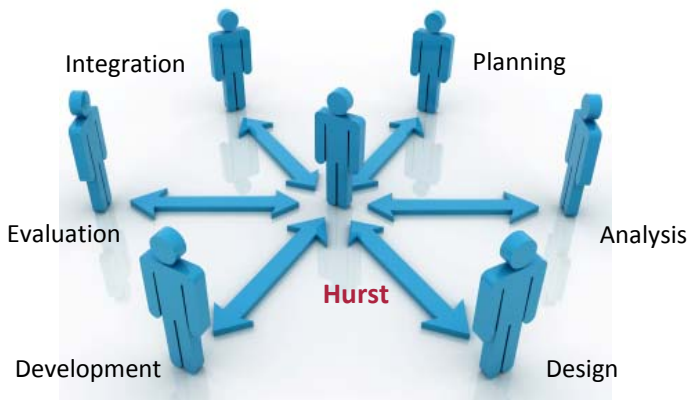


OWNER'S EXPERT: HUMAN FACTORS ENGINEERING (HFE)

Statement of Qualifications

Hurst Technologies: A coordinated, realistic approach to human factors engineering.

The shift to digital control systems at operating nuclear plants, and a new generation of nuclear plants now in the order queue, dictates proven, efficient approaches to HFE. HFE primary objectives include: 1) reduce the incidence and impact of human error, 2) make complex systems easier to use, 3) decrease cognitive demands on personnel, 4) improve training effectiveness, and 5) lower overall system costs.



With Hurst Technologies' HFE experts on your team, you will avoid costly delays and revisions as new units, and upgrade and replacement projects at existing units, proceed through the various design and regulatory review stages. For existing plants, Hurst ensures that appropriate HFE items are being addressed. For new plants, our involve-

ment will help you minimize licensing activities and expenses associated with HFE.

Because HFE is mandated through the COLA process, NSSS vendors have HFE programs in place for new plants. However, Hurst Technologies, acting as the owner's expert (similar to an owner's engineer), advocates, manages, and oversees HFE-related issues on your behalf. Hurst Technologies' undertakes any or all of the following:

- ⇒ **Planning** – Define HFE requirements, tasks, completion dates, levels of effort, methods and criteria, implementation, tests, and evaluation, and integrate with other program planning.
- ⇒ **Analysis** – Allocate functions to personnel, equipment, software, or combinations thereof; trace functions to specific tasks; analyze tasks to determine human performance requirements.
- ⇒ **Design** – Convert function, system, and task analysis data into detailed design concepts.
- ⇒ **Development** – Develop detailed design documents to create human-system interfaces (HSI) operating within human performance capabilities while meeting system performance requirements.
- ⇒ **Evaluation** – Verify system, equipment, software, and facilities operability and maintainability within intended user performance capabilities.
- ⇒ **Integration** – Coordinate HFE activities with Reliability, Maintainability, Availability (RMA) Engineering, System Safety, Risk Management, Facilities Engineering, Integrated Logistic Support, Staffing, Procedures, and Training.

Hurst Technologies' HFE principal engineer, one of the industry's premier experts, has 18 years experience in nuclear plant HFE including input to key industry documents. Our team has provided input and oversight to the nation's leading new reactors including South Texas Project's Units 3&4. We have created comprehensive HFE plans supporting COLA applications, created final HFE design description and performance specification documents, performed HFE evaluations of state-of-the-art control room designs for new nuclear units, and fulfilled requirements of NUREG-0700 and NUREG-0711.

Find out more about Hurst Technologies and its HFE practice area, visit our Web Site for contact information.