

safe shutdown. In addition, the area being analyzed should include effective automatic suppression in the fire area, a significant margin between the expected fire and the damage threshold of the target, or other features to provide an adequate safety margin and defense in depth.

### **5.3.1.5 Examples of Safe-Shutdown Success Path Components and Components Important to Safe Shutdown**

The following table provides general examples of components that should be considered part of the safe-shutdown success path and components that are important to safe shutdown. Appendix H to NEI 00-01 (Ref. 25) provides additional information regarding the classification of safe-shutdown equipment when applied in conjunction with this guide.

<b>Examples of Safe-Shutdown Success Path SSCs</b>
Reactivity control SSCs that are required to achieve and maintain cold-shutdown reactivity conditions
Reactor coolant makeup SSCs that are required to maintain the reactor coolant level above the top of the core for BWRs and within the level indication in the pressurizer for PWRs
Reactor heat removal SSCs that are required to achieve and maintain decay heat removal
Process monitoring SSCs that are required to provide direct readings of the process variables necessary to achieve and maintain safe shutdown
Supporting SSCs that are required to provide the process cooling, lubrication, etc., necessary to permit the operation of the equipment used to achieve and maintain safe shutdown
Significant diversion paths from flow path that would lead to core damage or cause reactor coolant loss if diverted for 1 hour or less
Power supplies for safe-shutdown success path components

<b>Examples of SSCs Important to Safe Shutdown</b>
Success path supply tank spurious drain or bypass
Decay heat removal system valves, when not part of safe-shutdown success path
HVAC systems and components required to provide cooling to success path components to the extent that cooling is required for postfire safe shutdown
Power-operated relief valves and safety relief valves not part of safe-shutdown success path
Spurious start of equipment not relied on for a safe-shutdown success path, which could cause overflow conditions
Small diversion paths from success path flow path—smaller than the significant diversion paths described above
Multiple separate small diversion paths that, when combined, would lead to core damage, rupture of the primary coolant boundary, or rupture of primary containment
A connection to circuits of equipment where spurious operation would adversely affect the SSCs important to safe shutdown (e.g., residual heat removal/reactor coolant system isolation valves)

### ***5.3.2 High-Low Pressure Interface***

The licensee should evaluate the circuits associated with high-low pressure interfaces for the potential to adversely affect safe shutdown. For example, the residual heat removal (RHR) system is generally a low-pressure system that interfaces with the high-pressure primary coolant system. Thus, the