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Investigating Human Error: Human Factors Interviews in Incident and Accident Investigation

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Abstract: Accidents and major incidents are essentially failures of complex socio-technical systems. It is known that a significant proportion of these events have human factors contributions, either resulting from individual performance, management issues, or organisational factors. Advances in engineering mean that technical contributions to system safety are continually progressing. This means that the proportion of incidents and accidents with human factors contributions will almost inevitably increase over time. The purpose of investigating incidents and accidents is to establish the causes and prevent recurrence. Sometimes, the term “human error” is used to explain why an incident or accident occurred. However, this is insufficient in that it does not explain *why* the error occurred. It often, somewhat conveniently, places the focus on the operator, employee or supervisor – minimising the contributions of management and organisational issues. It must be remembered that for the most part, no operator, employee, supervisor *intends* to fail at his or her duties: when human performance is implicated in a major incident or accident, the *outcome* was usually not intended. Most people would agree that if a sane and rational individual anticipates an accident, he or she would do their utmost to prevent it, albeit that this attempt may not be successful. Indeed, the unforeseeable and unforeseen nature of an accident is partly what defines it. Some of the most important questions in incident and accident investigation are those associated with the people, and the context and circumstances in which they find themselves. Although incident and accident investigators have the benefit of hindsight, the context and circumstances need to be analysed *as those involved perceived them at the time*. This information can only be obtained from asking the individuals involved about their own experience of the sequence of events. The answers to such questions are likely to be influenced by the power of human motivation and the fallibility of human memory. This paper discusses some of the common debates that arise when conducting human factors interviews, drawing on the authors’ experiences across range of sectors.

Keywords: accident investigation, human factors, human error, investigative interviewing.