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## **Research Needs for Process Safety Technology**

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### **ABSTRACT**

Much process safety technology has been developed through the years and now serves as the basis for present-day design standards for process safety in the process industries. This has come about through carefully executed research. Much of this research has had to be done on large scale in order to fully develop and test the technology for dependable correlations necessary to establish design bases. Especially noteworthy are the design guides now available for minimizing hazards of sudden high pressure development by uncontrolled combustion inside process equipment and inside industry buildings. Very extensive large scale research was necessary for developing these design guides.

Despite the process safety technology and design standards available today, much more is yet needed. As in the past, development of the necessary technology will in some cases require large scale research. This paper discusses some of the major research needs in three areas:

1. Exothermic runaway reactions.
2. Uncontrolled combustion.
3. Miscellaneous research needs.

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