



July 21, 2004

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Dayton Power & Light Company  
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Columbus, Ohio 43215

RE: NOTICE OF INTENT TO SUE PLANT STUART FOR VIOLATIONS  
OF THE CLEAN AIR ACT

To whom it may concern:

On behalf of the Sierra Club, and its over 700,000 members, and Marilyn Wall, we are writing to provide you with notice that we intend to file a federal Clean Air Act citizen suit against the owners and operators of the DP&L J.M. Stuart Generating Station ("Stuart Station") located on U.S. Highway 52 near Aberdeen in Adams County, Ohio. Stuart Station sits on the banks of the Ohio River directly across from Kentucky and approximately 50 miles east of Cincinnati. Stuart Station has repeated violations of the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, which are described below. These violations injure, and will continue to injure the health, aesthetic, and economic interests of the Sierra Club, its members and Ms. Wall. The injuries are traceable to the violations and redressing the violations will redress the injuries. This notice is being provided pursuant to 42 U.S.C. § 7604(b).

## I. STUART STATION

Stuart Station is a very large fossil fuel fired electric steam generating plant. It consists of 4 main units which are old fashioned, pulverized coal fired boilers, B001, B002, B003, B004, that reportedly have a heat input of 5,649 MMBtu/hr.

Stuart Station is a very large source of air pollution. According to the Ohio Environmental Protection Agency (Ohio EPA), Stuart Station is the largest source of particulate matter (PM) pollution in the State of Ohio. PM has a variety of adverse health effects including premature death, heart attacks, strokes, birth defects and asthma attacks. According to a recent study, the pollution from Stuart Station is responsible for 296 deaths **per year**. See <http://cta.policy.net/dirtypower/map.html>. This is consistent with the fact that the fine particulate monitor nearest Stuart Station is consistently above the National Ambient Air Quality Standard for fine particulate matter and at times records levels of fine particulate matter in the air that are **twice** the level that the currently available best science says is safe for us to breathe.

Furthermore, a certain percentage of the particulate matter emitted from Stuart Station is heavy metals including mercury. Particulate mercury is especially important because of its ability to deposit onto land and waterways. By mechanisms including adsorption into cloud droplets or precipitation "scrubbing," particulate mercury can be added to sensitive waterways when it is raining or snowing. Even when it is dry, it is believed that these species may also be able to "dry deposit" onto plants, land or other structures. While considerable uncertainty persists, it is generally believed that emissions of particulate mercury are more capable of having local or regional scale impacts on deposition of mercury to land and water. This is of particular concern for Stuart Station which sits on the banks of the Ohio River.

Similarly Stuart Station is a very large source of sulfur dioxide emissions. For decades it has been generally accepted that pollution of the air by sulfur dioxide "is a medically recognized threat to human health. This is particularly true as to infants, the ill and the aged. . . . [T]here is now no doubt that high levels of pollution sustained for periods of days can kill. . . . [S]ulfur dioxide emitted from plant stacks reacts with other elements in the atmosphere to form sulfuric acid mist and various suspended sulfates which are in fact the irritants which adversely affect human health. . . . [T]hese derivatives from sulfur dioxide tend to be airborne for days. They affect areas at great distances downwind, even when in the original sulfur dioxide form they were emitted from a high power plant stack" Ohio Power Co. v. US EPA, 729 F.2d 1096, 1097, 1098 (6th Cir. 1984).

According to the recent study, "Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States - 2002," DPL Inc is one of the dirtiest power companies in the country. For example, in 2002 out of the 100 largest power producers in the nation, DPL Inc was the sixth worst in terms of sulfur dioxide emissions per megawatt of energy produced. In terms of nitrogen oxides, DPL Inc was the seventh worst.

Stuart Station, which is operated by DPL Inc's subsidiary, DP&L, has a long history of environmental violations. For example, as far back as 1979, the Portsmouth Local Air Agency (LAA) noted that Stuart Station's stacks were out of compliance with the opacity limit most of the time that their inspectors observe them. Again in 1980, the inspectors noted that emissions were over the opacity limit "most of the time." In 1981, Facility Inspectors noted that opacity levels were on the high side, "as usual." In 1982, Plant Stuart regularly exceeded its 20% opacity and some times exhibited 100% opacity for hours at a time. That year, the local air pollution control agency, the Portsmouth Local Air Agency, was confronting the Stuart Station employees about failure to report information to the Agency as required by regulation. People living near Plant Stuart have also complained about Stuart Station repeatedly spewing so much soot that it would coat the ground like black snow. Unfortunately the local air agency's response was to simply give Stuart Station a "courtesy notice." In May of 1983, Unit 4 was out of compliance with its opacity limit 75% of the time.

In 1993, Plant Stuart entered into a consent order with the United States Environmental Protection Agency (US EPA) to resolve violations of the opacity limit at all four units at Plant Stuart. (EPA-5-93-AE-3). However, the consent order did not appear to resolve much of anything. EPA Region 5 Air Enforcement sent a letter to Stuart on November 9, 1995 AE-17J. Dave Schultz of EPA Region 5 asked Portsmouth LAA for enforcement action for opacity violations in 3rd and 4th quarter 1995 and 1st quarter 1996 for Unit 1. Portsmouth LAA's Don Walden did not think enforcement was necessary based on Ohio's enforcement policy. In May 28, 1997, Unit 1 experienced extended period of elevated opacity levels. This included at least 52 hours of opacity violations. On February 25, 1999, Stuart Station failed its particulate matter stack test. However, DP&L got off with a minimal fine.

Stuart Station has also had reporting violations. For example, Stuart Station's Title V permit, Part 1, A.1.(c)iii requires semi-annual reports to be submitted by January 31 and July 31 of each year. However, Stuart Station did not submit its 1st half, 2001 Semi-annual report until October 26, 2001.

In 1999, US EPA sent Plant Stuart a request for information pursuant to Clean Air Act § 114(a), 42 U.S.C. § 7414(a) to determine Plant Stuart's compliance with the Ohio SIP, NSR and NSPS. US EPA then issued a notice of violation to Plant Stuart on June 30, 2000. However, US EPA has taken no further action on this notice of violation that has languished for over four years.

## II. VIOLATIONS

### A. PSD MAJOR MODIFICATIONS

The Clean Air Act's New Source Review Prevention of Significant Deterioration (PSD) program requires that major sources of air pollution obtain a PSD permit and install and operate Best Achievable Control Technology (BACT), among other requirements, when a person constructs or modifies a major source of air pollution. The Ohio State Implementation Plan (SIP) has a similar requirement. The Ohio SIP also prohibits the operation of any air contamination source in violation of any applicable law. See OAC 3745-35-03(A).

As various times since June 1, 1975, DP&L, Cinergy, and Columbus Southern Power Company and/or their predecessors or subsidiaries have modified Stuart Station and DP&L has operated Stuart Station without obtaining Prevention of Significant Deterioration (PSD) permits and without the installation of Best Available Control Technology (BACT) and compliance with a BACT emission limit in violation of the Clean Air Act's PSD provisions and the Ohio SIP. These modifications consist of physical changes and changes in the method of operation, each of which has resulted in a significant net emissions increase in particulate matter (PM) and PM10, sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions. Failure to install BACT and meet BACT emission limits has resulted in excess emissions of thousands of tons of SO<sub>2</sub>, NO<sub>x</sub> and/or PM and PM10 which will continue unless these violations are corrected.

These modifications, as that term is defined in 40 CFR § 52.21(b)(1999) include, but are not limited to, replacement of pulverizers, replacement of economizers, replacement of secondary superheaters, and replacement of the water wall panels (tubes). Further modifications include, but are not limited to:

#### MULTIPLE UNITS OR NEW EMISSION SOURCES

- 1) Added a Wahlco SO<sub>3</sub> flue gas conditioning system.
- 2) In the mid-1990s, added ammonia injection for flue gas conditioning.
- 3) Installed a new coal handling system around the late 1970s or early 1980s.
- 4) Installed new Low NO<sub>x</sub> Cell burners and Selective Catalytic Reduction (SCR)
- 5) Installed new dense pack turbine rotors starting in 2001.

#### Unit B001

- 6) Turbine was overhauled in fall of 1980.
- 7) Replaced #6 heater, 1A3 and 1B3 heaters. All dump valves were reconditioned.  
Replaced A-air heater baskets.
- 8) 1997 replaced economizer.
- 9) Replaced pendant reheat tubes

Unit B002

- 10) Replaced redesigned horizontal reheater.
- 11) Totally overhauled turbine.

Unit B003

- 12) Replaced secondary superheater inlet sections.
- 13) Replaced economizer.

Unit B004

- 14) Modified thermal treatment mechanics.
- 15) Installed new furnace hopper floor and complete replacement of secondary superheater outlet bank and header.
- 16) Replaced boiler tubes in Spring, 1989, Fall 1991 and Spring 1993.
- 17) Removed of gas recirculation.
- 18) Replaced secondary superheater inlet section.
- 19) Completely overhauled unit during the Spring of 1981.

The modifications resulted in a "significant net emission increase" in particulate matter, PM10, and/or Nitrogen Oxides emissions, and/or Sulfur Dioxide emissions as defined in the version of 40 CFR § 52.21(b)(3) and (23) that was in effect at the relevant time. The modifications at Stuart Station did not constitute "routine maintenance, repair or replacement" or qualify for any of the other exemptions under 40 CFR 52.21(b) and therefore were not exempt from PSD requirements pursuant to the version of 40 CFR § 52.21(b) that was in effect at the relevant time. Each of the modifications that constituted a replacement of a boiler component involved a component with a long useful life. Each modification was performed to increase capacity, regain lost capacity, and/or extend the useful life of Stuart Station. None of the modifications at Stuart Station qualify for the demand growth exclusion because the emissions increases which occurred after each modification resulted from the modification. No one provided US EPA with any information regarding actual emissions after the modifications in any effort to claim that there was no significant net increase in emissions or with information required to claim that the physical change should qualify as a "pollution control project." DP&L, Cinergy, and Columbus Southern Power Company and/or their predecessors or subsidiaries violated and continue to violate 40 CFR 52.21 and the Ohio SIP by constructing and operating major modifications at the Stuart Station without first obtaining a PSD and Ohio permits. Each of violations has continued from the start of the construction of the modification and will continue until DP&L obtains the appropriate PSD and Ohio permits and comes into compliance with its BACT emission limits.

B. NSPS VIOLATIONS

1. DP&L IS OPERATING THE BOILERS IN VIOLATION OF THE EMISSION LIMITS FOR SO<sub>2</sub> AND PM IN NSPS SUBPART Da

In addition to being in violation of the PSD program of the Clean Air Act, DP&L is in violation of the emission limits under the New Source Performance Standards (NSPS) for power plants. Two such NSPS are relevant, NSPS Subpart D found at 40 CFR 60.40 - 60.46 and NSPS Subpart Da, found at 40 CFR 60.40a - 60.49a. Subpart D is applicable to affected facilities for which construction is commenced or a modification occurs after August 17, 1971 but before September 18, 1978. Subpart Da is applicable to affected facilities for which construction is commenced or a modification occurs after September 18, 1978.

Boilers 001, 002 and 003 at Stuart Station were modified as that term is defined under the NSPS after September 18, 1978. The modifications are those listed in Section II.A, above. The modifications resulted in an increase in the emission rates of PM, PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Therefore, DP&L has operated Boilers 001, 002 and 003 in violation of the SO<sub>2</sub> emission limit of a 90% reduction required by 40 CFR 60.43a for every day that those Boilers has operated, excluding periods of startup, shutdown or malfunction, during the five year period previous to the date of this letter and will continue to operate in violation of this standard unless enjoined. Each day is a new violation because each day has a new 30 day rolling average. Moreover, DP&L has operated and continues to operate Boilers 001, 002 and 003 in violation of the 0.03 lbs/MMbtu particulate matter limit in 40 CFR 60.42a(a)(1) during the five year period previous to the date of this letter and will continue to operate in violation of the particulate matter limit unless enjoined.

As to Boiler 004, as explained below in Section II.B.2, Boiler 004 is subjected to Subpart D because it "commenced construction" after August 17, 1971 but before September 18, 1978. However, in the alternative, if NSPS D is not applicable to Boiler 004, then DP&L has operated Boiler 004 in violation of the SO<sub>2</sub> and PM emission limits as described for Boilers 001, 002, and 003 and will continue to do so unless enjoined.

2. DP&L IS OPERATING BOILER 004 IN VIOLATION OF THE EMISSION LIMITS IN NSPS SUBPART D FOR SO<sub>2</sub> AND PM

Boiler 004 had "construction commenced" on it, as that term is defined in the NSPS provisions, after August 17, 1971 and before September 18, 1978. On August 17, 1971, no one had undertaken a continuous program of construction of Boiler 004 and no one has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction of Boiler 004 and that would impose significant liability on the owners for cancellation or delay.

Therefore, DP&L has operated Boiler 004 in violation of the 1.2 lbs/million Btu

emission limit for SO<sub>2</sub> contained in Subpart D, 40 CFR 60.43(a)(2) for every three hour period that B004 has operated in the five years preceding the date of this notice letter and will continue to operate in violation of this sulfur dioxide limit unless enjoined. The three hour averaging time is contained in 40 CFR 60.45(g)(2)(i). However, in the alternative, if it is determined that a thirty day rolling average is the appropriate averaging time, then DP&L has operated B004 in violation of the 1.2 lbs/million Btu emission limit for every day B004 has operated in the five years preceding the date of this notice letter and will continue to operate in violation of this sulfur dioxide limit unless enjoined. Solely for the sake of an example to put this into perspective, these violations resulted in over 5,000 tons of sulfur dioxide being emitted in the year 2002 alone.

### C. OPACITY VIOLATIONS

Condition Part III. of Stuart Station's Title V operating permit limits the opacity from Stuart Station's coal fired units to 20% except under certain circumstances described in OAC 3745-17-07. See e.g. Condition Part III.A.I.1. This 20% opacity limit is also a requirement of the Ohio SIP. See 59 FR 27464. It is also a requirement of EPA's Consent Order EPA-5-93-AE-3, Para. 9.

Stuart Stations' coal fired boilers, B001, B002, B003 and B004 have repeatedly violated the 20% opacity limit of its Title V permit, the Ohio SIP and the EPA Consent Order. These violations are listed in Exhibit 1 as exceedances. DP&L is responsible for these violations. The violations in Exhibit 1 are the only ones that the Portsmouth Local Air Agency provided Sierra Club with in response to an Open Records request. However, upon information and belief, DP&L has additional violations of the opacity limit at Stuart Station in the past 5 years. In addition, DP&L will continue to repeatedly violate Stuart Station's opacity limit unless enjoined by a court.

Furthermore, upon information and belief, the opacity violations in Exhibit 1 which are herein incorporated by reference which are indicated as occurring during startup, shutdown, or malfunction did not have satisfactory reporting, which is also an additional independent violation of Condition Part 1, A.1.(c)iii and III.A.IV.1 of Stuart Station's Title V permit, the violations occurred when the inlet temperature to the ESP was above 250 degrees F, the equipment was not properly operated and maintained prior to breakdown, shutdown of the source or operation during the period of maintenance or breakdown was or has become practicable, the breakdown period was unreasonable, the shutdown or breakdown was or has become avoidable, and the emissions endangered or tended to endanger the health or safety of the public. Furthermore, there are numerous violations of Condition Part 1.A.1.(c)(ii) because none of the violations in Exhibit 1 were reported as violations in any of the reports submitted pursuant to Condition Part 1.A.1(c)(ii).

Please note that all of the conditions mentioned above are affirmative defenses for which DP&L would bear the burden of proving. The Sierra Club has no obligation to

provide notice of the lack of affirmative defenses and simply is noting these conditions as a courtesy.

#### D. FALSE REPORTING

In its 2001 & 2002 Title V Compliance Certification, DP&L claimed that it had no violations of its opacity limit. However, there were numerous violations of the opacity limit. See Exhibit 1. Thus, DP&L provided false information on its annual Title V Compliance Certification. In the alternative, DP&L at least should have reported the results of COMS data in Section Part IV.K (Any other material information) of its Title V Compliance Certifications.

#### III. CONCLUSION

In keeping with the requirements of federal regulations, you are hereby notified that the full name and address of the persons giving the notice is, the Sierra Club, Attention Sanjay Narayan, 85 Second Street, Second Floor, San Francisco, CA 94105, (415) 977-5769 and Marilyn Wall, 515 Wyoming Ave, Cincinnati, Ohio 45215. However, if you wish to discuss this matter, please contact the undersigned counsel at (614) 853-2518.

The parties to this matter and their counsel have a policy of trying to resolve these matters without the need for litigation. Therefore, we look forward to you contacting us to resolve this matter. However, if we do not hear from you in 60 days, we will be forced to assume that you are not interested in resolving this matter and will file a complaint. We will seek injunctive and declaratory relief as well as civil penalties, a supplemental environmental project, costs of litigation and other appropriate relief.

Sincerely,

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