

## **Assuring the Quality of Safety Analyses and Safety Analysis Documentation**

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In past meetings of the EFCOG Directors and working group chairs, a concern has been expressed that there are too many comments by DOE reviewers of safety analysis reports (SARs), resulting in costly rework of the documents and delays in completing DOE approval. The Safety Analysis Working Group (SAWG) Steering Committee has determined that a white paper was needed that would provide guidance to contractors on improving the quality and acceptability of SARs and other safety analysis documents prior to their submittal to DOE. This should make the DOE review and approval process more expeditious and less contentious.

Planning, preparation, and submittal of these documents might perhaps be pursued in a manner similar to a Quality-related procurement, where customer needs, expectations and acceptance criteria are established in advance. Then the product/service provider, the contractor, should apply various quality control processes to assure the desired characteristics of the product safety analysis documents. Improving the quality and acceptability to DOE of safety documents at first submittal should result in a more expeditious DOE review and approval process, reducing costs of rework and recycle through reviews.

The following factors have been identified as having an effect on the quality and acceptability to DOE of safety analysis documents:

- Obtaining early agreement with DOE on expectations for the product documentation (e.g., scope of coverage, methodologies, format) and review criteria,
- Availability of adequate funding for the safety analysis task,
- Detailed planning of the safety analysis and document preparation,
- Training and experience of the safety analysts and reviewers,
- Use of documented review criteria by contractor reviewers,
- Ownership of, and participation in, document development by facility management prior to submittal to DOE, and
- Periodic informal communication with DOE customer during document preparation to obtain early indications of changes in expectations and to discuss analysis results.

These factors and others were discussed at the SAWG's Authorization Basis (AB) Workshop at Las Vegas in January 2000. The proposed paper will provide a summary of the discussions on this issue at the AB Workshop, lessons learned shared by the participants, and the SAWG's recommendations for improving the quality and acceptability to DOE of safety analysis documents at first submittal.