

17968
Carl J. Paperiello, Director
Office of Nuclear Materials Safety and Safeguards
Nuclear Regulatory Commission
Washington, D.C. 20555

DOCKETED
USNRC

October 3, 1996

'96 OCT -7 P3:59

(VIA: THE U.S. POSTAL SERVICE, Priority Mail)

Re: Issuance of Initial Certification Decision for Gaseous
Diffusion Uranium Enrichment Plants located in Piketon, Ohio
and Paducah, Kentucky, Federal Register Notice of September
19, 1996, Vol. 61, No. 183, pages 49360-49362. Docket Nos.
70-7001 & 70-7002

OFFICE OF SECRETARY
DOCKETS

Dear Director:

Please consider this correspondence a petition to the Nuclear Regulatory Commission (NRC) specifically requesting opportunity to review the entire case file upon which the director's findings are based in the above referenced matter. This petition is intended to preserve and protect any and all legal rights of the petitioner including but not limited to the right to challenge and/or appeal the decisions of the director in: 1. Issuing a certification decision for the United States Enrichment Corporation (USEC) to operate the two gaseous diffusion plants (GDPs) located in Piketon, Ohio and Paducah, Kentucky and 2. Issuing a Finding of No Significant Impact (FONSI) concerning NRC's approval of the compliance plan prepared by the U. S. Department of Energy (DOE) and submitted by USEC.

1. The director is requested to provide reasonable time for informed public comment and participation regarding the above referenced agency findings by extending the public comment period for at least 30 days after publication of a public notice in the federal register which addresses the considerable direct and indirect impacts of the proposed agency actions.

2. Any federal agency, including NRC, should not attempt to limit public participation to certain persons who provided comment in previous agency proceedings. Petitions and/or comments from any citizen, any interested party, and/or any U.S. taxpayer should be given appropriate consideration by the director in the above referenced matter.

3. The agency should hold national public hearings to solicit public comment and encourage participation from all U.S. citizens and taxpayers who are, in fact, directly affected parties.

4. The director is specifically requested to prepare an environmental impact statement with full environmental

analysis of contamination existing at the two GDP sites before issuance of certification to operate is granted.

5. The director's approval of the compliance plan prepared by DOE and submitted by USEC should not proceed until DOE and/or USEC comes into full compliance. It would appear that NRC is relying upon DOE to report its own environmental track record to another federal agency.

6. Repeated and legitimate concerns regarding adverse impacts to the natural environment, public health, worker safety, and economic cost to U.S. citizens and taxpayers have been raised in regard to the continued operation of the two GDPs. NRC should completely investigate these concerns and complaints before granting certification and privatization is allowed to proceed.

PUBLIC NOTICE AND PARTICIPATION:

Comment period of 15 days following publication in the federal register does not allow for ample time to review documents available in public libraries or to obtain copies by mail from the agency. The public generally does not receive notice on the date of federal register publication, needed information is not usually in the possession of members of the public, and written comment requires considerable time. Fifteen day notice is insufficient for well-informed public participation.

Any citizen, interested party, and/or taxpayer should be considered in agency decision-making. U.S. taxpayers have considerable economic interests, some \$1,400,000.00, in the privatization process. Transfer of the two GDPs from DOE oversight to private, for-profit corporate uranium enrichment operations represents a considerable transfer of publicly owned property to private interests. NRC should not narrowly define affected parties in its proposed actions.

Utility customers also have considerable economic interests in the deregulation of the utility industry and the future role of nuclear power in both the foreign and domestic marketplaces. The cost of nuclear generated electricity billed directly to customers, the cost of decommissioning and decontamination of nuclear power plants, and the cost of disposal or other disposition of nuclear waste both high and low level are legitimate concerns to the public. NRC certification of the two GDPs, in effect, condones the continued generation of high-level and low-level radioactive wastes with no proven "solutions" to protect the public health and the natural environment or reasonable

reassurances that ultimate cost of disposal will actually remain with the generators.

IDENTIFICATION OF RESPONSIBLE PARTIES REQUESTED FROM NRC:

It is my understanding that Yankee Atomic Electric Company, by court decision, has been granted exemption from monetary contributions to DOE D&D fund. Reprocessing of spent nuclear fuel rods as a "solution" to radioactive waste disposition does not address the considerable amount of waste generated by the recycling process.

What entities, if any, other than U.S. taxpayers and utility consumers are ultimately liable for the cost of nuclear waste disposal? NRC can reasonably predict that its certification to operate will result in generation of nuclear waste at the two GDP locations. What entity is financially responsible for nuclear disposal and/or other disposition, cost of cleanup and restoration for contamination from continued uranium enrichment operations added to that which currently exists at the two GDP sites? Federal register notice of September 19, 1996 states: "DOE retains ownership of the facilities and will be responsible for the eventual decommissioning of the sites."

The Ohio Environmental Protection Agency (Ohio EPA) is presently developing Voluntary Action Program (brownfields) rules which would appear to allow corporations exemption from environmental audit and public access to operational and accidental releases on site, if internal audit is initiated. Reuse of contaminated industrial sites by corporations appears to provide release from liability for pollution.

The amount of cleanup depends on how the property will be used in the future. . . . If standards are met, Ohio EPA can issue the property owner a "covenant not to sue." This covenant protects the property owner from being liable to the State of Ohio for further clean up of hazardous substances and petroleum. (Ohio EPA, CITIZENS RELEASE, September 10, 1996)

What entity is responsible for cleanup of these DOE retained ownership, USEC operated, NRC regulated, and publicly financed sites?

What entities, if any, are financially responsible for adverse impacts to the workers, surrounding population, and natural environment from catastrophic accident, should such an event occur, during GDP operations under USEC?

Could NRC please identify the federal agency or agencies with regulatory authority, including the responsibilities of each agency, to implement protection of the public and worker health and safety, national interests, considerable investment of \$1,400,000.00 of taxpayer dollars in property and technology, and the environment?

NRC FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The finding of fact fails to address existing contamination known to exist at the two GDP sites. The agency has narrowed its view to focus upon adverse environmental impacts likely to occur by NRC approval of the compliance plan prepared by DOE. Both the language and intent of National Environmental Policy Act of 1969 (NEPA) would seem to require that the agency address the cumulative environmental impacts and the direct and indirect impacts which can reasonably be predicted to occur as a result of the proposed action. Commercial operation of uranium enrichment plants for the purpose of producing and marketing nuclear utility fuel would seem to qualify as a significant federal action and require preparation of an EIS.

NRC, the agency apparently designated to protect the public and worker health and safety, provide for the common defense and security, and protect the natural environment, has stated in federal register notice of September 19, 1996 that compliance has not yet been attained by DOE/USEC. NRC decision to approve the compliance plan prepared by DOE appears to focus upon whether GDP operations under DOE regulatory oversight would result in more significant environmental impacts than GDP operations under NRC oversight. I respectfully submit that NRC has incorrectly focused upon which federal agency has regulatory oversight rather than address the environmental impacts of commercial GDPs uranium enrichment operations upon the human and natural environment, even though current site operations are admittedly not in compliance.

According to current information regarding production at the Portsmouth GDP, approximately one third of uranium enriched to utility fuel grade (LEU) is exported on the foreign market. Two thirds of Portsmouth GDP production is marketed domestically for nuclear power plant fuel. The agency has reason to predict that its proposed action, certification to operate, will result in conversion of highly enriched uranium (HEU) to LEU for sale on both the foreign and domestic markets for the next twenty to twenty five years to nuclear utilities. NRC findings would appear to have the indirect effect of perpetuating nuclear energy as a source of electricity both in license renewal of existing power

plants and in siting new nuclear power plants as well as necessitating additional facilities for nuclear waste disposal and/or recycling.

Costs and risks of decommissioning and decontamination (D&D) of the two GDPs now should be addressed by the NRC in comparison to the costs and risks of allowing two forty year old facilities to continue to operate and continue to add to site contamination.

HEALTH, SAFETY, ENVIRONMENTAL CONCERNS WHICH REQUIRE INVESTIGATION BY NRC BEFORE CERTIFICATION IS ISSUED TO USEC:

During the forty year operation of both GDPs under the DOE national security and defense was given top priority. Both facilities were crucial to the production of nuclear weapons. National security issues have resulted in lack of complete and detailed information being made available to the public, including the workers and residents in close proximity to these sites. Although much more information has been made available recently by DOE, specific information on operational and accidental release of material and contamination on and off site is still to be made readily available to the public.

Data available from DOE and other sources indicates significant release of uranium hexafluoride beginning in 1955. Accidents where heated cylinders failed to contain UF₆ resulted in airborne and surface water releases of significant amounts of radioactive materials.

RADIOACTIVE RELEASE (Portsmouth; March 7, 1978; type A)
A vehicle carrying a 14-ton cylinder containing liquid uranium hexafluoride failed. The cylinder was dropped and ruptured, releasing 21,125 pounds of uranium in about 5 minutes. No employees were exposed in excess of maximum limits; damage totalled \$368,350. A report on the accident indicated the vehicle was in extremely poor condition and that many cylinders had been previously dropped. The report also stated that under less favorable conditions, this type of accident would have resulted in injuries and/or fatalities. (REPORT BY THE CONTROLLER GENERAL OF THE UNITED STATES, DEPARTMENT OF ENERGY'S SAFETY AND HEALTH PROGRAM FOR ENRICHMENT PLANT WORKERS IS NOT ADEQUATELY IMPLEMENTED, EMD-80-78, July 11, 1980)

The March 7, 1978 accident is also documented as an estimated 680 kg release of liquid uranium which reached the storm sewers and escaped via the West Ditch to the Scioto River before the ditch could be sealed off. (HISTORICAL RADIONUCLIDE RELEASES FROM CURRENT DOE OAKRIDGE OPERATIONS OFFICE FACILITIES, OR-890, MAY 1988)

Estimates by the DOE Oak Ridge Operations of releases at the Portsmouth GDP include: 1. 10,510.1 kg of uranium in airborne release from 1955 to 1987 2. 7,824 kg of LIQUID (emphasis added) uranium releases from 1955-1987 3. 30.299 curies estimated liquid releases of uranium daughters from 1955 to 1987 4. 212.8 curies estimated liquid technetium releases from 1975-1987 5. 5,139.9 kg estimated quantity of uranium contained in solid waste buried on site.

Estimates by DOE of releases at the Paducah GDP include: 1. 59,451 kg of uranium in atmospheric release from 1952-1987 2. 28,050 kg estimated liquid releases from 1952-1987 3. 3,320 kg estimated uranium contained in solid waste buried on site from 1953-1987 (HISTORICAL RADIONUCLIDE RELEASES FROM CURRENT DOE OAK RIDGE OPERATIONS OFFICE FACILITIES. OR-890, May 1988) Please note that releases in this report are estimated in separate categories, not totalled.

NRC must surely consider these amounts, estimated by DOE, of radioactive materials released into the environment as significant. NRC should not conclude that no significant environmental releases have been detected within the last ten years, whether attributable to HEPA filter failure or not, without thorough investigation. Agency finding that DOE noncompliance with the compliance plan DOE prepared is not appropriate. NRC should not proceed with issuance of certification until full environmental analysis and documentation of existing contamination at both GDP sites is completed.

Historic weakness and deficiency in DOE collection of data and compliance is well documented at the Portsmouth GDP.

Weaknesses of the Portsmouth Uranium Enrichment Complex environmental program center on the areas of environmental monitoring, regulatory compliance, and general documentation and record keeping. Specific concerns include: The lack of proper and periodic air quality monitoring instrument calibration procedures necessary to defend the accuracy of monitoring system data. The lack of a unified source emissions inventory (non-radioactive) necessary to allow permitting and operation of all appropriate facilities. Inadequate placement of groundwater monitoring wells and undocumented selection of monitoring parameters resulting in the inability to satisfactorily detect and correct contamination. . . . The lack of proper maintenance of the present thermoluminescent dosimeter (TLD) system resulting in lack of confidence in some environmental dose rate data. . . . The lack of proper disposal facility run off controls necessary to prevent discharge of contaminants. . . . Noncompliance with DOE monitoring and closure requirements for land disposal of certain

radioactive wastes. The lack of characterizations and assessment of existing groundwater contamination necessary to define the extent of contamination and allow corrective action. (ENVIRONMENTAL PROGRAM AUDIT PORTSMOUTH URANIUM ENRICHMENT COMPLEX, PIKETON, OHIO. DOE/PE/72005--T2, Final Report, August 26, 1985)

Implementation of NEPA process at the Portsmouth GDP historically has been somewhat lacking in compliance.

The review of NEPA activity at PORTS extended back to the two EISs prepared in 1977 to address (a) continued operation of the existing plant (b) the expansion of the gaseous diffusion enrichment capacity (with the gas centrifuge project (GCEP) as an alternative). Since 1977 the basic mission and operations at PORTS have changed very little. The major actions at the site have involved (1) implementing and then (in 1985) terminating the GCEP project, (2) upgrading systems for environmental protection, safeguards, and security; and, recently, initiating a RCRA remedial action program (RAP). (ENVIRONMENT, SAFETY, AND HEALTH COMPLIANCE ASSESSMENT OF THE PORTSMOUTH GASEOUS DIFFUSION PLANT. DOE/EH-0144, April 1990)

Compliance findings from the above referenced 1990 report include: 1. projects have been approved and started before completion of NEPA review attributed to fragmented oversight of the NEPA process at PORTS 2. environmental control procedure found to be inconsistent with federal regulatory procedures including no consideration of cumulative impacts 3. inappropriate use of memoranda to file (MTF) which should be used only for proposed actions that are clearly insignificant and 4. instances when NEPA was not being incorporated into decision making at the earliest stages for projects including possible development of a low-level radioactive waste (LLW) incinerator and possible development of a new LLW disposal facility to replace the X-749 landfill. (IBID.)

In 1992 Ohio EPA Division of Water Quality Planning and Assessment (DWQPA) conducted a field study of sediment, aquatic biological communities and fish tissue in streams on and in close proximity of the Portsmouth GDP in Pike County. Streams studied were Little Beaver, Big Run, West Ditch, and the Big Beaver upstream and downstream from its confluence with the Little Beaver. Extremely elevated levels of mercury above expected background was detected in sediment immediately downstream from the S-230-J7 discharge. Cadmium and chromium (RCRA metals) at levels considered highly elevated or elevated levels in sediment sample sites on Little Beaver and Big Beaver Creek.

All radiological parameters measured in sediment showed significant increases, compared to background values, below the X-230-J7 discharge (RM 3.13) in Little Beaver Creek and downstream from the confluence of Little Beaver Creek in Big Beaver Creek (RM 2.10). Of particular concern are levels of technetium-99 and total uranium (calculated based on uranium-234 and uranium-238 measured activities) in Little Beaver Creek at Wakefield Mound Road (R 0.04) and Big Beaver Creek at RM 2.10, both of these sites are off plant property (Table 3.). (BIOLOGICAL, FISH TISSUE, AND SEDIMENT QUALITY IN LITTLE BEAVER CREEK, BIG BEAVER CREEK, BIG RUN, AND WEST DITCH, PIKETON (PORTSMOUTH GASEOUS DIFFUSION PLANT), OHIO, May 24, 1993)

The Portsmouth GDP is sited over one of the largest underground rivers in the Midwest, the Teys. Horizontal and vertical fractures of bedrock represent potential pathways for contamination migration. Concerns regarding the potential risks and lack of full assessment of potential pathways have been raised by U.S. EPA in a 1990 report. NRC should require full evaluation of potential pathways of contamination before issuance of certification for operation.

DOE has established a ground-water protection program for the Portsmouth site to coordinate and support environmental restoration projects. "This program also manages any interim actions required to stop the migration of ground water offsite." (THE 1996 BASELINE ENVIRONMENTAL MANAGEMENT REPORT, DOE/EM-0290, JUNE 1996, VOLUME III, Ohio: Portsmouth Gaseous Diffusion Plant)

The contaminants include chlorinated solvents, such as trichloroethylene, chlorinated solvents mixed with radionuclides in low concentrations, metals, and polychlorinated biphenyls. Additional sources of contamination are uranium deposits in process equipment and radionuclides in buildings, cooling towers, and wastewater ponds. Trichloroethylene is the main contaminant of concern in the ground-water systems at the Portsmouth site. To date, no ground water contamination has migrated offsite. (IBID.)

DOE data on groundwater migration of contamination plant off site would appear to conflict with Ohio EPA sediment sampling data. NRC must address the significance of possible migration of contamination off plant site by surface and ground water pathways. As of telephone conversation on October 3, 1996, families on Smith Road just four miles from the Portsmouth GDP were drinking from cisterns and wells and, to date, have been unable to obtain

drinking water from either Pike or Scioto County municipal water sources. (Both Pike and Scioto Counties have existing water lines approximately one mile from residents on Smith Road.) The Little Beaver Creek is located in close proximity to the wells used by these families as a drinking water source. Seeps from the Little Beaver and possible contamination is of concern to these area residents who have tried for the past seven years to obtain drinking water from Pike and Scioto County officials.

According to DOE 1996 estimates in the same report, approximately 3,914,589 cubic meters (5,128,112 cubic yards) of hazardous groundwater will be left in an area of containment and 51,500 cubic meters of groundwater will be removed and treated along with 284 cubic meters of other hazardous liquids.

NRC, as the agency with authority to protect the public health and safety, should not allow DOE and its leasee, USEC, to proceed with the certification process based upon a FONSI issued for a compliance plan that is admittedly out of compliance. NRC finding of no significant impact does not address the legitimate and long-standing concerns raised by interested parties regarding environmental contamination and releases from the Portsmouth GDP site.

Deaths from cancer are among the highest in the state in Southwest Ohio in nine contiguous counties along the Ohio River according to CORVA, the Health Planning and Resource Development Association of the Central Ohio River Valley. Scioto, Lawrence, Jackson, Adams, Brown, Clermont, and Hamilton County residents were included as experiencing high death rates. The Scioto River flows directly into the Ohio River at Portsmouth, Ohio in Scioto County. Six of these counties are located on the Ohio River and use it as a source of drinking water, including Cincinnati in Hamilton County. The study identifies high death rates, but does not provide answers as to possible causes. (THE CINCINNATI POST, "High Cancer Rate Plagues Region, " Tuesday, July 2, 1996, 5A)

Studies conducted by local residents near the Portsmouth Gaseous Diffusion Plant have indicated that death rates and chronic illnesses require closer study by independent health professionals. Recent health studies conducted by ASTDR did not adequately address health concerns raised by area residents.

Worker health risks and exposures should also be addressed by NRC before certification is issued to USEC. How will USEC and NRC comply with OSHA regulations regarding worker exposure to industrial chemicals, lead paint, and asbestos?

These toxic and hazardous substances are present in industrial uranium process building. U.S. EPA has admitted that synergistic impacts from chemicals combining in the environment and living in organisms can increase adverse effects by 16,000 times. NRC cannot reasonably address adverse health impacts to workers and the public one exposure at a time. Cumulative adverse impacts from exposures must be addressed. Asbestos contaminated with uranium would reasonably seem to represent a more serious exposure to workers.

ENVIRONMENTAL JUSTICE

The Portsmouth GDP is the largest single employer in its congressional district while the Paducah GDP is the second largest single employer in its congressional district. Both plants represent jobs to workers in rural areas. DOE projects a \$27 Billion dollar shortfall in budget allocations for cleanup over the next twenty five years. (1996 BEMR, June 26, 1996 DOE/EM-0290, Volume I) GDP workers appear faced with exposure to risk from working in forty year old facilities known to have onsite contamination or quite possibly becoming unemployed.

Historically, DOE has placed national defense and security as the highest ranking priority in its weapons production complex. National interests in former weapons production should not be confused by NRC with commercial utility industry interests in uranium enrichment for nuclear utility fuel.

Since 1991, the plant (Portsmouth) has produced only low enriched uranium for use as fuel in commercial nuclear power plants. On July 1, 1993, the United States Enrichment Corporation, a government corporation formed under the Energy Policy Act of 1992, assumed operations of the production portion of the plant. The Department of Energy retained responsibility for environmental restoration and related waste management activities which comprise the second primary mission of the plant. (1996 BEMR, DOE/EM-0290, Volume III, Ohio: Portsmouth Gaseous Diffusion Plant)

GDP primary mission continues to be enrichment of uranium. It does not seem reasonable that the national security and defense interests are transferable to USEC along with plant operations and technology. DOE recommendation to USEC for compliance of the corporation with Section 76.93 to execute a "graded approach" that is consistent with the importance of safety. Lacking definition for "graded approach," DOE recommended that NRC apply the following level of analysis:

1. The relative importance to safety, safeguards and security.
 2. The magnitude of any hazard involved;
 3. The life cycle stage of the facility;
 4. The programmatic mission of a facility
 5. The particular characteristic of a facility; and
 6. Any other relevant factor
- (Department of Energy Comments on Proposed 10CFR76, Regulation of Gaseous Diffusion Enrichment Plants, Docket Date by NRC of April 13, 1994)

DOE priority ranking of safety, magnitudes of hazard which includes risk of catastrophic accident and/or criticality, and life cycle of the facility over programmatic mission of the facility seems most appropriate. The NRC is requested to address issues in order listed by DOE in its actions on these two GDPs.

According to a report titled AFFORDABLE CLEANUP? by the National Academy of Sciences, these forty year old GDPs represent significant risks to the public health, worker safety, and environment unless full decommissioning and decontamination begins immediately. Knowledgeable sources estimate that conversion of HEU from Russian and DOE stockpiles will take 20 to 50 years. NRC must address the life cycle stage of these GDPs before certification is issued for operations. The agency should request and receive an agenda of full D&D from the applicant before proceeding to issue certification.

NRC is mandated to comply with all appropriate federal laws including NEPA which grants all citizens the right to live in a clean and healthful environment. NRC is also mandated to comply with appropriate executive orders which carry the force of law, including executive order of February 1994 directing federal agencies to implement environmental justice in agency process.

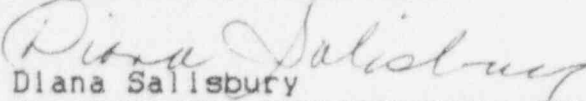
NRC, as the designated oversight agency in the certification of USEC, is the surrogate of the public interests. DOE transfer of publicly owned property and technology does not relieve NRC of this responsibility. The responsibilities of various agencies to the public is confusing and complex in this matter. Could NRC clarify by identifying and specifying agency authority in cleanup, liability, accountability, and adverse health impacts to workers, the public, and the environment? How will affected parties obtain information from USEC which is a private-government corporation? USEC response to my personal request for detailed information concerning the volume and content of waste stream from uranium enrichment productions claimed corporate privilege to withhold based upon a competitor's

page 12

ability to determine cost of SWU from waste stream volume and contents.

The director is respectfully requested to respond to the concerns and issues raised herein before issuance of findings in the above referenced matter.

Respectfully submitted,


Diana Salisbury
for SYCAMORE ENVIRONMENTAL AWARENESS GROUP
7019 Ashridge Arnheim Road
Sardinia, Ohio 45168
(513) 446-3135 telephone and fax

cc: The Honorable John Glenn, Senator for Ohio
U.S. EPA
Ohio EPA
Office of the Attorney General of Ohio
Military Production Network
Kwanitewk
Save the Wills Creek Water Resources Committee