

**South Carolina Department of Health and Environmental Control (SC DHEC)
Bureau of Air Quality (BAQ)**

**Response to Comments
Public Notice #17-022-TV-C
Corley Construction
Columbia, Richland County, South Carolina
Permit No. 1900-0286-CA**

The following is the SC DHEC BAQ's (Department) response to comments made during the formal comment period held May 2, 2017 to June 12, 2017, and the public meeting held on June 1, 2017, regarding the draft synthetic minor construction permit for Corley Construction, LLC ("Corley Construction") located at 1050 Wessinger Road, in Columbia, Richland County, South Carolina. The Department Decision, permit, statement of basis, this response document, and a letter of notification to citizens who submitted comments are available for viewing at the SC DHEC Columbia office located at 2600 Bull Street, Columbia, SC 29201, or the Department's webpage at <http://www.scdhec.gov/Environment/AirQuality/PermittingDecisions/>. Hardcopies of all the above-listed documents, as well as the written comments received can be requested by contacting the Department's Freedom of Information Office at (803) 898-3882. The following is a summary of all comments submitted and the Department's response.

Permitting, Inspections, and Compliance - Comments were received regarding inspections of the proposed unit and how compliance is determined. These comments included: inquiry into the frequency of inspections and number of staff available; concerns about slow Department response time; concerns with self-reporting/self-implementation; the possibility of permit revocation if impacts are seen to water and land; a request to add public inspections as a permit condition; inquiry into how much money DHEC receives from facilities' permit applications; and concerns that enforcement fines may be too low, which is unfair to taxpayers.

The U.S. Environmental Protection Agency (EPA) requires most facilities to be inspected a minimum of every other year; however, due to concerns raised by the public, the Department intends to perform inspections of this facility on a more frequent basis to the extent possible, including times when the Department receives any complaints regarding improper operation of the air curtain incinerator. All inspections will be unannounced. During air quality inspections, all sources listed on the permit are inspected for compliance with the terms and conditions as stated in

the permit. The inspections also include a review of all records, logs, etc. for compliance with the permit, and if there are any inconsistencies between the permit and the operation of the facility, these deviations or possible violations are detailed in the inspection report and referred to the Department's Enforcement Section for review. If the Enforcement Section determines that a potential violation has occurred, enforcement action may be taken requiring corrective action, payment of civil penalties, and/or adverse action on the facility's permit (including permit suspension or revocation, when appropriate). By state law, enforcement penalties are limited to \$10,000 per day per violation, based on the severity of the violations.

Air inspection reports are typically completed within 30 days after an inspection and contain a list of equipment and logs inspected, the compliance status with permit conditions, and any deviations or potential violations. Inspection reports are available through the SC DHEC's Freedom of Information (FOI) Center. For more information on FOI requests, including fees, visit the following webpage: <http://www.scdhec.gov/Agency/RequestCopiesofRecords/>.

The Department has a guideline for responding to complaints within 24 to 48 hours. This guideline is established to ensure that all complaints are prioritized and handled based on the health and safety of our citizens. It is possible when a complaint is received that it could be handled within a few hours, but depending on other complaints and incidents that can occur on any given day, as well as the nature of the complaint, it may take the full response time. The response time frame is set to ensure that SC DHEC staff will investigate a complaint within two days.

The monitoring, testing, recordkeeping, and reporting requirements in an air permit are the responsibility of the facility. The facility may perform the requirements of the permit itself or outsource it to a contractor. The reporting and self-certification requirements of the permit are consistent with those applicable to other similar permitted facilities. These reporting and certification requirements are required by federal and/or state regulations and are the accepted practice in environmental permitting across the country. The Department will review all compliance information submitted by the facility (or obtained on site) to determine compliance, and take enforcement action against a permitted facility for violations occurring as a result of inaccurate reports or certifications, as appropriate.

One commenter inquired into the possibility of including public inspections as a permit condition. No statute or Department regulation specifically authorizes the Department to require a permitted facility to allow public inspections or visits at the

facility, and there is no basis in precedent or practice for including such a permit condition. Additionally, public access to Department-regulated facilities may raise process and safety concerns, and regulatory, safety, or liability considerations may make public visitation to some permitted facilities impossible. However, facilities are allowed to voluntarily invite the public inside of their facility for public tours and visits at their own risk.

The Department does not have a fee for construction permit applications, unless the permittee requests a permit to be processed under the expedited construction permit program. Corley Construction did not request expedited review and as such, did not pay the Department for its construction permit application.

Health and Impacts - Comments were received regarding the unit's potential impacts to the community's health, specifically for the elderly and children as well as those with existing respiratory/breathing conditions, impacts to animals and impacts to vegetation.

Federal and state air quality regulations are established to be protective of public health, using scientific data and human health risk assessments. These regulations include setting standards for ambient air quality and setting emission limits, controls and/or operational requirements for industrial facilities.

The Clean Air Act (CAA) requires the EPA to establish National Ambient Air Quality Standards (NAAQS) for six common pollutants ("criteria" pollutants) considered harmful to public health. There are two types of NAAQS: primary standards and secondary standards. Primary standards are set to protect public health, in particular, the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards are set to protect public welfare, such as protection against decreased visibility, and damage to animals, crops, vegetation, and buildings. National ambient standards have been set for the following pollutants emitted from this project: particulate matter (PM) (which consists of particulate matter less than 10 micrometers in diameter (PM₁₀) and particulate matter less than 2.5 micrometers in diameter (PM_{2.5})), sulfur dioxide (SO₂), nitrogen oxide (NO_x), and carbon monoxide (CO).

In accordance with South Carolina Regulation 61-62.1, "no permit to construct or modify a source will be issued if emissions interfere with attainment or maintenance of any state or federal standard." Corley Construction's operations were evaluated to determine if the emissions would interfere with attainment of the NAAQS. An air

quality analysis was performed using an EPA-approved air dispersion computer model to simulate how the facility's maximum emissions will be dispersed into the atmosphere surrounding the proposed site. The EPA-approved model demonstrated compliance with the NAAQS at and beyond the property boundary.

Other States – A comment was made that California has more protective health regulations.

The comparative stringency of existing Department regulations and regulations in other states is a matter outside the scope of this Department decision. However, it should be noted that the State of California has many areas that do not currently meet the NAAQS and is required by state and federal law to have regulations more stringent than most states. The State of South Carolina currently meets all NAAQS. The permit issued to Corley Construction incorporates all existing, relevant federal and state air quality standards and requirements.

Weather/Modeling - The Department received a comment that the weather data used in the air dispersion model was insufficient due to the weather monitoring site being located in a different county than the proposed air curtain incinerator. A commenter also expressed concern that the modeling software is flawed.

The applicant submitted an AERMOD dispersion model to demonstrate that emissions from the proposed Corley air curtain incinerator will comply with applicable air quality standards. AERMOD is the EPA-approved refined air dispersion model for use in determining compliance with the NAAQS for permitting purposes, and is therefore deemed by the Department to be an appropriate method of conducting air dispersion modeling and demonstrating compliance with the NAAQS.

AERMOD uses hourly weather data along with facility-specific topography and pollutant emissions and emission release parameters to predict pollutant concentrations in the area surrounding a facility. Among the inputs used in the model were hourly surface weather observations deemed representative of weather conditions at the proposed Corley Construction site. The EPA guidance allows the use of representative weather data from a nearby National Weather Service (NWS) station, for a recent five-year period. The Corley Construction modeling used five consecutive years of surface weather observations from the Columbia Metropolitan Airport, which is approximately 12 miles southwest of the proposed Corley Construction site.

The weather data from the Columbia airport were deemed by the Department to be adequately representative of the weather conditions around the proposed facility for the purposes of determining compliance with the NAAQS. The location of the Columbia airport is reasonably close in proximity to the proposed Corley Construction site, and it is located at a similar distance to and elevation above the nearest river valley, i.e. sharing similar complexity in the terrain. Using weather data from a site with these terrain considerations, plus the five-year period of hourly weather data observed at the Columbia airport, ensures that the model applies worst-case weather conditions, leading to worst-case modeling results.

The same commenter also mentioned that the “evaluation and weather study are ten years old.”

As mentioned above, the Corley Construction model used five-years of consecutive hourly weather data observed at the Columbia airport. The hourly weather dataset spans the years of 2002 through 2006. A consecutive five-year period of hourly weather data is considered representative of the climatology for a given area, which changes very little over a period of 10 or more years.

The Department also reviewed wind data for the most recent five-year period and verified that wind patterns for the Columbia area are reasonably consistent with the wind patterns of the 2002-2006 period that was used in the modeling. Therefore, the 2002-2006 weather dataset used in the Corley Construction model was deemed by the Department to be adequately representative and is sufficient to ensure that the worst-case weather conditions were adequately represented in the model results.

One commenter asked about the inclusion of pollen in weather data. Weather data includes information such as hourly temperature, barometric pressure, wind direction, wind speed and other weather related parameters. Pollen grains are typically larger than PM10 or PM2.5, and the small impact pollen may have on particulate concentrations is included as part of the background particulate matter data that is added to the predicted facility ambient particulate matter concentrations.

Operation – Comments were received regarding the operation of the proposed unit, including questions and concerns about: the definition of clean, untreated wood; who is responsible for determining only untreated wood will be burned; the hours of operation; the accuracy of the weighing scale(s); the potential for weather to affect the days the operator can burn; and where the material comes from and who checks it.

As per S.C. Reg. 61-62.5, Standard 3, Section III(G)(2), and 40 CFR Part 60, Subpart CCCC, §60.2245(b), the unit is only permitted to combust land clearing waste consisting of only untreated natural wood debris, yard waste and non-treated or unfinished woodwaste (i.e., clean, untreated wood). The main sources of the wood to be combusted in the unit are land clearing operations and tree companies. The wood will be delivered on-site, weighed on a truck scale, and tipped on a sorting pad to remove any foreign material. No other material, outside of what is listed above is allowed to be combusted in the unit. Should the facility be found to combust such material, such action would be an enforceable violation of the permit, and state and federal regulations. Once the permittee confirms that the wood meets the criteria for combustion under the permit, it will be loaded into the unit using a loader equipped with a strain gauge. The main truck scale gets inspected for accuracy by the S.C. Department of Agriculture. The strain gauge on the loader gets inspected by the manufacturer for accuracy every 6 months.

The unit will only be operated during daylight hours, and no loading is allowed after 5 pm, as discussed under "Additional Measures" below. The unit will not be operated on days when a South Carolina Forestry Commission Burn Notice has been issued, as discussed under "Additional Measures" below.

Public Participation - Comments were received regarding notification to the community and the effectiveness of public meetings, specifically how it was determined who received notification and why a public meeting was held.

Department regulations require this permit (Synthetic Minor Construction Permit) to be placed on public notice for a thirty (30) day comment period. The Bureau of Air Quality (BAQ) maintains a mailing list for individuals who have requested to receive public notices in each county; this notice was therefore mailed to those who requested to be placed on the Richland County mailing list. Though not required, the BAQ also made the decision to mail an explanatory letter and copy of the public notice to landowners in closest proximity to the property (obtained through Richland County's online tax map) and to individuals who were in the Department's files as having shown interest in the previous operation at the site (Whitaker Container Services). The same method of notice was used when mailing the public meeting flyer, though the mailing list was expanded to include individuals who had already submitted comments. In addition, the public notice, public meeting flyer and information, draft air permit, and draft statement of basis were all placed on DHEC's public notice website (www.scdhec.gov/publicnotices/) during the comment period.

The BAQ strongly encourages and promotes participation by the public in its processes. One such method of participation is a public meeting. Although the BAQ is not required to hold public meetings on draft construction permits, the BAQ elected to hold a public meeting on the draft permit for Corley Construction to provide the public with information about the proposed project and the Department's process, as well as to provide the surrounding community a time to ask questions and have their concerns heard by our staff and the facility. The intent of these meetings is to foster a conversation that can help inform the Department's decision-making on a proposed permit and potential permit conditions. Although DHEC is mandated by law to issue permits to applicants that demonstrate compliance with federal and state air quality regulations, often times these conversations can lead to additional permit conditions or the development of ongoing communication and relationship-building with the facility.

If you would like to be added to the Richland County public notice mailing list, please submit your request in writing to the BAQ's public notice coordinator, Ruthie Hall, at hallmr@dhec.sc.gov.

Information - A comment was received regarding the difficulty of understanding terms and measurements presented in documents available to the public.

The Department uses technical and regulatory language in order to draft construction permits. This language is taken from applicable State and Federal regulations. Any citizen needing assistance, clarification and/or explanations as to the meaning of this language is encouraged to contact the permit writer.

Storage - Comments were received regarding the allowable amount of material to be stored and the use of the property as a dumping ground.

The air quality permit requires that "onsite storage of debris to be incinerated shall be kept to a minimum. Material to be incinerated shall be incinerated within one week of storage unless otherwise approved by the Department." Records of the amount of material burned shall be kept.

In addition, to remain exempt from the Bureau of Land and Waste Management (BLWM)'s permitting requirements, the facility must limit storage of material to be burned in the air curtain incinerator to 400 cubic yards or less (per Regulation 61-

107.12, *Solid Waste Management: Solid Waste Incineration and Solid Waste Pyrolysis Facilities*) at all times.

The air curtain incinerator is a separate operation from the composting operations currently on the site. The composting activity has been permitted through the SC DHEC BLWM on November 9, 2015 and March 21, 2017.

The Department will be performing routine unannounced inspections at the facility. During the inspection, the inspector will inspect the wood storage area, and note any inconsistencies with the permit conditions in the inspection report. Any alleged violations are detailed in the inspection report and referred to the Department's Enforcement Section.

Odor - Comments were received regarding what odors, smoke and ashes were to be expected from the operations.

There are no federal or state air quality odor regulations. The presence of odor does not necessarily indicate the presence of dangerous air pollution. Many air pollutants can be detected by smell at much lower concentrations than the maximum allowable concentrations established to protect public health. Any odors detected from this facility should be that of burning just wood.

Smoke is expected from the unit. There is a permit condition that limits the amount of smoke (opacity) that is allowed from the unit. The unit is specifically designed to minimize smoke being generated based on the combustion taking place inside the unit (a box resembling a shipping container), with the curtain of air coming across the unit.

The air curtain incinerator is equipped with a 10 foot upper chamber, consisting of three solid walls with a metal screen on top. This design is to minimize any ash particles leaving the unit. Once the wood has finished combusting in the unit, and the ash has cooled down, it will be wetted down prior to removal from the unit. The ash will be stored in on-site containers, before being sent to a landfill for disposal.

Chemicals - Comments were received regarding the types of chemicals that will be used to burn the wood.

No chemicals are allowed to be added to the untreated wood prior to incineration. Dry tinder and matches will be utilized to light the wood once it has been loaded into

the unit. Once the wood has been lit, the combustion will be self-sustained, as additional wood is loaded into the unit.

Appeal Process and Litigation - Comments and questions were received regarding the appeals process and how to effect changes in the regulatory permitting process, specifically:

- how many decisions that have been appealed have been overturned,
- that the community should have a right to prevent, not appeal,
- how can the community reject a permit decision,
- can the community sue DHEC by obtaining an attorney and
- laws should be changed if DHEC is mandated to issue permits if a facility can demonstrate compliance.

A citizen can chose to appeal a permitting decision, and the services of an attorney can used to file or assist with the appeal. The process for appealing Department decisions is mandated by statute. The complete "Guide to Board Review" can be found at the following web address:

<http://www.scdhec.gov/Agency/BoardofDirectors/GuidetoBoardReview/>

Concerns about the appeal process are outside the scope of the Department's decision on this permit. The Department does not compile data tracking the number of Department decisions that have been reversed upon DHEC Board review or other appeal procedures.

In accordance with Section 48-1-100(A) of South Carolina Pollution Control Act, the Department must issue a permit if an applicant submits an application that meets all applicable air quality standards. Any changes to such law would require legislative enactment and approval by the Governor.

Whitaker Container Services – Comments were received regarding the previous air curtain incinerator located on the property.

One commenter asserted that the former owner (Whitaker Container Services) was never issued a permit and never operated the previous air curtain incinerator at the site. A construction permit along with a Department Decision for Whitaker Container was issued by the Department on March 22, 2007. Several meetings were held with the community prior to the issuance of the permit to address comments. To the Department's knowledge, the unit only operated very sporadically. Inspections were

performed by the Department on July 31, 2008, October 15, 2009, and December 16, 2009. Copies of the permit issued on March 22, 2007, and the three inspection reports (with some photographs) can be obtained by contacting the Department's Freedom of Information Office at (803) 898-3882. These documents will also be made available on the Department's website: <http://www.scdhec.gov/Environment/AirQuality/PermittingDecisions/>. A Permit Cancellation letter, indicating that all permitted activities had permanently ceased, was issued to Whitaker Container by the Department on June 3, 2014.

One commenter stated that explosions could be heard from the site when Whitaker Container operated there. The Department has no records of having been contacted regarding explosions at this site. Should such a thing occur in the future, it can be reported to the SC DHEC regional office: Midlands-Columbia Office, 8500 Farrow Road, Columbia, SC 29203 at (803) 896-0620. All incidents reported to the regional office will be investigated.

General Opposition – Comments were received requesting denial of the permit.

The Department appreciates all comments made regarding Corley Construction and has considered all comments received in making a decision on the permit application. However, the Department cannot make permitting decisions based on general community, business, employee, or customer support or non-support of the company/facility. The Department's decision is based on the Department's technical review of an application and the regulatory requirements in place at the time of the Department's review. In accordance with Section 48-1-100(A) of South Carolina Pollution Control Act, the Department must issue a permit if an applicant submits an application that meets all applicable air quality standards.

Soil and Water – Comments were received regarding the potential impacts to well water. A comment was received requesting soil and water testing as a permit condition.

The air quality emissions from this unit will be solid and gaseous in nature and should not penetrate the soil to contaminate well water. In making decisions on air quality permit applications, the BAQ only has the authority to review the air quality impacts of air pollutants as specified in state and federal air quality regulations. Soil and water quality issues are addressed under other Department regulatory programs.

Other Technologies – A comment was made regarding whether or not the Department was aware of other options for processing of waste, such as Advanced Thermal Treatment (ATT).

The Department must make a permitting decision based on the technology proposed in the application submitted, and cannot require an applicant to switch to or consider other technologies if the current air quality standards can be met without other technologies. The Department is aware of other technologies, such as ATT. ATT is a technology that is mainly used to process other waste streams such as household garbage.

Zoning/Location – Comments were received regarding impacts to property values; the proximity to a school; how the area was zoned; and how to get the property rezoned.

According to county records, this property was zoned heavy industrial as of August 8, 2006. All zoning decisions are made at the local level by a city or county zoning authority, usually before a permit request is received by the Department. The Department cannot dictate where a facility desires to locate or factor future property value impacts into permitting decisions. Contact your local city or county council representatives for more information on how to get involved in local zoning and planning decisions.

Additional Measures taken by the Department

Based on comments received during the public comment period, the following three conditions have been added to the air construction permit:

Burn Prohibition - The final air quality construction permit for Corley Construction has been updated to include a condition prohibiting the operation of the unit during a "South Carolina Forestry Commission Burn Notice". These burn notices can be found at the following web address:

<https://www.state.sc.us/forest/scnotifs.htm>.

Operating Hours – The final air quality construction permit for Corley Construction has been updated to include a condition that the unit can only be operated during daylight hours, but no loading of the unit is allowed after 5pm. The facility may request this condition be modified/removed in the future, should the Department deem modification/removal to be warranted.

Additional notifications - The final air quality construction permit for Corley Construction has been updated to include a condition requiring the facility to notify the SC DHEC Regional Office each time it will be utilizing the unit. The facility may request this condition be modified/removed in the future, should the Department deem modification/removal to be warranted.

Particulate matter sensor study - The Department will conduct a temporary study of air quality in the vicinity of Corley Construction. As part of this study, the Department will monitor the fine particulate matter concentration, wind speed, and wind direction. The Department will operate a sensor close to the facility to allow comparison with “background” measurements. The background monitors will be located slightly further away from the facility to provide information about air quality in areas not expected to be impacted by emissions from Corley Construction. It is important to note that the sensor used for this project will only provide relative information about the air quality in the area. The data collected will not be of sufficient quality or collected over the necessary time period to allow the Department to make a direct comparison to any of the NAAQS but can indicate short term impacts and changes in particulate concentrations that may be the result of local activity. The results from this temporary study will be used by the Department to determine if additional monitoring is appropriate. The Department will communicate the results of this temporary study on our website within 90 days of the study’s conclusion.