

Comments On:

Air Quality Management CO₂ Budget Trading Program

Proposed Amendments: N.J.A.C. 7:27-22.16 and 7:27A-3.2 and 3.10

Proposed New Rules: N.J.A.C. 7:27-22.28 and N.J.A.C. 7:27C

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(Regional Greenhouse Gas Initiative Proposed Rules)

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Introduction

The New Jersey Environmental Justice Alliance (NJEJA)¹ welcomes the opportunity to comment on New Jersey's proposed Regional Greenhouse Gas Initiative (RGGI) regulations. These comments contain recommendations that will help RGGI address environmental justice (EJ) issues related to global warming and carbon trading. As it is currently constructed RGGI gives little or no consideration to EJ issues connected to climate change or its own operation and we therefore urge the state to strongly consider adopting the suggestions contained in this document.

It should also be candidly stated that, for a number of reasons, the EJ community in New Jersey and across the country generally opposes carbon-trading as a method to address climate change. The primary problems or issues that make carbon-trading an undesirable climate change policy option for the EJ community are: 1) carbon-trading does not address reductions in emissions of greenhouse gas co-pollutants such as fine particulate matter (PM), nitrogen oxides and sulfur dioxide; 2) carbon-trading does not ensure emissions reductions in or near overburdened EJ communities; 3) carbon-trading does not ensure that its operation will not create pollution "hot-spots" in or near EJ communities; 4) carbon-trading, by distributing allowances to emit carbon dioxide, creates a property right to the atmosphere and a right to pollute that should not exist ; 5) carbon-trading, by allocating carbon allowances primarily to large prior pollution emitters, does not distribute allowances in the fairest and most equitable manner possible; 6) carbon-trading may result in only a minimal reduction of carbon dioxide emissions, or

¹ NJEJA is the only statewide environmental organization in New Jersey that focuses solely on environmental justice issues and is one of the few, if not the only, statewide environmental organizations that has a significant number of People Of Color in both its membership and leadership.

no reductions at all, either because too many allowances are allocated or because there is a lack of political will to sharply reduce the amount of allowances initially allocated; 7) carbon-trading may not be the climate change policy that will achieve emissions reductions in the shortest time-frame; 8) carbon-trading does not ensure meaningful public participation; 9) carbon-trading may not provide the incentives necessary to achieve a fundamental change in energy utilization, for example to renewable energy sources, and may primarily provide incentives to find ways to obtain allowances as cheaply as possible and reduce greenhouse gas emissions as little as possible; 10) carbon-trading may result in windfall profits for polluters; and 11) carbon-trading may necessitate the creation of a bureaucracy to administer the sale and trading of allowances whose operation may tend to be opaque and prone to fraud.²

Although the EJ community opposes carbon-trading, it does believe that swift and decisive action needs to be taken to fight global warming. For that reason NJEJA has developed an EJ Climate Change Policy for New Jersey, which is attached to this document in the form of a short essay. A longer position paper on the topic will be released by NJEJA later in September. Most of the recommendations made in NJEJA's climate change policy are reflected in some manner in the suggestions presented in these comments. While not touching on all of the above mentioned problems that EJ advocates have with carbon-trading, recommendations contained in these comments do address issues appearing in the above list that are critically important to communities Of Color

² For detailed discussions of the issues listed here see the following articles and book: Chinn, L.N. 1999. Can The Market Be Fair And Efficient? An Environmental Justice Critique of Emissions Trading, 26 *Ecology L. Q.* 80; Drury, R.T., Belliyeau, M.E., Kuhn, J.S. and S. Bansal. 1999. Pollution Trading And Environmental Injustice: Los Angeles' Failed Experiment In Air Quality Policy, 9 *Duke Env. L. & Pol. F.* 231; Lohmann, L. "Carbon Trading: a critical conversation on climate change, privatization and power", *Development Dialogue* No. 48, 359 pp.

and low-income neighborhoods. Other ideas that would make RGGI more responsive to EJ concerns also appear below.

POLICIES THAT SHOULD BE INCLUDED IN THE RGGI REGULATIONS

RGGI Regulations Should Include A Mechanism That Ensures Reductions Of Greenhouse Gas Co-Pollutant Emissions By Facilities Located In Or Near Environmental Justice Neighborhoods

A cornerstone of NJEJA's EJ Climate Change Policy is the idea that climate change policies should not only result in emissions reductions of greenhouse gases but also in emissions reductions of greenhouse gas co-pollutants. In New Jersey this strategy would require policies developed pursuant to the Global Warming Response Act, Energy Master Plan and RGGI to address reductions in greenhouse co-pollutants.

The greenhouse co-pollutants in question are fine particulate matter (PM)³ and its gaseous precursors, nitrogen oxides and sulfur dioxide.⁴ The EJ community focuses on reducing emissions and concentrations of fine PM concentrations due to the unfortunate reality that this deadly pollutant is wreaking havoc with the health of New Jersey residents, particularly in urban areas. Particulate matter air pollution may cause as many as 50,000 premature deaths in the United States annually⁵ and 500 – 1,000 premature deaths in New Jersey each year.⁶ It has also been linked to an array of illnesses such as

³ Fine particulate matter is all airborne particles less than or equal to 2.5 µm in diameter. Godish, T. 1997. *Air Quality*, Third Edition, Lewis Publishers, New York, at pg. 60.

⁴ Nitrogen oxides and sulfur dioxide can undergo chemical reactions after they are emitted into the atmosphere and form PM. They can also condense onto existing particles. See Godish, *supra*, note 3, pp. 59-65 and 38. We also recognize that mercury is an important greenhouse gas co-pollutant but do not focus on it in these comments because the EJ community in New Jersey has not worked on issues related to this pollutant and therefore chooses not to comment on it at this time.

⁵ See Madsen and Mottola. 2003. *The Public Impact Of Air Pollution In New Jersey*, NJPIRG Law and Policy Center, December 2003, 38 pp., at pg. 11.

⁶ This estimate is contained in: New Jersey Department of Environmental Protection. 2003. *The New Jersey Comparative Risk Study*, pg. 202 of appendix 4. The entire report is available at

cardiovascular disease,⁷ cardiopulmonary disease⁸ and lung cancer.⁹ Fine PM is an EJ issue because not only are concentrations generally highest in urban areas,¹⁰ but also within urban areas concentrations may peak in neighborhoods with the highest percentages of low-income and Of Color residents.¹¹ These facts inexorably drive one to the conclusion that fine PM is causing death and illness among people Of Color and low-income residents at disproportionate rates. These facts also cause EJ advocates to believe that reducing concentrations of fine PM in urban areas of New Jersey is just as, if not more, important than reducing concentrations of carbon dioxide and other greenhouse gases. But it is not an either/or proposition. New Jersey should develop and pursue policies that will simultaneously reduce emissions of carbon dioxide, fine PM, and fine PM precursors. Implementing this type of “holistic” emissions reduction strategy would

<http://www.state.nj.us/dep/dsr/njcrp/>. However, the New Jersey Department of Environmental Protection has apparently increased the estimated number of deaths caused by fine PM in New Jersey because the recently released New Jersey Fine PM State Implementation Plan contains the following statement: “The NJDEP has estimated that approximately 1,900 deaths and 53,000 cases of asthma in the State each year are attributable to exceedances of the PM_{2.5} annual standard,...”. New Jersey Department of Environmental Protection. 2008. State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Fine Particulate Matter (PM_{2.5}) National Ambient Air Quality Standard, June 216, 2008, at pg. 1-7. These estimates were taken from another New Jersey Department of Environmental Protection document.

⁷ Pope, C., Burnett, R.T., Thurston, G.D., Thun., M.J., Calle, E.E., Krewski, D. and J. Godleski. 2004. Cardiovascular Mortality and Long-Term Exposure to Particulate Air Pollution, Epidemiological Evidence of General Pathophysiological Pathways of Disease, *Circulation* 109:71-77.

⁸ Pope, C., Burnett, R.T., Thun., M.J., Calle, E.E., Krewski, D., Kazuhiko, I. and G.D. Thurston. 2002. Lung Cancer, Cardiopulmonary Mortality, and Long Term Exposure to Fine Particulate Air Pollution, *JAMA* 287:1132-1141; Pope, C.A., Thun, M.J., Namboodiri, M.M., Dockery, D.W., Evans, J.S, Speizer, F.E. and C.W. Heath, Jr. 1995. Particulate Air Pollution as a Predictor of Mortality in a Prospective Study of U.S. Adults, *Am. J. Resp. Crit. Care Med* 151:669-774; Dockery, D.W., Pope, C.A., Xu, Xiping, Spengler, J.D., Ware, J.H., Fay, M.E., Ferris, B.G. and F.E. Speizer. 1993. An Association Between Air Pollution And Mortality In Six U.S. Cities, *NE J Med* 329(24):1753-1759.

⁹ Pope et al. (2002), *supra*, note 8 and Dockery et al., *supra*, note 8.

¹⁰ EPA. 2005. Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information, Office of Air Quality Planning and Standards, December, 2005, see Figure 2-16, pg. 2-42, which presents the composition and concentration of urban and rural fine PM from seven different areas of the country. In each area the urban concentrations were higher. The data came from Schmidt, M., Mintz, D., Rao, V. and L. McCluney. 2005. U.S. EPA Memorandum to File. Subject: Draft Analyses of 2001-2003 PM Data for the PM NAAQS Review. January 31, 2005.

¹¹ See EPA pg. 5-41, *supra*, note 10 citing Schmidt et al., *supra*, note 10.

be particularly timely for fine PM because New Jersey has an unprecedented opportunity to save lives *now* in highly polluted EJ communities by utilizing the social and political will that has developed to fight global warming to also reduce emissions and concentrations of fine PM. The opportunity to reduce concentrations of fine PM to this extent does not exist under normally prevailing political conditions and should not be wasted. We therefore urge the state to take advantage of these circumstances and include a mechanism in the RGGI regulations that will achieve reductions in carbon dioxide co-pollutant emissions. There are various methods that could be used to achieve these emissions reductions with perhaps the most direct method being the incorporation of rules into RGGI mandating the desired decreased emissions. However, NJEJA stands ready to enter discussions intended to identify the best method to achieve greenhouse gas co-pollutant emissions reductions in EJ neighborhoods through RGGI.

If, for whatever reason, the state chooses not to use RGGI to actively achieve co-pollutant emissions reductions then it should at least ensure that RGGI results in carbon dioxide emissions reductions in and near EJ communities. These communities would most likely benefit from some unintentional co-pollutant emissions reductions that will automatically accompany a decrease in the emissions of carbon dioxide,¹² although the reductions will not be as large as those that would occur if co-pollutants were specifically targeted. The proposed RGGI regulations do not currently ensure that emissions reductions will occur at any specific location. The location of emissions

¹² It has been estimated that climate change policies intended to reduce carbon dioxide emissions also have the potential to reduce emissions of fine PM and other toxic air pollutants to such an extent they could save 33,000 lives in the United States by the year 2020. Davis, D., Kjellstrom, T., Sloof, R., McGartland, A., Atkinson, D., Barbour, W., Hohenstein, W., Nagelhout, P., Woodruff, T., Divita, F., Wilson, J. and J. Schwartz. 1997. Short-term improvements in public health from global-climate policies on fossil-fuel combustion: an interim report from the Working Group on Public Health and Fossil-Fuel Combustion, *Lancet* 350: 1341-1349.

reductions are important because even though carbon dioxide emissions may not have a local effect, carbon dioxide co-pollutants such as fine PM and its precursors do have detrimental local health effects.¹³ But even communities overburdened with the largest amounts of pollution cannot be certain that RGGI will force a large polluting facility near them to decrease carbon dioxide emissions. It is possible that a facility can buy enough carbon allowances at auction, or trade for enough allowances after auction, to maintain its current level of emissions.

It is even possible for a facility to buy or trade for a sufficient number of allowances to provide for an increase in emissions to the detriment of nearby residents. In fact, even though the Acid Rain Trading program is usually considered a success because it decreased the total amount of sulfur dioxide emissions there is evidence that a large majority of the plants that participated in the program between 1995 and 2000 actually increased emissions.¹⁴ One concern with RGGI is that if a facility increases carbon dioxide emissions it is also likely to increase co-pollutant emissions. As a minimal safeguard for residents of communities located near polluting facilities regulated by RGGI, a mechanism should be included in the RGGI regulations that ensure these facilities will not increase emissions and thus create pollution “hot spots”.

¹³ See previous discussion that states fine PM concentrations tend to be highest in urban areas. Fine PM is thus unevenly distributed and this uneven distribution almost certainly leads to unevenly distributed health effects.

¹⁴ Although Corburn (2001) found no disproportionate impacts based on race or class caused by the Acid Rain Program he did conclude that 73 of the 110 facilities that were then participating in the program increased sulfur dioxide emissions. Corburn, J. 2001. Emissions trading and environmental justice: distributive fairness and the USA’s Acid Rain Program, *Environmental Conservation* 28(4): 323-332, pg. 331. Stanfield (2002) concluded that 300 of the 500 “dirtiest” facilities that participated in the Acid Rain Program increased emissions of sulfur dioxide. Stanfield, R. 2002. Darkening Skies: Trends Towards Increasing Power Plants Emissions. U.S. PIRG Education Fund and Clean the Air: National Campaign Against Dirty Power, Washington, D.C., pg. 1. It is not clear why Corburn and Stanfield cite different numbers of facilities as having participated in the program.

To summarize, NJEJA's position on RGGI and co-pollutants is the following:

1) The best policy, by a wide margin, would incorporate a mechanism into RGGI that ensures reductions of greenhouse gas co-pollutant emissions (fine PM and its precursors) by facilities located in or near EJ neighborhoods; 2) The next best policy would incorporate a mechanism into RGGI that ensures carbon dioxide emissions reductions in or near EJ neighborhoods. These neighborhoods would probably benefit from an unintentional reduction in co-pollutant emissions that would automatically accompany carbon dioxide emissions reductions; and 3) A minimally protective policy would incorporate a mechanism into RGGI that would prevent facilities from increasing emissions.

RGGI should not allow offsets. But if they are allowed, in addition to the requirements contained in the RGGI regulations, they should:

- a) **Be restricted to a location that is in close proximity to the facility seeking the offset in order to ensure the same communities that would have benefited from emissions reductions from the facility will benefit from the offset.**
- b) **Achieve the same emissions reductions in greenhouse gas co-pollutants that emissions reductions from the facility would have achieved.**

RGGI should not allow offsets due in part to the difficulty in verifying that an offset project emits fewer emissions than a more "traditional" pollution source would and that these emissions reductions satisfy the additionality requirement.¹⁵

However, if offsets are allowed, then in addition to meeting the requirements contained in the proposed regulations they should also be required to benefit the same communities, to the same extent, that emissions reductions from the facility requesting the offset would have benefited these communities.

¹⁵ See pp. 11 and 12 of the regulations summary and subchapter 10 of proposed regulations.

The latter requirement dictates that the offset has at least two characteristics. The first is that it must be in close geographic proximity to the communities that would have benefited from emissions reductions from the facility requesting the offset. The second is the offset must attain the same amount of co-pollutant emissions reductions that would have been achieved by emissions reductions at the facility in question. If both of these characteristics are part of the offset it would guaranty that residents living near the facility requesting the offset would experience the same health benefits form the offset they would have experienced from emissions reductions made by the facility.

Neither the geographic or co-pollutant requirements are currently part of the proposed rules.

RGGI should include the following monitoring requirements:

- a) Continuous emissions monitoring of regulated facilities for particulate matter, nitrogen oxides, sulfur dioxide, and carbon dioxide, if not already required by other regulations or laws.**
- b) Ambient air monitoring in overburdened EJ communities for the above mentioned pollutants. At least a portion of the ambient air monitoring system should be community-based.**

The current proposed regulations appear to require continuous emissions monitoring of most facilities for carbon dioxide, nitrogen oxides and sulfur dioxide emissions by referencing federal regulations.¹⁶ However, given the manageable number of facilities in New Jersey that will be regulated by RGGI, the proposed regulations should remove all uncertainty and state in plain language in the body of the regulations that all RGGI facilities must conduct continuous emissions monitoring of carbon dioxide,

¹⁶ See subchapter 8 of proposed regulations.

nitrogen oxides, sulfur dioxide and PM. These monitoring requirements would provide the state with the best possible data regarding emissions from RGGI regulated facilities.

Ambient air quality monitoring should be required in EJ neighborhoods overburdened by pollution to ensure that RGGI does not detrimentally affect air quality in these communities. Overburdened EJ neighborhoods can be identified with the assistance of a model developed by Krieg and Faber (2004)¹⁷ that was utilized in Massachusetts. At least a part of the ambient monitoring should be community-based so that data will necessarily flow into the hands of local residents and therefore empower them to address air quality issues in their neighborhood. The NJEJA, Center for the Urban Environment, New Jersey Work Environment Council and the New Jersey Environmental Federation¹⁸ conducted air quality monitoring projects several years ago involving high school students¹⁹ that may serve as a model for a community-based air monitoring system.

¹⁷ Krieg, E.J. and D.R. Faber. 2004. Not so Black and White: environmental justice and cumulative impact assessments, *Environmental Impact Assessment Review* 24:667-694. The Krieg and Faber model correlated the race and income level of community residents with the number of environmental hazards sited in their neighborhood.

¹⁸ The Center for the Urban Environment is part of the John S. Watson Institute for Public Policy of Thomas Edison State College and its defined mission is to support the EJ community of New Jersey; the New Jersey Work Environment Council is an alliance of 70 organizations that work together to improve the environment while ensuring that jobs are safe, secure and healthy; the New Jersey Environmental Federation is the New Jersey chapter of Clean Water Action and its mission is “to develop strong grassroots environmental leadership and to bring together diverse constituencies to work cooperatively for changes that improve their lives, focused on health, consumer, environmental and community problems.” See New Jersey Environmental Federation website.

¹⁹ Sheats, N. 2005. Preliminary Scientific Report for the New Jersey Urban Air Quality Education and Awareness Initiative, 78 pp.; New Jersey Environmental Federation and Clean Air Fund. 2006. Diesel Hot Spots: A Snapshot of Newark, New Jersey, 16 pp.; Sheats, N. 2007. Preliminary Report on a Calibration of a DustTrak and TEOM Performed for the New Jersey Urban Air Quality Education and Awareness Initiative, April 15, 2007, 9 pp.

RGGI should include a mechanism that ensures community residents and community groups have the ability to challenge allowance trades and allowance auction purchases that they reasonably believe have the potential to detrimentally affect the air quality of their community.

In addition to the automatic mechanism discussed above that we advocate should be incorporated into RGGI to ensure co-pollutant emissions reductions, the proposed regulations should also include a mechanism that allows community residents to challenge allowance purchases and trades in order to protect air quality in their neighborhood. The proposed regulations currently provide few opportunities for local residents to meaningfully affect the operation of RGGI and allowing residents to challenge allowance trades and purchases they believe are detrimental to their community would be a first step toward curing this defect. In order for residents to challenge trades and purchases the entity or person purchasing or trading allowances would have to reveal exactly which facilities are going to use the allowances. There would also probably have to be a waiting period for proposed trades and purchases. The NJEJA would, of course, be more than happy to engage the state in discussions on the details of a proposal that will provide residents with a mechanism to challenge allowance purchases and trades.

RGGI should require the following information to be easily accessible to the public:

- a) The number of allowances bought at the auction by each entity or person and the facility of their intended use.**
- b) The number of allowances held by each entity or person and used by each facility.**
- c) A record of allowance trades made by each entity or person.**
- d) Facility emissions data.**
- e) Any violations and fines incurred at each facility.**

In order to evaluate the effects of RGGI on the air quality in their communities local residents need easy access to, at the very least, the information delineated above. At the RGGI hearing held on August 15 of this year New Jersey Department of Environmental Protection officials informed hearing participants that this information would be made available to the public. However, it is not obvious from the proposed regulations that all of this information will be required and made public by the regulations. It should be stated clearly in the body of the regulations that this information will be required and made readily accessible to the public.

An “Environmental Justice” Committee should be formed to address and oversee environmental justice aspects of RGGI. At a minimum this committee should include paid staff funded by proceeds from the carbon allowance auction.

An EJ committee should be formed to oversee EJ issues related to RGGI’s operation in New Jersey and strong consideration should be given to forming an analogous committee for the entire RGGI program. An EJ committee could examine and make recommendations with respect to RGGI and community involvement, the creation of pollution hot spots, the reduction of co-pollutants, and any other issues related to RGGI that committee members believe are important to communities Of Color and

low-income neighborhoods. California's global warming legislation explicitly created such a committee²⁰ and RGGI regulations should do the same.

A key to the success of the committee will be financial support. At a minimum the committee should have paid staff and sufficient financial resources to be able to hire consultants and experts if needed. Proceeds from the allowances auction would be the most obvious source of funds.

100% of carbon allowances should be auctioned and a significant portion of the generated revenue should be invested in urban areas in order to:

- a) Provide financial support to low-income residents adversely affected by increases in the price of energy caused by climate change policies.**
- b) Support energy conservation and renewable energy projects that will create employment and other economic opportunities for local residents, reduce emissions of fine PM and its precursors, and reduce emissions of carbon dioxide.**

The current proposed rules will probably require about 70% of carbon allowances to be auctioned and allow approximately 29% to be sold to co-generation facilities at a fixed, relatively low, price.²¹ The EJ community urges the state to auction 100% of the allowances. Auctioning the allowances will permit the price of carbon to achieve a level that will provide an incentive for polluting facilities to reduce emissions, as well as raise revenue that can be used to benefit the state's residents. While we understand the state is attempting to limit direct sales of allowances to efficient facilities that cannot pass along the cost of allowances to energy purchasers, at this point we believe the benefits of auctioning the allowances are more important than these considerations.

²⁰ See Part 7. Miscellaneous Provisions Section 38591 of the California Global Warming Solutions Act of 2006, (AB 32; Stats. 2006, chapter 488)

²¹ See pg. 7 of the regulations summary and subchapter 5 of proposed regulations.

Although a future proposed rule will be promulgated that will detail the manner in which the state intends to utilize the funds produced by the carbon allowances auction the EJ community wants to take the opportunity presented by these comments to urge the state to invest a significant amount of the auction proceeds in urban areas in order to:

- 1) provide relief to low-income residents from any increase in the price of energy caused by RGGI and other climate change policies; and
- 2) promote the extensive utilization of energy conservation and renewable energy sources in a manner that will help economically revitalize inner-city neighborhoods, reduce emissions of fine PM and its precursors, and reduce emissions of carbon dioxide. More detailed comments on this subject will be provided when the specific rule addressing this topic is released.

Conclusion

The Regional Greenhouse Gas Initiative is one of the most important environmental policies that will ever be instituted in New Jersey, yet it does not address equitable concerns such as ensuring its operation improves, or at least does not detrimentally affect, air quality in communities Of Color and low-income neighborhoods that are frequently already overburdened with pollution. Neither does it ensure meaningful input from local residents. These comments present policies that, if included in the proposed regulations, would begin to address these and other environmental justice issues related to the Regional Greenhouse Gas Initiative.

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