



State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

Ron Curry, Administrator
US EPA Region 6, (6-RA)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

RE: Recommendations for 2010 Sulfur Dioxide National Ambient Air Quality Standards
— (NAAQS) for Louisiana

Dear Mr. Curry:

On March 20, 2015, the United States Environmental Protection Agency (US EPA) issued "Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard." This guidance was based upon a consent decree entered into on March 2, 2015, in the US District Court of the Northern District of California by the US EPA and plaintiffs Sierra Club and Natural Resources Defense Council (Case No. 13-cv-03953). States with indicated areas were given until September 18, 2015, to submit a recommendation to US EPA.

Two areas (3 facilities) in Louisiana were identified as fitting these categories:

- 1.) Nelson Industrial Steam Company – Calcasieu Parish;
- 2.) R S Nelson Generation Plant – Calcasieu Parish; and
- 3.) Dolet Hills Power Station – De Soto Parish.

The state recommended, on September 18, 2015, that these areas be designated attainment based on the most current information at that time. By letter dated February 11, 2016, EPA disagreed with this designation recommendation and provided a detailed technical support document as evidence as to why the recommendations should be changed to something other than attainment. EPA indicated that Calcasieu Parish would be designated as unclassifiable and that DeSoto Parish (or a portion thereof) would be designated as nonattainment. Furthermore, the letter indicated that the state had until April 19, 2016 to provide your office with any additional information that the EPA should consider prior to finalizing these designations. The state appreciates this opportunity to present additional data and modeling outcomes which will show that the EPA's intended designations should be adjusted such that both areas are designated attainment.

The state offers the following information for consideration and believes that the final designation should be changed accordingly:

Intended Unclassifiable Area: Calcasieu Parish

The Westlake monitor, which is located in Calcasieu Parish, had historically monitored attainment with the new standard, even before it was established. The current design value at that monitor is 32 parts per billion (ppb). EPA resists this data, although it has been duly certified, due to monitor location. Based on this information, the state disagrees with the designation of unclassifiable. Furthermore, industry modeling indicates that the area is in attainment with the standard. EPA asserts that the area of analysis or grid was not sufficient according to its draft Technical Assistance Document (TAD); however, no receptors in the modeling presented were greater than $170.0\mu\text{g}/\text{m}^3$, which is less than the standard ($196.5\mu\text{g}/\text{m}^3$), near the edge of the grid. It is widely accepted that AerMod over predicts concentrations when used to determine a one-hour standard and provides conservative results. Furthermore, it is apparent from EPA's own TSD that SO₂ emissions from the facilities in the area of analysis have been reduced by some 20% over the three-year period of 2012-2014.¹

These factors are indicative of an area that is in attainment with the standard for the sulfur dioxide NAAQS. . EPA should hold the same for Calcasieu Parish and designate the area as attainment.

Intended Nonattainment Area: DeSoto Parish

The state initially recommended DeSoto Parish (a partial portion of the parish)² as unclassifiable due to lack of sufficient monitoring data and/or modeling results. After completing model runs using the EPA proposed Beta option of LowWind3 within the most current version of the EPA approved Aermom model, the state revised its initial recommendation from unclassifiable to attainment. EPA has stated that it intends to designate the area as nonattainment.

The state would like to provide further information that will reinstate the designation of attainment for the DeSoto Parish area. Dolet Hills Power Station owners have conducted additional air modeling for the DeSoto Parish area that included more accurate emission data and stack parameters for the coal-fired electric utility and also included the International Paper Mansfield Mill, which is located approximately 14 kilometers north of the utility. This modeling run did not use the Beta option that EPA discounted in the state's revised designation recommendation. This model was performed in accordance with EPA's draft TAD, dated February 2016 as well as the EPA Technical Support Document attached to the 120 day letter.

Specifically, more accurate information was included for three categories: stack parameters, emissions data, and effects of downwash. The data was processed on a parameter basis in which flowrate was adjusted back to actual hourly stack conditions using the temperature data for concurrent hour for which the exit velocity was being calculated. The final refined modeling

¹ See Table I: *Actual SO₂ Emissions between 2012-2014 from Facilities in the Calcasieu Parish Area of Analysis, Technical Support Document, Louisiana*

² The area bounded by the following UTM Coordinates (excluding portions of Red River Parish, Louisiana that falls within this UTM-based boundary) at NAD 83 Datum, UTM Zone 15: X ,Y coordinates respectively: 441287,3541019;441287;3562019;450500,3562019;450500,3541019.

simulations show that the highest concentrations due to all sources and the background concentration is $171.0\mu\text{g}/\text{m}^3$, which is below the 1-hour SO₂ NAAQS of $196.5\mu\text{g}/\text{m}^3$.

Further, the Dolet Hills Power Station has installed a monitor at the facility and is providing quarterly ambient air quality data to the LDEQ. Since the installation of the monitor, all data shows that the area is in attainment with the standard. See the attachments for data.

Based upon the additional information presented, the state recommends a designation of attainment for both the Calcasieu and DeSoto Parish areas. Documentation to support the LDEQ's recommendation for each parish can be found in the attached enclosures. If you have any questions, please contact Donald Trahan, Administrator of the Air Permits Division, at (225) 219-3408.

Sincerely,

A handwritten signature in black ink, appearing to read "Chuck Carr Brown". The signature is fluid and cursive, with the first name "Chuck" being the most prominent.

Chuck Carr Brown, Ph.D.
Secretary

C: Mark Hansen, Acting Associate Director of Air Programs
Guy Donaldson, Chief Air Planning Section

CCB/VHA/VH

Enclosures:
Calcasieu Parish Supporting Document
De Soto Parish Supporting Document