

DOCKETED  
USNRC

Commissioner, Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Docket # 70-7002  
October 2, 1996

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Dear Commissioner,

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OFFICE OF SECRETARY  
DOCKET  
This is the petition for review 10 CFR 76.37 of the initial certification for the Paducah Gaseous Diffusion Plant in Paducah, KY. The following is the Petitioner's issue for review:

**The analysis of offsite radiological consequences of releases of radioactive materials pursuant to 76.85 is inadequate**

This issue was clearly raised by the Petitioner in comments on the application. Petitioner submitted evidence which indicated that there has been significant, regular releases of radioactive materials offsite for the entire history of operation of the facility.

There is evidence that radioactive substances are beginning to accumulate in the food chain offsite. For example, the latest environmental report from the plant indicates that plutonium as well as uranium has been detected in deer in the W. Ky. Wildlife Management area. People hunt and fish near the plant. There is agriculture which occurs near the plant. This is an important human health issue, yet is not properly addressed by the Respondents.

Although 76.85 requires that "plant operating history relevant to the assessment should be included," the Respondents brush off Petitioner's comments, refusing to give a hard look at the past releases documented by DOE and submitted by the petitioner. The plant admits that there are still process releases of radioactive materials. How are those materials being distributed and accumulating in the environment?

Petitioner owns land and resides downwind from the facility. The DOE's Tiger Team report and DOE's draft EIS on Waste Management identify a potential area of impact around the facility nearly 50 miles. It is the slow, low level accumulation of radioactive materials in the environment over time which poses the most significant long term risk to the public.

In addition, radioactive materials are being released into the environment through groundwater contamination offsite. This could be entering the Ohio River and impacting users downstream. These effects should be considered in the analysis.

In that regard, the response to the Petitioner's comments in this regard are totally inadequate under the Administrative Procedures Act (APA). The Petitioner's comments regarding offsite accumulation of radioactive materials already documented, and the documented past releases from the plant have gone totally unaddressed. Instead, the Respondents write, "Cumulative effects from past operations are not part of an accident analysis...Exposure due to accumulation in the environment would be very small"

This is a totally inadequate response. Clearly, as shown above, the regulation requires that relevant past operating history must be considered when determining the effects of an accidental release. If there is already an environmental burden of radioactive materials, that is certainly relevant to any additional releases. The Respondents, which are bound to "protect public health and safety from radiological hazards" (FR Sept. 19, 1996 at 49360), cannot be found to be in compliance with applicable regulations without addressing this critical question.

Therefore, Petitioner respectfully requests that the Commissioner remand that part of the application to fully address the offsite effects of releases of radioactive materials, including past releases.

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Any FONSI Prepared for this Certification is Inadequate

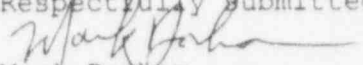
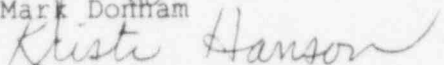
In addition, Petitioner specifically challenges the Finding of No Significant Impact FONSI issued with the compliance plan. This FONSI and EA was prepared with no notice to the local community and no opportunity to comment. This does not meet the intent of NEPA to inform the public when agencies are making such determinations.

In fact, NEPA requires the agency to give a hard look at the cumulative effects of an actions, which includes the impacts of past, present, and reasonably foreseeable future actions. This would include all of the waste management activities in combination with the operation of the plant and the implementation of the compliance plan. It is hard to impagine that the impacts of this are insignificant.

Petitioner requests that the Commissioner establish a mechanism which would allow public input and/or notification into the implementation of the compliance plan in regard to seismic upgrading.

One final comment is that 15 days to file a major petition such as this is inadequate, and verges on infringing on a citizen's right to due process. Petitioner is aware that other parties are requesting additional time to comment and Petitioner supports and repeats such a request.

Respectfully submitted,

  
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ES/ESH-61  
KY/EM-81

# **Paducah Site Annual Environmental Report Summary for 1994**

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## WE MONITOR DEER

The data from radiological sampling indicated no significant difference between the average concentrations of uranium isotopes in liver or muscle for reservation deer and for background deer taken from the Ballard County Wildlife Management Area. Very small concentrations of plutonium-239 and  $^{99}\text{Tc}$  were found in muscle tissue of reservation deer. If one person ate all of both deer found with measurable levels of both radionuclides, he or she would receive a dose of 1.67 mrem.

## WE MONITOR FISH AND OTHER AQUATIC LIFE

Energy Systems sponsors a biological monitoring program that is conducted each year by Oak Ridge National Laboratory. The program consists of three major tasks: (1) effluent and ambient toxicity monitoring, (2) bioaccumulation monitoring, and (3) ecological monitoring of stream communities.

### Toxicity Monitoring

*Ceriodaphnia* and fathead minnow toxicity tests of effluents are conducted quarterly. For ambient tests conducted in 1994, there was no evidence of chronic toxicity to fathead minnows for any of the ambient sites. Thus, toxicity to minnows observed in effluent from the continuously flowing outfalls was not observed in instream samples following mixing zones.

### Bioaccumulation Monitoring

The objectives of the bioaccumulation monitoring were to (1) continue PCB tracking studies in fish from Big Bayou Creek and Little Bayou Creek and (2) conduct screening analyses to detect other contaminants that may be of concern to consumers of fish from these streams. Overall mean concentrations of PCBs immediately downstream of DOE outfalls exceeded concentrations from the reference sites. Concentrations of metals were similar to reference streams, and no chlorinated pesticides were detected in fish from Big Bayou Creek or Little Bayou Creek. Detectable concentrations of uranium were found in fish from Little Bayou Creek.

### Ecological Monitoring

Quantitative sampling of the fish community was conducted at three sites in Big Bayou Creek, one site in Little Bayou Creek, and at one off-site reference station (Massac Creek) during March and September 1994. Qualitative sampling at one site in Little Bayou Creek was conducted during March 1994. Data on the fish communities of Big Bayou Creek and Little Bayou Creek downstream of the plant were compared to data from reference sites located on Big Bayou Creek above the plant and on Massac Creek. These comparisons indicated a slight but noticeable degradation in the communities downstream of the site.

## WE SAMPLE SOIL AND SEDIMENT

### Soil

Soil is sampled to determine if radionuclides from the atmosphere are accumulating in the soil. Soil samples are taken annually at ten locations at the property boundary and at distances of 5 miles beyond the property boundary (see Figure 15). Remote samples are taken at two locations 8 to 9 miles from the plant. Although other radiochemical analyses are performed, the results for uranium are considered the most important because uranium is the element of greatest concern in plant air emissions. The 1994 uranium concentrations show no apparent differences from past data and are within the range for concentrations and assay expected for naturally occurring uranium.

### Sediment

The stream bottom is an important constituent of the aquatic environment. If a pollutant is a suspended solid or is attached to suspended sediment, it can settle to the bottom (thus creating the need for sediment sampling), be filtered by certain organisms, or become attached to plant surfaces. Sediment samples are taken from six locations (see Figure 15). Uranium and PCB levels were higher in downstream Little Bayou Creek than at upstream Little Bayou Creek. In addition, uranium levels at SS1, downstream Big Bayou Creek, were ten times higher than at SS20, upstream Big Bayou Creek, and slightly higher than 1993 levels. These elevated levels can be attributed to plant operations (such as runoff for contaminated scrap yards) because the assay is lower than natural uranium. The monitoring program confirms past studies in which uranium and PCBs had been detected and resulted in the posting of Little Bayou Creek to make the public aware of PCB contamination and that prolonged exposure could result in a dose above background.

ORNL-DWG 87M-6712BR4

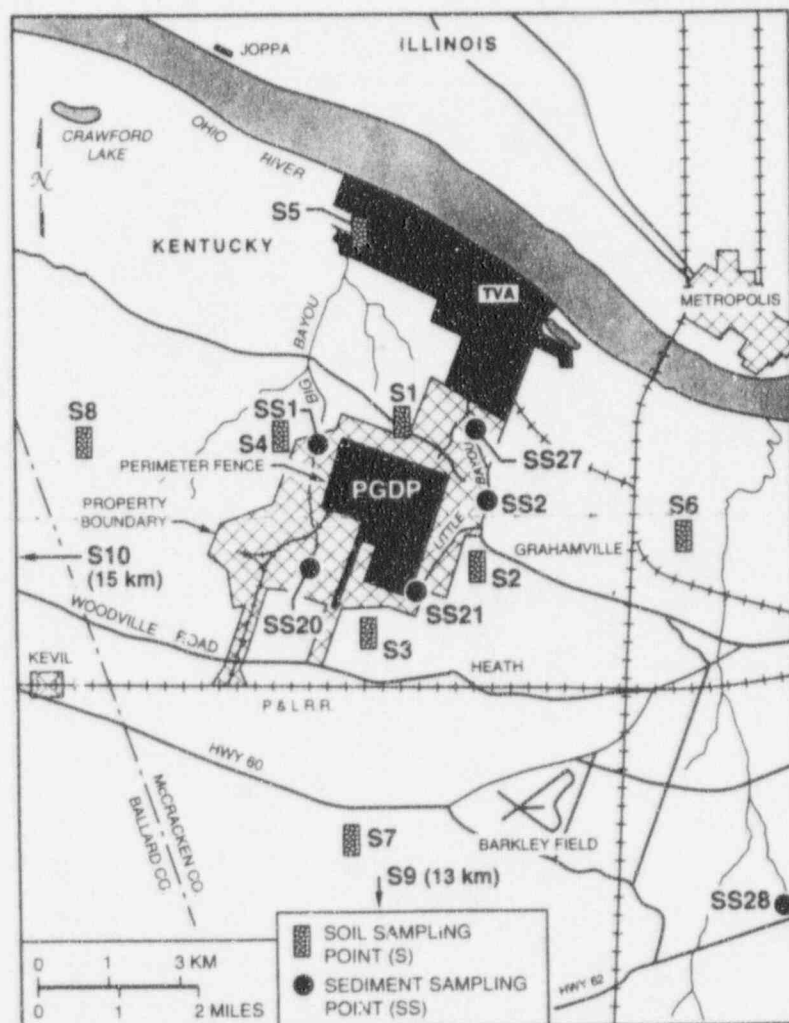


Figure 15. Soil and sediment sampling locations at the Paducah site.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of

U. S. ENRICHMENT CORPORATION

(Paducah, Kentucky and Piketon, Ohio)

Docket No.(s) 70-7001/7002

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing HOYLE MEMO WITH PETITION... have been served upon the following persons by U.S. mail, first class, except as otherwise noted and in accordance with the requirements of 10 CFR Sec. 2.712.

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Docket No.(s)70-7001/7002  
HOYLE MEMO WITH PETITION...

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