

AIR QUALITY

Representative Project Experience

TITLE V AIR OPERATING PERMITS

KERAMIDA provides Title V and other air permitting assistance to industrial clients nationwide. Our clients include facilities in a wide range of industrial classifications, including automotive parts manufacturing facilities, plastic molding and surface coating facilities, chemical manufacturing plants, engine manufacturing and testing facilities, foundries, steel mills, pharmaceutical manufacturing facilities, food processing plants, smelters, cement plants, wood furniture manufacturing plants, graphic arts facilities, and a variety of surface coating facilities.

We tailor each project to meet the individual needs of our clients. Our typical projects involve:

- The preparation of emission inventories
- Assessments of the adequacy of the inventory information and recommendations for additional data gathering
- Detailed compilations of air regulatory and permit requirements
- Compliance assessments relative to existing regulatory and permit requirements as well as procedural requirements
- Preparation of recommendations for bringing non-complying sources into compliance
- Assessments of the regulatory requirements of the Title V program with emphasis on operational flexibility, enhanced monitoring and compliance monitoring, and preparation of the actual Title V permit application and Compliance Assurance Monitoring plan

MACT STANDARDS

KERAMIDA participated, on behalf of AFS, in the development of information to support scientifically correct MACT standards for the Foundry Industry.

AIR CONSTRUCTION PERMITS

KERAMIDA has helped numerous clients to obtain air construction permits including foundries, surface coating operations, pharmaceutical manufacturing facilities, food processing facilities, automotive parts facilities and Portland cement manufacturing facilities.

KERAMIDA's construction permit projects include facilities seeking major and minor source permits and facilities in both attainment and nonattainment areas. Our construction permit services include:

- Preparation of forms and assessments required by the regulatory agencies
- Modeling
- Providing strategic advice on the permit process
- Interfacing with the regulatory agencies in order to ensure that permits are reviewed on a timely basis and that permit conditions are appropriately established
- Providing support during public hearings
- Review of draft permits and preparation of comments to the regulatory agencies

AIR COMPLIANCE ASSISTANCE AND RISK MANAGEMENT PLANS

Our services include preparation of Risk Management Plans, and evaluation of MACT applicability. We have conducted specific compliance assessments for our clients, and have formulated strategies for achieving exemption from enhanced monitoring, and for addressing malfunctioning control equipment, unpermitted sources, failure to submit required reports, and non-achievable permit limitations. In addition to the preparation of compliance assessments and strategies, we have also provided technical and regulatory support in enforcement negotiations with regulatory agencies, in litigation proceedings, and in public hearings involving permits and siting of new industrial facilities.

AIR INSPECTIONS

KERAMIDA conducts daily compliance inspections of coke oven batteries using inspectors with Method 303 certifications. We have several staff with Method 9-Visible Emissions certifications. We provide our clients with oversight of Visible Emissions Readings and Stack Testing for compliance certifications or on-going compliance evaluations.

AIR TECHNOLOGY ASSESSMENTS

KERAMIDA has helped a number of industrial sources prepare assessments of Best Available Control Technology (BACT) in support of construction permit applications under both state and federal air permitting regulations.

AIR EMISSIONS INVENTORIES

KERAMIDA has prepared a great number of emission inventories for a variety of purposes, including:

- Annual emission statements
- Title V air permits
- Construction permit applications
- Form R reporting
- Air modeling studies

KERAMIDA's projects have included the development of inventories for a wide range of industrial process equipment, storage tanks, chemical plant fugitive emissions, combustion sources, surface coating operations, wastewater operations, and batch processes. Our professionals use their extensive regulatory expertise and emission inventory experience to provide cost-effective permitting and compliance strategies to our industrial clients.

AIR PROGRAM TRAINING

KERAMIDA has provided numerous workshops and presented multiple talks on a wide range of air topics at national and regional conferences. We provide direct training assistance to our industrial clients by presenting in-house technical training sessions and by developing training materials for our clients' specific training needs.

STACK TESTING

KERAMIDA provides oversight of comprehensive stack testing projects which includes:

- Evaluations of testing needs
- Preparation of testing protocols
- Assessments of the regulatory or technical implications of the stack testing results

Our industrial clients have used our services to meet a variety of testing needs including:

- Evaluations of regulatory requirements
- Compliance testing
- Emission factor development
- Process analysis

AIR QUALITY MODELING

Air quality modeling is used: to support applications for major source modifications under the Prevention of Significant Deterioration (PSD) permit program, support amendments to emission limitations in existing Particulate Matter and SO₂ regulations, assess the ambient concentrations of Hazardous Air Pollutants, including the environmental impacts of toxic and flammable materials under the Risk Management Planning requirements of Section 112(r) of the Clean Air Act.

KERAMIDA has performed modeling assessments to successfully support all of these objectives for industrial clients. We perform both screening and refined modeling projects for a variety of pollutants including PM, PM₁₀, SO₂, Ozone, NO₂, CO, Lead, and Hazardous Air Pollutants.

AIR TOXICS, AIR MODELING, BACT AND PSD PROJECT EXPERIENCE

| Client | Regulatory Program | Scope of Work & Project Description |
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| Confidential Client Automotive Assembly Plant | PSD, BACT, Title V | This project involved a significant expansion of the plant, as well as assistance on their Title V air operating permit. A PSD permit, including an extensive BACT assessment, was prepared and submitted to the state agency. The permit was issued and the expansion begun. KERAMIDA also prepared extensive comments on the facility's proposed Title V air operating permit, and the comments were submitted to the state agency. |
| Confidential Client Foundry | PSD, Title V, Enforcement Case Assistance | KERAMIDA has prepared two PSD applications, including BACT assessments and air quality modeling assessments, for two separate plants. We have assisted the Client's attorney in responding to notices of violation, including directing the stack sampling efforts. We also assisted the Client with the preparation of comments on their Title V permit application and in responding to requests from the state agency for additional information. |
| Confidential Client Foundry | PSD, Title V | KERAMIDA prepared a PSD application for a major expansion of the foundry, including BACT assessments and an air quality modeling assessment. We also prepared extensive comments on the proposed Title V permit. |
| Confidential Client Automotive Assembly Plant | PSD, BACT | KERAMIDA provided ongoing technical and regulatory support to the Client's attorney in an enforcement matter, where the U.S. EPA alleged that PSD applied to a plant expansion, despite a decrease in actual emissions. |
| HA International (Toledo, Ohio) | State BACT, Air Toxics | KERAMIDA prepared air toxics emissions estimations by developing emission factors, developed an emissions accounting system, and assessed the permitting requirements for the transfer of emission units from other HA International facilities. We completed BACT assessments for the units requiring permits and evaluated air toxics regulations for units to be permitted. |
| MasterGuard (Veedersburg, Indiana) Guardian West (Champaign, Illinois) | PSD Synthetic Minor, Air Toxics, Title V | These two plants produce automotive bumpers and include metal fabrication and surface coating operations. KERAMIDA prepared permit applications and obtained permits for both plants, which include emission caps to avoid the PSD permitting requirements and the 112(g) new source MACT requirements. We also provided permitting support for a number of modifications to expand operations over the past several years, including an expansion in 2003/2004, and changes at the plants to reduce emissions and allow for production increases. |
| Cinergy Three Generating Stations (Moscow, Ohio; Cincinnati, Ohio; Rabbit Hash, Kentucky) | PSD Synthetic Minor Permits | KERAMIDA prepared permit applications and assisted in securing air permits for three Synthetic Fuels Plants. Each of the permits addressed the applicability of PSD and the permits included limitations such that the requirements of the PSD permit requirements were not applicable. |
| Masterbrand Cabinets, Inc. | PSD, Title V, BACT | KERAMIDA assisted with Title V and PSD permitting issues on an electrostatic surface coating line to address allegations that the company failed to undergo a PSD review. We completed air toxics modeling, a BACT assessment and a PSD review. BACT was determined to be thermal oxidation for certain booths on the surface coating line. We worked with IDEM as they wrote the permit. |
| Iron Dynamics (Butler, Indiana) | PSD, BACT, Air Toxics | KERAMIDA prepared a PSD application for a direct reduced iron facility located at an existing Steel mini-mill. The permit application included a BACT assessment for PM/PM10, SO2, NOx, CO, and Beryllium. We also prepared air quality modeling assessments for PM10, SO2, NOx CO, Beryllium and other air toxics. |

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| Caterpillar Foundry (Mapleton, Illinois) | PSD, Air Toxics | KERAMIDA prepared PSD permit applications for an expansion of this client's core room and casting lines. The applications included a BACT assessment and air quality assessment for VOCs. The application also addressed the applicability of air toxics under the 112(g) regulations. KERAMIDA also prepared another application for modifications to their finishing operations. |
| EnviroPower of Indiana (Pike and Sullivan Counties, Indiana) | PSD, Air Toxics | KERAMIDA prepared PSD applications for two coal and coal waste fired Power Plants to be located in Indiana. The applications included BACT assessments for NO _x , PM, PM ₁₀ , CO, SO ₂ , Lead, Beryllium, and Mercury. Air Quality modeling assessments were also prepared for most of these pollutants. In addition we provided ongoing general support on design and siting issues, preparation of NPDES wastewater permit applications and public outreach programs. |
| Golden Castings (Columbus, Indiana) | PSD, Air Toxics, Title V | KERAMIDA prepared a PSD permit application for a major expansion of this client's cold box core making process. The application included a BACT assessment and air quality assessment for VOCs. |
| Steel Dynamics, Inc. (Columbia City, Indiana) | PSD, BACT, Air Toxics | KERAMIDA provided technical and regulatory support in a federal appeal of a PSD permit issued to SDI for a new steel mini-mill. Specific support was related to the BACT determinations for NO _x , and Lead, and the position that the source was not a major source of air toxics and subject to the 112(g) MACT requirements. In a follow up project we prepared a permit application for a significant modification to the project once the appeal was settled. |
| Steel Dynamics Bar Products (Pittsboro, Indiana) | PSD, BACT, Air Toxics | KERAMIDA prepared a PSD application for an existing Steel mini-mill that was previously permitted and built under the name Qualtech. The permit application included a revised BACT assessment for PM/PM ₁₀ , SO ₂ , NO _x , CO. We prepared air quality modeling assessments for PM ₁₀ , SO ₂ , NO _x , CO, Ozone, Lead and air toxics. We also prepared an emissions inventory to support that the source is not a major source of HAPs. |
| Grede Foundry (Vassar, Michigan) | PSD, BACT | KERAMIDA provided technical and regulatory support for an enforcement action brought by the state of Michigan alleging that a PSD permit should have been issued for a foundry expansion project. We were able to narrow the scope of the allegation to include on CO emissions from the Cupola. We prepared a PSD application for CO emissions from the Cupola, which included a BACT assessment and an air quality modeling assessment. |
| Indiana State Chamber of Commerce and a Coalition of Indiana Industries | Air Toxics | KERAMIDA provided technical and policy support to a coalition of approximately 20 Indiana companies to review and comment on the state's comprehensive 5-year strategy for air toxics. One of the principle concerns with the strategy involved the proposed expansion of the air toxics emission reporting requirements. The project involved KERAMIDA's independent review of the various air toxics monitoring, emissions inventory and modeling studies conducted by the state and EPA. |
| Wood Surface Coating Facilities, Plastic Parts Surface Coating Facilities (including Automotive), Casket Manufacturing Facilities Foam Blowing Processes, Foundry Core Making Processes | BACT | KERAMIDA prepared BACT assessments in support of numerous non-PSD permit applications for VOC emission sources. These applications were in Indiana, where there is a requirement for State BACT for certain VOC sources that is triggered at lower thresholds than found in the federal PSD rules. However, the assessment is essentially identical to the PSD BACT review process. These assessments have included technical and economic assessments to support the proposed BACT levels. |