



## Safety Services

*Safety-conscious design is backed by ongoing support*

Safety has always been an integral consideration in the design of ICM's plants and equipment. In fact, it played a role in ICM's inception—ICM was founded in 1995 by a small team of engineers and craftsmen who shared the core belief that, in the ethanol industry, things could be done safer, more efficiently, and with greater returns.

Those convictions led to engineering efforts that produced the industry's leading ethanol plant design as well as a preferred drying system.

Improved safety, efficiency, and returns for the industry were also the end goals that guided ICM in the development of more than 30 products and services focused on the ethanol industry, including two services focused primarily on safety—our Pre-Startup Safety Review (PSSR) and Lockout/Tagout Profile Book.



### Pre-Startup Safety Review (PSSR) meets OSHA requirements

Before your ethanol plant can begin producing ethanol, OSHA requires an extensive review to verify that it is safe to operate. The regulations mandate inspections of all areas covered by Process Safety Management (PSM), which include the ethanol production process from the beer column onward as well as the anhydrous ammonia system.

ICM's PSSR meets OSHA's pre-startup review requirements and includes inspection services as well as all necessary documentation. With purchase of the package, our inspectors will conduct a thorough plant review and provide documented confirmation that:

- Your plant meets mandates calling for safety reviews of all new facilities and/or significantly modified work sites
- Construction and equipment adhere to designed specifications
- Adequate procedures are in place, including:
  - » Safety
  - » Operating
  - » Maintenance
  - » Emergency procedures
- Operator training has been completed

For new facilities, the package also provides:

- Performance of a Process Hazard Analysis (PHA)
- Resolution and implementation of PHA recommendations

For modified facilities, the PSSR:

- Ensures that Management of Change requirements have been met

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### Confined space evaluation procedures

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OSHA regulations state that every ethanol production facility is responsible for identifying safe methods of isolating each confined space prior to entry. Our LO/TO Profile Book was custom-developed to help meet this requirement. The book will walk your staff through the steps necessary to conduct an evaluation to determine the precautions needed and isolation steps required to render each confined space safe to enter.

These evaluations, called "confined space profiles," are necessary to correctly classify the space as any of the following:

- Permit-required confined space
- Confined space for atmosphere only
- Non-permit-required space





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## Control of hazardous energy (ANSI/ASSE standard)

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Just like OSHA regulations guide safe confined space isolation and entry, there are rules governing safe equipment maintenance practices. The ANSI/ASSE standard charges ethanol production facilities with the responsibility to identify safe methods of equipment isolation prior to equipment maintenance. ICM's LO/TO Profile Book also guides your staff through the process of conducting an evaluation, called a "LO/TO equipment profile." The profile determines precautions needed and isolation steps required to render each piece of equipment safe for maintenance.

### **Lockout/Tagout Profile Book keeps your staff safe**

ICM has many procedures in place to ensure that every single person who enters an ICM-designed plant is in a safe working environment at all times.

To help plant personnel stay both safe and in compliance with regulated requirements, ICM has developed a Lockout/Tagout (LO/TO) Profile Book guiding safe confined-space entry and equipment maintenance practices. The procedures discussed in this book cover:

- Safely isolating each confined-space vessel prior to entry
- Safely isolating other non-confined-space equipment prior to maintenance activities

The LO/TO Book also identifies and documents the valves, pumps, and other ICM equipment necessary to safely isolate vessels and equipment prior to entry and/or maintenance

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### Contact us for more information!

ICM's PSSR and LO/TO Profile Book are just two of the many services we offer that have been tailored to the ethanol industry.

Learn more about ICM's safety solutions or any of the 30-plus other products and services we have developed to meet your plant's needs! Call our Customer Service department today.

**877.456.8588**

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