



## OSHA / HEALTH and SAFETY / INDUSTRIAL HYGIENE

### Representative Project Experience

#### CONFIDENTIAL INDUSTRIAL CLIENT

This client has 27 manufacturing facilities throughout the US, Canada, and Australia. KERAMIDA developed a compliance-based Environmental, Health and Safety Management System for the entire corporation. The complete system, from format and layout to individual written procedures, was created by KERAMIDA from the ground up to meet the client's specific circumstances and needs.

Before development of the system began, KERAMIDA performed an in-depth Gap Analysis of four key facilities that best represented the status of the corporation, and individual facilities with regard to EHS management. Based on the results of the Gap Analysis and KERAMIDA's experience in developing other EHS Management Systems, a highly customized and uniquely tailored EHS Management System was developed for the client.

The system is web-based, allowing secure access to the most up-to-date procedures and reports by all the company's locations. Although the system is applicable corporate wide, it also includes a "level" that allows each facility to incorporate its own facility-specific procedures and work practices into the system. The EHS Management System includes basic elements such as procedures, work practices, inspection forms, and reports. It also includes other features that address performance measurement, auditing, regulatory compliance, and tracking goals and objectives.

KERAMIDA has also assisted this client in revising all of its written safety programs, which involved revising or creating 46 written safety programs and 23 safety work practice advisories. The types of programs include standard programs required by regulation, such as confined space entry and lockout/tagout, as well as additional programs, such as job safety analysis and ergonomics.

#### INTERNATIONAL TRUCK AND ENGINE, INDIANAPOLIS CASTING CORPORATION

KERAMIDA facilitated the implementation of an OH&S Management System (OH&S MS) at the ICC facility in Indianapolis, Indiana. The system incorporated the elements of the OHSAS 18001 and ISO 18001.

During the first phase of the project, KERAMIDA performed a Gap Analysis during three days of on-site work and worked with ICC to review its existing programs. The Gap Analysis provided a detailed comparison of the existing OH&S management structures and practices to the principles of OHSAS 18001 and ISO 18001. This exercise allowed ICC to gauge the existing company structure for integration of an OH&S MS, to focus on discrete OHSAS elements, facilitate discussion within the facility, and prioritize improvements to existing programs. The current OH&S systems in place at ICC were reviewed, along with the negotiated labor agreement, and their requirements were incorporated into the Gap Analysis. KERAMIDA then provided ICC with a written report of detailed recommendations regarding the development of an OH&S MS, based on the Gap Analysis.

The second phase of the project was the implementation of KERAMIDA's Jumpstart© Program for development of the OH&S MS. In addition to the tools in the Jumpstart Program, the OH&S MS that was developed utilized certain systems already in place at ICC.

KERAMIDA's Jumpstart Program is a practical business approach to establishing a management system, either an ISO 14001 Environmental Management System (EMS) or an OH&S MS. The program follows a proven step-by-step managed process that creates a fully documented management system in three to four months. At the end of the program the organization will have a completely documented OH&S MS ready for implementation and subsequently a registration audit, if desired.

**INDUSTRIAL HYGIENE / INDOOR AIR QUALITY / MOLD AND OTHER BIOLOGICAL AGENTS**  
**Representative Project Experience**

Client	Concerns	Scope of Work & Project Description
National City Bank (Facility Type: Office)	VOCs and Solvents	KERAMIDA was hired to perform an Emergency Response to determine the cause of employee sickness, which included headaches and nausea. Through visual inspections and direct read monitoring, KERAMIDA determined that the area rugs were routinely cleaned, but not properly dried. As a result, solvent vapors from the rugs were causing the symptoms in the employees. Corrective actions were completed.
Simon Property Group (Facility Type: Office)	VOCs, Dust, CO <sub>2</sub> , CO, Temperature, Relative Humidity	Employees complained of typical Indoor Air Quality (IAQ) symptoms. KERAMIDA was hired to determine the cause of the allergic symptoms, perform an HVAC inspection, and assess airflow through the building. KERAMIDA conducted active sampling and direct read monitoring, and found that the building's air intakes were located in the alley where trucks unloaded supplies. As per KERAMIDA's recommendation, management changes were implemented to prohibit trucks from idling in the alley, thus resolving the problem.
Bovis Lend Lease (Facility Type: Office)	Fungi, Bacteria, CO <sub>2</sub> , Temperature, Relative Humidity	KERAMIDA was hired to determine the cause of allergic symptoms and perform an HVAC inspection. KERAMIDA conducted active sampling and direct read monitoring to determine if any indoor air quality issues were present in the office space. Corrective actions were completed.
Workforce Development (Facility Type: Office)	Fungi, Bacteria, CO <sub>2</sub> , Temperature, Relative Humidity	KERAMIDA was hired to determine the cause of allergic symptoms and perform an HVAC inspection. KERAMIDA conducted active sampling and direct read monitoring, and corrective actions were performed based on KERAMIDA's recommendations.
Trader.com (Facility Type: Office)	Unknown	Employees complained of allergy symptoms. KERAMIDA was hired to investigate and determine the cause of the allergy problems. Suspecting fungi staining under the floor mats, KERAMIDA performed visual and HVAC inspections and conducted air and bulk sampling, and direct read monitoring. HVAC corrections were implemented.
Burlington Motor Carriers (Facility Type: Office / Manufacturing)	VOCs, Dust, Fungi, Bacteria, CO <sub>2</sub> , CO, Temperature, Relative Humidity	Employees complained of typical Indoor Air Quality (IAQ) symptoms. KERAMIDA was hired to determine the cause of the allergic symptoms, perform an HVAC inspection, and assess airflow through the building. KERAMIDA conducted active sampling and direct read monitoring, and determined that the problems were being caused by HVAC units equipped with economizers that were set at 0% fresh air. Corrective actions were completed.
Logansport State Hospital (Facility Type: Hospital)	VOCs	Employees and patients complained of odor sensitivity. Through active sampling, KERAMIDA found the cause of the odor to be a carpet cleaner. Corrective actions were completed.
Ice Miller (Facility Type: School)	Fungi and Bacteria	KERAMIDA was hired to conduct visual inspections, air and bulk sampling. A severe fungi contamination was found in the air and on building materials. KERAMIDA managed and oversaw the entire project, which included extensive remediation and renovation.
Indianapolis Housing Authority (Facility Type: Residential Apartment Complex)	Fungi and Bacteria	Various weather related and plumbing issues had severely contaminated residential units in the apartment complex. KERAMIDA was hired to conduct visual inspections and air sampling to determine the extent of the contamination.

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ERA (Facility Type: Residence)	Fungi	KERAMIDA was hired to assess the extent of fungi contamination in the residence. Using visual inspections and bulk sampling, KERAMIDA found extreme contamination of fungi due to water damage.
Citizens Gas & Utility (Facility: Wastewater Treatment Plant)	Formaldehyde	KERAMIDA conducted active sampling in order to determine employee exposure to Formaldehyde during work operations.
Aldi, Inc. (Facility: Grocery Store)	Pesticides	Employees and customers were complaining of odors in the store and on groceries. A few employees became sick due to the odors. KERAMIDA was hired to determine the levels of the objectionable compound and the cause of the odors. KERAMIDA's investigation, active sampling, and direct monitoring revealed that a pesticide company had applied the incorrect pesticide at the store, causing the odors and contamination.
Hill & Griffith, Inc. (Facility: Manufacturing)	TEA, Sulfur Dioxide, CO	Employees were complaining of exposure symptoms during work operations. The client hired KERAMIDA to assess whether any ventilation changes were necessary. KERAMIDA conducted active sampling and direct read monitoring in order to determine personal exposure to contaminants of concern during work operations.
Plymouth School Corp. (Facility: School)	Safety	KERAMIDA was hired to develop written safety plans for maintenance workers within the school corporation. KERAMIDA developed Hazard Communication, Lockout/Tagout, and Confined Space Programs for the maintenance staff. The procedures were then implemented.
Country Living Seed Farms (Facility: Pole Barn)	Methylene Chloride	KERAMIDA was hired to determine what contaminants were causing irritation to the workers in the barn. After a pesticide application, heat was applied to the barn. KERAMIDA's active sampling determined that the combination of pesticide and heat produced a toxic gas causing respiratory irritation to workers, and rust to form on the equipment present in the barn.
INTAT Precision, Inc. (Facility: Manufacturing)	Noise	The client wanted to verify the need for hearing protection requirements throughout the facility. KERAMIDA conducted a noise survey of the loud operations throughout the foundry, including active sampling and direct read monitoring. KERAMIDA's recommendation to modify the work stations was then implemented.
AOC (Facility: Manufacturing)	MDI	KERAMIDA was hired to determine employee exposure to MDI. KERAMIDA simulated the process by applying concentrated MDI to a mold in a laboratory setting, and used active sampling to determine employee exposure to MDI during application.
Navistar (Facility: Manufacturing)	Radiation	KERAMIDA used direct read monitoring in order to develop procedures to screen incoming scrap loads for radioactive material, and emergency response procedures in the event radioactive material is present. The procedures were implemented.
Masterbrand Cabinets (Facility: Manufacturing)	Formaldehyde, VOCs, Barium, Methyl Alcohol, Dust, Carbon Monoxide	KERAMIDA was hired to determine employee exposure to contaminants during spray coating operations, and to check air velocity in several spray booths. Using active sampling and direct read monitoring, KERMIDA found that the air velocity, in most booths tested, was below the required limit.

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Masterbrand Cabinets (Facility: Manufacturing)	Acetone, Xylene, Isobutyl Alcohol, Ethyl Alcohol, Isobutyl Acetate	Employees are required to enter the drying ovens, which are confined spaces, at times during the work shift. KERAMIDA was hired to determine employee exposure to contaminants in the drying ovens during coating operations using active sampling and direct read monitoring.
Pacific Jets (Facility: Manufacturing)	Health and Safety	KERAMIDA was hired to develop all the health and safety programs and procedures for daily operations for the new facility. The procedures were implemented.
Selmer Corporation (Facility: Manufacturing)	Health and Safety	KERAMIDA was hired to conduct complete health and safety audits for 6 facilities. After the full health and safety inspections were completed, KERAMIDA developed recommendations for compliance. The client developed policies based on KERAMIDA's recommendations, and implemented the procedures.
SDR Coatings, Inc. (Facility: Manufacturing)	VOCs, Titanium Dioxide, Bisphenol A, Benzyl Alcohol	The client wanted to determine employee exposure to contaminants of concern. KERAMIDA assisted the client with monitoring of coating operations.
Barclay, White, Skanska, Inc. (Facility: Construction Site)	VOCs, Titanium Dioxide, Barium Sulfate, Magnesium Silicate, Bisphenol A, MDI	KERAMIDA conducted active sampling in order to evaluate the personal exposure to contaminants of concern during and after spray coating operations.
Raytech Composites, Inc. (Facility: Manufacturing)	Safety	KERAMIDA was hired to create individual MSDS for manufactured products, and to manage the MSDS database on an on-going basis.
EQ (Facility: Manufacturing / Hazardous Waste Site Cleanup)	HCN, CO, H <sub>2</sub> S, CH <sub>4</sub> , safety	KERAMIDA was hired to conduct personal exposure monitoring for hazards of concern, safety oversight for employees, and safety management during hazardous waste cleanup operations. This was a high publicity project.