



P.O. BOX 25, GOSHEN, NY 10924-0025

July 29, 2019

Christopher M. Hogan
NYS DEC - Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750
E-mail: deppermitting@dec.ny.gov

**Re: CPV Air Title V DEC ID: 3-3356-00136/00010; Title IV Acid Rain
Permit DEC ID: 3-3356-00136/00003**

I am pleased to submit these comments on behalf of the Board of Orange Environment, Inc. ("OEI"). OEI is a regional non-profit environmental organization concerned with promoting the sustainability of the Orange County region and the health of its communities. Founded in 1982, OEI has filed testimony and intervened in numerous DEC administrative permit hearings and legal proceedings. We were a party of interest to the original Competitive Power Ventures, Inc. ("CPV") application for a permit to construct and have maintained an ongoing interest in the project and its impacts. Many significant concerns raised during the original permit review by OEI and others remain unresolved, and, indeed, some are even worse than anticipated.

-2-

It is OEI's position, based upon our review of the CPV application, that the

required Clean Air Act operating permits should not be issued. However, should the DEC require further review before reaching that conclusion, we offer here a series of issues that bear directly on that decision and must be carefully considered by the Department.

We anticipate filing as an intervenor during any upcoming issues hearing and present experts to attest to our positions on a number of significant issues that we will raise. These are issues that require either permit denial or modification of the permit conditions to provide effective mitigation to protect public health.

1. Because of the involvement of its corporate executive in a bribery scheme with NY State officials prior to the issuance of its initial state construction and operations permits, CPV is “unfit” under the Environmental Conservation Law to hold the requested Title V Air Permit.

The DEC’s authority to deny the Title V Air permit derives from its Record of Compliance Enforcement Policy (rev March 5, 1993) wherein it clearly states that the Department has the general authority to deny, suspend or revoke permits where the applicant or permittee is found to be “unsuitable.” “Suitability includes such factors as past compliance records, criminal and civil violations.” (P.2) The authority for the Department’s discretion to deny permits stems from Section 70-0115 of the ECL, resulting from the explicit direction of the New York legislature. The ultimate legislative authority is based upon ECL Section 1-0101, wherein the Department is mandated to

“Improve and protect its natural resources and environment and control water, land and air pollution in order to enhance the health, safety and welfare of the people of the State.” (P.3)

Among the guidelines for considering suitability of a permittee or applicant, the following criteria are applicable “both to the immediate entity but also to any other corporation, partnership, association or organization in

which the permit holder or applicant holds or has held a substantial interest

or in which it has acted as a high managerial agent or director." (P.4)

a. whether a permittee or applicant has been convicted of a crime related to the permitted activity under any federal or state law,

b.has violated any provision of the ECL....any regulation of the department, or any similar state, regulation, order or permit condition of the federal or other state government or agency....(causing) a significant potential threat to the environment or public health, or is part of a pattern of non compliance

c. ...has engaged in conduct that constitutes fraud or deceit or has made material false or inaccurate statements in the permit application or supporting papers or in the conduct of the permitted activity;

d. ...has been convicted of the crime of filing a false instrument or making a false statement to the Department or any other agency regarding compliance with the laws of the State or the United States.

OEI has direct experience with the application of the ROC Enforcement Policy. In 1998, OEI was a party to an adjudicatory hearing of the Department on the application of Al Turi Landfill, Inc. to expand its landfill (DEC Application No. 3-3330-00002-21). After the hearing, the expansion permit was denied based on the unfitness of the applicant. As the ALJ explained, "[t]hese pleas and subsequent convictions of Al Turi Landfill, Inc., its three principals, and corporations in which these principals were large shareholders are relevant to the permitting decision in this matter pursuant to the Department's Enforcement Guidance Memorandum (EGM) issued August 8, 1991, as revised February 1993. According to that memorandum, the Department may consider as a basis for permit denial 'whether the applicant or permittee has engaged in conduct that constitutes fraud or deceit,' and 'whether a permittee or applicant has been convicted of the crime of filing a false instrument or making a false statement to the Department or any other agency regarding compliance with the laws of any state or the United States.' [Record of Compliance EGM, pages four and five.]. . . . Past fraudulent activity by the Applicant and its principals is especially relevant to the permitting decision, since the Department, as a regulating authority, needs assurance that it can trust a permittee's honesty and integrity. Even where the activity is not related to the Applicant's landfill operation, and is not directed at DEC, this

-4-

agency must still consider how it bears on the Applicant's character." ALJ

Ruling, dated June 19, 1998.

The DEC Commissioner's subsequent decision denying the landfill expansion was appealed by Al Turi in a proceeding brought pursuant to Article 78 of the Civil Practice Law and Rules. In a decision dated December 3, 2001, the denial was affirmed by the Appellate Division of State Supreme Court, Second Department, Al Turi Landfill, Inc., v. New York State Dept. of Environmental Conservation, 289 A.D.2d 231, 735 N.Y.S.2d 61 (3d Dep't 2001). The court found that there was sufficient evidence in the record to support the finding that Al Turi was unsuitable to hold the requested permit. The court held that the prior criminal acts of Al Turi and its principals, involving tax fraud, accepting checks on fictitious invoices, and mail fraud were directly related to the duties and responsibilities of a permit holder, including accurate self-reporting, effective self-policing, and honest self-reporting to government, and thus, denial of the permit based upon such criminal conduct did not amount to unfair discrimination.

In this instance, DEC should again deny a permit application based on the unfitness of the applicant CPV. The relevant facts are as follows: Joseph Percoco, the former Executive Deputy Secretary to the Governor of the State of New York was convicted in the SDNY in March 2018 of participating in a bribery scheme involving CPV during the time period when CPV's initial construction and operations permits were being considered by the Department. As the US Attorney Geoffrey Berman summarized in a statement after the conviction, "Percoco, Howe, and others conspired for Percoco to receive more than \$287,000 in bribe payments in exchange for Percoco's official assistance for CPV on an as-needed basis.

State action was critical to CPV's business. Starting as early as 2010, CPV provided personal benefits to Percoco, including expensive meals and a Hamptons fishing trip, in an effort to cultivate access to Percoco. In response to CPV's requests for official State assistance, Percoco, who was experiencing financial difficulties at the time, requested that CPV hire his then-unemployed wife. In or around the end of 2012, CPV executive Peter Galbraith Kelly Jr. created a position for Percoco's wife that paid approximately \$90,000 per year while requiring Percoco's wife to do little work. In exchange for these payments, Percoco agreed to use his official position and influence, and did in fact use his official position and influence, to help CPV with specific State matters as the opportunities arose.

Among other things, Percoco agreed to use his official position and

influence to assist the CPV's efforts to obtain (i) a valuable agreement from the State allowing CPV to buy lower-cost emissions credits in New York for a power plant proposed to be built in New Jersey and (ii) a lucrative long-term power purchase agreement with the State guaranteeing a buyer for the power to be produced at a power plant proposed to be built in New York, which was expected to save CPV approximately \$100 million in development costs." Department of Justice, SDNY Statement dated March 13, 2018.

In May 2018, Peter Kelly, Jr., a former Vice President of External Affairs and Government Relations for CPV, pled guilty to one count of conspiracy to commit wire fraud in connection with the bribery scheme. On this occasion, US Attorney Berman stated "Kelly was involved in a criminal scheme to bribe one of the most powerful men in New York in exchange for favorable treatment for his energy company." Department of Justice, SDNY Statement dated May 11, 2018. These fraudulent and criminal activities fall squarely within the Department's ROC Enforcement Policy and cast fatal doubt on the ability of the DEC (or the public) to trust CPV's "honesty and integrity" in operating this power plant.

On this basis alone, the Title V permit should be denied. In the event this application goes to an issues hearing, OEI will once again argue that an applicant here in Orange County is unfit to hold a DEC permit.

2. Air Pollution from the Operation of CPV Will Have Significant and Unacceptable Adverse Health Effects in Orange County

Our principal concern is that issuance of the proposed air permits to allow CPV to operate represents a significant threat to the health of Orange County residents, as well as to residents in neighboring communities exposed to the pollutants emitted from the plant.

Orange County has historic and current problems with air pollution. Evidence of significant baseline and cumulative air toxic exposures are already manifest in this growing county. We will review this evidence in our issues brief.

There are also numerous, pre-existing cumulative air pollution sources affecting the same area. And it can be expected that these sources will increase in the near future given the growth in regional development and

associated traffic sources. We will also review these cumulative impacts, using DEC and EPA resources and websites like Scorecard.org, where necessary, as a proxy for data collected for this project.

We have been working with our air expert, Dr. George Thurston of NYU, to consider CPV’s health impacts. We intend to present a full report at any permit hearing and offer Dr. Thurston’s direct testimony. Dr. Thurston is a primary scientist publishing air pollution studies in prominent journals. He is himself responsible for crucial research establishing the effects of NAAQS crucial to the air permit. His CV is attached.

The draft permit contains permitted levels for NAAQS and other air pollutants. Our review of these contaminants, particularly in light of early health data and cumulative effects, suggests that CPV will be a significant adverse source of air pollution for the surrounding micro-region, causing increased risk of adverse health effects for individuals exposed to its releases. Even with BEST and LAER standards applied, we can show a reasonable likelihood of increased community risks of adverse health outcomes. These effects will cause environmental justice implications as well. We believe that the increased likelihood of adverse health impacts from CPV air emissions can be demonstrated with a reasonable level of certainty, calling into question whether any operating permit should be issued at all. Were it to be issued, a number of reasonable air monitoring and emissions mitigatory steps would be required that are not currently in the draft permit.

Our Table 1 combines information about pollution emissions found in the “HAP” list on page 8 and the unlabeled table on page 23 of the DEC’s Permit Review Report for Permit ID: 3-3356-00136/00010 of 05/28/2019.

NAAQS/Contaminant	Part 231 tons/yr	CPV Potential tons/yr	Lbs/year
VOC	50	65	126,906
NOX	100	183.2	366,386
CO	100	341.9	683,998
PM	25	95	190,000
PM10	15	95	190,000
PM 2.5		95	190,000
SO2			82,764

SO2 Acid Mist	7	12.6	25,166
CO2	75000	2,178,017	4,350,405,911
NH4			209,582
PB			40
Total Hap			27,880

Table 1: CPV Air Contaminant limits and potential production

-7-

OEI contends that even were CPV to keep air emissions under the Part 231 standards, there would still be significant adverse health risk impacts for the surrounding community. While it is not our intent to share complete evidence at this juncture, we can characterize these health risks based upon the draft testimony of Dr. Thurston under preparation for an issues hearing which draws on his own work and the most current public health literature.

A. Air pollutants to be released in CPV emissions are causally related to a wide range of adverse human health outcomes, including decreased lung function, more frequent asthma symptoms, increased numbers of asthma and heart attacks, more frequent emergency department visits, additional hospital admissions and an increased numbers of deaths.

B. Dr. Thurston and other OEI experts are in the process of analyzing air pollution levels and health reports that may correlate with CPV emissions. Preliminary conclusions will be included in the forthcoming testimony.

C. Dr. Thurston's primary focus has been on PM_{2.5} and ultrafine particulate matter releases that have been the subject of some of his own principal work. The draft permit anticipates release of some 95 tons per day of PM_{2.5}.

D. In draft testimony provided by Dr. Thurston, he makes these conclusions regarding PM_{2.5}:

a. As EPA notes, fine mode PM is mainly composed of varying

proportions of several major components: sulfates, nitrates, acids, ammonium, elemental carbon, organic carbon compounds, trace elements such as metals, and water.

- b. PM_{2.5} is a known cause of lung damage.
- c. Less recognized are the coronary effects. Recent studies show that among the adverse effects on the heart due to exposure to PM_{2.5} are:

- i. Increased risk of heart attack.

- ii. For those with existing cardiac problems, the extra burden of PM stress to the lung can induce fatal complications, including

-8-

- elevated risk of myocardial infarctions within a few hours of exposure to elevated fine particles and continuing for a day afterwards.

- iii. An association between elevated PM_{2.5} and increased emergency room admissions for Myocardial Infarction and congestive heart failure has been documented as have changes in heart rate variability, cardiac autonomic function and the risk of sudden cardiac death.

- iv. The collective evidence from epidemiologic, controlled human exposure, and toxicological studies is sufficient to conclude that a causal relationship exists between short term exposures to PM_{2.5} and cardiovascular effects and mortality.

- d. The long-term effects of cumulative PM_{2.5} exposures are also significant. Dr. Thurston's own recent co-authored works published in the highly regarded Journal of the American Medical Association ("JAMA"), Environmental Health Perspectives and International Journal of Epidemiology indicate that long-term exposure to combustion-related fine particulate air pollution, such as fossil-fuel power plants is an important environmental risk factor for cardiopulmonary and lung cancer mortality.

- e. Specifically, Dr. Thurston and others find that, in addition to the acute health effects, long-term exposure to fine PM is also associated with increased lifetime risk of cardiopulmonary and lung cancer mortality and has been estimated to decrease the life

expectancy of people living in the most polluted environments.

- f. The secondary social and economic impacts are also significant. Thurston notes that for every death associated with air pollution, there is an associated pyramid of much greater numbers of morbidity effects, including hospital admissions, emergency department visits, doctor visits, missed work days, missed school days and asthma symptoms days.
- g. With specific applicability to the CPV permit, it is understood that combustion sources of PM are particularly toxic and associated with adverse health impacts, due to that pollutant's composition and size.

-9-

- h. Particulate matter from fossil-fuel-burning facilities is more damaging per unit mass. For example, PM_{2.5} from coal-fired combustion has been associated with an ischemic heart disease mortality risk that is roughly five times that of the average for PM_{2.5} particles in general. As Dr. Thurston will show, the extremely fine PM from gas-fired units shares many compositional characteristics with that emitted from other fossil fuel facilities such as oil and coal plants.
 - i. There are several reasons for the toxicity of power plant particle pollution. Combustion particles have different sizes, physio chemical characteristics, and deposit in different parts of the lung than other more "natural" particles, such as wind-blown soil.
- j. Although emitting a smaller mass of particles, natural-gas-fired emissions contain the same transition metals as coal and oil fired power plants emit.
- k. Gas fired power plants are more toxic because they are enriched with toxic and transitional metals and generate many more highly toxic ultrafine particles per pound of emission capable of reaching deep into the lung and residing there long enough to cause significant damage. These fine particles can even pass directly into the bloodstream traveling throughout the body and defeating its natural defenses. Thus, gas-fired combustion PM_{2.5}, when viewed on a per-mass basis, may well have a much higher toxicity than that emitted from other sources.
- l. Airborne gaseous sulphur oxides (SO_x) can rapidly convert to an

acidic form of PM_{2.5} in the atmosphere. CPV plant emissions contain sulfate and acidic containing particles, including sulfuric acid mist (“SAM”), among the most toxic particles that, because of their solubility and biological availability, are more strongly associated with adverse health impacts than particles from many other sources, such as soil-derived and automobile-emission related particles.

- m. Likewise, freshly combusted particles have sharp edges that more-strongly irritate and interact with the lining of the lung than older PM_{2.5} in the atmosphere and also contain unneutralized and unoxidized compounds.

-10-

- n. Dr. Thurston concludes that a linear rather than threshold theory of effect is applicable to PM exposure. PM_{2.5} is a non-threshold pollutant. While air quality guidance/standards have been promulgated for NAAQS and other CPV emissions, these are misleading in suggesting a safe threshold for exposure exists. In fact, as EPA has historically acknowledged, there is no safe exposure to PM. Therefore, even if NAAQS are met, adverse health impacts can be expected for populations exposed to air emissions from CPV.
- o. While a complete health-risk analysis of PM_{2.5} emissions from the CPV facility should be required before permit consideration, Dr. Thurston is prepared to draw several conclusions about the likely consequences of this exposure.
- p. Particularly adverse health effects are expected because the fossil fuel combustion particles being emitted into the atmosphere by CPV are much more toxic than typical particles and exposed residents live in close proximity to the plant.
- q. There are two known characteristics of natural gas-fired power plant particles that make them likely to have especially strong health effects, on a per-pound basis, than other ambient PM_{2.5}.
- r. First, they have a higher percentage of ultrafine particles, as compared with other fossil fuel options. Ultrafine particles have very high surface area relative to other fossil fuel emissions and penetrate deep into the lungs when breathed.
- s. Second, they, like other fossil fuel combustion particles, contain a

high percentage of toxic transition metals. These characteristics tend to increase the dose and toxicity of gas-fired power plant particles, relative to most other ambient particles.

- t. CPV plant's emissions can be expected to be in a strongly acidic, and therefore more toxic, form owing to the metals present, including the very strong acids Sulfuric acid and ammonium bisulfate and the weaker acid ammonium sulfate, which will further enhance the bio-availability and hence toxicity.
- u. In sum, the potential health effects of PM_{2.5} emissions from the CPV plant cannot be dismissed. Because of their high ultrafine (nanoparticle) fraction, their composition, and the likely co-

-11-

presence of acidic vapors, they would likely be more toxic than other forms of particulate matter, on a per mass basis.

- v. A further factor is that particles emitted by CPV are freshly combusted and, thus, have more active sites on them. The literature suggests that fresher, recently emitted, particles, such as those inhaled by persons living near a power plant, are more toxic.
- w. Of further relevance is the expected "peaking" use of the CPV plant. These frequent startups and shut downs can be associated with extreme increases in emissions and, therefore, raise additional health concern.
- x. In addition, the use of diesel turbines as a backup will likely lead to greater emissions per hour of some pollutants than the normal use of natural gas, including PM_{2.5}.
- y. Our expert, Dr. Thurston is prepared to testify from his own research and that of others that the PM_{2.5} level has been breached, with ultrafine nano particles below PM 0.1 (i.e., particles less than 0.1 μm in diameter). Although these nanoparticles do not yet have a NAAQS, they are thought to cause even more significant health impacts when considered on a per mass basis. Such ultrafine particles have been implicated in a wide range of respiratory health problems, heart disease and cancers. Burning fossil fuels, including the diesel backup fuel and the primary gas, guarantees the release of these pollutants despite

conventional air pollution controls.

z. Air pollution emissions from the facility add to the existing outdoor and indoor levels of PM_{2.5} in the vicinity of the plant and, because no threshold of air pollution effects has yet been found, any such incremental PM_{2.5} exposures add an incremental adverse health risk to nearby residents from power plant air pollution.

aa. Dr. Thurston's draft testimony concludes that, to the extent that the CPV facility will create additional levels of air pollution, including PM_{2.5}, it will cause an increase in the risk of adverse health effects among those who breathe that pollution,

and, especially, for those who live within the most affected areas immediately surrounding the plant.

-12-

E. Dr. Thurston's testimony and other OEI submissions will be tied to the question of whether adverse impacts can be monitored and mitigated and, if so, how such monitoring and mitigation can best be accomplished. Dr. Thurston's work will be tied to specifics in the permit that enable these impacts to occur, such as the allowance of 20 to 27% opacity in air releases (31.2) and the allowable amounts for various air constituents. For example, if the permit was issued despite a showing of unacceptable health risk to the community, one source of mitigation will be to further restrict tolerances for releases, put in place protections against under performance and fugitive emissions and the kinds of regulatory enforcement lag that might perpetuate exceptions to the permitted releases. It should be noted that the linear PM_{2.5} health risk relationship outlined above implies that no releases can be allowed if health risks are to be completely prevented.

F. Other NAAQS will be addressed by Dr. Thurston as well. In brief, these adverse health impacts are relevant to permit issuance

a. PM 10 : Research has found that there is a .3% additional daily risk of death to the public for each increase of 10 µg/m³PM10 exposure. CPV will release some 95 tons of PM 10 per day.

b. Ozone : CPV plant emissions will contribute to downwind increases in ozone exposures downwind. Our expert, Dr. Thurston is prepared to testify from his own research and that of others that the health effects of ozone exposure are well documented and include such effects of lung irritation

as increased incidence of asthma, throat irritation, airway inflammation, interference with breath volume, diminished lung function, scarring of the lungs, lung inflammation, and exacerbation of such conditions as inability to fight lung infection, bronchitis and emphysema, premature aging of the lung and greater likelihood of pneumonia in elderly. Children, day laborers (often EJ populations) and the disabled are at particular risk. Reduced athletic performance is well documented. Secondary impacts include the increased need for medical care, including hospital admission. There is a clear positive ozone mortality relationship with death occurring from respiratory causes or secondary, coronary events described as slightly more than a 1

-13-

percent increased death risk from respiratory causes for every additional 10 ppb increments in ozone concentration.

Accordingly, Dr. Thurston will conclude that CPV will have an adverse health impact and a secondary economic cost on the surrounding community if the expected ozone pollution associated with its operations is allowed to occur.

- c. Nitrogen Oxides (Nox): Aside from its role in ozone and PM_{2.5} formation, nitrogen dioxide (NO₂) has shown itself to be associated with lung disease and hospital admission, at a significant economic cost.
- d. Sulphur Dioxide (SO₂): There is a well-established causal relationship between SO₂ exposure and increased respiratory morbidity
- e. Hazardous Air Pollutants (HAPS): Other hazardous air pollutants (HAPs) are known or suspected causes of serious health impacts including cancer and birth and reproductive effects. EPA has identified 12 HAPS as priority pollutants associated with utility power plants. The draft permit does not identify if these are present, in what quantity, or what steps will be undertaken to eliminate or reduce them. OEI will explore this gap in the hearing.

3. The Greenhouse Gas (GHG) impacts of CPV are significant and alone serve as a basis for permit denial.

With the recent passage of the New York State Climate Leadership and Community Protection Act, New York has finally made appropriate steps to address a global climate crisis caused by combustion of fossil fuels. The most recent major climate studies (the IPCC SR 15 study and the US National Climate Assessment) make it clear that, absent fast and significant change, the world may be facing a 2.7E F temperature rise or more by as early as eleven years from now. We have literally waited until the last moment to act and that moment is here. The permit anticipates that CPV will emit more than 2, 170,000 tons of CO₂ per year into our already overheated atmosphere. It is accordingly, OEI's position that CPV cannot be permitted for further operation.

-14-

We have a remarkably fast transition to renewable energy to make. The need for gas transition facilities was a reasonable concept 30 years ago. Today, it is a step back and distraction from the task at hand. The concept of climate or pollution credits or offsets are also unacceptable because there is no way to be certain that the offsets will achieve their objective and that a true avoidance of impact has been attained. Moreover, such trading schemes at this juncture need to involve at least a two for one ration of benefit. Other efforts at pollution trading are also unacceptable because they entail the local community bearing the burden of pollution. OEI will raise the GHG issue at the issues hearing and is prepared to present a climate expert to address both the adverse effects of building CPV and also the lost opportunity cost of not instead creating renewable energy sources.

3. Problematic Plant Operations

A. A particular concern regarding air pollution from CPV is the diesel fueled backup generators. When used during the plant's startup phase because natural gas was unavailable, a troublesome dress rehearsal of these impacts occurred. Community members surrounding the plant reported significant adverse health symptoms as a result. The draft permit speaks of

limits on using diesel beyond burning 23,100,000 gallons per year or 2,000 hours per year. Based upon Dr. Thurston's discussion of diesel combustion air pollution impacts and the extreme consequence of the initial startup phase, OEI will argue at hearing that CPV cannot be permitted to employ a diesel backup at the plant.

B. An additional concern is the presence of Anhydrous Ammonia stored on site for use in mitigating NOX production. In addition to the release of NH₄ as an air pollutant, the presence of this material onsite represents a worst case scenario risk that has not been acknowledged, studied or mitigated. OEI will raise at hearing the issues surrounding the storage and use of this material at the plant, the adequacy of the Emergency Response Plan to address this risk (and others) posed by the potential for accidental releases from the plant, as well as fire and explosion, calling witnesses, as necessary, to make sure that the record is complete and all facts are at hand to either deny the permit or modify and condition it so as to mitigate this hazard.

-15-

C. An additional operational variable at CPV that has not been explored in the permit submissions is the use of fracked gas from Pennsylvania. Fracked gas is known to have some constituents that vary from conventional natural gas that are likely to increase its potential risk. OEI will join other interveners to make sure that the record is complete on this variable.

4. Environmental Justice Concerns

A. While we still are learning about the air dispersal patterns around CPV, it is clear from data reviewed that there is not a set pattern of dispersal and deposition does not merely follow prevailing wind direction. This means that deposition is likely to occur in environmental justice census blocks in Middletown, Wawayanda and Wallkill where existing air pollution is already concentrated. We anticipate demonstrating a disproportionate impact to these environmental justice communities. All local populations, however, are placed at risk from CPV.

B. Environmental Justice Impacts will occur as a secondary result of the release of toxic air pollutants from CPV and the consequent health effects. This

is evident due to the proximity of the CPV plant and the reach of its emission pathways to EJ census tracts in Middletown that these residents, already subject to a concentration of air releases, would be further impacted. OEI will detail this issue in its Issues filing and provide a witness at hearing. Moreover, neighborhoods around the plant in all directions contain vulnerable EJ populations including children (and schools), the elderly and the medically vulnerable.

C. In his draft testimony, Dr. Thurston anticipates this EJ impact by citing his own work on impacts from PM air pollution to vulnerable populations, including the very young, the poor, the very old, and persons with pre-existing health conditions, such as heart disease and asthma; the poor are especially at risk from air pollution. He notes that children, a population known to be particularly susceptible to the effects of air pollution (because their bodies are developing and they spend larger amounts of time exercising outside) are an especially affected sub-population that is well represented in the community surrounding the plant. This subpopulation of children can be

-16-

expected to be among those most strongly affected by any increases in PM_{2.5} concentrations in the vicinity of the plant, both acutely and chronically over time.

5. Mitigation Permit Conditions

Because of the significant and severe health effects associated with this permit, a special effort at mitigation is required should the permit be issued. OEI will present testimony and evidence to support the following permit conditions.

A. Health Monitoring and Registry.

CPV will be required to fund an independent study to establish baseline health conditions in areas reached by emission plumes from CPV. As part of this condition, CPV will agree to accept this baseline as part of the proof in claims made against the registry. The registry itself will be independently constructed and managed, using a fund to be created with an initial endowment and then a portion of the plant's profits aimed at staying solvent to serve those impacted over a lifetime. The extent and organization of the

fund will be discussed at hearing.

B. Party of Interest Community Oversight Process.

Beginning in the 1980s, OEI modeled a Parties of Interest Process after one piloted in Long Island. In collaboration with the DEC, we employed it at the Orange County Landfill, RSR in Wallkill, Nepara (using a modified approach) and it was accepted in the never used Calpine Energy Center permit. Such processes are used widely at this point, including for Superfund Community Action Groups. What is distinctive about the OEI approach is that the representatives of the key parties of interest collaborate to provide real time oversight for the facility, including monitoring, health studies, technical review, health impacts and emergency response.

Through the Community Oversight Process, both incremental and acute developments can be reviewed and resolved. Since primary observation of performance often falls to community members for such facilities, the Oversight Process provides a conduit for information about performance and health and other adverse impacts. In monthly meetings, issues are discussed that aim to make sure that problems are resolved through direct

-17-

communication with CPV and that the DEC is aware of issues that require monitoring and enforcement. Unlike other forms of CAG, this process however really empowers the community to make sure that the facility is working properly and that their questions and concerns are addressed in a timely fashion. OEI will submit a more detailed version of the Community Oversight Process at the time of issues hearing and will offer its President Emeritus, Dr. Michael Edelstein, an Environmental Psychologist and expert on how communities address environmental contamination, to testify.

C. In conjunction with the COP, the already existing network of offsite monitors will be expanded to provide required coverage, reviewed and interpreted in an ongoing basis. As a first round of this monitoring effort, while CPV is offline, detailed background monitoring will be done to identify existing cumulative air pollution sources. The resources and opportunity to collect this information, and to do ongoing monitoring, will be provided as part of the same funding mechanism as is created in the permit for the COP.

D. Cumulative air impacts will be fully mapped and interpreted before CPV begins full operations, if permitted. The work will be carried out by a consultant retained by OEI or the COP and funded by CPV under the permit. Once cumulative sources are mapped, and CPV goes online, an ongoing quarterly assessment of cumulative air impacts in Orange County will be made. Based on the results, the CPV permit may be modified to reduce emissions. The data can be used during SEQR or permit reviews for other air emitters to address the question of cumulative impact, creating an aggregate way to protect the local population.

E. Psycho-Social Impacts. Another area ignored during permit review but which must be addressed if the facility is to be allowed to operate is the effect on people in the local communities who are subject to stress and direct as well as indirect impact from the facility. We know that surrounding residents are receiving stressful direct impacts including noise, light and impaired air, often at hours when the plant should not be allowed to operate, yet these and other psycho-social impacts on the community were never considered, identified or mitigated. OEI will propose an issue for adjudication to address these impacts and make Dr. Michael R. Edelstein available to testify

-18-

at hearing about them. Mitigation can be directed through the COP process or built into the operations permit in other ways.

F. Environmental Stigma offsets. Another area of impact is the loss of value and salability for properties proximate or affected by CPV. As with other Psycho-Social and Health Impacts, residents and others are left to bear the consequences of the facility's siting and operation. This is unjust and a serious impediment to quality of life. OEI will propose a plan devised with the assistance of a local real estate expert available to testify that is designed to protect the property interests of residents affected by CPV. We believe that, along with these other permit mitigation proposals, that no permit for CPV can be issued without resolving these issues.

In conclusion, in these comments we have advanced a series of reasons why CPV should not receive the requested air permits as drafted. We ask that DEC

now hold a full adjudicative hearing on this permit application to ensure the public a full opportunity to argue its grave concerns about the project and produce, if granted, an operating permit that fully mitigates the extensive impacts to human health and the environment that this plant represents.

Thank you for your consideration of these comments.

Sincerely,

Michael R. Edelstein, President
Orange Environment, Inc.

Scott A. Thornton, Esq.
Counsel for OEI