ioMosaic®
Minimizing risk. Maximizing potential.®

Case Study

Asset Integrity Management Training for Chemical Manufacturer

The Client

A chemical manufacturing company determined they needed to better manage their risk reduction by improving the effectiveness of their Asset Integrity (AI) program, also known as a Mechanical Integrity (MI). Although the client wanted more efficient organization and documentation of this program internally, they lacked the expertise to educate staff for an effective improvement. The client reached out to ioMosaic for training services to meet their goals.

The Challenge

One key component of any Process Safety Management (PSM) system is ensuring that loss of containment of hazardous process materials is prevented by properly designing, installing and assuring that equipment is fit for use. Such a risk management process requires a robust approach to managing an overwhelming amount of asset integrity data.

Another key component of a PSM system is shaping personal-safety behaviors and interactions to embed a sustainable safety culture within an organization. Given that the client had little prior experience with or exposure to asset integrity, employees required comprehensive training on the fundamentals – covering everything from asset integrity principles, practices, and measurement to practical how-tos and program sustainability.

The ioMosaic Approach

The client worked with the ioMosaic team to identify their biggest challenges and areas of improvement and developed a customized course that addressed their needs. It was determined that four days of training focused on the importance of assuring the elimination of implementation barriers, the competency of key personnel, the quality of procedures, and inspection and testing requirements would meet the client's objectives. The customized course included:

1) Motivation for an AI program
2) AI program design and development
3) AI program implementation
4) Performance indicators

(continued)

Customized workshops and targeted case studies were developed to help increase the training's relevancy to employee's roles, enrich the understanding of asset integrity concepts, and its importance in their day-to-day activities.

Beyond a basic methodology, participants also learned about practical AI and risk reduction tools, such as Failure Modes & Effects Analysis (FMEA), Risk-based Inspection (RBI). Preventative Maintenance (PM) / Predictive Maintenance (PdM) were discussed in-depth. Managing equipment information, test and inspection results, and deficiency tracking was also reviewed. They learned how a data management system with workflows, like Process Safety Enterprise®, contributes to streamlining an AI program for long-term, cost-effective maintenance.

The involvement of many employee levels and departments meant that participants were informed not only about their own roles and duties for developing and maintaining an AI program, but they now also obtained an awareness of the roles around them to help identify responsibility gaps or overlaps. This improved understanding increased efficiency and the program implementation. Holding the training in-person and on-site provided participants with interactions that may not normally occur on the shop floor and enabled the client to receive additional insight and recommendations on any potential gaps or issues from the ioMosaic facilitators who have extensive first-hand experience.

The Result

The success of any AI program requires awareness, knowledge, and commitment from its employees about asset integrity, its significance, and how to sustain effective practices. Through training, participants gained a firm understanding of asset integrity concepts, the skill sets needed to update their AI procedures, improve an AI program, and best industry practices (RAGAGEP) to make the program more efficient. The employees contributed to every aspect of their AI program as well as to the plant's overall safety.