Expert Systems in Emergency Response

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ABSTRACT

Expert systems can be effectively used for emergency planning and response. Rules can be developed that comprise the appropriate response to either preplanned site-specific, credible, incident scenarios or general incidents at the facility. This allows responders with less experience to make better decisions than they otherwise would make without the involvement of a "human expert."

An expert system not only can assist with making critical emergency response and incident management decisions, but also can coordinate and automate emergency notifications, track and log actions being taken, and integrate P&IDs and other network data. Having an interactive expert system as a resource and a tool allows emergency information and procedures, and the knowledge and experience of emergency response experts to be captured for easy access and use by all personnel at a facility.

This paper discusses the use of expert systems for emergency response, and provides an example of a working system specifically addressing emergency management and incident response.