

Case Study #2

Small Toxicology Testing Laboratory

Small business #2 is a toxicology testing laboratory for a variety of chemicals. With a total of 10 full-time employees, they were the smallest of all the case study companies. Dealing with such a small business provided insight into how safety and health issues are dealt with at smaller worksites.

Grant Work:

After conducting an initial walkthrough of the laboratory and completing a gap analysis of their safety and health management system, it was evident that this was a very close knit workplace. The owner of the company plays an active role in day to day activities and is easily accessible by employees. Safety and health of employees seemed to be a core value to management, so there was already commitment and support from the top down. This support is crucial when beginning any new health and safety program. First and foremost, the owner wanted to make sure they were doing everything possible to protect employees at work. However, they had no established health and safety management system and weren't really sure what is required by employers under the OSHA standards. With such a small workplace, it is difficult to have the expertise needed to ensure compliance. So, the owner took the right steps and contacted their state agency for compliance assistance. As a small business, they qualified for a free annual inspection by a compliance assistance officer. The inspection is to identify things that are not in compliance with OSHA standards and offer suggestions for correcting them. No penalties or fines are assessed and the report does not get sent to OSHA. No major safety problems were found in the laboratory during the inspection. Some improvements in emergency exit signage were the only recommendations.

As a small testing laboratory, their main concern was more health related than physical hazards. A variety of chemicals with unknown health effects are handled and tested daily. All samples come with labels and MSDS information, but proper disposal is an issue due to the unknown toxicity of the chemicals. They also had some old chemicals stored under a lab hood that needed to be disposed of. As part of their assistance under the Harwood Grant, we helped them with inexpensive hazardous waste disposal options. Since they are a conditionally exempt small quantity generator (CESQG) of hazardous waste, they were able to take toxic lab wastes to the local county household hazardous waste drop-off site. The facility accepts small quantities of hazardous waste from homes and CESQG businesses. It turned out to be less expensive than using an independent hazardous waste disposal company, because those companies charge for pick-up based on larger volume drums and containers. This lab only produces very small quantities of mutagenic waste to get rid of. We also answered some of the lab's questions about decontamination and disposal of disinfecting solution and lab ware.

The gap analysis revealed the lab had no written health and safety policy and no record of safety training for employees. They did have an extensive collection of written standard operating procedures (SOPs) for every laboratory analysis they perform and for

equipment calibration and maintenance. All employees are trained on SOPs for new lab procedures and receive annual review training. That training is documented and required as part of their laboratory quality certification. Due to the small size of the company, formal safety training classes did not seem practical. We suggested that they include a section on safety in each SOP. RIT assistants and an employee went through all SOPs identifying safety hazards, required personal protective equipment (i.e., heat resistant gloves, goggles, aprons), and chemical hazards. Safe work practices are now included on each SOP along with any necessary warning or caution notices. All employees are being retrained on the revised SOPs and a system is in place to review them each year and update as necessary. The supervisor and employee sign a sheet to document they have received the training. In addition, we also suggested that employees receive outside training on bloodborne pathogens as they may come into contact with animal and human blood in their procedures. Management agreed and training was completed by a consultant during the summer.

This case study was an excellent example of how small businesses can integrate safety into their daily operations without spending much time or money. The lab already had a good quality assurance program in place which included written procedures, annual audits, and employee training. All they had to do is add in the safety component to the system they already have in place. Once we helped them identify what the potential hazards were in the lab, all they had to do was update the SOPs with safety precautions and PPE use and communicate it to employees. When a new lab test is introduced, the safety hazards will be evaluated and procedures included in the SOP to minimize those hazards. By doing this, very little extra time is spent on safety related tasks. Combining safety with other job duties distributes responsibility and also gets employees thinking about what they do a little more closely. Hazards are communicated to employees during their regular SOP job training and it gets documented. Now, when they have an audit for their quality certification, they go through and do a safety audit as well. Both cover many of the same things for example: preventative maintenance on lab hoods, chemical handling and storage, and written procedures.

The owner of the company is currently working on writing a safety policy to be included in the employee handbook. They now talk about any safety or health concerns during monthly staff meetings, and have a form to record first-aid accidents. The company has never had an OSHA recordable injury and strives to continue that trend.

Follow up:

Initially, the company barely had any formal management of safety. Most of what was in place was entwined with the process that are performed.

After a follow up gap analysis the company gauges their progress to be fair to good. The biggest gain is “an increase in awareness of looking for potential hazards” otherwise known as hazard recognition. The company is also aware of having to constantly perform hazard recognition procedures as the research work is an ever evolving process.

The company is developing a safety and health policy as part of their new employee training documentation. There are also programs under development in chemical hygiene and fire safety. Most importantly, a safety section has been added to all of the applicable S.O.P.'s which employees have to sign off on to verify that they have read and understand the document before beginning a new procedure. They have even consulted with a local fire marshal to perform training and address fire related issues.

As a whole this company has taken great strides in their interest in safety and their commitment.