

IBM Business Consulting Services is pleased to present our comments to the July 14, 2004 Federal Register Notice of proposed rulemaking - Federal Measures to Mitigate BSE Risks: Considerations for Further Action.

#### Education

In the section of the IRT report headed, ``Education,' ' the IRT stated:

BSE educational programs must be designed to meet the needs of multiple audiences with variable levels of scientific training. Countries around the world have routinely underestimated the need for a wide variety of educational materials and training techniques to meet both technical and non-technical audiences. The [IRT] recommends that extensive education and training materials be developed in collaboration with academic, professional, trade and consumer organizations so that scientifically sound and accurate information about the nature of BSE and the importance of aggressive prevention and control strategies can be disseminated widely and incorporated into the curricula of schools, college, universities and professional continuing education programs. As traceability, transparency and access to current information increases, so does consumer confidence and effectiveness of the control and prevention measures. [pp. 6-7]

FDA, FSIS, and APHIS continue to develop educational and training materials. BSE became a reportable

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disease in the United States in 1986. In May 1990, USDA began educational outreach to veterinarians, cattle producers, and laboratory diagnosticians regarding the clinical signs and diagnosis of BSE. These activities have been broadened both in terms of scope and targeted audiences in recent years, to include awareness programs for personnel involved in the transportation, marketing, and slaughter of cattle, as well as the general public, through various means, including frequent briefings and press conferences, fact sheets, videotapes, and information on its web site. FDA has conducted training for Federal and State investigators conducting inspections of feed mills, rendering establishments, and other regulated facilities, developed educational materials, including a CD, for investigators and the industry on the inspection process, developed guidance documents for each of the industry segments affected by the regulations, available on the Internet and in Spanish; and collaborated with industry organizations to develop educational materials for specific audiences.

All three agencies welcome comment on the following questions:

26. How can training and educational materials be designed or improved to meet the needs of multiple audiences with variable levels of scientific training?

Improvement of current training and educational materials is best accomplished following a review and analysis of the current material. Upon completion of this review a specific plan may be developed identifying the materials that require improvement and suggested methods that are appropriate to accomplish.

Multiple-leveled audiences present a many faceted dilemma for any training effort. Several strategies are available that may assist in making materials applicable for a broader audience. First, develop the materials with clear objectives that match with reasonable learning goals for the audience. This is to permit the audience to determine readily sections/topics that apply to their role and areas that do not. Second, in developing the materials, infuse a role sensitivity that incorporates a level of language, anticipated background and prerequisite knowledge appropriate for the tasks expected of the audience. Third, wherever practical, supplement the core materials with additional/suggested references that by degrees would match the requirement of individuals who need/desire/require a level of expertise well beyond the primary target audience.

Additionally, an analysis of participants should be completed and training mapped to experience level of participants. Using this information a curriculum road map may be prepared to guide the participants on a path appropriate to their experience and educational level.

At the start of the training effort, it is critical that a thorough evaluation of training needs be validated. IBM uses a training assessment phase involving a number of tasks from IBM's ROSA matrix (Roll Out Strategy and Analysis). ROSA is IBM's process and toolset for rapidly scoping, sizing, and prioritizing blended training solutions. The ROSA process ensures that not only will the most appropriate learning strategies be identified, but that the correct training and support will be provided in the appropriate format for each job role. During the ROSA process, IBM identifies each job role and the related processes and tasks performed by people in that job role in their day-to-day activities. ROSA then rates these processes and tasks against the three most critical factors selected from this list:

- Degree of change from old to new
- Task learning difficulty
- Importance to job role success
- Probability of deficient performance
- Consequences of inadequate performance
- Frequency of performance

The details of the ROSA Matrix are then used to:

- Identify appropriate training / performance support strategies and delivery formats for each end-user group or job role
- Prioritize training and performance support of specific tasks/functions for different user groups
- Create knowledge & skills objectives for training materials and cognitive components for testing

In addition to the ROSA results, additional data elements will be gathered from a number of sources. This data will then be used to create a project team / super user training plan and curriculum. The final activities of assessment include completing a rough-cut capacity of available resources (people, PCs, IT resources, facilities, etc), analyzing end user training needs and presenting the plan for review and approval. The training assessment phase is critical because it will test assumptions made in this proposal and detail steps to accomplish the initial training goals.

27. How can the Federal Government increase access to these materials?

The use of web based curriculum delivered via the USDA web site. Participants could be allowed to self register and identify curriculum via provided road maps based on requestors educational level, experience and or interest level. Once registered and approved for participation in a curriculum, the individual could be afforded the opportunity to either complete the education and training via the web site or to download the course work to be completed at their own pace on their local workstation.

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