

To: Alice Abramov, Head of Product Development  
From: Maxwell Student Engineer  
Date: 12 February 2008  
Subject: Product Safety Priority Recommendation: Incident Response Protocol

**Comment:** Clear and appropriate headers

We have carefully weighed the risks and mitigating factors involved in the Therac-25 case and have concluded that **the single best course of action for your organization is to devise and implement an effective, efficient, and open incident response process.** In order to ensure product safety and avoid a situation similar to that of **Atomic Energy of Canada, Limited (AECL)**, we strongly suggest that you listen and respond to all reported incidents in a serious, swift, and transparent manner that includes your customers as much as possible.

**Comment:** Clear early statement of solution

Your organization must adopt an incident response protocol that stresses communication, thoroughness, and efficiency. This view is consistent with the results of Nancy Leveson's thorough investigation of the conditions that led to the Therac-25 accidents. These results show that AECL was unacceptably slow in responding to reported incidents and fixing their product, a process which was primarily user-driven when more initiative and trust on the company's part may have sped up the process.

**Comment:** Good, brief intro of Leveson before citing

Adopting and adhering to our recommendations would not only mitigate the effect of any failures such as those encountered by AECL in the Therac-25 case, but it would also provide users with the ability to affect your product in positive way, thus increasing customer loyalty and confidence and possibly giving you a competitive advantage [Leveson]. Additionally, open channels of communication between any organization and its users increases the accessibility of invaluable information. One clear, recent example can be seen in the published response of Multidata Systems to the recent incidents regarding the use of its product in Panama, which was addressed in mere days, as opposed to months or years, as in the case of Therac-25.

**Comment:** Good comparative

**Comment:** Missing citation

Finally, we must emphasize that **this is not a cure-all solution.** Problems in any sufficiently-complex system are inevitable, and no single action or focus area will prevent all possible accidents. Indeed, any company that is serious about the safety of their product must take several steps to ensure it, and our recommendation should be taken simply as the most important way to mitigate the adverse effects of any incidents that do occur. The major failure of AECL was not in its defective product, but in its unacceptable incident response process, which ultimately contributed to a high number of overdoses, deaths, and lawsuits.

**Comment:** Reasonable hedge

In summary, if you are to prioritize and focus on any of your safety efforts, we strongly and sincerely hope that you consider our recommendation to develop and adhere to a streamlined incident response process.

**Comment:** Succinctly reinforces point at the end