Henry West's Commentary on "Dissent About Nuclear Safety"

Commentary On
Dissent About Nuclear Safety

I

Whether Alison Turner should express her reservations depends upon several factors. Some of the issues are technical. Some involve the importance of particular safety regulations. Also involved is the power structure of the company and perhaps her judgment of the motives and scruples of higher management.

Apparently she is uncomfortable with the assumption that the heat exchangers have 95% of capacity. How implausible does she think this estimate is and how far off? If she believes that this is probably an unrealistic estimate, made in good faith but probably an overestimation, does she have any good grounds for challenging its accuracy? And what would be the result if it were revised? If she believes that it is a deliberately false estimate, made to get approval of continued operation, she is up against a potentially more difficult situation. Whichever it is, there is also the question of the danger in case of an accident resulting in the loss of one heat exchanger. Alison thinks that this should be considered in the report. In such an event, would the result probably be catastrophic, or merely require quicker action to shut down operations?

Sometimes regulations are excessive. Does she believe that the regulations are excessively cautious or does she think that they are appropriate? If Alison personally believes that they are excessive, does that make a difference? If Alison thinks that there is a real danger, she has more obligation to express her reservations than if she thinks that the Single Failure Criteria are excessive, doesn't she? Or is her personal judgment irrelevant? Think about it from another point of view. Would you want the members of the Plant Nuclear Safety Review Committee using their personal judgment about the importance of the safety regulations in situations like

this, or should they conform to the letter of the regulations?

In this case, the requirement that the plant anticipate loss of one heat exchanger in the event of a possible accident is being overlooked, rather than being violated, in the JCO. Is it up to the NRC to notice that? Or is it the responsibility of the plant to meet the requirement? If I am applying for a job and I leave blank some of the questions when answers would call attention to my weaknesses, isn't it up to the employer to decide whether to ask for further information? Is there any analogy between these two situations?

Alison is the least senior member of the committee, but she is still a member. If she is unable or unwilling to voice her opinion, she might as well not be there. Voicing a reservation is doing no more than expressing a professional judgment. But it is at the same time challenging the work of those who prepared the JCO and challenging the judgment of her superiors who see nothing wrong with it. That may take courage.

What if Allison thinks that the 95% capacity is a deliberately false assumption, made up to have a satisfactory JCO and avoid shutdown? Does that make any difference? In that case she would seem to have an additional responsibility to speak up, since in that case her superiors do think that there is something wrong with the JCO and are not saying so. But that may take even more courage, since she is not just raising a technical question but, at least in her own mind, questioning their integrity.

If the problem is sand blockage on the lake water side, is that something that will be remedied while the plant is operating, and will it be remedied if the JCO is approved? Or is the sand blockage something that is going to get worse and make the heat exchangers less effective as time goes by? If so, will the plant become progressively unsafe, or will the problem eventually require shutdown to remedy it? If so, wouldn't it be better to do it sooner, rather than later?

II

Not much has changed as a result of the discussion after Alison expressed her reservations. One member of the committee supported her concern and pointed out that it would take only three hours to carry out the calculations. That this trouble wasn't taken might make her even more suspicious that there is a deliberate effort

to submit a misleading JCO. If so, she would have even stronger reason to cast a dissenting vote, for she would feel that there was more than just a matter of technical differences of opinion. On the other hand, she may have been persuaded by the argument that other plants are operating without containment spray systems; therefore it is an unnecessary extra precaution. She could even believe both--that there is only a very remote risk of its ever being needed and of its being unnecessary if it is, but also that management is deliberately ignoring the problem.



She might have been right to have expressed and voted her reservations, even if they turned out to have been unwarranted. She showed honesty and integrity. But she may have also adversely affected her career. Not to have unanimity on approval of a JCO is probably not appreciated by the company. It does not look good. To challenge the judgment of her superiors may not make her a welcome member of the team, and the fact that her concerns were unwarranted could be used against her. Is that something that she should have worried about when voting?

On the other hand, expressing and voting her honest opinion may be regarded as a virtue by her superiors. Which do you think is more likely? If you were the superior, which kind of subordinate would you want? If you were an owner of a company or the public affected by decisions, which kind of superior would you want?

In all of this, does it make any difference that Judy is female? Is it more difficult for her to express her judgment because of her gender?