1999 SMACNA Safety Statistics Profile

Performance and Characteristics of the SMACNA Member

October 1999
**Introduction**

Each year, SMACNA conducts a Safety Statistics Evaluation and Awards Program. This Program evaluates safety data and recognizes SMACNA members with the lowest accident/illness rates (as computed using the OSHA lost workday incident rate formula). There are various award categories based upon the number of manhours a contractor works.

Information submitted for the Program provides a rich database for evaluating sheet metal industry safety performance. Findings are summarized in this report.

All members are provided with this report to allow them to compare their own safety performance with other similar size contractors and those performing similar types of work.

In addition to safety performance information, the awards application profiles many aspects of SMACNA members’ safety efforts. Information has been gathered on the prevalence and characteristics of safety programs and training and their effect on contractor safety performance. Responses to these questions are tabulated in this report.
Summary of Findings

Safety performance data provided by more than 325 SMACNA contractors indicates that for calendar year 1998:

- The lost workday incident rate was 4.25
- Over one-third of all contractors reported a lost workday incidence rate of zero
- Lost workday rates generally declined as hours worked increased
- The average experience modification rate (EMR) was .85

Characteristics of safety policies and programs for most SMACNA contractors include:

- A company safety policy
- A designated competent safety coordinator
- Regularly scheduled training programs
- A variety of safety training materials from SMACNA and other sources

* A small majority of SMACNA contractors also responded that they do have a formal program for drug and alcohol abuse.
### Safety Summary

<table>
<thead>
<tr>
<th>Class Size</th>
<th>Reports</th>
<th>Hours</th>
<th># of Incidents</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 25,000 hrs.</td>
<td>75</td>
<td>1,042,897</td>
<td>42</td>
<td>8.05</td>
</tr>
<tr>
<td>25,001 – 50,000 hrs.</td>
<td>53</td>
<td>2,013,055</td>
<td>44</td>
<td>4.37</td>
</tr>
<tr>
<td>50,001 – 100,000 hrs.</td>
<td>72</td>
<td>5,368,380</td>
<td>185</td>
<td>6.89</td>
</tr>
<tr>
<td>100,001 – 200,000 hrs.</td>
<td>52</td>
<td>7,502,982</td>
<td>237</td>
<td>6.32</td>
</tr>
<tr>
<td>200,001 – 300,000 hrs.</td>
<td>29</td>
<td>6,997,468</td>
<td>195</td>
<td>5.57</td>
</tr>
<tr>
<td>300,001 – 400,000 hrs.</td>
<td>21</td>
<td>6,847,019</td>
<td>188</td>
<td>5.49</td>
</tr>
<tr>
<td>400,001 – 500,000 hrs.</td>
<td>9</td>
<td>4,001,741</td>
<td>48</td>
<td>2.4</td>
</tr>
<tr>
<td>Over 500,000 hrs.</td>
<td>23</td>
<td>26,591,020</td>
<td>343</td>
<td>2.58</td>
</tr>
<tr>
<td><strong>Grand Totals:</strong></td>
<td>334</td>
<td><strong>60,364,562</strong></td>
<td>1282</td>
<td><strong>4.25</strong></td>
</tr>
</tbody>
</table>

Over 325 contractors working more than 60 million hours participated in the 1999 SMACNA Safety Statistics Evaluation and Awards Program. More than one-third (111) of these companies reported no occupational injuries or illnesses with lost workdays. The average lost workday rate was 4.25.

### Incidence Rate By Size

![Incidence Rate By Size Chart](chart.png)
Responding contractors reported a total of 21,650 lost workdays and zero fatalities. For those contractors who reported lost workdays because of occupational injury or illness, the average number of lost workdays was 97.

Lost workday incidence rates were generally lower for contractors working larger numbers of hours. There were, however, exceptions to this pattern. Because OSHA methodology was used for determining incidence rates, a small contractor was above average as soon as one incident occurred.

Most respondents reported that their company had a written safety and health program. They have a designated competent safety coordinator and conduct regular safety training. Their programs include the use of safety products and services available from SMACNA.

Most respondents used the safety products and services available from SMACNA.
A number of types of training are utilized by contractors. All were conducted by a majority of contractors, except the OSHA 10-hour course. Toolbox talks and videos were used by almost all companies. Generally, the usage of each category of training increased with the number of hours worked by the contractor.

Like other training options, the OSHA 10-hour course was more likely to be associated with contractors reporting larger numbers of hours worked. Use of the OSHA 10-hour course was geographically clustered as well. Respondents in three chapters accounted for one-third of the contractors conducting this type of training.
• Training is most often performed by contractors on a weekly basis.

• There are also a considerable number of companies that have a monthly training schedule.

• Likelihood of weekly training increased with the number of hours worked by contractors.

• Other training schedules were utilized independent of work hours.
A wide variety of printed training materials are used by contractors. These, as well as videos, were used by more than half of all companies. While the use of printed materials was widespread among all sizes of companies, videos were used more often by contractors working larger numbers of hours.

Types of Training Materials Used

Safety Training Materials-Books

Safety Training Materials-Posters
• About 55 percent of all companies reported an experience modification rate (EMR) of between .70 and .99.

• The average of all contractors reporting was .85.

Relationship of EMR to Incidence Rate

• There was little relationship between EMR and a zero lost workday incidence rate, however higher EMRs tended to be associated with higher incidence rates.
### Industry Segment Summary

<table>
<thead>
<tr>
<th>Number</th>
<th>Hours</th>
<th>Incidents</th>
<th>Incident Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC</td>
<td>237</td>
<td>23,060,271</td>
<td>469</td>
</tr>
<tr>
<td>HAC</td>
<td>166</td>
<td>1,316,425</td>
<td>16</td>
</tr>
<tr>
<td>ASM</td>
<td>189</td>
<td>2,196,899</td>
<td>64</td>
</tr>
<tr>
<td>ISM</td>
<td>236</td>
<td>10,223,658</td>
<td>193</td>
</tr>
<tr>
<td>KIT</td>
<td>152</td>
<td>626,195</td>
<td>12</td>
</tr>
<tr>
<td>MFG</td>
<td>178</td>
<td>2,385,283</td>
<td>86</td>
</tr>
<tr>
<td>TB</td>
<td>153</td>
<td>591,874</td>
<td>7</td>
</tr>
<tr>
<td>SD</td>
<td>139</td>
<td>675,320</td>
<td>12</td>
</tr>
</tbody>
</table>

HVAC – Commercial Heating, Ventilation, and Air Conditioning  
HAC – Residential Heating, Ventilation, and Air Conditioning  
ASM – Architectural Sheet Metal  
ISM – Industrial Sheet Metal  
KIT – Kitchen Equipment/Food Service  
MFG – Manufacturing  
TB – Testing and Balancing  
SD – Siding and Decking

- For a majority of respondents, it was possible to relate work hours to work and the number of injuries and illnesses to type of work performed.

- Most reported work was either HVAC or industrial. Lost workday incident rate for these was close to, but below, the average for all respondents.
• A small majority of those companies responding to the questions reported that they had a formal program for drug and alcohol abuse.

• Among contractors working over 400,000 hours, 90 percent responded positively.

• In the three chapters with the largest number of responses (about 20 percent of the total), most contractors did not report a program.
• Most companies with a formal program for drug and alcohol abuse conduct pre-hire testing.

• Fewer than half conduct post-employment testing.
Among the contractors with drug and alcohol policies, a majority specified penalties under their policies.

Penalties almost always included termination.