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Applied passive fire protection may not provide the intended in-service performance due to the formation of defects over time.

### **Vessels and Spheres**

**Due to gas containment** these are especially at risk from fire exposure.

### Should an active fire protection system fail,

<sup>1</sup> the heat can cause the vessel contents to boil and expand, resulting in a BLEVE\* (Boiling Liquid, Expanding Vapor Explosion). Damage caused by the resulting fireball and flying debris can be devastating.

#### **Process Equipment**

Process equipment is generally challenging to repair due to ongoing operations and high or low operating temperatures.

Poor Fire Protection conditions can arise in these areas due to mechanical damage, material failure or due to exposure to harsh weather and process.



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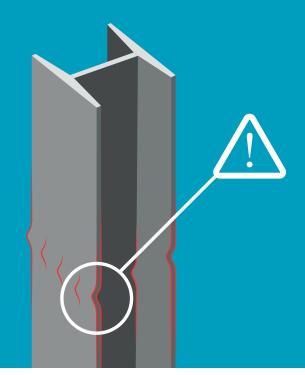
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### **Structural Steel**

- The structural steel areas in a facility applied with PFP may develop defects over time due to moisture ingress resulting in corrosion under fire protection, which in turn can cause loss of fire protection and/or structural integrity.
- The most common structural issues on site is detachment of concrete PFP the potential risk of falling/ dropped objects.





### **Quantitative Risk Assessment**



#### international-pc.com/type/passive-fire-protection

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