

## \*\*\*\*\*Safety Plan Checklist

This checklist is a summary of desired elements for safety plans. The checklist, referring to page numbers in the document, is intended to help project teams verify that their safety plan is complete and can be a valuable tool over the life of the project.

Page	Element	The Safety Plan Should Describe
1	<b>Scope of Work</b>	<ul style="list-style-type: none"> <li>• Nature of the work being performed</li> </ul>
3	<b>Organizational Policies and Procedures</b>	<ul style="list-style-type: none"> <li>• Application of organizational safety-related policies and procedures to the work being performed</li> </ul>
3	<b>Hydrogen and Fuel Cell Experience</b>	<ul style="list-style-type: none"> <li>• How previous organizational experience with hydrogen, fuel cell and related work is applied to this project</li> </ul>
4	<b>Identification of Safety Vulnerabilities (ISV)</b>	<ul style="list-style-type: none"> <li>• What is the ISV methodology applied to this project, such as FMEA, What If, HAZOP, Checklist, Fault Tree, Event Tree, Probabilistic Risk Assessment, or other method</li> <li>• Who leads and stewards the use of the ISV methodology</li> <li>• Significant accident scenarios identified</li> <li>• Significant vulnerabilities identified</li> <li>• Safety critical equipment</li> <li>• Storage and Handling of Hazardous Materials and related topics                             <ul style="list-style-type: none"> <li>○ ignition sources; explosion hazards</li> <li>○ materials interactions</li> <li>○ possible leakage and accumulation</li> <li>○ detection</li> </ul> </li> <li>• Hydrogen Handling Systems                             <ul style="list-style-type: none"> <li>○ supply, storage and distribution systems</li> <li>○ volumes, pressures, estimated use rates</li> </ul> </li> </ul>
4	<b>Risk Reduction Plan</b>	<ul style="list-style-type: none"> <li>• Prevention and mitigation measures for significant vulnerabilities</li> </ul>

<b>Page</b>	<b>Element</b>	<b>The Safety Plan Should Describe</b>
<b>4</b>	<b>Operating Procedures</b>	<ul style="list-style-type: none"> <li>• Operational procedures applicable for the location and performance of the work including sample handling and transport</li> <li>• Operating steps that need to be written for the particular project: critical variables, their acceptable ranges and responses to deviations from them</li> </ul>
<b>5</b>	<b>Equipment and Mechanical Integrity</b>	<ul style="list-style-type: none"> <li>• Initial testing and commissioning</li> <li>• Preventative maintenance plan</li> <li>• Calibration of sensors</li> <li>• Test/inspection frequency basis</li> <li>• Documentation</li> </ul>
<b>6</b>	<b>Management of Change Procedures</b>	<ul style="list-style-type: none"> <li>• The system and/or procedures used to review proposed changes to materials, technology, equipment, procedures, personnel and facility operation for their effect on safety vulnerabilities</li> </ul>
<b>6</b>	<b>Project Safety Documentation</b>	<ul style="list-style-type: none"> <li>• How needed safety information is communicated and made available to all project participants, including partners. Safety information includes the ISV documentation, procedures, references such as handbooks and standards, and safety review reports.</li> </ul>
<b>7</b>	<b>Employee Training</b>	<ul style="list-style-type: none"> <li>• Required general safety training - initial and refresher</li> <li>• Hydrogen-specific and hazardous material training - initial and refresher</li> <li>• How the organization stewards training participation and verifies understanding</li> </ul>
<b>7</b>	<b>Safety Reviews</b>	<ul style="list-style-type: none"> <li>• Applicable safety reviews beyond the ISV described above</li> </ul>

<b>Page</b>	<b>Element</b>	<b>The Safety Plan Should Describe</b>
7	<b>Safety Events and Lessons Learned</b>	<ul style="list-style-type: none"> <li>• The reporting procedure within the organization and to DOE</li> <li>• The system and/or procedure used to investigate events</li> <li>• How corrective measures will be implemented</li> <li>• How lessons learned from incidents and near-misses are documented and disseminated</li> </ul>
9	<b>Emergency Response</b>	<ul style="list-style-type: none"> <li>• The plan/procedures for responses to emergencies</li> <li>• Communication and interaction with local emergency response officials</li> </ul>
9	<b>Self-Audits</b>	<ul style="list-style-type: none"> <li>• How the project will verify that safety related procedures and practices are being followed throughout the life of the project</li> </ul>
9	<b>Safety Plan Approval</b>	<ul style="list-style-type: none"> <li>• Safety plan review and approval process</li> </ul>
9	<b>Other Comments or Concerns</b>	<ul style="list-style-type: none"> <li>• Any information on topics not covered above</li> <li>• Issues that may require assistance from DOE</li> </ul>