



Environmental Health & Safety

Scott P. Staber

Arch Environmental Group, Inc.

Contact Information

- Southeast Michigan/Metro Detroit
 - 37720 Interchange Drive, Farmington Hills, MI 48335
 - (248) 426-0165 p / 248-427-030 f
- Southwest-Northwest Michigan/Grand Rapids
 - 13353 Whitecreek Ave., Cedar Springs, MI 49319
 - (616) 930-4116 p

www.archenvgroup.com

Scott P. Staber, CEO, 734-644-0712, scott@archenvgroup.com

Jeffrey S. Heydanek, CFO, 734-644-1296, jeff@archenvgroup.com

Team Contact

- **healthAIR Team**

- *Industrial Hygiene, Air Monitoring & Health/Safety Services*
- Manager: Roosevelt Austin (Rosey) - rosey@archenvgroup.com
- Admin Assist: Wendy Ramsey - wendy@archenvgroup.com

- **cleanWATER Team**

- *Stormwater, Wastewater, UST, ESA and Drinking Water Consulting & Testing Services*
- Manager: Jenna Sendra - jenna@archenvgroup.com
- Admin Assist: Jennifer O’Gara - jennifer@archenvgroup.com

- **safeEARTH Team**

- *Hazardous Waste, Universal Waste, Industrial Cleaning, Emergency Response and Recycling Services*
- Manager: Mike Daul - mike@archenvgroup.com
- Admin Assist: Geri Wolff - geri@archenvgroup.com

History

- We just celebrated our 21st Anniversary on October 6, 2016.
- AEG Evolution: J. Scott Environmental to healthAIR to healthAIR Group to Arch Environmental Group.
- We began conducting Hazardous Waste and Universal Waste in-house in 2004.
- We began conducting Stormwater & Engineering Services in 2010 at which time we truly became full-service.
- In these 21 years we have accumulated over 880 clients and we pride ourselves on being the largest professional environmental firm for educational institutions in Michigan.
- Our first client was Jackson Public Schools and our first bond issue program was for Redford Union Schools.
- We have managed over 20 bond program in these 20 years and still 58% of our revenue is from educational institutions.

The background features a light blue world map centered on the Atlantic Ocean. In the top-left corner, there are several green leaves with detailed vein patterns. In the bottom-right corner, there are white concentric ripples on a light blue surface, suggesting water. The overall aesthetic is clean and environmental.

healthAIR Team

Asbestos, Lead in Paint, Indoor Air Quality, Biological (Mold) and Miscellaneous Industrial Hygiene and Health & Safety Topics

Asbestos

- Asbestos health concerns
- Designated Person troubles
- 6-month periodic surveillances and 3-year reinspections
- Annual notifications and annual asbestos awareness training responsibilities and privatization concerns
- Management plan upkeep and updates
- EPA inspections and audits - why me?
- Material discussions: windows, gym flooring and vermiculite.
- 16 Hour O&M training and floor tile updates

Lead in Paint

- Day care licensing requires lead paint inspections and risk assessments. This applies to your school buildings.
- State of Michigan accredited personnel.
- EPA Lead Renovation, Repair and Painting Regulation. This applies to your school buildings.
- Lead OSHA regulations.

General Indoor Air Quality

- Explanation of a “General Indoor Air Quality” Investigation.
- Explanation of an “Expanded Indoor Air Quality Investigation”.
- Sick Building Syndrome vs. Building Related Illness.
- Cancer and Sick Buildings.
- A deeper discussion on ventilation, CO₂, system balancing and teacher topics.
- AHRAE and Government Agencies.
- EPA’s Tools for Schools.

Biological

- Regulatory agencies.
- What types of companies handle mold mitigation.
- Sampling techniques and interpreting the data.
- Stachybotrys “Black Mold” and the hype associated with it.
- Mico toxins.
- Clean-up techniques.
- EPA Guidance Documents.

Radon, Formaldehyde, Particulate, VOC's and Cancer Clusters

- Radon concerns, levels, guidance regulations, levels and mitigation.
- Formaldehyde concerns.
- Dust becoming concern with contracted housekeeping.
- Carpeting and it's popularity.
- What are VOC's and can they be measured?
- Do you have a “cancer cluster”?



cleanWATER Team

Drinking Water, Stormwater, Underground Storage Tanks, Hazard Communication, Laboratory Safety and Environmental Site Assessments

Lead & Copper in Drinking Water

- Well water is regulated. Health Department does sanitary survey. (bacteria, nitrate, arsenic, metals, cyanide, etc.). Certified sampling professionals
- MDEQ Lead & Copper Rule...some districts conduct voluntary water sampling on municipal water systems. Why?
- Certified Labs vs. Non-Certified Labs and associated sampling costs.
- Sampling points and sampling techniques.
- State reimbursement for Drinking Water Sampling activities.

Stormwater

- Public body who owns or operates a regulated MS4 (municipal separate storm sewer system) in the State of MI, which can be a city, village, township, county or public school district, college or university.
- You either have your own permit, are entered into a formal nesting agreement or are out of compliance.
- There are many activities that are required of MS4's whether you own your own permit or are nested. What does this mean?

Underground Storage Tanks

- New(er) A, B and C Operator Rules for USTs hold any petroleum product over 110 gallons. How do these impact school districts.
- Every 30 days you must prove that your tank is not leaking (mostly monitoring systems)
- New tanks require interstitial monitoring on double walled tanks.
- DEQ inspectors will come out at least once every 3 years. They may or may not let you know they are coming and you will receive a report within 24 hours. They almost always find something.

UST's Continued

- Most typical citations involve:
 - Annual testing not being completed (yearly leak test and overfill protection devices, electronic monitor, pressurized delivery system).
 - Cathodic testing is required every three years on most steel tanks and piping.
 - Financial responsibility needs to be proven at the time of inspection - pollution insurance on tanks.
 - Not having a copy of your tank registration.
- If you are closing a tank, there is a process for closing. You can't just abandon it, you can't just fill it and you have one year to do something to remove it or pay for it's registration again.
- Spills must be reports with 24 hours. You can receive large fines if you do not report. EPA requires you report a spill of 25 gallons or more while Michigan does not have a quantity but if spilled on in soil or ground water - they want to be reported.

Hazard Communication

- Most commonly cited OSHA regulation for non-compliance.
- OSHA's Hazard Communication Standard is now aligned with the UN's Globally Harmonized System of classification and labeling of chemicals (called GHS).
 - You must inventory chemicals and secure SDS for each.
 - Update SDS library with GHS compliant documents.
 - Compare old and new SDS sheets to determine newly identified hazards.
 - Archive old versions of (M)SDS sheets.
 - Maintain SDS sheets in English.
- MSDSONline

Hazard Communication/Chemical Hygiene

- OSHA does not require that MSDSs be provided to purchasers of household consumer products when the products are used in the workplace in the same manner that a consumer would use them, i.e.; where the duration and frequency of use (and therefore exposure) is not greater than what the typical consumer would experience. This exemption in OSHA's regulation is based, however, not upon the chemical manufacturer's intended use of their product, but upon how it actually is used in the workplace. Employees who are required to work with hazardous chemicals in a manner that results in a duration and frequency of exposure greater than what a normal consumer would experience have a right to know about the properties of those hazardous chemicals.
- Laboratories are covered by a separate workplace-specific standard: Occupational Exposure of Hazardous Chemicals in Laboratories (29 CFR 1910.1450) and Part 431, Chemical Hygiene Plan. These items should be addressed, but not as part of the Hazard Communication Program.

Chemical Hygiene

- Laboratory Safety Chemical Hygiene Plan (CHP). This is OSHA's regulation regarding occupational exposure to hazardous chemicals in laboratories (29 CFR 1910.1450).
- Mandates a Chemical Hygiene Plan to protect laboratory workers from harm due to hazardous chemicals...requires:
 - Safety & Health SOP for chemical activities.
 - Control measures, such as PPE utilized.
 - Procedures for testing fume hoods and emergency showers/eye wash stations.
 - Appointing a Chemical Hygiene Officer.
 - Yearly review of programs and inspections of chemicals/equipment.

Environmental Site Assessments

- Transaction Screening, Phase I and Phase II ESAs.
- Also known as “Environmental Due Diligence” inspections in the banking world - largely used during property transactions.
- Largely a historical review of the property and a cursory site inspections.
- Transactions Screens - Owner questionnaire and cursory property inspection.
- Phase I - In depth historical review of items like owner history, property use, aerial photographs, federal and state environmental sites nearby, etc.
- Phase II - Sampling and inspections.



safeEARTH Team

Hazardous & Universal Wastes, Mercury & Spill Response, Medical & Pharmaceutical Wastes, Lab Packs, Industrial Cleaning and Specialized Recycling.

Hazardous & Universal Wastes

- Hazardous Waste vs. Universal Waste
 - Antifreeze, meaning a mixture containing ethylene glycol or propylene glycol used as a heat transfer or dehydration fluid
 - Batteries, including spent dry cell and lead-acid batteries.
 - Consumer electronics which are devices run by electricity containing circuit boards commonly found in offices and homes such as computers, fax machines, telephones, televisions, and printers (note CRTs may alternatively be managed as electric lamps).
 - Electric lamps, including fluorescent, high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps, and cathode ray tubes (CRTs) from computers and televisions (note CRTs may alternatively be managed as consumer electronics).
 - Devices containing elemental mercury, including thermostats, switches, thermometers, manometers, barometers, anti-locking braking systems (ABS), gas flow regulators, hydrometers, blood pressure cuffs and various medical devices, etc.
 - Pesticides, including certain suspended, canceled, or unused pesticides. Pharmaceuticals, including drugs for both human and veterinary use.
- Liquid Industrial Waste.
- MDEQ Unannounced Inspections.

Medical & Pharmaceutical Wastes

- Medical Waste Audits being performed by your Local Health Departments (LHD).
- Sharps containers vs. red tubs.
- 90 day rule.
- Medical Waste Program/Management Plan
- What about unused pharmaceuticals left at schools.
- Controlled substances

Lab Packs

- A method of shipping smaller containers inside a larger outer container.
- Lab packs allows us to be more efficient when shipping “like” materials.
- Examples of like materials are: flammable with flammable, corrosive with corrosive or reactive with reactive and so on.
- Expired, damaged or out-of-date chemicals.
- Lab pack typically are needed at: schools, universities, hospitals, laboratories, manufacturing companies OR anyplace that has small containers of potentially hazardous materials (thinners, paints, solvents, inks, etc.)

Specialized Recycling

- Fluorescent Lamps and CFLs.
- Batteries.
- E-Waste such as computers, monitors, printers/scanners, cell phones, PDAs, MP3 players, cameras, gaming consoles.
- Disposal programs available.



Thank You

Scott Staber, CEO

scott@archenvgroup.com

(734) 644-0712