

API Comments on OSHA Guidance Document on Process Safety Management Guidelines for Small Business Compliance
September 29, 2016

OSHA Guidance Document Text	API Comment/Rationale	Suggested Alternative
<p>General Comments</p>	<p>The guidance document provides recommendations beyond the scope of PSM, confusing what is required and what is suggested.</p> <p>The document greatly expands MI requirements.</p> <p>The document misunderstands the components of RAGAGEP</p> <p>The document promotes use of third-party auditors, which is not required by PSM.</p>	<p>Include American Chemistry Council in industry list on pages 2 and 3.</p>
<p>Process Safety Information</p>		
<p>PSI must include information on the hazards of the highly hazardous materials used or produced by the process, information on the technology of the process, and information on the equipment used in the process.</p>	<p>OSHA PSM definition of a process includes any activity involving a highly hazardous chemical including any use, storage, manufacturing, handling, or the on-site movement of such chemicals, or combination of these activities. This guidance document needs to be consistent with the PSM regulation.</p>	<p>Change “used or produced” to “used, produced, stored or transported on-site.”</p>
<p>The PSI compiled by the employer must allow for an accurate assessment of fire and explosion characteristics, reactivity hazards, intermediate chemical properties, safety and health hazards to workers, and corrosion and erosion effects on the process equipment and monitoring tools.</p>	<p>We encourage performance-based, rather than prescriptive, regulation.</p> <p>Existing PSM regulation requires corrosion and erosion information on the PSI.</p>	<p>Remove “corrosion and erosion effects on the process equipment and monitoring tools” and replace with “corrosivity effects on equipment.”</p>
<p>Process technology information must include diagrams (Block, Process Flow, or Piping and Instrument Diagrams (P&IDs) as shown in Appendices B and C of the PSM standard),</p>	<p>To require employers to establish maximum inventory level criteria for process chemicals is a new interpretation of PSM. Safe upper and lower limits and the consequences of deviation</p>	<p>Change highlighted text to “Block or Process Flow and P&IDs.”</p> <p>Change “as depicted below” to “as depicted</p>

API Comments on OSHA Guidance Document on Process Safety Management Guidelines for Small Business Compliance
September 29, 2016

<p>which will help users understand the process. For instance, a block flow (simplified) diagram and a process flow diagram (as depicted below) are used to show the major process equipment and interconnecting process flow lines. It also shows flow rates, stream composition, temperatures, and pressures when necessary for clarity. Additionally, an employer must establish maximum inventory level criteria for process chemicals (i.e., limits beyond which would be considered upset conditions) as well as a qualitative estimate of the consequences or results of deviation that could occur if operating beyond the established process limits.</p>	<p>are related to process parameters and not maximum intended inventory, unless inventory limit excursions could result in other consequences. Maximum inventory values are typically used for applicability determination and potentially for consequence bounding.</p>	<p>above.”</p> <p>Change “clarity” to “for compliance with material and energy balance along with process chemistry requirements.”</p> <p>Revise the final sentence as follows: “Additionally, an employer shall establish maximum inventory level criteria for process chemicals. An employer shall consider the consequences or results of deviating beyond the established safe process limits.”</p>
<p>Employers must also document that equipment complies with recognized and generally accepted good engineering (RAGAGEP). For more information on OSHA's interpretation of RAGAGEP see OSHA Memorandum, <i>RAGAGEP in Process Safety Management Enforcement</i>. 12 Below is a non-exhaustive list of institutions that publish standards that may contain applicable RAGAGEP:</p> <ul style="list-style-type: none"> • American National Standards Institute (ANSI), • American Petroleum Institution (API), • American Society for Testing and Materials (ASTM) • American Society of Mechanical Engineers (ASME), • American Welding Society (AWS) • Center for Chemical Process Safety (CCPS), • Compressed Gas Association (CGA), • International Code Council (ICC), 	<p>The Center for Chemical Process Safety (CCPS) is not a potential source of RAGAGEP.</p>	<p>Insert the word “practices” prior to (RAGAGEP).</p> <p>Remove “Center for Chemical Process Safety (CCPS)” from the list of institutions that publish standards that may contain applicable RAGAGEP.</p>

API Comments on OSHA Guidance Document on Process Safety Management Guidelines for Small Business Compliance
September 29, 2016

<ul style="list-style-type: none"> • International Organization for Standardization (ISO), • National Association of Corrosion Engineers (NACE), and • National Fire Protection Association (NFPA). 		
<p>Process Hazard Analysis</p>		
<p>A PHA team must be comprised of personnel that are knowledgeable in engineering and process operations, and have at least one person . . .</p> <p>Safeguards may include inherently safer or passive approaches to hazard control...</p> <p>“Small businesses will often have processes that have less storage volume, less capacity and may be less complicated than processes at a large facility...</p> <p style="text-align: center;">and</p> <p>...However some small businesses utilize complex processes. In these instances, employers must use a PHA methodology appropriate to the process, such as a Hazard Operability Study (HAZOP), or Failure Mode and Effects Analysis (FMEA). In such instances, small businesses may find the PHA contractor assistance is beneficial.”</p>	<p>Text is inconsistent with regulatory language.</p> <p>In addition, the statements on page 7 of the guidance document referencing the complexity of the process in relation to the PHA methodology are vague and subject to misinterpretation.</p>	<p>The term “person” should be replaced with “employee” to be consistent with the regulations and to avoid confusion.</p> <p>Remove the sentence beginning the "Safeguards may include . . ."</p> <p>Remove two paragraphs starting with “[s]mall businesses will often have processes with less storage volume...” and ending with “...small businesses may find that PHA contractor assistance is beneficial.”</p>
<p>PHA Development Team</p> <p>In order to conduct an effective, comprehensive process hazard analysis, the analysis must be performed by competent persons, knowledgeable in engineering and process operations, and those persons must be familiar with the process being evaluated. Some employers may have a staff with the</p>	<p>Language is inconsistent with regulatory text.</p>	<p>Revise the highlighted sentence to say “shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team shall be knowledgeable in the specific process hazard analysis methodology</p>

API Comments on OSHA Guidance Document on Process Safety Management Guidelines for Small Business Compliance
September 29, 2016

<p>expertise needed to perform an effective process hazard analysis. However the employer should ensure that its staff not only has the necessary engineering and process operations expertise, but also of the PHA methodology used.</p> <p>OSHA believes it is important to note that in all situations, the team performing the process hazard analysis must include at least one employee from the facility who is intimately familiar with the process.</p>		<p>being used.”</p> <p>Remove the sentence “OSHA believes it is important to note that in all situations, the team performing the process hazard analysis must include at least one employee from the facility who is intimately familiar with the process.”</p>
<p>Training</p>		
<p>For example, those who work in the area or operate the equipment will receive more extensive training than other employees.</p> <p>In the training program documentation, employers should clearly define the employees to be trained and what subjects are to be covered in their training. Employers in setting up their training program should clearly establish the goals and objectives they wish to achieve with the training that they provide to their employees. The learning goals or objectives should be written in clear measurable terms before the training begins. These goals and objectives should be tailored to each of the specific training modules or segments. Employers should describe the important actions and conditions under which the employee will demonstrate competence or knowledge as well as what is acceptable performance.</p>	<p>Language is inconsistent with regulatory text.</p>	<p>Re-word from “other employees” to “visitors or other non-operational personnel.”</p> <p>Revise the highlighted OSHA draft wording with “The employer shall ascertain that each employee involved in operating a process has received and understands the training required by this paragraph. The employer shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.”</p>
<p>Employers should periodically evaluate their training programs to see if the necessary skills,</p>	<p>Wording regarding the evaluation of the training requirement should be clarified to be</p>	<p>Revise the highlighted sentence to say “Employers should periodically evaluate their</p>

API Comments on OSHA Guidance Document on Process Safety Management Guidelines for Small Business Compliance
September 29, 2016

<p>knowledge, and routines are being properly understood and implemented by their trained employees. Training program evaluation will help employers to determine the amount of training their employees understood, and whether the desired results were obtained. If, after the evaluation, it appears that the trained employees are not at the level of knowledge and skill that was expected, the employer will need to revise the training program, provide retraining, or provide more frequent refresher training sessions until the deficiency is resolved. Those who conducted the training and those who received the training should also be consulted as to how best to improve the training process. If there is a language barrier, the language known to the trainees should be used to reinforce the training messages and information.</p>	<p>consistent with regulatory requirements.</p> <p>Second language training for all trainers is unrealistic.</p>	<p>training programs through their audit process as prescribed by PSM requirements....”</p> <p>Delete “If there is a language barrier, the language known to the trainees should be used to reinforce the training messages and information.”</p>
<p>Mechanical Integrity</p>		
<p>Employers who do not have a mechanical integrity program will first need to identify all equipment that is part of the covered process.</p>	<p>It is not a requirement of PSM to identify all equipment that is part of the covered process or to subject utility piping and equipment to MI requirements.</p>	<p>Revise the sentence as follows: “Employers who do not have a mechanical integrity program will first need to identify all critical equipment that is part of the covered process.”</p>
<p>In many cases, the equipment that is part of the process will have inspection and testing recommendations from the manufacturer. If the covered equipment does not have any mechanical integrity related manufacturers recommendations, employers should look for applicable codes/standards or industry best practices.</p>	<p>Language is inconsistent with regulatory text.</p>	<p>Revise “part of the process” to “part of the mechanical integrity program.”</p>
<p>Compliance Audit</p>		
<p>An audit is a technique used to gather sufficient facts and information, including statistical information, to verify compliance</p>	<p>The current language “including statistical information” is confusing. Is "statistical information" referring to using a "sampling"</p>	<p>Change current draft wording to “a statistically representative sample of supporting records.”</p>

API Comments on OSHA Guidance Document on Process Safety Management Guidelines for Small Business Compliance
September 29, 2016

<p>with the procedures and practices the employer has adopted under PSM. A compliance audit must be conducted every three years.</p>	<p>approach to audits?</p>	<p>Change wording to “at least every three years” as opposed to “every three years.”</p>
<p>Employers must select at least one individual that is knowledgeable about the process to be audited. For some complex and/or larger processes, OSHA believes a team of individuals would be beneficial for conducting an audit. However, for less complex and/or smaller processes an employer may need only one knowledgeable person to conduct an audit.</p>	<p>It is not a PSM requirement of employers create teams based on the complexity of a process, so this recommendation is confusing.</p>	<p>Revise the highlighted sentence to say, “However, for some complex and/or larger processes, OSHA believes a team of individuals would be beneficial for conducting an audit.”</p>
<p>The audit must include an evaluation of the effectiveness of the PSM program by verifying compliance with the provisions of PSM and that the procedures and practices developed are adequate and are being followed. The audit should be conducted or lead by a person knowledgeable in audit techniques and who is impartial towards the facility or area being audited. The essential elements of an audit program include planning, staffing, conducting the audit, evaluation and corrective action, follow-up and documentation.</p>	<p>This draft wording implies that the PSM regulation or this guidance document requires third-party auditors should conduct or lead the audit which is not the case.</p>	<p>Delete the sentence, “The audit should be conducted or lead by a person knowledgeable in audit techniques and who is impartial towards the facility or area being audited.”</p>
<p>Appendix A: FAQs</p>		
<p><i>‘What are a few key PSM elements all employees should know?’</i> All employees should know the hazards related to storing, mixing or processing chemicals. They should know how each of their processes work. They should also know when equipment is operating improperly or outside safe limits. If equipment is not operating properly or an emergency occurs, they should know what response actions to take and who to contact.</p>	<p>Not all employees must know the complex natures of all of the chemicals they are working with. This places an unnecessary training burden on companies without any proof of an associated decrease in injuries.</p>	<p>Change from “All employees should know the hazards ...” to “Personnel involved in operations should know the hazards.....”</p>