

December 3, 2001

Via U.S. Mail and Facsimile

Ms. Vivian Aucoin  
Office of Environmental Assessment  
Environmental Planning Division  
Post Office Box 82178  
Baton Rouge, Louisiana 70884-2178

RE: Comments on Behalf of the Louisiana Environmental Action Network and Ms. Albertha Hasten on the Louisiana Department of Environmental Qualities Proposed State Implementation Plan Revision for Baton Rouge No. 0110Pot2

Dear Ms. Aucoin:

Please consider the following comments on the Proposed Revisions to the State Implementation Plan ("the Plan") for Baton Rouge No. 0110Pot2, submitted on behalf of the Louisiana Environmental Action Network ("LEAN") and Ms. Albertha Hasten. LEAN is an incorporated, non-profit community organization that serves as an umbrella organization for environmental and citizen groups. LEAN was organized for the express purpose of preserving and protecting the state's land, air, water, and other natural resources, as well as protecting the organization's members and other residents of Louisiana from threats of pollution. LEAN members breathe air in and around the Baton Rouge area and are injured by the State's failure to attain national health-based standards. Ms. Albertha Hasten is a LEAN member and a resident of the Baton Rouge non-attainment area.

## **INTRODUCTION**

LDEQ has proposed the wrong plan for addressing the ozone problems in the Baton Rouge area. This Plan is submitted in response to an unauthorized policy that EPA is seeking to implement in lieu of the health protection standards provided by the Clean Air Act. Because the Baton Rouge area did not reach its federal ozone reduction goal by November 15, 1999, the Clean Air Act requires that more stringent health protection standards be incorporated into Louisiana's state implementation plan because the area is now deemed in "severe" nonattainment for ozone pollution.

This Plan is deficient because it fails to incorporate necessary health protection measures required by the Act, including a lower threshold for stationary source emission controls and greater emission reduction offsets for new emissions.

The Plan must be rejected because it calls for an extension for which Louisiana is not entitled under Section 181(a)(5) of the Clean Air Act.

In addition, the plan must be rejected because the extension requested in this Plan in response to EPA's unpromulgated 1998 Extension Policy cannot be granted. LDEQ must meet

two requirements to qualify for an attainment extension under the policy: (1) an approvable demonstration that the area is affected by transport; and (2) a revised Plan with an approvable attainment demonstration including all local control measures.<sup>1</sup> However, Louisiana has failed to meet the two requirements. In the Plan LDEQ has not provided an approvable attainment demonstration that the area is affected by transport as required by that EPA policy.

By relying on a policy that provides for attainment extensions that are not authorized by the Clean Air Act, LDEQ will increase the time that Baton Rouge area residents must wait for cleaner air. In addition, reliance on such a questionable agency approach is more than likely to produce challenges that could tie up the process and monopolize LDEQ's scarce resources needed to develop a plan that addresses the ozone problem as required by Congress.

Further, the Plan must be rejected because it does not include adequate support for its reliance on a NOx control strategy for reducing ozone and is therefore in violation of Section 7511a(c) of the Clean Air Act. In addition, other inconsistencies and flaws in the Plan make its efficacy questionable.

Accordingly, we request that LDEQ reject the Plan as written. LEAN and Ms. Hasten reserve the right to incorporate other comments submitted on this matter.

**I. LDEQ HAS SUBMITTED THE WRONG PLAN BECAUSE IT IS BASED UPON THE FICTION THAT THE BATON ROUGE AREA IS IN ONLY IN SERIOUS, NOT SEVERE NONATTAINMENT.**

There is only one reason that Louisiana is not currently required to submit a state implementation plan that incorporates more stringent health protection standards than are included in this Plan. That is because EPA has failed to do its discretionary duty under the Clean Air Act to make a determination of whether the Baton Rouge area reached its ozone attainment goals by November 15, 1999. A determination of nonattainment by EPA would result in a reclassification of the area by operation of law, from "serious" to "severe."<sup>2</sup> This determination is required by law and should have been carried out by EPA.<sup>3</sup>

Because the Baton Rouge area failed to reach attainment by November 15, 1999, it is deemed a "severe" area. Section 182(d) of the Clean Air Act outlines the necessary revisions the State must submit to provide more aggressive ozone control measures. This Revised Plan is deficient because it does not include these measures and must be rejected.

**II. IT IS UNWISE FOR LDEQ TO DELAY THE IMPLEMENTATION OF HEALTH SAFETY STANDARDS BY ASKING FOR AN OZONE ATTAINMENT EXTENSION THAT THE CLEAN AIR ACT DOES NOT ALLOW.**

**A. Louisiana does not qualify for an attainment extension under the Clean Air Act.**

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<sup>1</sup> EPA Notice of "Extension of Attainment Dates for Downwind Transport Areas", March 25, 1999, introductory summary.

<sup>2</sup> 42 U.S.C. § 7511(b)(2).

<sup>3</sup> Id.

Congress delegated to EPA, in Section 181(a)(5) of the Clean Air Act, only one narrow provision to grant a State an extension to its ozone attainment deadline.<sup>4</sup> Two requirements must be met for the State to qualify for this extension: the State must have fully complied with its State Implementation Plan, and no air quality monitor in the area may record more than one exceedance of the federal ozone standard in the year preceding the extension.<sup>5</sup>

Even assuming that a State could meet this stringent standard, the U.S. Supreme Court has held that under § 181(a)(5) of the Act the EPA “may grant no more than 2 years’ extension” of the ozone attainment dates, stating that these deadlines are “carefully designed restrictions on EPA discretion.”<sup>6</sup> Furthermore, the Court went on, EPA “may not construe the statute in a way that completely nullifies textually applicable provisions meant to *limit* its discretion.”<sup>7</sup>

Because an ozone monitor recorded more than one exceedance in 1999, the Baton Rouge area failed to qualify for an extension of its 1999 deadline. Further, the State did not request an extension timely and therefore is not eligible to be granted one. By submitting this Plan, which calls for an extension until at least 2005, LDEQ is knowingly proposing a flawed Plan that does not meet the requirements of the Act.

**B. Louisiana should not rely on an extension under an “ozone transport policy” that is unauthorized and unnecessary because Congress has already addressed the problem of ozone transport in the Act.**

Congress clearly foresaw the problem of ozone transport and created a comprehensive ozone transport policy in the Act. One powerful way Congress chose to solve the problem of interstate ozone transport was by preventing upwind emissions that would affect downwind areas. Congress required each state to develop a plan containing provisions “prohibiting ... any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will contribute significantly to nonattainment or interfere with maintenance by, any other state with respect to any such national primary or secondary ambient air quality standard.”<sup>8</sup> EPA, which approves each state’s plan, has ultimate authority to determine whether a state plan adequately protects downwind states from an upwind state’s pollution.<sup>9</sup> Thus, EPA had a duty to disapprove any upwind state’s plan that contributed significantly to a downwind state’s inability to meet attainment.

Should EPA fail to act, another section of the Clean Air Act, entitled “Interstate pollution abatement” specifically provides a remedy for downwind states affected by another state’s pollution.<sup>10</sup> Section 126 requires upwind state plans to identify all major existing and proposed new stationary sources which may “significantly contribute to levels of air pollution in excess of the national ambient air quality standards in any quality control region outside the state.”<sup>11</sup> Affected downwind states may petition EPA for a finding that a major source or group of

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<sup>4</sup> 42 U.S.C. § 7511.

<sup>5</sup> 2005 Attainment Plan and Transport Demonstration, (2001), 1-2.

<sup>6</sup> Whitman v. American Trucking Associations, 531 U.S. 457, 121 S.Ct. 903, 918 (2001) (emphasis added).

<sup>7</sup> Id. at 918-19 (emphasis added).

<sup>8</sup> 42 U.S.C. § 7410(a)(2)(D)(i)(I), CAA § 110(a)(2)(D)(i)(I).

<sup>9</sup> 42 U.S.C. § 7410(k); CAA § 110(k).

<sup>10</sup> 42 U.S.C. § 7426; CAA § 126.

<sup>11</sup> 42 U.S.C. § 7426.

sources, **in another state**, emits air pollution in amounts which significantly contribute to nonattainment.<sup>12</sup> Louisiana never petitioned EPA for a finding that sources in Texas significantly contributed to ozone problems in Baton Rouge.

Furthermore, legislative history reveals that Congress squarely considered and rejected extensions due to interstate ozone transport. On two occasions, Congress considered and rejected amendments to the Clean Air Act to provide attainment extensions due to interstate ozone transport. Senator Kasten offered an amendment to the 1989 Clean Air bill specifically addressing this issue, but Congress chose not to include this measure in the Act. Specifically, Senator Kasten proposed a new Section 183(f) that would have provided for extensions based on ozone transport. The amendment was **not** enacted.<sup>13</sup>

Because Louisiana does not qualify for an ozone attainment extension, this Plan must be rejected. Furthermore, LDEQ's reliance on such a clearly unauthorized policy is unwise, and represents a failure to fulfill its duty under the Constitution as a public trustee because it delays the implementation of ozone control mechanisms that the Clean Air Act provided to protect the health of citizens living in nonattainment areas.

### **III. THE STATE HAS NOT DEMONSTRATED THAT THE BATON ROUGE AREA IS AFFECTED BY TRANSPORT FROM THE HOUSTON-GALVESTON AREA AND ACCORDINGLY SHOULD NOT BE GRANTED AN EXTENSION TO COME INTO ATTAINMENT UNDER EPA'S 1998 TRANSPORT POLICY.**

#### **A. CART does not demonstrate that there is a significant problem with ozone transport.**

In determining what the expected exceedence value was for the Baton Rouge area LDEQ employed the CART technique (Classification and Regression Tree Analysis). CART is used to determine the expected exceedence value ("ExEx value"), which is then used to determine if an area passes the statistical test in the Guidance for EPA. The CART technique is used to group days with similar meteorological conditions, putting days into categories or bins.

The CART technique, as applied to the Baton Rouge area, does not demonstrate that there is a significant problem with ozone transport. Analysis of the CART data shows that of the 28 ozone exceedence days analyzed in the 5-year period, from 1995-2000, only 7% of them had high level westerly winds, which produce the potential for transport from Houston to the Baton Rouge nonattainment area. Since 7% of 28 is two, this means that only two days out of the 1780 days in the five year study have the potential for transport. Neither of these two days were investigated with computer modeling. Thus, even if these days had a potential for transport there is no demonstration or evidence that ozone transport occurred Houston to Baton Rouge.

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<sup>12</sup> 42 U.S.C. § 7426(b); CAA § 126(b); Appalachian Power Co. v. EPA, 2001 WL 505332 at \*3 (D.C. Cir. May 15, 2001).

<sup>13</sup> 136 Cong. Rec. S399-02, at 14 (1990). On August 3, 1994, Senator Levin sought a similar amendment that Congress also rejected. 140 Cong. Rec. S10538-05 (August 3, 1994).

**B. Modeling used by the State (based on August 19, 1993) does not demonstrate that the Baton Rouge area is suffering from ozone transport.**

Under the CART technique one ExEx value is calculated for each day and if the number is below two then the meteorological potential for ozone formation exists. The study employed by the State used nine years of data. The results of this study determined that the meteorological pattern for ozone formation occurred nineteen times but that only one of these days purportedly produced an exceedence. The one exceedence is the August 19, 1993 date.

The August 19, 1993 date, used by LDEQ to show transport, does not in fact demonstrate that there was an actual transport problem. There was no actual ozone exceedence problem on that day. Further, the meteorological conditions for that day were rare and did not have the propensity to lead to ozone transport.

**C. The "gulf high" conditions associated with transport do not demonstrate that the Baton Rouge area is suffering from transport from the Houston-Galveston area.**

Data from the Louisiana Office of State Climatology at Louisiana State University compiles information twice daily on which of eleven large-scale weather categories impacts the weather conditions Baton Rouge. This information shows that 10-30% of all ozone exceedence days in the five years of data studied were associated with a "gulf high" weather system. Some gulf high conditions could potentially funnel air from Houston to Baton Rouge when the gulf high is stationary and located between Houston and Baton Rouge.

However, gulf highs can also be located west of Houston, which would have no impact on Baton Rouge, or east of Baton Rouge, which would bring high-level winds from the south or the east. Since the twice daily climatology data states only that a gulf high existed but doesn't give its location, a "gulf high" condition, accordingly, could be bringing winds from Florida as easily as from the Houston-Galveston area. Additionally, there were two "gulf high" conditions included in the modeled ozone episodes. The modeled gulf highs were on 29-30 August 1997 and 1-2 August 1999. Neither of these gulf high episodes showed transport from Houston to Baton Rouge nor produced an ozone exceedence in Baton Rouge. Both of these gulf high incidents preceded ozone exceedences in Baton Rouge, but the computer modeling shows that neither ozone exceedence involved transport from Houston.

Data from the Louisiana State University monitor shows that 10-30% of all ozone exceedence days in the five years of data used were associated with a "gulf high" weather system that could potentially funnel air from Houston. However, this wind condition can also bring high-level winds from the south or the east. The "gulf high" condition, accordingly, could be transporting ozone from Florida as easily as the Houston-Galveston area.

**D. Even subtracting the State's estimate that between 2 and 6 parts per billion (ppb) of ozone is being transported from Houston, the Baton Rouge area is still in nonattainment and therefore not sufficiently "affected by transport" to qualify for an extension.**

The official design value is used to determine whether an area is in attainment for ozone. The official design value is determined by taking the 4th highest ozone value occurring the past three years from each individual monitor. The highest value based on those numbers becomes the official design value once the number is certified and entered into the AIRS database. In order to be in attainment for ozone the design value must be at or below 124 ppb. The official design value is used to determine whether an area is in attainment for ozone. The official design value is determined by taking the 4th highest value from each individual monitor. The highest value based on those numbers becomes the official design value once the number has been certified and entered into the AIRS database. In order to be in attainment for ozone the design value must be at or below 124 ppb.

The Baton Rouge area's failure to come into attainment cannot simply be blamed on alleged ozone transport from southeast Texas. The States modeling results show the contribution to daily maximum ozone concentrations in the Baton Rouge area from Houston-Galveston ranges from two to six ppb. The State incorrectly argues that if you take into account the transport from Houston-Galveston the Baton Rouge area is actually in attainment. Based on the official design value the Baton Rouge Area remains out of attainment. In fact, in the year 2000 the official design value statistics show that the Baton Rouge area was at least 5-9 ppb over attainment. 1999 was the closest Baton Rouge has come to being in attainment, and even then, it was only actually in attainment if a deduction was made for the alleged contribution of ozone to the area which we maintain has not been demonstrated.

<b>*Table 1: TRANSPORT EFFECTS** ON ACHIEVING OZONE ATTAINMENT IN BATON ROUGE AREA</b>					
<b>Year</b>	<b>Official Design Value</b>	<b>Effects of Transport by ppb from Houston</b>	<b>Ppb value without affects of transport</b>	<b>Ppb value required for ozone attainment</b>	<b>Ppb value away from achieving attainment without affects of transport</b>
1990	168	2-6	162-166	124	38-42
1991	168	2-6	162-166	124	38-42
1992	149	2-6	143-147	124	19-23
1993	132	2-6	126-130	124	2-6
1994	135	2-6	129-133	124	5-9
1995	139	2-6	133-137	124	9-13
1996	134	2-6	128-132	124	4-8
1997	139	2-6	133-137	124	9-13
1998	133	2-6	127-131	124	7-13
1999	126	2-6	120-124	124	-0-

\* This table is based on data contained in a power point demonstration by Bob Hannah, [position at LDEQ], located on the LDEQ website.

\*\* This estimated amount of transport presumes that transport from the Houston-Galveston area to the Baton Rouge area actually occurs. See infra.

2000***	135	2-6	129-133	124	5-9
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Based on the State's official design values for the years 1990-2000, accounting for the alleged two to six ppb contribution of ozone as the result of transport, Louisiana is not "within only a few ppb of attainment" as LDEQ claims.<sup>14</sup> Because the model does not adequately demonstrate that the Baton Rouge area will be in attainment when the affect of purported transport is taken into account, the State is not entitled to an extension under EPA's ozone transport policy. This is particularly true when considering that by "affected by transport," EPA means an area whose air quality is affected by transport from an upwind area to a degree that affects the area's ability to attain".<sup>15</sup> The numbers demonstrate that Baton Rouge is out of attainment regardless of whether they can prove they are suffering from transport from Houston. The proposed Plan should be rejected because there has been no demonstration by the State that they have met the requisite criteria.

#### **IV. THE PLAN PROPOSED BY LDEQ IS TAINTED WITH PROBLEMS AND SHOULD NOT BE SUBMITTED TO EPA FOR APPROVAL.**

##### **A. The State used an insufficient amount of data in determining the exceedence value, which leads to uncertainty about the reliability of the conclusions reached based on this data.**

The analytical approach used by LDEQ in developing the Plan is both internally inconsistent and does not comport with relevant EPA's Guidance.<sup>16</sup> In deciding how many years to analyze in determining the ranking system used to calculate expected ozone exceedences. LDEQ chooses to rely on only five years of data.

Five years of data represents half of what LDEQ used in the previous Plan and one-fourth of the twenty years the Guidance recommends when determining the ExEx value. Limiting the years available for study provides an incomplete picture of whether or not the Baton Rouge area is suffering from transport.

##### **B. The inconsistency in LDEQ's approach to ozone reduction calls into question the integrity of the proposed plan and its focus on NOx reduction**

LDEQ chooses a primarily NOx reduction strategy for reducing ozone levels but should the Plan fail to make reasonable further progress, LDEQ switches tracks and advocates a primarily VOC reduction approach as the contingency measure.<sup>17</sup> The State claims that NOx reduction is more effective in reducing ozone than VOC reductions.<sup>18</sup> In addition, LDEQ itself

\*\*\* Does not include the Grosse Tette monitor because it was taken off-line. But the numbers at Grosse Tette would have increased the official design value.

<sup>14</sup> 2005 Attainment Plan and Transport Demonstration, 4-2.

<sup>15</sup> EPA Notice of "Extension of Attainment Dates for Downwind Transport Areas", March 25, 1999, introductory summary.

<sup>16</sup> [Guidance]

<sup>17</sup> 2005 Attainment Plan and Transport Demonstration, 1-7, 6-2.

<sup>18</sup> Id. at 1-7.

says “that combined NOx and VOC controls produce[d] benefits only marginally beyond NOx controls alone”.<sup>19</sup> However, in the State’s Demonstration and Post-1996 ROP Plan, LDEQ relied on a VOC only reduction strategy and then relied on a combination VOC/NOx emissions reduction strategy to demonstrate attainment of the health protection standards for ozone.<sup>20</sup> These contradictory approaches to achieving ozone reduction undermine public confidence in the efficacy of the Plan and call into question the underlying reasons behind LDEQ’s choice of a NOx approach.

In reality, requiring industry to reduce NOx is not as effective as requiring VOC reductions. VOCs are the primary precursors to ozone and the major component of smog.<sup>21</sup> However, NOx reductions are the primary focus because it is a cheaper alternative to VOC reductions. The State should reject this Plan because inconsistencies in its approach to ozone reduction reveal a lack of integrity in the plan.

**C. By relying on an improper model for determining the percentage of VOCs that come from biogenics in the Baton Rouge area, the State has chosen the wrong control strategy for ozone reduction.**

The Biogenic Emission Inventory System Model, called the BEIS2, which the State uses to assess the emissions in the nonattainment area from biogenic sources (i.e. trees and shrubs) is flawed because it overcounts the contribution of natural sources to VOC emissions. According to the BEIS2 model, industry and other human activity of VOC emissions would make up only 30% of total VOC emissions. However, because the model has been criticized for overestimating biogenic contribution, the actual contribution from industry and other human activity is higher. “It has been suggested by some observers that OTAG BEIS2 isoprene emission estimates . . . may be over stated.”<sup>22</sup> Not only does the BEIS2 model have an “overprediction tendency in the South,” the developer of the original BEIS2 model, Dr. Gunther has also stated that the BEIS2 model should not be used in the Baton Rouge area.<sup>23</sup>

The inflated results of this model were included in the Plan’s emissions inventory that was used to develop the Plan’s Final Control Strategy, through a series of modeling runs on which LDEQ based its decision to employ a primarily NOx control strategy, instead of the VOC control strategy employed in the mid –1990’s.<sup>24</sup> Allowing NOx instead of VOC reductions as the primary tool to achieving attainment, based on a modeling system, which has been found to be inappropriate for the Baton Rouge area, severely compromises the intent of the Clean Air Act. The Baton Rouge area should follow the lead of other cities such as Los Angeles, Atlanta, and Birmingham by using alternative biogenic emissions calculations separate from those advocated by EPA. The State should reject his Plan because it fails to use reliable methods in determining the percentage of VOCs that come from biogenics in the Baton Rouge area.

## CONCLUSION

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<sup>19</sup> Id. at 1-7.

<sup>20</sup> Id. at 6-2.

<sup>22</sup> <http://capita.wustl.edu/OTAG/Reports/morris/EXECSUM.html#MeasuredVersusBEIS>

<sup>23</sup> Id.

<sup>24</sup> 2005 Attainment Plan and Transport Demonstration, 1-7.

Ms. Vivian Aucoin  
Office of Environmental Assessment, Environmental Planning Division  
November 26, 2001  
Page 9 of 9

For the aforementioned reasons the State must reject this Plan and devise a new one that is in keeping with **all** the requirements of the Act. We respectfully request that the State reject the Plan as written because it uses inadequate amounts of data, incorrect modeling, and an inconsistent approach to ozone reduction.

Very truly yours,

TULANE ENVIRONMENTAL LAW CLINIC

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**SUPERVISING ATTORNEY'S INTRODUCTION OF STUDENT ATTORNEY AND NOTICE OF APPROVAL OF STUDENT APPEARANCE**

Undersigned counsel respectfully introduces student attorney Samantha Klein. As the student attorney's supervising attorney, I approve of the student attorney's appearance in this matter. Written consent of the applicable client, Ms. Albertha Hasten, to an appearance by a student attorney in this matter has also been submitted.

Very truly yours,

TULANE ENVIRONMENTAL LAW CLINIC

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By: Sallie E. Davis, SBN 27428  
Supervising Attorney, Representing  
Louisiana Environmental Action Network  
and Albertha Hasten

Ms. Vivian Aucoin  
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Page 10 of 10

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