

WRITTEN COMMENTS - PUBLIC HEARING - MAY 14, 2012

Showa Denko Carbon, Inc.

Draft Air Permit No. 0900-0025-CZ

S.C. Department of Health and Environmental Control

PLEASE PRINT CLEARLY

NAME

Tommy Kemmerlin

MAILING ADDRESS (include P.O. Box or street, city, zip code):

738 Ridge Rd
Ridgeway, S.C. 29472

PHONE: 843-871-0830

COMMENTS MUST BE RECEIVED

BY: MAY 16, 2012

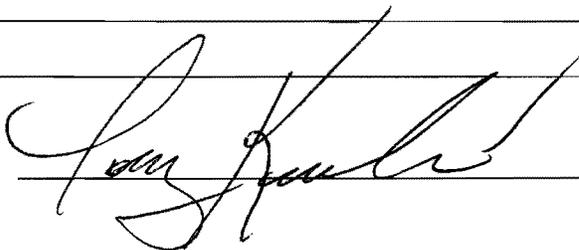
COMMENTS:

Question # 1:

Showa Denko has had some emission problems from the 430 stack in 1997 & 1998 resulting in repainting of cars in parking lot. What has been done to rectify problem? Don't we need to solve this problem before expanding, causing more emissions?

Q(2) with the state of our water table, shouldn't SDK cut back on their consumption? I.E. Pump From Lake etc

Signature:



May 25, 2012

RECEIVED

MAY 29 2012

BUREAU OF AIR QUALITY

SC DHEC
Attn: Karen Lee
2600 Bull Street
Columbia SC 29201

Re: Showa Denko Carbon, Inc.; Air Permit No. 0900-0025-CZ
Public Notice # 12-042-PSD-ECP

Dear Karen Lee,

I would like to submit my concerns about the above referenced Company's request for an air permit in order increase production in Ridgeville SC.

In 1983 when Showa Denko opened in Ridgeville, they dug numerous wells to provide themselves with the water needed to operate their company with no regard for the residents whose well's were drying up because of their actions. My concern for myself and my neighbors now is, if Showa Denko is approved this air permit and is allowed to increase their production; how much more water will they need to supply their new increased operation and who is going to be concerned about my water supply.

What will DHEC do to protect mine and my neighbor's water supply?

Sincerely,



Thomas Owens
140 Shad Lane
Ridgeville SC 29472



Lee, Karen A. <leeka@dhec.sc.gov>

AIR PERMIT NO.0900-0025-CZ

tkemmerlin@aol.com <tkemmerlin@aol.com>

Wed, May 30, 2012 at 11:43 AM

To: leeka@dhec.sc.gov, bagcorn@aol.com, Michael.Kemmerlin@us.bosch.com, kenjiesmoak@gmail.com, herbstamey@bellsouth.net, dlewis27@sc.rr.com

To: >

Subject: Air Perm it #0900-0025-CZ

Date: Tue, May29, 2012 9:16 pm

Ms. Lee,

I am writing this letter in response to the Prevention of Significant Deterioration air permit for Showa Denko Carbon, to increase production at its existing facility, located at 478 Ridge Road, Ridgeville SC.

I live at 738 Ridge Road , in very close proximity of the plant. I have several concerns that we feel MUST be addressed before this permit can be issued:

1. Showa Denko has had emission issues in the past. These incidents have caused physical damage to both people and personal property. The first occurrence, (that was brought to all existing employees attention) involved an employee at Showa Denko Carbon. She was returning from the parking lot /guard shack when her pantyhose were physically destroyed by illegal emissions. Her description was that her underwear were "practically melted, and eaten away."Employee were compensated for damage done to their vehicles by these emissions. After investigation, it was found that high levels of emissions were coming from the 430 Bldg stack. To my knowledge, nothing has been done to stop this from reoccurring.
2. What this community needs and demands is assurance and evidence that this cannot recur.
3. We, our neighborhood, demands Showa Denko Carbon be continually (continuous) monitored for these emissions, too much can transpire in a 3 year testing cycle. My major concern has to do with the increase of PM2.5 emissions.

Thank you for your consideration in decisions that concern our neighborhood, friends, agriculture business and our joint future.

Respectfully,
Tommy Kemmerlin
738 Ridge Road
Ridgeville, SC 29472
843-729-0139



Lee, Karen A. <leeka@dhec.sc.gov>

Public Notice #12-042-PSD-ECP/Air Permit No. 0900-0025-CZ

Theresa Gregory <tlgsc@yahoo.com>
Reply-To: Theresa Gregory <tlgsc@yahoo.com>
To: "leeka@dhec.sc.gov" <leeka@dhec.sc.gov>

Wed, May 30, 2012 at 2:56 PM

TO: Karen Lee
SC DHEC
Region 7 Charleston EQC Office
1362 McMillan Avenue, Suite 300
Charleston, SC 29495

From: David and Theresa Gregory
650 Haven Road
Ridgeville, SC 29472
(843)486-0523

RE: Showa Denko Carbon, Inc.
487 Ridge Road
Ridgeville, SC 29472
Dorchester County/Region 7 Charleston EQC Office
Air Permit No. 0900-0025-CZ

Dear Ms. Lee,

We are writing this letter to voice our concerns regarding the Prevention of Significant Deterioration (PSD) Air Permit for Showa Denko Carbon to increase its productivity at its existing facility located at 478 Ridge Road in Ridgeville, South Carolina. We live at 650 Haven Road, less than 2 miles from the plant. We are very concerned about the issuance of this permit. Our concerns include the following:

1. If this permit has not yet been issued, then why has Showa Denko cleared several acres of land and proceeded as if this permit has been issued and everything is already a done deal. We have serious concerns about this.
2. We can hear this plant operating from our property and on a windy day the noise is twice as loud. Does that then mean that the sulphur dioxide SO₂ that is emitted is coming our way? When they double their production who is to say that these emissions will not poison the air that we breath even further and create acid rain that will destroy our property. What about crops and livestock as well as people. Nothing has been proven that what they are emitting now is safe so what about what they will be emitting in the future if this permit is granted? Who is going to guarantee that they are playing by the rules and that

it will be safe for people to live here.

3. When Showa Denko doubles its capacity where are they going to get the water they need to survive to double that capacity? We have a well and most of the people we know that live around here have wells. Are they going to be allowed to just suck up all the ground water and leave all the people in the community that depend on the wells and ground water with nothing?
4. This community needs to be assured that Showa Denko as well as DHEC will ensure the safety of our community and that this plant will be continuously monitored for their emissions, not only is it something we need as a community it is demanded to ensure our safety and the quality of life that we have living in this community. They are in our neighborhood, we are not in theirs.

Thank you for taking the time to consider our concerns and we hope that the appropriate decisions will be made regarding our community, our agricultural concerns as well as our continued safe future.

Respectfully Submitted,

David and Theresa Gregory
650 Haven Road
Ridgeville, SC 29472
(843)486-0523



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 31, 2012

Sheila Watts, P.E.
Engineering Services Division
Bureau of Air Quality
2600 Bull Street
Columbia, South Carolina 29201-1708

Dear Ms. Watts:

Thank you for sending the revised prevention of significant deterioration (PSD) permit application for the proposed expansion of the Showa Denko Carbon facility located in Dorchester County, South Carolina. On April 20, 2012, we received the draft PSD permit. We received the Preliminary Determination on April 12, 2012, the Class I Air Quality Monitoring Protocol on March 16, 2012, and the Class II Air Quality Monitoring Report on April 10, 2012. The project is for the planned increase in the production of finished graphite electrodes from 45,000 to 85,000 metric tons per year of finished graphite electrodes. According to the draft permit, total emissions from the proposed project are above the thresholds requiring PSD review for total Particulate Matter (PM), Particulate Matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀), Particulate Matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}), nitrogen oxides (NO_x), carbon monoxide (CO), Volatile Organic Compounds (VOC), Lead, and Greenhouse Gases (GHGs).

Based on our review of the PSD draft permit, revised application, and air quality modeling reports, we have the following comments. We provide these comments to help ensure that the project meets federal Clean Air Act requirements, that the permit will provide necessary information so that the basis for the permit decision is transparent and readily accessible to the public, and that the record provides adequate support for the permit decision.

Draft Permit

1. The provisions currently included in the Permit, Condition 6.B.1, regarding Haven Road are not sufficient to exclude it from PSD modeling, consistent with the applicable requirements in the South Carolina State Implementation Plan (SIP), federal definitions, and previous determinations. Under the PSD program, a source is required to model air quality impacts on "ambient air." This term is defined in federal rules at 40 C.F.R. § 50.1(e) as "that portion of the atmosphere, external to buildings, to which the general public has access." EPA has previously explained that in order to exempt an area from being considered "ambient air," a source must own or control the property and preclude access to the property by the general public using a fence, wall, or other effective physical barrier. Memorandum from Stephen D. Page, EPA, to Regional Air Division Directors, entitled, "Interpretation of "Ambient Air" in Situations Involving Leased Land Under the Regulations for Prevention of Significant Deterioration (PSD)," dated June 22, 2007 (Page Memorandum); Letter from Administrator Douglas M. Costle, EPA, to Senator Jennings Randolph (Dec. 19, 1980). As a general matter, the "general public" includes anyone who does not require the owner's permission to

be on the property and excludes those persons considered “business invitees.” *See, e.g.*, Page Memorandum at Attachment (page 5) (explaining that “business invitees” are individuals who are expressly granted access to the facility for the business benefit of the person who controls access to the land). South Carolina’s State Law includes a definition of ambient air and other definitions regarding its PSD program which are consistent with federal rules. Notably, EPA does not consider an area within a facility to be ambient air based on “de minimis” levels of public access (*e.g.*, allowing persons without a business connection onto its land for a family or community-oriented event on rare occasions). *See id.* The analysis of whether a part of the facility constitutes “ambient air” is necessarily a case-specific one, although these general principles provide important guidelines for such an analysis.

Preliminary Determination

2. The first paragraph on page 56 of the Preliminary Determination discusses, in part, the technical feasibility of a thermal oxidizer. However, this paragraph is truncated and should be completed to comprehensively reflect the necessary discussion of technical feasibility.
3. Table A.2.a of SC DHEC’s April 13, 2012 Preliminary Determination and Notice of MACT Approval incorrectly lists 26 facilities that were included in the cumulative 1-hour NO₂ NAAQS compliance modeling. This table should be corrected to reflect the supporting modeling report that included two facilities located within 10 km of Showa Denko (*i.e.*, American LaFrance and Chamber Oakridge Landfill) in this assessment.

Class I Area Air Quality Modeling

4. Project Emissions - The following comments are associated with the project emissions provided in this PSD Class I area protocol.
 - Table A-4 of Appendix A of the Class II Air Quality Modeling Report and Table 4 of the Class I Air Quality Modeling Protocol contain the same information (*i.e.*, are the same table less the footnote). The Class I report (page 16) indicates the emission values in this table are the current allowable emissions rather than the appropriate current actual emissions. Because these emissions are associated with project related changes and are used in the net impact analysis for both Class I and II, the emission rates should be the current actual values as noted in the Table A-4 footnote. Confirmation is needed that the current actual emission rates are provided in Table 4 (Table A-4 of Class II report).
 - Table 2 is indicated to contain only existing emission units with proposed increased stack heights without change in emission rates (except for MOD-P33 and MOD-P59). The stack exit parameters and emission rates provided in this table are indicated to be those subsequent to completion of the proposed project (*i.e.*, project proposed stack heights and allowable emission rates). The following apparent inconsistencies need to be explained:
 - MOD-P59 was indicated to have project associated increased emissions, therefore the emission rates in Table 2 are the future allowable values while those in Table 4 should be current actual rates. The reason these tables contain the same emission rates for this unit should be explained.
 - The proposed increased in stack heights are provided in Table 2. Although the projected stack heights have generally more than doubled, the reason the stack diameters, exit temperatures, and exit velocities have not changed from the current values in Table 4 should be explained.

5. **Model Section** – The following comments are associated with the models selected for the impact assessment.
 - The CALPUFF modeling system was used in this assessment. The EPA regulatory version should be used for PSD increment assessment. The version number of models used should be provided to confirm use of the appropriate models.
 - It should be confirmed that the EPA default CALPUFF options were used in the PSD increment assessment.
6. **Meteorological and Land Use Data**- The following comment is associated with the meteorological data selected for the impact assessment.
 - VISTAS 2001 through 2003 4 km CALMET prepared data set was indicated to be used in the Class I area CALPUFF modeling. It should be confirmed that the VISTAS data set was prepared using the EPA regulatory version of CALPUFF and that the VISTAS data were not altered.

Class II Area Air Quality Modeling

7. **Project Emissions** - The following comments are associated with the project emission sources and emission rates provided in this document. [Note: Some of the following comments are similar to Project Emission comments provided in the previous Class I Area Air Quality Modeling section.]
 - With the exception that the tables are numbered A-2 and A-4 in the Class II Area Air Quality Modeling report, the two bulleted items discussed in #4 for Class I Area Air Quality Modeling also apply to this section and are therefore not repeated.
 - The applicability determination used the two-year period of 2007-2008 to determine actual annual emissions. Although appropriate for the applicability assessment, the determination of actual emissions for modeling the project's impact on air quality should be made from the most recent 2-year period (e.g., 2009-2010) unless this period is not representative of normal operation. The reason the 2007-2008 period is appropriate for impact modeling should be provided.
 - The Showa Denko point source emissions in the as-built configuration are provided in Tables 1, 2, and 3. The short-term emission rates provided are indicated to be the maximum allowable; therefore, those rates should be included as enforceable conditions of the permit specifying maximum allowable hourly emissions limits for the associated release structures.
 - The existing emission point P68 is indicated to have a stack height that is greater than Good Engineering Practice (GEP) and was modeled without consideration of building downwash. Beginning with version 11059 of AERMOD, potential building downwash effects are no longer automatically ignored for stacks at or above the GEP formula height. There is no "grandfathering" provision for existing stacks associated with this change. However, since exclusion of potential building downwash effects for the existing P68 source would tend to underestimate the magnitude of impacts that would be subtracted in the analysis conducted to determine the net change in ambient impacts associated with the proposed project, the resulting net impact analysis would be conservative.
 - The emissions from the graphitizing area are indicated to be distributed through three stacks (i.e., MP68, ML1a, and ML1b) for NO_x and CO but only two stacks for SO₂, PM₁₀, and PM_{2.5} (i.e., ML1a and ML1b). Because the description of the graphitizing process in Section 2 indicates only two stacks, the pollutant-dependent distribution of emissions through the stacks should be explained. Also, the effect of the distribution on the stack exit parameters (i.e., exit temperature and velocity) should be included in the explanation.

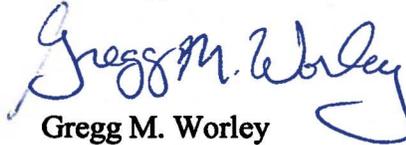
8. Model Section – The following comments are associated with the models selected for the impact assessment.
- The BLP output is not in the form of the 1-hour NO₂ and 24-hour PM_{2.5} standards. The procedure used to combine the AERMOD and BLP program outputs and develop concentrations in the form of these standards included the use of the CALSUM, CALPOST, and POSTUTIL programs. Although Appendix F is provided as an equivalency demonstration, it does not appear to address this issue. The proper operation of these “POST” programs to obtain appropriate temporal and spatial pairing of the ambient concentrations and development of concentrations in the form of the NAAQS should be demonstrated.
 - The use of only the unmodified regulatory approved computer models (i.e., AERMOD and BLP) in the impact assessments should be confirmed.
9. Meteorological and Land Use Data- The following comments are associated with the processing of the meteorological data including surface characteristics.
- The representativeness of the selected meteorological data record should include the surface characteristics of both the meteorological measurement site and project location. The direction-dependent characteristics of the surface roughness parameter are an important consideration and should be included in the representativeness assessment.
 - The meteorological record contains 13.33% calm observations. The selected models cannot perform dispersion and transport assessments for calm observations. Although the application of AERMINUTE would reduce the number of calms and possibly missing observations, it was not used. Given the large number of calms, the need to replace calms for use in BLP, and the ability to obtain actual observations that are of equal quality to those used in the National Weather Service data records, the provided rationale for not using AERMINUTE does not appear adequate. As recommended for the previous 2011 modeling report, AERMINUTE should be used to reduce the number of calm and missing observations if an adequate rationale is not provided.
10. PSD Increment Affecting Emissions – The following comments are associated with procedures used to determine Showa Denko’s PSD increment affecting emissions and those of other nearby sources.
- The PM_{2.5} trigger date of 10/20/2011 is defined in the regulation. Because this revised 2012 PSD application is the first after the PM_{2.5} major source baseline and trigger dates, this project sets the PM_{2.5} minor source baseline date for Dorchester County. Showa Denko’s actual emissions on the major source baseline date of 10/20/2010 are the baseline emissions. The use of the project PM_{2.5} emissions as Showa Denko’s PSD consuming emissions would be appropriate only if the 2007-2008 actual emissions are more appropriate than the most recent 2-year period.
 - The minor source baseline date(s) used to identify other PSD affecting emission units from nearby sources is dependent upon the receptor location. The significant impact areas for all PSD pollutants were within Dorchester County. It should be confirmed that this county’s minor source baseline dates were used to identify the PSD increment affecting emission units for all pollutants in surrounding counties.
11. Inventory of Other Sources - The following comments are associated with the inventory of other sources for inclusion in the impact assessment.
- To confirm that the proper emission rates were used in the modeling, the basis for the emission rates provided in the SCDHEC inventory of other sources should be provided. The maximum allowable emission rate applicable to each pollutant and averaging period (e.g., maximum allowable NO₂ for the 1-hour NAAQS) should be used in the NAAQS compliance modeling. Current actual emissions can be used for PSD increment compliance modeling.

12. Receptor Grid – The following comments are associated with the receptor grids used in the modeling assessments. [See Draft Permit Comment 1]

- The nearest receptors should be along the plant property line that has a barrier to public access. Previous review discussions on the 2011 air quality modeling report revealed that portions of the modeled property line do not contain such barriers. It should be confirmed that the property line used in the revised air quality modeling contains a continuous barrier to public access or that permit conditions will require installation of such a barrier.
- Receptors are also required along any public right-of-way through the property (e.g., through rail line, roads, etc.). Because modeling receptors are not included on Haven Road, confirmation is needed that this road will be modified to meet the requirements to be exempted from “ambient air” consideration (see Draft Permit comments 1).

If you have any questions regarding these comments or need additional information, feel free to contact me at (404) 562-9141 (worley.gregg@epa.gov) or Andrew Parks of my staff at 404-562-8122 (parks.andrew@epa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Gregg M. Worley". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Gregg M. Worley
Chief
Air Permits Section