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**QUESTIONS ON THE PROPOSED MODIFICATION  
OF PERMIT TO INSTALL PROPOSED ph  
CONTROL SYSTEM**

02/11/93

**OEPA/DOE-FN**

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**LETTER**



State of Ohio Environmental Protection Agency

Southwest District Office

40 South Main Street  
Dayton, Ohio 45402-2086  
(513) 285-6357  
FAX (513) 285-6404

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George V. Voinovich  
Governor

February 11, 1993

4135

Mr. Ed Skintik  
U.S. Department of Energy  
Fernald Environmental Management Project  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

Dear Mr. Skintik:

I am writing to question the need for the proposed pH control system for the General Sump. The plans for this project were submitted to this office quite some time ago and I apologize for the long delay in conveying my comments. I believe that this treatment system is not needed at the FEMP facility for the following reasons:

1. Currently, this office has drafted a proposed modification of the NPDES permit that will eliminate pH limits at Outfall 602. (Monitoring still required).
2. According to the MORs, the ratio of flow from 602 compared to 001 is approximately 1:20; the pH of the 602 flow would have to be extremely high to have a marked effect on the pH of the 001 effluent.
3. A review of 1992 MOR data indicates that the pH at 602 has not exhibited high pH characteristics. From January through November 1992, the pH ranged from a maximum of 8.6 to a low of 7.0 with an average of 7.9 S.U. - without a pH adjustment system.

If there is still justification for the pH control system in light of these comments, please elaborate.

Aside from the above comments, I have the following questions regarding the design of the treatment system: (Your response may not be necessary depending on your response to the previous comments).

1. Why would decant waters from uranium-contaminant tanks 10, 11 and 13 need to be routed to tanks 8 and 14 for lowering the pH when Plant 8 and the Bio-D surge lagoon, which are the two possible destinations of the waters after tank 8 and 14, both would benefit from higher pH waters. In the scenario when waters are routed from tanks 10, 11, and 13 to tank 8 and 14 to Plant 8, the pH is being raised, lowered and raised again.

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2. What type of diffuser will be used for the CO<sub>2</sub> sparger? Fine bubble? Single diffuser? Ring or bar? Mounted or hung? The plans are somewhat unclear.
3. Will this system be designed for batch or flow-through treatment? If batch treatment, is a dedicated on-site pH probe with feedback system necessary?
4. How will the pH probe be protected and maintained during periods of non-use?

Once I receive your response to these comments, I will be able to process the PTI application. If you have any questions, please contact me at (513) 285-6095.

Sincerely,



Matt Walbridge  
Division of Water Pollution Control  
Permits Group

MW/ycr