

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 2, 2008

SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM: SECY-08-0176

TITLE:

REPORT TO CONGRESS ON THE HEALTH, SAFETY, AND

ENVIRONMENTAL CONDITIONS AT THE GASEOUS

DIFFUSION PLANTS LOCATED NEAR PADUCAH, KY, AND

PORTSMOUTH, OH

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of December 2, 2008.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook Secretary of the Commission

Attachments:

- 1. Voting Summary
- 2. Commissioner Vote Sheets

CC:

Chairman Klein

Commissioner Jaczko Commissioner Lyons Commissioner Svinicki

OGC EDO PDR

SECY Note:

To be made publicly available 5 working days after dispatch of the letters.

VOTING SUMMARY - SECY-08-0176

RECORDED VOTES

APRVD DISAPRVD ABSTAIN	NOT PARTICIP COMMENTS	DATE
X		11/26/08
X		11/25/08
X	X	11/19/08
X	X	11/20/08
	X X	APRVD DISAPRVD ABSTAIN PARTICIP COMMENTS X X

COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and some provided additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on December 2, 2008.

RESPONSE SHEET

Annette Vietti-Cook, Secretary

TO:

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FROM:	CHAIRMAN KLEIN
SUBJECT:	SECY-08-0176 – REPORT TO CONGRESS ON THE HEALTH, SAFETY, AND ENVIRONMENTAL CONDITIONS AT THE GASEOUS DIFFUSION PLANTS LOCATED NEAR PADUCAH, KY, AND PORTSMOUTH, OH
Approved XX	Disapproved Abstain
Not Participatin	g
COMMENTS:	Below Attached None _XX
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	Deese
	SIGNATURE
	11/24/08
	DATE
Entered on "ST	ARS" Yes <u>/</u> No

RESPONSE SHEET

TO:	Annette Vietti-Cook, Secretary	
FROM:	COMMISSIONER JACZKO	
SUBJECT:	SECY-08-0176 – REPORT TO CONGRESS ON THE HEALTH, SAFETY, AND ENVIRONMENTAL CONDITIONS AT THE GASEOUS DIFFUSION PLANTS LOCATED NEAR PADUCAH, KY, AND PORTSMOUTH, OH	
Approved X	_ Disapproved Abstain	
Not Participating		
COMMENTS:	Below Attached None _X_	
	SIGNATURE	
·	11725 /08	
	DATE	
Entered on "STARS" Yes X No		

RESPONSE SHEET

TO:	Annette Vietti-Cook, Secretary
FROM:	Commissioner Lyons
SUBJECT:	SECY-08-0176 – REPORT TO CONGRESS ON THE HEALTH, SAFETY, AND ENVIRONMENTAL CONDITIONS AT THE GASEOUS DIFFUSION PLANTS LOCATED NEAR PADUCAH, KY, AND PORTSMOUTH, OH
Approved X	Disapproved Abstain
Not Participatin	g
COMMENTS:	Below Attached _X_ None
	Peter B. Lyons SIGNATURE 11/ /9 /08 DATE

Entered on "STARS" Yes X No ___

Commissioner Lyons' Comments on SECY-08-0176

I approve the report to congress on the health, safety and environmental conditions at the Paducah, Kentucky, and Portsmouth, Ohio, gaseous diffusion plants with following comments.

- I. Page 15, replace the last sentence in the last paragraph with "The number of inspections and the number of inspection hours are detailed in Table 6-1."
- II. Page 16, add "A brief description of the violations follows." To the end of the last sentence.
- III. Pages 21, rulemaking activities section, include a bounding statement such as no significant GDP rulemaking activities were conducted during this reporting period.

IV. Proposed Congressional letters, delete the last paragraph.

Peter B. Lvor

RESPONSE SHEET

Annette Vietti-Cook, Secretary

TO:

FROM:	COMMISSIONER SVINICKI
SUBJECT:	SECY-08-0176 – REPORT TO CONGRESS ON THE HEALTH, SAFETY, AND ENVIRONMENTAL CONDITIONS AT THE GASEOUS DIFFUSION PLANT LOCATED NEAR PADUCAH, KY, AND PORTSMOUT OH
Approved X	C Disapproved Abstain
Not Participatin	ng
COMMENTS:	Below XX Attached XX None
l approve subje additional edit	ect to the edits of Commissioner Lyons and the attached.
	SIGNATURE
	44/24/2009
	11/ 2 6/2008 DATE
Entered on "ST	ARS" Yes XX No

NEW TECHNOLOGIES AT THE PORTSMOUTH SITE—GAS CENTRIFUGE ENRICHMENT TECHNOLOGY

Gas centrifuge technology involves the use of centrifugal forces to achieve the separation and subsequent extraction of uranium enriched in the 235 U isotope. Similar to the gaseous diffusion process, it employs the use of gaseous UF₆ feedstock. However, in this process, UF₆ gas is placed in a centrifuge machine, consisting of a large vertical rotating cylinder and piping to feed UF₆ and the withdrawal of enriched and depleted UF₆ streams. The cylinder is rotated at high speed to achieve separation of the heavier gas molecules (containing 236 U) and the lighter gas molecules (containing 235 U). Several hundred centrifuge machines may be connected in either a series or parallel arrangement to form a cascade to achieve the desired 235 U assay. It should be noted that this technology has been licensed under the provisions of 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material."

On December 20, 2002, USEC Inc. signed a lease with DOE for use of centrifuge-related equipment and facilities owned by DOE for its former Gas Centrifuge Enrichment Program. USEC Inc. submitted its license application for the Lead Cascade facility on February 11, 2003. On January 27, 2004, the NRC staff issued a Notice containing its Finding of No Significant Impact and an announcement of availability of the environmental assessment, pursuant to its regulations implementing the National Environmental Protection Act. The staff issued its safety evaluation report for the Lead Cascade facility on January 28, 2004. The staff then issued USEC Inc. a material license (SNM-7003) on February 24, 2004, for the Lead Cascade demonstration facility.

In March 2004, the NRC and DOE entered into an MOU to foster cooperation between the two agencies regarding the USEC Lead Cascade facility and the ACP. On August 25, 2006, the NRC assumed regulatory oversight of the Lead Cascade facility from DOE, pursuant to the MOU.

On August 23, 2004, USEC submitted its license application for its commercial facility, to be known as the American Centrifuge Project or American Centrifuge Plant (ACP). In May 2006, after a period that included multiple public meetings and public review and comment of its draft environmental impact statement (EIS), the NRC staff completed its environmental review of the proposed ACP and issued its final EIS. On September 11, 2006, the staff completed its safety and security reviews of the proposed ACP and issued its safety evaluation report. In March 2007, the Atomic Safety and Licensing Board held its mandatory hearing and rendered its decision on April 13, 2007, authorizing the staff to issue a license for the ACP. The staff issued USEC its license on the same day.

USEC began construction on the ACP in May 2007 and is scheduled to begin plant operations in 2010. The ACP is anticipated to begin full operation by the end of 2012 and will provide approximately 3.8 million SWUs of enrichment.