

The text takes up the first 116 pages. The rest of the book is devoted to test details as follows:

- CMRI (Colorado Minerals Research Institute) Treatability Study Results
- Demonstration Process Flowsheet
- Operating Rates and Mass Balance for NOS Miramar Pilot Plant
- Supporting Calculations for Equipment Capacities
- Pilot Plant Photographs
- Daily Log and Results of Feed Rate Tests
- Analytical Discussion
- Process Control and Monitoring Data
- Process Flowsheet and Mass Balance for Full-scale Plant
- Equipment Calculations for Full-scale Plant
- Design Figures for Full-scale Plant
- Cost Analysis Backup Data

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GARY F. BENNETT

**Serious Incident Prevention: How to Achieve and Sustain Accident-Free Operations in Your Plant or Company**

Thomas Burns, Gulf Publishing Company, Houston, TX, 1999, \$55.00, 173 pp. ISBN: 0-88415-808-X

Hardly a month goes by without my reading of a serious chemical accident that resulted in death and/or destruction of major proportion. But most of these accidents are preventable according to the guru of chemical accidents (and author of several excellent texts on this topic) Trevor Kletz. He is quoted by Burns as follows:

It might seem to an outsider that industrial accidents occur because we do not know how to prevent them. In fact, they occur because we do not use the knowledge that is available.

Burns, with an impressive safety background, described a "... serious incident preventive management process ..." to "... help organizations achieve and sustain breakthrough results through the merging of proven quality management principles with sound risk management practices." He suggests an eight-element model be used for maintaining the workplace conditions necessary to sustain serious incident-free operation.

Each of these eight elements, described in a separate chapter, is as follows:

1. Establish serious incident prevention as an organizational priority.
2. Involve employees.
3. Understand the risks.
4. Identify critical work for controlling the risks.
5. Establish performance standards.
6. Maintain measurement and feedback systems.
7. Reinforcement and corrective actions.
8. Improve and update the process.

Burns' advice is put to use in a case study (Chapter 13) of a hypothetical company that utilizes large volumes of flammable materials in its manufacturing process. Shown is a chart entitled "Serious Incident Prevention Performance Measurement Matrix" that

allows the plant personnel to see how well they are achieving compliance with prevention goals.

The final paragraph of the book succinctly summarizes Burns' philosophy and highlights the need for the process he describes:

Implementation of more effective incident prevention processes can be one of the most value-adding and personally satisfying initiatives possible during a management career. It is time for more leaders to take the step forward. Breakthrough performance is needed to further drive serious incidents toward extinction. Managers must look beyond the daily pressures inherent in their jobs to proactively implement effective processes for the prevention of incidents. Serious incident-free operation provides major benefits for all — employees and their families, shareowners, customers, suppliers, and the public.

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