below a rigorous threshold. That is to say that the odds that a Zip Code area's median income was not a causal factor rose to close to 5%, while the causal influence of both percent non-white and percent Hispanic retained odds of being a random error of considerably less than 1 in 10,000 and 7 in 100 million, respectively.").

[143] *See* Table 1, Section IX.A.ii.

[144] Under California's Proposition 209, the State is precluded from directly addressing race in its laws– a restriction that New Jersey does not share. *See* California Secretary of State, Proposition 209 (Nov. 1996), https://vigarchive.sos.ca.gov/1996/general/pamphlet/209text.htm (prohibiting the State of California from "discriminat[ing] against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin . . .").

[145] *See* Neil Maizlish et al., *California Healthy Places Index: Frames Matter*, 134 Public Health Rep. 4 (2019), https://doi.org/10.1177%2F0033354919849882 (Instead of including any racial-ethnic classifications in creating its CalEnviroScreen EJ community identifying tool, California organized "19 indicators into 2 domains, pollution burden and population characteristics, the second of which includes sensitive populations (i.e., sensitive to the effects of pollution) and socioeconomic factors." By using these proxies instead of race, however, the screening tool left out about 3 million people in 649 tracts in some of the most disadvantaged areas, and thereby "failed to detect one-third of census tracts with the worst conditions for population health." A subsequent, 4.0 version of this program released in October of 2021 added more indicators, but was still missing these census tracts.); *see also* Jean Chemnick, *Experts to White House: EJ screening tool should consider race*, E&E News, June 1, 2022, https://www.eenews.net/articles/experts-to-white-house-ej-screening-tool-should-consider-race/ (Not only does CEQ's tool exclude "all middle-income neighborhoods from the 'disadvantaged' designation," regardless of histories of environmental racism, its reliance on other factors instead of race itself is leaving behind many of the communities it should be including. For example, the tool excluded a New Orleans community of Black residents who live on top of a Superfund site near excessive traffic pollution and a Black community in West Virginia living near a Dow Chemical plant emitting cancerous pollutants.).

Simply put, as numerous studies, statistics, scholarly publications, and articles have shown, factors or indicators such as income – or even history of home ownership, property values, or education levels – though useful, cannot entirely substitute for the inclusion of racial classifications,[146] especially since data collection is rife with racial bias.[147] Including other factors predicated on this type of data without explicitly including race may, in fact, end up perpetuating disparities due to the institutional racism already woven into the underlying data. This disparity in data collection adds to the list of reasons to directly target racial inequality in regulations, rather than including surrogates.

There is no doubt, however, that both the minority and income OBC categories of the EJ Law are overwhelmingly and excessively burdened by detrimental levels of pollution. Regardless of which OBC category is analyzed, the fact remains that nearly all of the facilities located within OBCs have cumulative stressor totals in excess of the 50th percentile, save for 6%. And, while race may be the most indicative of proximity to pollution, income is also a statistical predictor of pollution burden in the State.[148] This further reinforces the need for this robust EJ Law that includes multiple categories.

Thus the EJ Law's minority criterion, and to a lesser extent the low-income and limited English proficiency criteria, capture communities overburdened by pollution who have historically been excluded from the protections of New Jersey law. The EJ Law, as implemented in DEP's EJ Rule, is New Jersey's opportunity to stand with EJ communities and help ensure that they no longer must suffer disproportionate environmental burdens.

[146] *See* Jbaily et al., *supra* note 89, Att. 6; Liu et al., *supra* note 89, Att. 7; Bullard et al., *supra* note 94, Att. 10 at 396; Mohai & Saha, *supra* note 90, Att. 9 at 15 ("Thus, although there is some limited evidence that property values are related to facility siting, the racial disparities observed around facility sites are independent of them and other socioeconomic characteristics for the entire 30-year period we examined.").
[147] *See* Chapin Hall at the University of Chicago, *New Tool to Assess Survey Data for Racial Bias*, https://www.chapinhall.org/project/new-tool-to-assess-survey-data-for-racial-bias/ (last visited Sept. 1, 2022) (noting "it is unclear how often researchers consider whether the dataset could be racially or ethnically biased. Such a bias could have implications for their analysis and the interpretations drawn from the data.").
[148] Mennis Cert., *supra* note 104, Att. 14 ¶¶ 8, 11; Gelobter Cert., *supra* note 98, Att. 12 ¶ 23.

X. CONCLUSION

The New Jersey Environmental Justice Law can be the most protective EJ law in the nation if DEP prioritizes the health of residents in overburdened communities. DEP must maintain the political will to do what is right for overburdened communities who suffer just because of the zip code they live in. These EJ regulations cannot be business as usual. The Department must evolve and ensure this EJ Law protects residents from all environmental injustices within the state. New Jersey can achieve actual reductions of pollution in EJ communities by denying any new permits in already overburdened communities.

Respectfully,

Ironbound Community Corporation
New Jersey Environmental Justice Alliance
Clean Water Action
South Ward Environmental Alliance
Earthjustice
Tishman Environment and Design Center at the New School
Center for the Urban Environment of the John S. Watson Institute for Urban Policy and Research at Kean University

The following groups sign on in agreement with these comments:

Empower New Jersey
GreenFaith
New Jersey Sierra Club
New Jersey Alliance for Immigrant Justice
NAACP-Newark Branch
Salvation and Social Justice
Urban Mayors Association of the John S. Watson Institute for Urban Policy and Research at Kean University