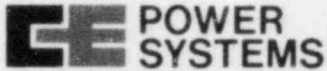


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March 17, 1983  
LD-83-023

Mr. Darrell G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: The Five-Year Backfitting Plan

Dear Mr. Eisenhut:

In accordance with your request, I am enclosing an outline of Combustion Engineering's concept for a scheduled backfitting plan for reactor licensing titled, An Approach to Regulatory Backfits Implementation: "The Five-Year Plan". We believe that adopting such an approach could provide a significant improvement in the predictability and stability of the backfitting process while, at the same time, improving the safety, reliability, and availability of operating plants. Since the enclosure is merely an outline of our concept, we would be happy to meet with you at your convenience and discuss this matter further.

If I can be of any assistance, please feel free to call on me.

Very truly yours,

COMBUSTION ENGINEERING, INC.

A handwritten signature in dark ink, appearing to read 'A. E. Scherer'.

A. E. Scherer  
Director  
Nuclear Licensing

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Enclosure

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An Approach to Regulatory Backfits Implementation:  
"The 5-Year Plan"

The impact of regulatory backfits on the nuclear industry has received widespread attention in recent years. A number of proposed backfit policies or rules have been put forward both within the NRC and by industry. Each proposal appears to be directed toward a more rational and controlled method of identifying backfit issues, and assessing their significance in a cost/benefit framework. In fact, some significant strides have already been made by the NRC in establishing an internal review mechanism directed by the Committee to Review Generic Requirements (CRGR). It appears that the activities of the CRGR, strengthened by appropriate rule changes, can make the process of reviewing and evaluating potential backfits more effective. Another goal of a backfit policy, however, should be its predictability and stability: licensees must know, with some degree of assurance, what will be required of them, without continual changes. This can be achieved, in large measure, by controlling the method of backfit implementation. Presuming that the need for a particular backfit is rationally evaluated, additional stability in the regulatory process can be achieved by imposing these backfits in discrete packages at specified intervals. This is the basis of the proposed "5-year plan".

In summary, the 5-year plan can be described as follows:

In this scheme the NRC would accumulate backfit requirements which passed a safety benefit-cost test and which did not pose an imminent risk to the health and safety of the public. At five-year intervals these requirements would be imposed upon licensed plants which would then be required to implement a fix in the course of the following five year hiatus. The plan provides the NRC and the utilities the benefit of longer term planning to synchronize the implementation of requirements and the ability to analyze the synergistic effects of the entire backfit package.

Note that the 5-year plan is essentially an implementation plan. It can be combined with almost any rational review and evaluation procedure to produce a more stable and predictable overall backfit policy. From this basic statement of the proposed 5-year plan, several questions immediately arise:

Question: "Is there any precedence for the NRC "sitting on" an identified issue rather than requiring immediate backfit?"

Answer: Yes. The Systematic Evaluation Program Phase II demonstrated the NRC Staff ability to "hold up" on the imposition of identified backfit items until the entire program (or, in this case, the previous five-year period) had been completed.

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Question: "Why five years?"

Answer: Five years appear to be a reasonable utility planning horizon. Five years also provides the NRC with assurance that all identified and approved backfits would be fully implemented within one to ten years. This appears to be a reasonable objective.

Question: "Are the five-year periods the same for all plants, or are they staggered?"

Answer: Although the plan could be formulated in either manner, it would appear to be more attractive if the 5-year period was the same for all plants. Greater effort could be applied to integrating the set of backfit requirements and there would be less chance of changing or reinterpreting the requirement than if staggered periods were used.

Question: "How can all requirements be uniformly applied to all plants? What about plant specific differences?"

Answer: Certainly plant specific differences must be considered. In fact, the integrated set of requirements that would initiate a 5-year implementation period should be in the form of a requirement/plant matrix. Some plants should be exempt from individual requirements due to either design or specific cost/benefit considerations at that plant.

Question: "Would the 5-year plan apply only to hardware or would it also apply to software: engineering analysis and evaluation?"

Answer: Since engineering analysis competes for the same engineering resources as hardware and system design, it should be included if stability is to be preserved. Certainly, however, judgement needs to be exercised in determining if an information request or analysis constitutes a backfit. As a rule of thumb, requests for existing information or analysis would not be a backfit, while requests for new analyses would be.

Question: "What about backfits that appear to have major safety significance?"

Answer: As is currently the case, issues that have imminent risk to the health and safety of the public must be implemented immediately. By "immediately" one generally means immediate plant shutdown or, at the minimum, the next refueling outage. Under this plan, all other changes would be included in the next 5-year implementation period.

Question: "Won't this approach result in more issues resulting in immediate actions since the only other choice is to delay implementation for several years?"

Answer: There certainly would be pressure in that direction, but if immediate actions are restricted by the Commission to only those that have an imminent risk to the health and safety of the public, then the number should be very small.

Question: "How would the 5-year plan be applied to plants under construction?"

Answer: Plants under construction should be treated exactly like plants with operating licenses, with one exception: Deadlines for implementation of requirements do not need to be met until plant construction is completed. At that time, however, all existing deadlines must be met. In other words, if the 5-year implementation deadline happened to fall within the construction period, then the deadline would be at the completion of construction. At the completion of construction each plant must fully comply with all backfit requirements whose implementation due dates had already passed. In addition, the plant must also adhere to the next scheduled due date even if that is less than 5 years away.

The 5-year plan outlined above could have significant benefits for both the NRC and the industry:

- It would allow the integration of a number of backfit requirements accumulated over time into a coherent package.
- Material, manpower, and financial resource requirements could be planned for 5-year periods with a high degree of assurance.
- It would provide increase regulatory stability and predictability.

Certainly, the implementation of such a plan would require the co-operation and active participation of both the NRC and the industry. The benefits appear to warrant the effort. Since the NRC predicts that the majority of the Unresolved Safety Issues will be "resolved" by 1985, it might be a prudent opportunity to start the first 5-year cycles at that time. All outstanding backfits as of 1/1/85 (to be implemented by 1/1/90) could be identified and the next 5-year cycle begun.

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