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DOCKET NUMBER  
PROPOSED RULE PR-Misc ket  
Reg Guides

June 14, 1979

NRC PUBLIC DOCUMENT ROOM

The Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20556



Attention: Docketing and Service Section

Subject: Comment on Regulatory Guide 1.52, Revision 1, July 1976.

Dear Sir:

I am writing this letter to comment on Regulatory Guide 1.52, Rev.1, which concerns air filtration units in light-water nuclear power plants. These comments pertain to section 3, Item K, which reads as follows:

"The design of the adsorber section should consider possible iodine desorption and adsorbent autoignition that may result from radioactivity-induced heat in the adsorbent and concomitant temperature rise. Acceptable designs include a low-flow air bleed system, cooling coils, water sprays for the adsorber section, or other cooling mechanisms-----".

My comments are as follows:

1. Water spray is not an alternative to cooling devices such as low-air-flow or cooling coils. The latter provide cooling without damaging the charcoal. Water spray causes irreversible damage to charcoal bed.
2. If calculations show that the charcoal requires to be cooled to prevent desorption, cooling devices such as air-bleed or cooling coils have to be provided. Water spray is not the solution.
3. If the possibility exists for charcoal ignition due to any cause, fire-fighting devices such as water-sprays have to be provided. Cooling devices are not alternative to fire fighting devices.
4. Mention should be made of the possibility that a charcoal bed may be able to dissipate the heat generated inside it without any special cooling devices.
5. The recommended procedure should be that calculations should be made to determine whether the charcoal can reach desorption temperature without cooling. If such is the case, cooling devices should be provided. A separate investigation should be made to determine whether the possibility of fire exists. If so, fire-fighting devices such as water sprays should be provided.

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I would appreciate knowing the response to these comments.

Yours truly,



M. N. Shah

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