

## A Tool for Measuring & Strengthening JOBSITE SAFETY CLIMATE

By Linda M. Goldenhar

**Many construction companies and OSH professionals recognize that if they can better understand employees' shared perceptions about what a company rewards, expects, values and reinforces in terms of safety and health, this information can help them identify and improve jobsite issues that may lead to adverse outcomes.**

**Called safety climate**, employees' shared perceptions derive from several factors, perhaps most importantly, the effectiveness of the company's safety management practices, policies and procedures used on the jobsite. While large construction companies often have the resources to pay for safety climate assessments and creating safety management tools from scratch to strengthen low-scoring areas, many small- and medium-sized firms lack the personnel or finances to do so.

To address this need, CPWR—The Center for Construction Research and Training worked with construction industry stakeholders to develop free tools that companies, regardless of size and available resources, can use to engage in continuous safety climate and safety management improvement. The most recently developed tool is the Safety Climate-Safety Management Information System (SC-SMIS; <https://scsmis.com>).

### Developing the SC-SMIS

To ensure that this tool would provide value to all companies regardless of where they were on their safety climate improvement journey, the research team engaged 12 safety professionals from small- and medium-sized construction companies across the U.S. to join a user development team. The user development team's key task was to provide initial input as well as ongoing feedback on the system's design, features and functions. The research team also asked many safety professionals at large construction companies to share safety management policies, procedures, guidelines and templates that their companies used to strengthen jobsite safety climate. The user development team and the research team reviewed submissions and identified those that could feasibly be used by small- and medium-sized companies. After 2 years of development, the SC-SMIS was pilot tested beginning in September 2021 and shared with the broader construction community in January 2022. Since then, more than 300 companies have created an account and downloaded more than 30,000 resources.

Following is a hypothetical example to demonstrate how companies interested in beginning or even continuing on their safety management and safety climate improvement journey can use the SC-SMIS.

### Using the SC-SMIS Tool: A Hypothetical Example

Imagine a subcontractor doing business in the Midwest and employing 75 craft workers, office staff and management personnel has recently experienced an increase in its recordable incident and days away, restricted or transfer rates.

Better understanding employees' shared safety climate perceptions can help construction companies proactively identify and improve issues that may lead to adverse safety and health outcomes.

To help get a handle on this issue, the owner, Cindy, wants to learn about and understand her company's safety climate and find safety management resources to address identified issues. Through the SC-SMIS tool, Cindy can use the Safety Climate Assessment Tool (S-CAT) or the Safety Climate Assessment Tool for Small Contractors (S-CAT<sup>SC</sup>) to measure employee perceptions related to eight leading safety climate indicators: demonstrating management commitment; aligning and integrating safety as a value; ensuring accountability at all levels; improving supervisory leadership; empowering and involving employees; improving communication; training at all levels; and encouraging owner-client involvement. The S-CAT is a reliable and valid safety climate maturity survey while the S-CAT<sup>SC</sup> is a basic needs assessment.

In this hypothetical example, Cindy determines that it would be most beneficial to use the S-CAT to better understand employees' perceptions of the company's level of safety climate maturity and gain ideas for how to strengthen it. The system guides her through a process of entering unique identifiers for the employee groups that will participate, in this case, management, craft workers and staff.

After she's done, the system generates a sample email for each group. The emails contain suggested text, including the fact that responses are completely anonymous and that the company does not have access to the data. It also has a unique URL for each group to take the survey. Cindy can edit the text, then forward the email to the employees in each group. On the results and reporting page, she can watch in real time as employees complete the S-CAT.

Once satisfied with the number of employees who have responded, Cindy can run reports to examine each group's safety climate maturity scores, compare scores across groups, and assess the company's overall safety climate maturity. All scores are reported as averages. She can also compare her company to benchmark scores that are derived from the data in the S-CAT database, which has more than 10,000 responses.

In this example, suppose one result was a low score for the "empower and involve employees" indicator. Cindy can look at the report in more detail and see that most craft workers said they were unaware of their involvement and role in safety and did not feel comfortable bringing up safety-related issues.

At a scheduled meeting, she shared the report's graphs and statistics with her project manager and supervisors, and they discussed ideas for next steps. During that meeting, they looked at the safety management resource repository on the SC-SMIS website, which contains 90 different safety management policies, procedures, guidelines and templates companies can use to strengthen the eight safety climate indicators. All the resources in the repository are being used

by large construction companies and have been formatted as either Word or PowerPoint documents so users can tailor them for their own companies.

Cindy's team looked specifically at the resources designed to strengthen the "empower and involve employees" indicator, given the low score for this category and identified two resources they could start using immediately: 1. "Engaging Workers—Making Safety Personal," which lays out steps crews take at the beginning of each day to help them take ownership of the work process and actively participate in creating safety plans; and 2. "Near Miss-Good Catch Program With Sample Reporting Templates," which provides a definition of a good catch and a process for all employees to proactively identify safety and health issues, stop any unsafe work activity, coach fellow team members, and document those conversations and actions.

Next, Cindy should meet with her management team and lead frontline workers to think through how best to start using the two new policies and procedures on the jobsite. She can download a blank action plan template from the SC-SMIS

to facilitate a discussion about their goals for using the new tools, identify specific action steps that must be taken to accomplish the goals, who will be responsible for taking the steps, and what information will be collected to determine whether the goals have been accomplished. After the meeting, Cindy can enter the information into the online action plans in her account and track progress by updating the action steps as they move from pending to complete. She can also schedule a reminder in the system to conduct a follow-up S-CAT assessment the next year to gauge the degree to which the "empower and involve employees" scores, or any other indicator scores improved.

### Conclusion

Better understanding employees' shared safety climate perceptions can

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help construction companies proactively identify and improve issues that may lead to adverse safety and health outcomes. For many small- and medium-sized businesses that may lack the appropriate resources and personnel, conducting annual safety climate assessments and employing safety management policies and procedures on the jobsite to improve low-scoring areas is out of reach. The SC-SMIS tool was developed to enable such organizations to learn about their employees' perceptions and access existing, established safety management resources they can use to continuously improve and strengthen the company's safety climate. **PSJ**

### Cite this article

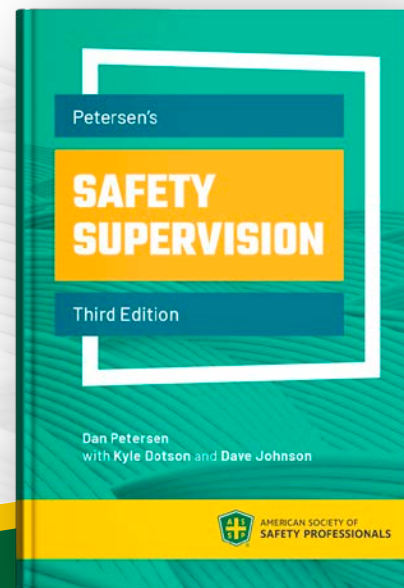
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