Mark Your Calendars Now for Spring Symposium

"Beyond Regulatory Compliance: Making Safety Second Nature" is the focus of a symposium on process safety set for March 30-31, 1998. The two-day event, hosted by the Mary Kay O'Conner Process Safety Center, will be held at the George Bush Presidential Conference Center in College Station, Texas.

This annual spring event brings together all parts of the chemical processing industry to share hazard-related problems as well as ideas for their solutions. The workshop is unique in that it involves a wide range of participants, from academics to active practitioners, government officials and representatives of professional organizations. Participants benefit from the opportunity to learn new perspectives and discover how their work impacts others.

The Bush Presidential Library Center opened in fall 1997. The three-building complex includes the George Bush Presidential Library and Museum, the Presidential Conference Center and the Academic Building-West, home to the Bush School of Government and Public Service. The George Bush Presidential Library and Museum is the tenth presidential library administered by the National Archives.

Information about the symposium will be mailed in November. Registration deadline is February 9, 1998. For more information, contact the Mary Kay O'Conner Process Safety Center at 409/845-3489 or access our website at <http://process-safety.tamu.edu>.

See page 4 for the preliminary symposium schedule.
Mannan Leads Center

The Texas A&M University System reinforced its commitment to build a world-class research, training and education program on process safety when Dr. Sam Mannan was tapped to lead the Mary Kay O'Connor Process Safety Center.

The Center is part of the Texas Engineering Experiment Station, a state research agency with close ties to Texas A&M University's academic engineering program.

Mannan, an internationally recognized expert on process safety and risk assessment, became Center director August 1. He previously was vice president at RMT, Inc., a nationwide engineering services company headquartered in Madison, Wis. His responsibilities there included overall management of the firm's process safety and risk assessment operations.

"The Mary Kay O'Connor Process Safety Center is the only center so closely affiliated with a university that addresses both process safety and risk management from a basic research as well as applied methodologies perspective driven by long-term goals," Mannan said at a recent conference.

Mannan received the B.S. in chemical engineering from the Engineering University, Bangladesh, and the M.S. and Ph.D. in chemical engineering from the University of Oklahoma. He is a certified safety professional and a registered professional engineer in Texas and Louisiana. He is certified by the National Council of Examiners for Engineers and Surveyors.

Mannan has wide-ranging experience covering process design of chemical plants and refineries, computer simulation of engineering problems, mathematical modeling, and process safety and risk assessment in the chemical process industries. He has dealt extensively with hazard assessment and risk analysis, modeling of flammable and toxic gas cloud dispersion, fire radiation and explosion.

Mannan is the author of over 40 national and international journal articles and the co-author of Guidelines for Safe Process Operations and Maintenance, published by the Center for Chemical Process Safety, American Institute of Chemical Engineers.

Mannan's goal is to make safety second nature for everyone in the industry: "This can only be done by an integrated program that addresses education, research, training, and service targeted towards all phases of a plant's life cycle—conceptual design, design, engineering and construction, startup, operations and maintenance, shutdown, and demolition."

Our Purpose
To develop, enhance and disseminate knowledge, understanding and the application of engineering principles for the prevention and mitigation of accidents in the chemical process industries.

To be the forerunner in the latest technology, training, research and education for the chemical process industry

Major Research Themes
Design
Human reliability &
human factors engineering
Equipment reliability
New technologies

Our Researchers
Certified health physicists
Certified occupational
medicine physicians
Industrial psychologists
Fire protection experts
Plant design engineers
Operations engineers
Maintenance engineers
Safety engineers

INFORMATION
Mary Kay O'Connor Process Safety Center
Chemical Engineering Division
Texas Engineering Experiment Station
(409) 845-3489  Fax (409) 845-6446
donnas@tamu.edu

RMT, Inc. is a sponsor of Centeri

Aggressive but achievable goals inspire and excite not only Center researchers but also industry colleagues who participate with us.
Creating Excellence in Process Safety

Welcome to the first issue of Centerline and news about the Mary Kay O'Connor Process Safety Center (MKOPSC). The Center was established in 1995 through the generosity of Houston businessman Mr. T. Michael O'Connor to enhance safety in the chemical process industry.

The MKOPSC conducts research and develops educational programs. Its services to government and industry include independent accident investigation and analysis services, particularly for accidents suggesting new phenomena or complex technologies. In addition, the Center helps private and public enterprises evaluate and minimize risk.

Directed by Dr. Sam Mannan, the MKOPSC is guided by a steering committee composed of industry experts who are responsible for advice and consultation regarding Center activities.

Located on the Texas A&M campus in College Station, the MKOPSC is part of the Texas Engineering Experiment Station, a state research agency.

Education

A top priority of the MKOPSC is promoting the education and training of students, faculty, and industrial practitioners in principles relevant to process safety. The Center performs and coordinates research, design, testing and evaluation of safety-related equipment and processes pertinent to the chemical processing industry.

The Center interacts and cooperates with other safety-related organizations and societies—such as the Center for Chemical Process Safety (CCPS), Design Institute for Emergency Relief Systems and Chemical Manufacturers Association—as well as companies and governmental agencies to further the knowledge, understanding and application of chemical process safety.

The MKOPSC sponsors training of Texas A&M engineering faculty through their participation in the American Institute of Chemical Engineers Continuing Education CCPS safety courses. The Center also promotes the incorporation of process safety information into traditional chemical engineering courses for undergraduate and graduate education.

Plans are under way to offer near and distance learning opportunities to petrochemical plant personnel and to offer a series of courses in order to receive certificates of process safety.

Information Exchange

One goal of the Mary Kay O'Connor Process Safety Center is increased communication and information exchange among process safety researchers, students and individuals, agencies and organizations actively working to reduce catastrophic accidents in chemical processing facilities.

The MKOPSC is developing an Information Resource Center with hardcopy and electronic literature on process safety. The resource center will develop computer databases and user interfaces to provide easy access to and analysis of information related to chemical process safety, including case histories, equipment and human reliability.

An information dissemination program involves the publication of an electronic/hardcopy newsletter, monographs, working papers, bibliographies and special publications—sometimes produced in collaboration with other groups interested in chemical process safety. Additionally, the Center has collected a variety of materials, including Safety in Chemical Engineering (SACHE) teaching modules and many publications pertaining to emergency relief design, vapor cloud dispersion, Hazard and Operability (HAZOP) methodology and the like.

Steering Committee Expertise

- Process safety
- Risk assessment & risk management
- Plant operations & maintenance
- Engineering
- Research
- Design
- Reactive chemicals
- Consequence analysis

Research & Facilities

Aggressive but achievable goals inspire and excite not only Center researchers but also industry colleagues who participate with us.

Research projects at the Center are focused, but span a wide range.

Main research areas are reactive systems, runaway reactions, inherently safe design, equipment reliability and development of reliability databases and development of incident databases.

The systems concept and a strong, interdisciplinary team of faculty/student experts allow the MKOPSC to develop a unique integrate approach to technology development not possible through individual investigators. This highly interdisciplinary approach to research has led to interaction between faculty and students in chemical engineering materials science, mechanical engineering, computer science, chemistry, nuclear engineering and physics.

Money invested in the Center directly supports research and students. Texas A&M University cooperates with TEES to provide facilities that include laboratory and office space and a well-stocked library.

Plans were announced in 1997 for the construction of a new chemical engineering building, which will include much larger and spacious laboratories and research facilities for the Center.


PSN provides an open forum for the exchange of ideas and questions from personnel in the process safety and risk assessment fields.

This exchange among U.S. and international organizations in the public and private sectors addresses prevention, preparation, recovery and mitigation of risks associated with catastrophic accidents in chemical processing facilities.

PSN promotes the Mary Kay O'Connor Process Safety Center's goal to increase communication among process safety researchers, students and those individuals, agencies and organizations working to achieve safety in the chemical processing industry.

The Center's webpage also offers its own publications inventory, DIERS Meeting Papers Index, literature survey for twophase flow in safety relief valves, research program description for "Two Phase Viscous Flow through Safety Relief Valves," and a call for entries for the 1998 Process Plant Safety Symposium in Houston.
### 1998 Calendar

**Mar. 30-31**
“Beyond Regulatory Compliance: Making Safety Second Nature,”
George Bush Presidential Conference Center,
College Station, Texas.
Annual symposium of the Mary Kay O’Connor Process Safety Center.
**Registration deadline: Feb. 9**
For more information: 409/845-3489

**Oct. 26-27**
Sponsored by American Institute of Chemical Engineers (South Texas Section).
**Abstract deadline: Feb. 24**
For more information: 409/845-3489 (or 281/660-4881 for exhibits)

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### SYMPOSIUM

**Beyond Regulatory Compliance: Making Safety Second Nature**

**Preliminary Schedule 1998 Annual Symposium**
March 30-31 • George Bush Presidential Conference Center • College Station, Texas

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<thead>
<tr>
<th>Time</th>
<th>Monday, March 30</th>
<th>Tuesday, March 31</th>
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<tbody>
<tr>
<td>8:15-9:45</td>
<td>Keynote session</td>
<td>Keynote session</td>
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<td>Trevor Kletz</td>
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<td>10:15-11:45</td>
<td>The Role of MKOPSC Track I</td>
<td>Use of EPA's 5-yr Accident History Database Track I</td>
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<td>Behavioral Safety Track II</td>
<td>Control Systems Analysis &amp; Reliability Track II</td>
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<td>Expert Systems Track III</td>
<td>Design for Maintainability Track III</td>
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<tr>
<td>1:00-2:30</td>
<td>Research/ Education Programs &amp; Their Impact on Process Safety Track I</td>
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<td>Human Factors Engineering Track II</td>
<td>Economics of Safety Track I</td>
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<td>Information Management Systems Track III</td>
<td>Metrics of Safety Track II</td>
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<td>Corrosion Monitor Track III</td>
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<td>3:00-4:30</td>
<td>Regulatory Perspective on Process Safety &amp; Risk Management Track I</td>
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<td>Inherently Safer Design Track II</td>
<td>Forum* Track I</td>
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<td>Chemical Sensitivity Track III</td>
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<td>Forum* Track III</td>
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* Summarize issues with responses from audience