Y2K External Risk Dependencies and Management

Ontario Hydro Nuclear
Year 2000 Project

presented by Bruce Mason
for the OECD NEA International Workshop on the Impact of Year 2000 on the Nuclear Industry
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Purpose

• To review Ontario Hydro Nuclear’s External Risk Management Program
Outline

• Components of OHN’s Year 2000 Risk Management Program
  – internal risks
  – external risks

• OHN’s External Business Risk Project
  – Business Risk Management Process
  – External Dependencies
  – Benefits of Y2K Readiness
Components of OHN’s Year 2000 Risk Management Program

<table>
<thead>
<tr>
<th>Risk Category:</th>
<th>External</th>
<th>Internal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of Risk:</td>
<td>External to OHN</td>
<td>Other SBU</td>
</tr>
<tr>
<td>Point of Failure:</td>
<td>Business Process</td>
<td>Digital Asset</td>
</tr>
<tr>
<td></td>
<td>Non-Y2K Project</td>
<td>Y2K Project</td>
</tr>
</tbody>
</table>
Internal Risks

OHN Y2K Project to fix digital assets
- Y2K project started in July 1997
- Risk Management looks at this from a project perspective only

OHN non-Y2K projects with potential impact on Y2K initiative
- New projects which will be implemented between now and the year 2000.
- Risk Management identifies cross-impacts and ensures that an appropriate gatekeeper process for compliance exists
External Risks

• External risks resulting from circumstances, conditions, or events that are not under the direct control of OHN management
  - risks that could compromise the safety, or continued operation of the facilities (process failures) due to Y2K-induced events (e.g., transmission lines, communications, consumables and services)

• Risks relating to OHN customers who must solve their Y2K problems in order to continue receiving OHN services

• Dependencies on other Business Units (Servco, Genco, & CMO)
Objectives of OHN’s External Business Risk Management Project

• Define the associations with external business partners and the nature of any dependencies on OHN business processes
• Define the risks associated with a Y2K failure in external partners’ business processes
• Define the criticality, impact and likelihood of these risks on critical OHN business processes
• Develop cost effective and timely action plans to mitigate them
• Implement and monitor the action plans to mitigate risks
• Ensure that Risk Management is an ongoing activity until Y2K is over
• Ensure that Emergency Preparedness Plans are updated
Business Risk Management Process

1998
Business Risk Assessment

1999
Business Risk Control
Business Risk Management Process

1. Establish Business Processes
2. Perform a Supply Chain Review
3. Define non-Supply Dependencies

- Identify Processes & Dependencies
  - Identify Risks, Impact Likelihood & Exposure

Next page
Business Risk Management Process (cont.)

From Previous Page

Identify Risk Mitigation Strategies

Evaluate & Assess Risk Mitigation Strategies into Action Plans

Execute the Action Plans

Develop/Update Contingency Plans

Test Contingency Plans

Prepare Readiness Checks

Update Emergency Preparedness Plans

Unmitigated Risks
Business Criticality

Identifies how vital the availability of a business process is to the corporation’s core product delivery

- 0 - requires immediate, without delay response
  (impact on the ability of organization to deliver core products is immediate)
- 1 - cannot be unavailable for more than a few hours
  (ability of the organization to deliver its core product would be in jeopardy)
- 2 - cannot be unavailable for more than one day
- 3 - cannot be unavailable for more than one week
- 4 - could be unavailable for some weeks without impacting delivery
- 5 - could be unavailable for some months without impacting delivery
# Business Impact

*Is determined by the failure of a Critical Business Process (The loss if the risk is not mitigated)*

<table>
<thead>
<tr>
<th>Impact Area</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public or employees</td>
<td>Serious injury or death</td>
<td>Non-life threatening injury</td>
<td>No health impact</td>
</tr>
<tr>
<td>Delivery capability</td>
<td>Significant disruption</td>
<td>Limited disruption</td>
<td>Within normal operating tolerance</td>
</tr>
<tr>
<td>Environment</td>
<td>Impact leading to investigation whose damage cannot be successfully reversed within a reasonable timeframe without significant expense</td>
<td>Impact which is contained whose damage can be successfully reversed within a reasonable timeframe without significant expense</td>
<td>No impact</td>
</tr>
<tr>
<td>Key stakeholders</td>
<td>Significant disruptive impact</td>
<td>Limited disruptive impact</td>
<td>No visible impact</td>
</tr>
<tr>
<td>Financial</td>
<td>Measureable in the millions of dollars</td>
<td>Measureable in the hundreds of thousands of dollars</td>
<td>Measureable in the tens of thousands of dollars</td>
</tr>
</tbody>
</table>
Risk

The possibility of an unsatisfactory outcome.
– ‘Possibility’ implies probability
– ‘Unsatisfactory’ implies a measure of loss to someone

Measured by:

Likelihood
The probability of the risk occurring (High, Medium or Low)

Impact
The consequence, direct or indirect, of an unsatisfactory outcome; cost, time, quality, functionality, reputation, safety and regulatory non-compliance
Benefits of Y2K Readiness

- Minimizes risk to health and safety
- Minimizes damage to enterprise assets
- Minimizes the risk of delay in setting-up alternative measures
- Minimizes the need for decision-making during a potential failure
- Ensures the availability of necessary resources to help the enterprise continue to meet customer needs during an interruption
- Ensures Emergency Preparedness provides a sense of security, knowing that the operation can continue to function safely during a potential failure
Thank You!