

July 9, 2004

MEMORANDUM TO: Joseph G. Giitter, Chief
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

THRU: Brian W. Smith, Chief /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

FROM: Yawar H. Faraz, Senior Project Manager /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

SUBJECT: JUNE 23, 2004, MEETING SUMMARY: PUBLIC MEETING IN
PIKETON, OHIO, ON USEC INC.'S PROPOSED AMERICAN
CENTRIFUGE PLANT

On June 23, 2004, U.S. Nuclear Regulatory Commission (NRC) staff held an open public meeting in Piketon, Ohio, to discuss the NRC licensing process applicable to USEC Inc.'s license application which is anticipated to be submitted to the NRC in August 2004, for a commercial gas centrifuge uranium enrichment facility known as the American Centrifuge Plant. I am attaching a meeting summary for your use.

Docket: 70-7004
Attachment: Meeting Summary

cc: William Szymanski, DOE	Michael Marriotte, NIRS
Dan Minter, PACE/SODI/USEC	Carol O'Claire, Ohio EMA
James Curtiss, W&S	Randall DeVault, DOE
Rod Krich, LES	Peter Miner, USEC Inc.
Gov. Bob Taft, Ohio	Sen. Mike DeWine, Ohio
Rep. Bob Ney, Ohio	Rep. Rob Portman, Ohio
Sen. George Voinovich, Ohio	Rocky Brown, Mayor of Beaver
Billy Spencer, Mayor of Piketon	Jim Brushart, Pike Co. Comm. Chair.
Harry Rioer, Pike Co. Commissioner	Teddy West, Scioto Twp. Trustee
Larry Scaggs, Seal Twp. Trustee	Ted Wheeler, Pike County Auditor
Blaine Beekman, Pike Co. CoC Chair.	Kara Willis, Gov. Reg. 7 office
Garry Hager, SPFPA/USEC	Mary Glasgow, Rep. Portman

MEMORANDUM TO: Joseph G. Giitter, Chief
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

THRU: Brian W. Smith, Chief /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

FROM: Yawar H. Faraz, Senior Project Manager /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

SUBJECT: JUNE 23, 2004, MEETING SUMMARY: PUBLIC MEETING IN PIKETON,
OHIO, ON USEC INC.'S PROPOSED AMERICAN CENTRIFUGE PLANT

On June 23, 2004, U.S. Nuclear Regulatory Commission (NRC) staff held an open public meeting in Piketon, Ohio, to discuss the NRC licensing process applicable to USEC Inc.'s license application which is anticipated to be submitted to the NRC in August 2004, for a commercial gas centrifuge uranium enrichment facility known as the American Centrifuge Plant.

I am attaching a meeting summary for your use.

Docket: 70-7004

Attachment: Meeting Summary

cc: William Szymanski, DOE
Dan Minter, PACE/SODI/USEC
James Curtiss, W&S
Rod Krich, LES
Gov. Bob Taft, Ohio
Rep. Bob Ney, Ohio
Sen. George Voinovich, Ohio
Billy Spencer, Mayor of Piketon
Harry Rioer, Pike Co. Commissioner
Larry Scaggs, Seal Twp. Trustee
Blaine Beekman, Pike Co. CoC Chair.
Garry Hager, SPFPA/USEC
Michael Marriotte, NIRS
Carol O'Claire, Ohio EMA
Randall DeVault, DOE
Peter Miner, USEC Inc.
Sen. Mike DeWine, Ohio
Rep. Rob Portman, Ohio
Rocky Brown, Mayor of Beaver
Jim Brushart, Pike Co. Comm. Chair.
Teddy West, Scioto Twp. Trustee
Ted Wheeler, Pike County Auditor
Kara Willis, Gov. Reg. 7 office
Mary Glasgow, Cong. Portman

DISTRIBUTION:

FCSS r/f SPBr/f RPierson JHolonich MFederline JStrosnider DMcIntyre,OPA
DHartland,RII TJohnson DBrown WTroskoski DAyers,RII RULEck, NRR
DSeymour,RII LTrocine, OE JHenson, RII RVirgilio,OSP NGarcia, SPIB CHaney, NRR
RTrojanowski, RII HGraves, RES JKramer, RES VOrdaz, NSIR FCamerron, OGC DMartin,UPS
SFlanders, DWM JKlein, SPB TPham,NSIR LSilvious,NSIR HGraves, RES RHannah,RII
ARayland,NSIR WSmith, SPB KEverly, NSIR RShaffer, RES AHuffert,EDO RNelson, UPS
AFrazier,NSIR JGiitter,SPB MBlevins, DWM SLewis, OGC MDusaniwskyj, NRR SCross, NSIR
RWescott, SPB MGalloway MDelligatti, DWM WHeld BBartlett, RII MRaddatz

ML041960591 (Package) **ML041960594** (Memo) **ML041970252** (Presentation)

Office	SPB	SPB	SPB
Name	YFaraz/os	LMarshall	BSmith
Date	07/09 /04	07/09/04	07/ 09 /04

Meeting Summary

Date: June 23, 2004

Place: Piketon, Ohio

Attendees: B. Smith/NRC
C. Cameron/NRC
M. Delligatti/NRC
M. Blevins/NRC
J. Henson/NRC
S. Lewis/NRC
Y. Faraz/NRC
D. McIntyre/NRC
Approximately 125 members of the public

Purpose:

The purpose of this meeting was to discuss the U.S. Nuclear Regulatory Commission (NRC) licensing process, the Environmental Impact Statement (EIS) preparation process, and the inspection program applicable to USEC Inc.'s (USEC's) American Centrifuge Plant proposed to be located at the Portsmouth Gaseous Diffusion Plant site in Piketon Ohio.

Discussion:

Mr. Cameron, the meeting facilitator, began the meeting by introducing the NRC staff and by discussing the meeting objectives and the agenda. He then stated that the NRC staff would conduct a question and answer session following their presentations.

Mr. Faraz began the presentations with a discussion of the NRC licensing process (see Attachment 1). He discussed the proposed USEC project that would use gas centrifuge technology to enrich uranium to levels of up to 10 percent U-235. He also discussed the nuclear fuel cycle that includes mining, milling, conversion to uranium hexafluoride, enrichment, fuel fabrication, and use in nuclear power plants. He then provided a basic description of the gas centrifuge process.

Mr. Faraz indicated that NRC is an independent Federal agency responsible for ensuring protection of public and worker health and safety in the use of radioactive material. He explained that NRC is not a promoter of its licensees or applicants or any technology but rather an independent agency responsible for conducting the licensing process to ensure that any licensed plant will be safe, secure, and environmentally clean. He further stated that USEC would not be able to start construction prior to the issuance of the license.

Mr. Faraz then explained the licensing process. He indicated that USEC planned to submit a license application in August 2004. He indicated that following receipt of the application, the NRC will conduct a quick (approximately one month) application acceptance review where the NRC will examine the contents of the application to determine whether it is acceptable for review. If found acceptable, the NRC will docket the application, and begin its detailed safety, security and environmental reviews that would take up to 18 months to complete. The results

of these reviews would be documented in two key documents -- a Safety Evaluation Report (SER) and an EIS. He also stated that a formal adjudicatory hearing would be required for USEC Inc's application.

Mr. Faraz also explained that shortly after determining that the application is complete enough that a technical review may be conducted, NRC would offer an opportunity for members of the public to petition for a hearing. This is a formal adjudicatory hearing before three administrative law judges who are independent of the NRC staff that conduct the detailed technical reviews. These judges will hear and rule on safety, security and environmental issues related to the application. To be admitted to the hearing, petitioners would have to demonstrate standing, that is, that they have an interest in the proceeding in that they could be adversely affected by the proposed activity, and present admissible contentions that are relevant to the proceeding. Typically, such hearings are held near the proposed site to allow local stakeholders to observe the proceedings. The safety and security hearings, and the environmental hearings, would begin following the completion of the SER and EIS, respectively.

Mr. Faraz stated that the licensing process is an open process with all documents and meetings, except for those involving classified and proprietary information, available to the public on NRC's Agencywide Documents Access and Management System (ADAMS). He stated that NRC would attempt to have some of its technical meetings with USEC in the Piketon area so that any interested local members of the public may observe the technical exchanges and ask questions of the NRC staff. He explained that in preparation of the EIS, there would be two public meetings held near the proposed site where members of the public can provide input into the environmental review process. The first meeting would be the EIS Scoping Meeting that is intended to solicit public input as to matters that need to be considered in the EIS. The second meeting would be held to receive comments on the draft EIS after its issuance. He also provided project website access information.

Mr. Blevins then discussed the NRC's environmental review process. He explained the requirements and purpose for preparing an EIS, and that it is a decision-making tool for identifying the environmental impacts of the proposed facility and comparing those impacts against alternatives to the proposed action. He stated that the EIS would address both radiological and non-radiological impacts to environmental resource areas such as human health, water use, ecological, and socioeconomic impacts of the project.

Mr. Blevins then discussed the EIS preparation process, including project scoping, requests for additional information, preparation of a draft EIS, consideration of public comments on the draft EIS, and preparation of a final EIS. He indicated that public meetings would be held in the Piketon area during the scoping and draft EIS comment phases.

Mr. Henson, from NRC's Region II office, provided a discussion on NRC's inspection program. He stated that the inspection program's goal is to ensure that a licensee meets NRC's regulatory and licensing requirements and its commitments contained in the license application. The inspection program would focus on worker and public safety, the environment, and national security. He stated that the inspection program is risk-informed and performance-based in that the inspectors would focus their efforts on those parts of the plant that are the most risk-significant and would observe operations as much as possible. He said that NRC inspectors would observe both construction and operational activities. During the construction phase, inspectors would evaluate the construction program to ensure that the facility is being built in accordance with the license and commitments made in the application. During operations, inspections would be conducted in the areas of radiological and chemical safety, safeguards,

criticality safety, transportation, waste management, maintenance, training, and quality assurance.

Most of the attendees were supportive of the plant. About ten attendees either made statements opposed to the plant or voiced their concerns about the plant. During the presentations, members of the public asked questions, and upon completion of the presentations, Mr. Cameron then moderated the question and answer session. A summary of those discussions is below.

Ms. Vina Colley made several statements. Most of her statements were directed towards past gaseous diffusion plant operations and legacy issues. Ms. Colley stated that the government and plant operators keep health and safety information away from members of the public by simply classifying the information. Therefore, USEC's gas centrifuge technology should not be classified as some other countries already have the same technology. Mr. Faraz responded that in the interest of national security, the details associated with centrifuge technology are sensitive and cannot be made publically available.

Ms. Colley stated that past operations at the gaseous diffusion plant, including operations involving plutonium at the oxide conversion facility, had caused many people to become sick and die. According to Ms. Colley, these workers were not informed of the presence of plutonium. Mr. Faraz indicated that the NRC had assumed regulatory jurisdiction from the Department of Energy (DOE) for uranium enrichment related operations at the gaseous diffusion plant in 1997. However, when the issue of past use of transuranic radionuclides including plutonium at the plant came to the attention of the NRC, special inspections were conducted at the Portsmouth and Paducah plants to assess transuranic safety in areas regulated by the NRC. These inspections concluded that the amounts of transuranic radionuclides in NRC-regulated areas was not significant and that USEC was adequately protecting its workers from any transuranic radionuclides that may be present in these areas. Mr. Faraz also stated that the NRC's regulatory limits on exposure to radiological substances are set well below levels that can result in health effects. He added that NRC licensees typically set their own administrative limits even lower than the NRC's regulatory limits providing an additional safety margin. One individual asked how DOE's exposure limits compared with NRC's exposure limits. Mr. Faraz responded that the two sets of limits were similar.

Ms. Colley stated that a lunch room at the Portsmouth Gaseous Diffusion Plant was contaminated with epoxy and other chemicals resulting in seven times higher bladder cancer rates and 6.5 times higher stomach cancer rates for the local community. She also stated that 240 to 260 persons had come to a similar meeting that were sick from past Portsmouth operations.

An individual questioned the NRC's ability to effectively inspect a new technology such as gas centrifuge. Mr. Henson responded that the NRC inspectors undergo an extensive training program which enables them to effectively conduct construction and operational inspections. He added that the NRC also has significant experience inspecting the gaseous diffusion plants which to a large extent conducts similar operations as the gas centrifuge facilities. Mr. Henson also anticipates NRC inspectors to gain experience by observing operations at Urenco's gas centrifuge plant in Almelo, The Netherlands.

Another individual indicated that the state of Ohio had spent a lot of money to attract the American Centrifuge Plant (ACP) to Ohio and as a concession, USEC is not required to pay any taxes to the state of Ohio.

One individual indicated that it will be very costly to decommission the Paducah Gaseous Diffusion Plant and asked how much it would cost to decommission the ACP. Mr. Delligatti responded that USEC will need to provide a decommissioning cost estimate in its application. Mr. Smith added that it would cost Louisiana Energy Services (LES) less than \$1 billion to decommission its facility and disposition the depleted uranium tails.

An individual indicated that there is mistrust of large corporations. She was concerned about how the waste issue and all the problems with hydrogen would impact the safety of the local community. She also was concerned about weapons of mass destruction (WMDs) that she thought had been brought from Iran or Libya and were being stored at the Portsmouth facility. Mr. Henson clarified that there were no WMDs brought to the Portsmouth site.

An individual voiced concerns about the impact of tornadoes on the facility. Mr. Faraz responded that USEC is required to assess the impacts of tornadoes and other external events in its safety analysis. All credible external events that can result in significant radiological consequences and any safety items and procedures needed to mitigate the consequences would be identified in the application.

Another individual asked whether USEC's past record of safety would be considered in reviewing the application for the ACP. Mr. Faraz responded by saying that USEC did not have a poor regulatory compliance history. Mr. Lewis added that USEC would have to demonstrate under 10 CFR 70.23 of the Commission's regulations that it "...is qualified by reason of training and experience to use the material for the purpose requested in accordance with the regulations in..." Part 70. Additionally, a poor regulatory compliance and enforcement history of any licensee would clearly be a consideration in enforcement determinations regarding that licensee.

Since several of the questions from attendees opposed to the plant pertained to areas that were under DOE's regulatory oversight, an individual asked whether the DOE was invited to the meeting. Mr. Faraz responded that the publically noticed meeting was between the NRC staff and members of the public and neither DOE nor USEC were expected to be participants. The individual then suggested that a similar public meeting should be held near the plant with DOE and USEC participation.

Another individual asked how it is assured that all operations conducted by USEC at the plant are appropriately regulated by DOE and NRC. Mr. Faraz replied that this is primarily done by establishing a written agreement also known as a Memorandum of Understanding (MOU) that delineates each agency's regulatory oversight responsibilities. Mr. Faraz added that such an MOU was developed for the Lead Cascade, and that while the MOU was being developed, a meeting that was open to the public was also held at the NRC Headquarters. The questioner asked whether a similar MOU was to be developed for the ACP. Mr. Faraz responded that an MOU is planned for the ACP.

Several individuals indicated concern regarding the safety of depleted uranium tails storage. Mr. Faraz responded that the NRC will require USEC to store depleted uranium tails safely through the use of proper containers and an adequate tails cylinder inspection program. Mr. Faraz added that the tails generated in the past are being stored safely at the Portsmouth, Paducah, and Oak Ridge Gaseous Diffusion Plant (GDP) sites as UF₆ in steel cylinders. He added that since UF₆ is a highly reactive substance, the DOE is planning to build and operate facilities that

will convert depleted UF₆ to a chemically stable oxide form of uranium at the Portsmouth and Paducah GDPs. Mr. Faraz indicated that a final EIS for the facility had been issued recently, and therefore, the facility construction is expected to begin soon. Mr. Blevins later clarified that, unlike the NRC, before construction of a facility begins, DOE also requires issuance a record of decision, and that this had not been finalized.

An individual questioned the NRC about its reliance on data contained in an applicant's Environmental Report (ER), that is submitted with the application. Mr. Delligatti responded that the NRC does not typically collect and analyze environmental data independently. However, the NRC examines closely, information contained in an ER and, if needed, requests the applicant, by issuing a request for additional information (RAI), to correct any discrepancies or deficiencies in the ER. If needed, the RAI can also request an applicant to obtain and analyze any additional environmental samples.

An individual asked why an Environmental Assessment (EA) and not an EIS was prepared by the NRC for the Lead Cascade facility, as the NRC's USEC gas centrifuge website did not explain this. Mr. Smith responded that the NRC was not required to prepare an EIS for a test and demonstration facility such as the Lead Cascade facility. Therefore, the NRC prepared an EA which concluded that there were no significant impacts. A finding of no significant impact was developed and documented in *Federal Register*. However, if the Lead Cascade EA had concluded that the environmental impacts were significant, then the NRC would have also prepared an EIS. Mr. Smith added that NRC regulations require the preparation of an EIS for a production facility such as the ACP.

One individual asked about the source of NRC's funding. Mr. Smith responded that since the NRC is a fee recovery agency, the source of NRC's funding is by way of licensing fees. He added that for the last fiscal year, the fees collected amounted to about 92 percent of NRC's expenditures. Mr. Cameron clarified that fees paid by NRC licensees are not provided to the NRC but rather placed in the Treasury of the United States. The Congress, as a separate action, approves the NRC's budget and provides it the appropriate funds on an annual basis.

Another individual voiced concern about the lack of public availability of material related to NRC's Lead Cascade application review and specifically asked what the Lead Cascade's Integrated Safety Analysis or ISA was and about the volume and depth of NRC's review of the ISA Summary, as the publically available SER did not provide such information. Mr. Faraz responded that an applicant such as USEC is required to conduct an ISA to identify all credible accident sequences that can have significant consequences to workers, members of the public or the environment. Such accidents are required to be prevented or mitigated by application of reliable safety measures. The questioner then asked why the NRC's public portion of the SER for the Lead Cascade facility did not include any substance concerning the ISA. Mr. Faraz responded that USEC's Lead Cascade ISA Summary was classified and a redacted (non-classified) version contained "Export Control Information." Therefore, neither the ISA Summary, nor NRC's SER section that documented the ISA review were publically available. However, Mr. Cameron indicated that the NRC would take the questioner's concern under advisement for future SERs such as the one to be developed for the ACP. Mr. Smith added that for the ACP, the NRC could describe USEC's ISA methodology and the depth and volume of the NRC's review and summarize the conclusions of the NRC's ISA Summary review in the publically available portion of the SER.

Mr. Spencer, who is the mayor of Piketon and also the Vice President of the security guard union for the Portsmouth Gaseous Diffusion Plant, known as the Security Police Fire Professionals of America (SPFPA), welcomed and applauded USEC's decision to build the ACP in Piketon. He indicated that the vast majority of the population in the village of Piketon are in support of the ACP.

Dr. Manuto, who identified himself as an independent scientist, indicated why it is important from the stand point of national security to keep gas centrifuge information classified and only those with a need-to-know should have access to it. He indicated that the radiation levels associated with a gas centrifuge plant would be low and that the chemical hazards should be controlled. He stated that one of the advantages of nuclear energy is that one pound of uranium releases more energy than a ton of coal. He also suggested that the hydrogen fluoride recovered from the deconversion of depleted UF_6 to a uranium oxide should be recycled in the chemical industry.

Mr. Dan Minter, president of the Portsmouth GDP workers union, known as Paper, Allied-Industrial, Chemical and Energy (PACE) Workers Union, stated that the NRC is an open agency and communicates well with stakeholders. He also indicated that for the Portsmouth GDP, the NRC had provided good regulatory oversight by utilizing its enforcement powers and requiring USEC to take corrective actions when needed. He added that in the past he found it very beneficial in having access to an NRC resident inspector to discuss safety issues at the Portsmouth GDP.

Mr. Blaine Beekman, Chairman of the Pike County Chamber of Commerce, brought with him, over 8,000 form letters of support for the ACP from residents of the local counties to USEC. In addition, Mr. T.J. Justice from Governor Taft's office read a statement of strong support for the ACP and about USEC's ability to have it licensed.

Attachment: Meeting handout



**USEC gas centrifuge public
information meeting in
Piketon on June 23, 2004**

Yawar Faraz
Project Manager



Meeting objectives

- Provide brief summary of
 - Proposed project
 - NRC licensing process
 - Environmental Impact Statement process
 - NRC inspection program
- Answer public questions

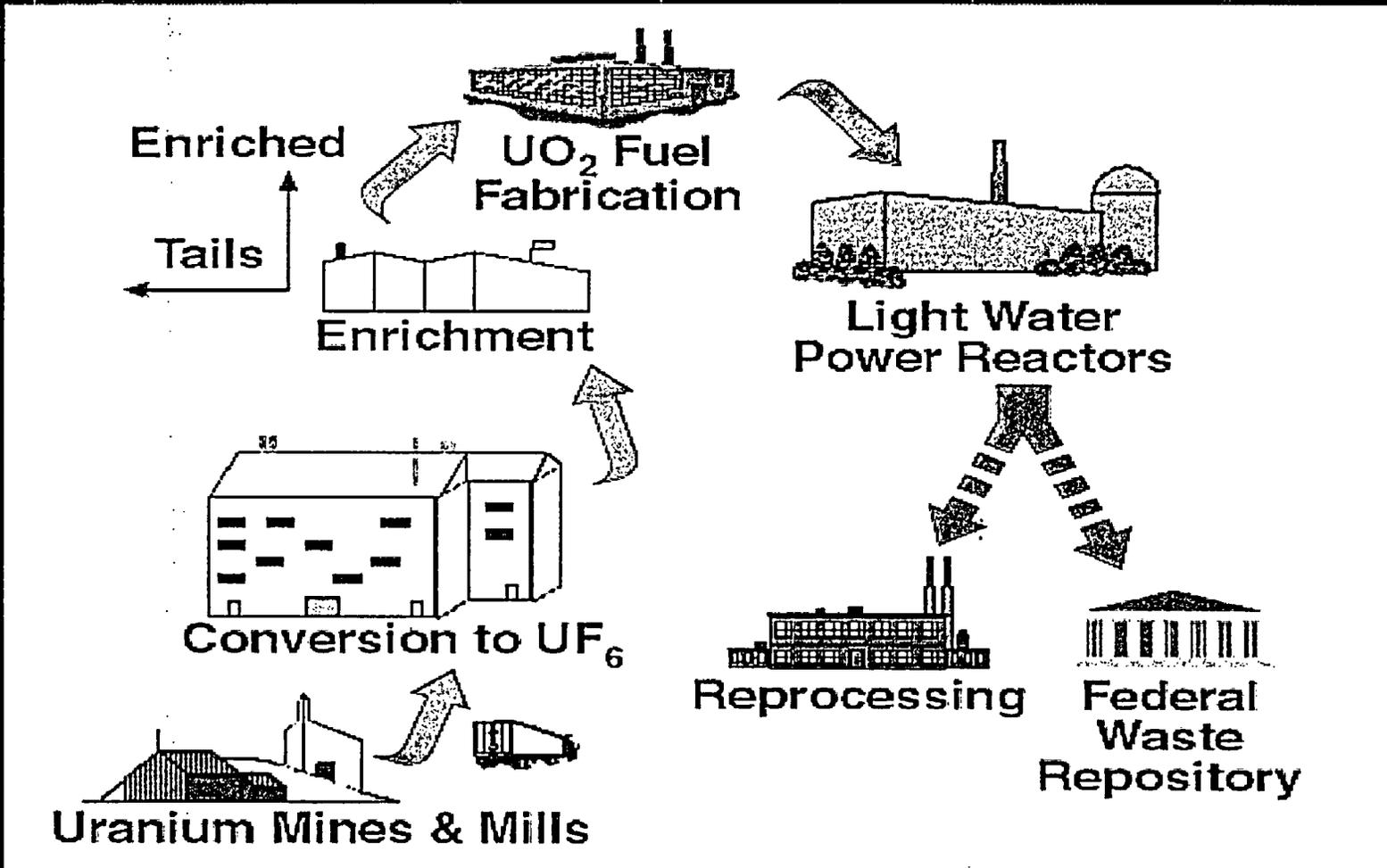


Proposed project

- USEC Inc. is proposing to enrich uranium using a gas centrifuge process in Piketon
- Enriched uranium is needed for fuel for nuclear power plants
- After mining and initial processing, uranium is converted into uranium hexafluoride which is shipped to an enrichment plant



Uranium fuel cycle





USEC's gas centrifuge process

- The gas centrifuge process uses a high-speed rotor to separate the U-235 and U-238 isotopes and increase the U-235 content from 0.7 percent to 3 to 5 percent
- These enrichment levels are well below that needed to make nuclear weapons
- The enriched uranium hexafluoride is then shipped to a fuel fabricator that produces fuel pellets and assemblies for nuclear power plants



NRC licensing process

- **NRC is an independent agency responsible for ensuring protection of public and worker health and safety in use of radioactive material**
- **NRC is not a promoter of the proposed project**
- **Enrichment facility construction cannot begin until a license for construction and operation is issued**



Application review

- USEC is proposing to submit a license application in August 2004
- NRC will perform a technical review of the application to ensure it meets NRC health and safety and safeguards requirements
- NRC will prepare an Environmental Impact Statement (EIS)
- A formal hearing is required for a uranium enrichment facility



Application review

- NRC technical review will take up to 18 months
 - NRC to review application
 - Request additional information, if needed
 - Document safety review in Safety Evaluation Report



Open licensing process

- NRC uses an open licensing process
- Public will have opportunities to provide input
 - Opportunity to petition for a hearing will be offered shortly after application is submitted
 - Some technical meetings to be held in the Piketon area
 - Environmental review process
 - Scoping meeting
 - Draft EIS



Open licensing process

- NRC has USEC project and gas centrifuge websites (<http://www.nrc.gov/materials/fuel-cycle-fac/usecfacility.html>)
(<http://www.nrc.gov/materials/fuel-cycle-fac/gas-centrifuge.html>)



NRC's Environmental Review Process

Matthew Blevins

Environmental Project Manager



Overview

Environmental review:

- Requirements
- Documentation
- Process



Environmental Review Requirements

- **National Environmental Policy Act of 1969**
- **NRC NEPA regulations in 10 CFR Part 51**



Environmental Review Documentation

- An environmental impact statement (EIS) documents the environmental review
- Proposed Action, Alternatives, Affected Environment, Environmental Impacts, etc.

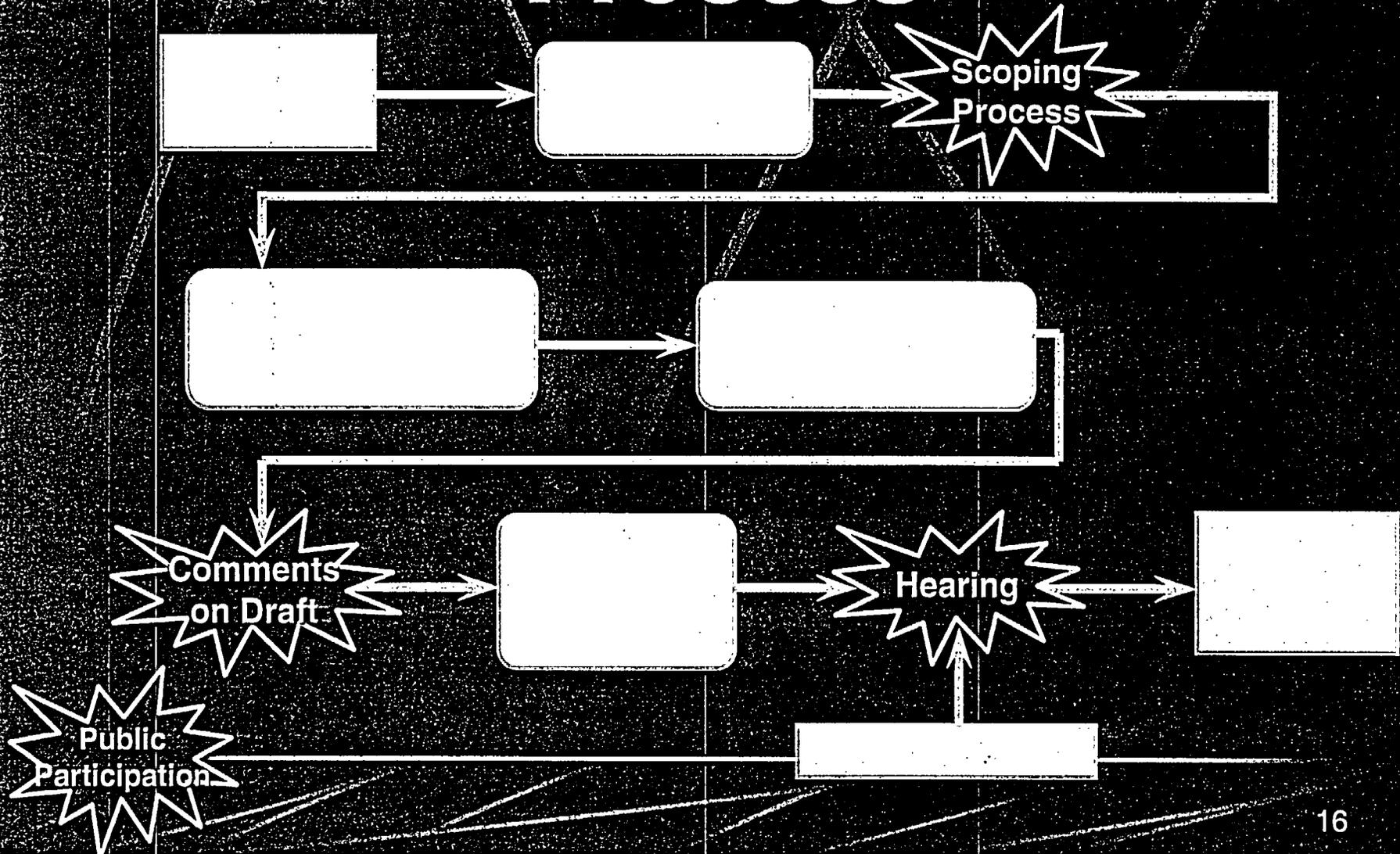


Environmental Resource Areas

- Water Resources
- Environmental Justice
- Ecology
- Public and Occupational Health
- Air Quality
- Waste Management
- Noise
- Land Use
- Historic and Cultural Resources
- Transportation
- Visual and Scenic Resources
- Geology and Soils
- Socioeconomic
- Cumulative Effects



Environmental Review Process





The Inspection Program

Jay Henson
NRC Region II in Atlanta



NRC Inspection Program

Inspect to assess whether the facilities are operated safely and in accordance with NRC regulations and the license to ensure that licensee activities do not pose undue safety and safeguards risks to:

Worker and public health and safety

The Environment

Headquarters and Regional staff conduct inspections



NRC Inspection Program

- Regulatory Goal: Control risks to acceptable levels in accordance with regulatory requirements
- Inspection activities commensurate with risk and performance of facility
- Assure that the facility is constructed and operated in accordance with commitments the applicant made in the license application



NRC Inspection Program

Construction Phase Inspection Activities

Quality Assurance

Design Changes

Procurements

Records

Training

Geotechnical/Foundation

Structural Concrete

Structural Steel

Piping

Mechanical Components

Electrical Components

Instrumentation

Welding

Testing & Calibrations



NRC Inspection Program

- Inspection Activities During Operations
 - Safety: Chemical, Nuclear Criticality, Plant Operations, Management Organization and Controls, and Fire
 - Safeguards: Control, Accounting and Physical Protection of Special Nuclear Material and Classified Information
 - Radiological: Radiation Protection, Environmental Protection, Waste Management, Transportation, and Low Level Waste Storage
 - Facility Support: Maintenance/Surveillance, Training, and Emergency Preparedness