Inherently Safer is Inherently Cleaner: 
A Comprehensive Design Approach

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ABSTRACT

Environmental and safety actions are often at odds with each other. For example, a seemingly benign charcoa
canister installed to control or prevent flammable emissions may become the source of a fire or explosion. 
There are many other examples of conflicts that occur when environmental and/or safety standards requi
retrofitting an existing plant or process. A fragmented approach to design through add-on technology do
successfully balance productivity and profits with worker safety and environmental protection.

On the other hand, a comprehensive approach to design, which takes into account these three
sometimes-competing factors, yields the best results. For example, inherently safer technologies implemented
in the design phase do not create environmenttal problems, and inherently cleaner technologies do not create
safety problems.