II. Issues Resolution

A. Air

A1. General Air Quality

The Record addresses the Projects' impacts on air quality, including the cumulative effect of air emissions from existing facilities and the prevention of significant deterioration in local air quality. Subsequent sections of this Joint Settlement Agreement address specific issues with a relationship to air quality, including II.A2 (Odors), II.A4 (Fugitive Dust), II.A5 ($PM_{2.5}$), II.C (Cooling Technology), and II.D1 (Gray Water). Air quality impacts related to those issues are addressed in the corresponding sections.

1. The Nature of Probable Environmental Impacts

The nature of the probable environmental impacts of the Projects has been reviewed, including an evaluation of predictable adverse and beneficial effects on the environment, ecology, air quality, and public health and safety, including the cumulative effect of air emissions from existing facilities plus certain proposed major electric generation facilities and the potential for significant deterioration in local air quality, as documented in the following Record Evidence:

a. The Record

(1) Chapter 4 of the Application presents information concerning air quality and meteorology. It describes the climate, topography and existing air quality in the vicinity of the Projects (Section 4.1). A detailed description of the applicable federal and state air regulations is included, for example, New Source Performance Standards; federally enforceable state regulations governing emissions of sulfur dioxide, particulate matter and opacity and nitrogen oxides; Nonattainment New Source Review; Prevention of Significant Deterioration; acid deposition control; and state air toxics emission guidelines (Section 4.2).

(2) Chapter 4 of the Application also describes the potential criteria and non-criteria pollutant emissions from the various sources comprising the Projects (Section 4.3). It describes the results of an Air Quality Impact Assessment for Class I and Class II Areas that was conducted and additional analyses, including acid deposition impacts and information relating to global climate change (Sections 4.4 and 4.5).

(3) The mitigation features of the Projects are detailed in Section 4.6.

(4) The results of a comprehensive non-criteria pollutant assessment are contained in Section 4.7. Additional evaluations of fine particulate matter, ground-level ozone, odor potential, *Legionella* guidance, chlorinated dioxins and furans and project benefits are contained in Section 4.8.

(5) The air permit application forms are contained in Volume VI of the Application and in Volume III of the Supplement.

Supplemental Information for Chapter 4 of the Application was submitted as follows:

(6) December 2001 Errata to Air Permit Application;

(7) May 2002 Supplement, Volume I, Table S1, Errata and Supplementary Information;

(8) S1-4-A, Discussion of Fine Particulate Matter $PM_{2.5}$;

(9) S1-4-B, Community Cost Benefit;

(10) S1-4-C, Revised 4.4.1.3 – Stack Plume Modeling Methodology;

(11) S1-4-D, Revised 4.4.2.8 – Stack Plume Modeling Results; and

(12) S1-4-E, Revised Sections 4.3.3, 4.3.4, and 4.7 – Non-criteria Pollutant Assessment.

NYSDEC issued the following draft permits and Fact Sheet Narratives for the Projects relating to air quality:

(13) State Facility Air Permit containing requirements applicable to the entire facility, as well as requirements applicable to individual emission units at the facility, including the auxiliary boiler, combustion turbines, and air emission sources associated with the Cogeneration Plant, RNMP, and wastewater treatment facility. The State Facility Air Permit establishes emission limits and/or control requirements for the following air contaminants: ammonia, carbon monoxide ("CO"), oxides of nitrogen ("NOx"), particulates, PM_{10}, sulfur dioxide ("SO_2"), sulfuric acid, and volatile organic compounds ("VOCs").

(14) PSD Permit establishing facility-wide emission limits for the following air contaminants: ammonia slip, CO, NOx, particulates, PM10, SO_2, sulfuric acid, and VOCs. Under the PSD Permit, combustion turbines,