



RIC 2005, Session T-F2
Operating Experience

INPO Operating Experience

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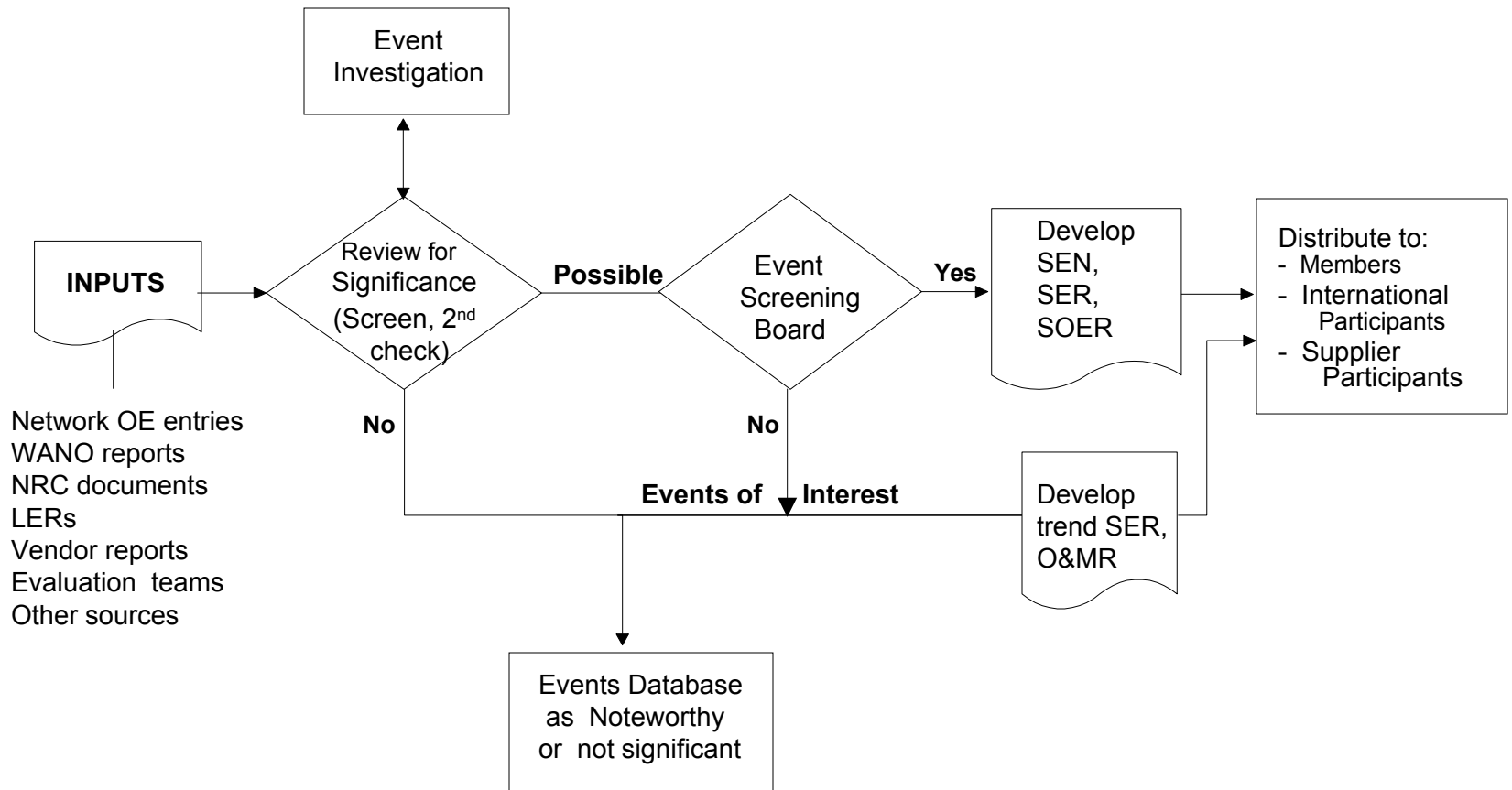
INPO



Kemeny Commission Recommendation (Oct 1979)

“There must be a systematic gathering, review, and analysis of operating experience at all nuclear power plants coupled with an industry-wide international communications network to facilitate the speedy flow of this information to affected parties. If such experiences indicate the need for modifications in design and operation, such changes should be implemented according to realistic deadlines.”

INPO SEE-IN Screening Process (Simplified)





Significance Guidelines

(From SEE-IN Program Description)

**Severe or Unusual
Plant Transients**

**Design, Analysis,
Operation**

**Safety System
Malfunctions or
Improper Operation**

**Fuel Handling or
Storage Events**

**Events Involving
Nuclear Safety or
Plant Reliability**

**Excessive Radiation
Exposure or Severe
Personnel Injury**

**Major Equipment
Damage**

**Excessive Discharge of
Radioactivity**



2004 Industry Event Screening

2,740 Documents Received



2,181 U.S. Event Reports



9 Industry Significant Events



1 SOER, 4 SERs, 7 SENs



Examples of Recent SEE-IN Products

SEN - Reactor Scram with Excessive Cooldown

SEN - Electrical Shock During Temporary Power Installation

SER - Overpower Operations from Inaccurate Feedwater
Flow Instrumentation

SER - Isophase Bus Duct Failures

SER - Unplanned External Radiation Exposures

SER - Fuel Handling Events

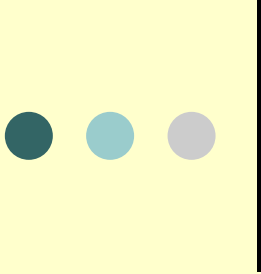
SER - (in progress) Gas Intrusion in Safety Related System

SOER - Loss of Grid (update to 1999)



Recent Changes in OE and INPO Analysis Efforts

- Nuclear Network re-designed to make sharing information via topical forums easier
- New OE search capabilities on INPO webpage
- Improved Just-in-Time briefings webpage
- More focused team evaluations on OE application
- Better coordination to use international OE
- Working on means to convey historical OE to the next generation of nuclear workers
- Identifying early trends of industry problems (communicating via Topical Reports)



Topical Reports (Trends) in 2004

- Scram Trends
- Loss of Shutdown Cooling
- Ultrasonic Feed Flow Measuring Systems
- Large Motor Failures
- Foreign Material Intrusion
- Outage Problems during Startup
- Main Generator and Auxiliaries
- Auxiliary Feedwater
- Switchyard/Grid Problems
- Main Feedwater
- Air-Operated Valves (AOVs)
- Circuit cards



Other Trends of Interest

- Supplemental personnel performance
- Engineering design changes
- Operations fundamentals, decisionmaking
- Lifting and rigging events
- Vibration induced equipment failures
- Fuel reliability



Excerpts from INPO “Principles for a Strong Nuclear Safety Culture”

Organizational learning is embraced. Operating experience is highly valued, and the capacity to learn from experience is well developed.

Attributes:

- The organization avoids complacency and cultivates a continuous learning. The attitude that “it can’t happen here” is not allowed.
- Individuals are well informed of the underlying lessons learned from significant industry and station events, and are committed to not repeating these mistakes.