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Department of Energy
Washington, DC 20585

October 30, 2008

MEMORANDUM FOR GLENN S. PODONSKY
CHIEF HEALTH, SAFETY AND SECURITY OFFICER
OFFICE OF HEALTH, SAFETY AND SECURITY

FROM: *Andrew P. Weston-Dawkes*
ANDREW P. WESTON-DAWKES
DIRECTOR
OFFICE OF CLASSIFICATION
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SUBJECT: ACTION: Declassification of Gas Centrifuge Table (U)

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
REVIEW DATE: 8/1/11
REVIEWER: [Signature]
AUTHORITY: 38 CFR 1.505
NAME: R. E. [Signature]
NO INFORMATION CLASSIFIED AS SECRET
AUTHORITY: 38 CFR 1.505
NAME: [Signature]

with attachments, 8 pp.

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DOE (U)

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Derivative Classifier: <u>Donald Steyer</u>
(Name)
Title: <u>Sr Technical Analyst</u> Date: <u>6 Oct 08</u>
Organization: <u>DOE HS-92 (CSC)</u>
Derived From: <u>CG-IGC-1, N02, DOE-09</u>

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POLICY IMPACT: A six-point declassification proposal is attached (attachment 1). A record of the October 1, 2008, meeting at Oak Ridge is also attached (attachment 2) to provide additional background information and describe the recommended path forward to final resolution of the issue.

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RECOMMENDATION: Please sign the attached Declassification Determination (attachment 3).

Attachments

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Proposed Declassification of Gas Centrifuge Table (U)

I. WHAT IS BEING PROPOSED FOR DECLASSIFICATION

The attached table of selected U.S. gas centrifuge information is proposed for declassification.

II. BACKGROUND

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III. SUPPORTING EVIDENCE FOR DECLASSIFICATION

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b(1)

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Derived From: CG-IGC-1, 6/02, DOE OC~~

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IV. 10 C.F.R. 1045.16 CRITERIA FOR DECLASSIFICATION OF INFORMATION

1. Whether the information is so widely known or readily apparent to the knowledgeable observer that its classification would cast doubt on the credibility of the classification system.

The information is not widely known.

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DOE b(1)

2. Whether publication of the information would assist in the development of countermeasures or otherwise jeopardize any U.S. weapon or weapon system.

The information concerns production of special nuclear material rather than weapons design. Therefore, its publication would not assist in the development of countermeasures or otherwise jeopardize any U.S. weapon or weapon system.

3. Whether publication of the information would hinder U.S. nonproliferation efforts by significantly assisting potential adversaries to develop or improve nuclear weapon capability, produce nuclear weapons materials, or make other military use of nuclear energy.

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4. Whether publication of the information would have a detrimental effect on U.S. foreign relations.

Publication of the information is not anticipated to have a detrimental effect on U.S. foreign relations.

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5. Whether publication of the information would benefit the public welfare, taking into account the importance of the information to the public discussion and potential contribution to economic growth.

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6. Whether publication of the information would benefit the operation of any Government program by reducing operation costs or improving public acceptance.

No particular operating cost reduction or change in public acceptance resulting from publication of this information has been identified.

V. PROPOSED CHANGES FOR GUIDE

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VI. GENERAL COMMENTS REGARDING DECLASSIFICATION PROPOSAL

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Centrifuge Technology Meeting Results (U)

Date: October 1, 2008

Location: ORO Federal Building, Rm B021

Summary

DOE (1)

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DOE (3)

[Main points offered at the meeting are explained below, followed by a path forward to resolution.]

Points

1.

DOE (1), (5)

2.

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DOE (3)

3.

DOE (1), (5)

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Derived From: CG-IGC-1, 6/02, DOE OC,~~

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DOE b(1)
b(5)

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4.

DOE b(1)
b(5)

Path Forward

1.

2.

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b(1)

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3.

4.

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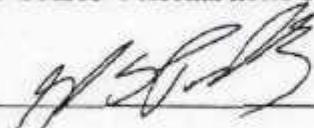
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DECLASSIFICATION DETERMINATION (U)

Pursuant to section 142a of the Atomic Energy Act of 1954, the following table of information can be published without undue risk to the common defense and security and can, therefore, be removed from the Restricted Data category:

Name	Date	Diameter [in]	Length [m]	Velocity [m/sec]	Material	δU actual [kg-SWU/yr]	Temp [K]
Zippe UVA	Jan. 1961	3	0.305	350	Aluminum	0.39	321
Cascade 3	May 1961	3	0.305	370	Aluminum	0.46	(318)
Ti-6	Mar. 1962	6	0.61	450	Titanium	1.53	(318)
Al-Fg-6	Jun. 1962	6	0.75	450	Al-Fiberglass	1.75	(318)
Thermal-6	Oct. 1962	6	.	450	.	1.95	(318)
Cascade-6	Mar. 1963	6	.	500	.	2.4	(318)
DMS-1	Oct. 1962	4.5	1.5	350	Aluminum	.	(318)
DMS-2	Jan. 1964	4.5	1.5	425	Al-Fiberglass	3.5	(321)
10-X-X	Jul. 1965	10	.	550	.	.	.
20-X-X	.	20
14-X-X	1965	14	(2.16)	.	.	11	.
14-X-X	1967	14	4.04	600	.	30	.

Table 1: Select U.S. centrifuges operated between 1961 and 1967. Values in parenthesis estimated by the author. Period denotes missing data. "X" in machine name indicates omitted name segment. Source: Personal notes of R.A. Lowry.

APPROVE: 

DISAPPROVE: _____

DATE: 10/31/08

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Derived From: CG-IGC-1, 6/02, DOE OC