Description of document: Documents concerning irradiation of gemstones to enhance color, and licensing of such reactors by the Nuclear Regulatory Commission (NRC)

Released date: 15-February-2008

Posted date: 09-June-2008

Date/date range of document: 1960 - 2008

Source of document: U.S. Nuclear Regulatory Commission
Mail Stop T5-F11
Washington, DC 20555-0001
Fax: 301-415-5130
E-mail: FOIA@nrc.gov
RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

PART I. -- INFORMATION RELEASED

- No additional agency records subject to the request have been located.
- Requested records are available through another public distribution program. See Comments section.
- Agency records subject to the request that are identified in the listed appendices are already available for public inspection and copying at the NRC Public Document Room.
- Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD 20852-2738.
- Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- We are continuing to process your request.

PART I.A -- FEES

- You will be billed by NRC for the amount listed.
- None. Minimum fee threshold not met.
- You will receive a refund for the amount listed.
- Fees waived.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- No agency records subject to the request have been located.
- Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

The records released under FOIA #2007-0333 are already publicly available in the NRC's Public Electronic Reading Room (PDR) at http://www.nrc.gov/reading-rm/adams.html. Also, enclosed is a copy of the procedures for obtaining copies of records from the PDR.

For assistance in obtaining any records, please contact the NRC's Public Document Room (PDR) at 1-800-397-4209 or email at pdr@nrc.gov.

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER
Russell A. Nichols

This form was designed using InForms
APPENDIX A
RECORDS BEING RELEASED IN THEIR ENTIRETY

<table>
<thead>
<tr>
<th>NO.</th>
<th>DATE</th>
<th>DESCRIPTION/(PAGE COUNT)</th>
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<tr>
<td>1</td>
<td>9/18/2007</td>
<td>Copy of FOIA Request #2007-0333, and NRC Acknowledgement Letter (3 pages)</td>
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<tr>
<td>2</td>
<td>12/3/2007</td>
<td>NRC Response Partial 1 (7 pages)</td>
</tr>
<tr>
<td>3</td>
<td>2/13/2008</td>
<td>NRC Final Response (1 page)</td>
</tr>
</tbody>
</table>
Below is the result of your feedback form. It was submitted by

() on Tuesday, September 18, 2007 at 16:53:54

FirstName: Jon
LastName: Crate
Company/Affiliation: FAI Materials Testing Laboratory
Address1: 825 Chance Road
City: Marietta
State: GA
Zip: 30066
Country: United_States
Country-Other: USA
Email: Jon@FAI.US
Phone: 770-928-1930

Desc: We are trying to determine what equipment and procedures have been used for the analysis of neutron irradiated gemstones, in particular blue topaz. For each of the following companies, please indicate if possible the dates they began testing and when they stopped testing blue topaz (or gemstones in general), and all the information given about the equipment used, the testing protocols, any standard reference materials used, calculations made, isotopes found and the levels of radioactivity found. If there are indications of the amount of materials tested, that would be of interest also.

RESEARCH REACTOR CENTER CONTACT JOHN P. ERNST
UNIV OF MISSOURI-COLUMBIA PHONE 573-882-5226
COLUMBIA, MO 65211 R.S.O. JOHN P. ERNST
LICENSE NO.: 24-00513-36E DOCKET 3030162

GEM TESTING AND RESEARCH CONTACT MILAGROS GONZALEZ-GANDIA
11405 N.W. 7TH ST., #104 PHONE 305-226-7112
MIAMI, FL 33172 R.S.O.
LICENSE NO.: 09-23801-01E DOCKET 3032571

GEMOLOGICAL INSTITUTE OF AMERICA CONTACT DR. JAMES E. SHIGLEY
5355 ARMADA DRIVE PHONE 760-603-4019
CARLSBAD, CA 92008 R.S.O. DR. JAMES E. SHIGLEY
While we do not have any emergency need for rush services, we are holding our breath! ;>)

Many thanks, Jon 770-928-1930
September 18, 2007

Jon Crate
FAI Materials Testing Laboratory
825 Chance Road
Marietta, GA 30066

Dear Requester:

We received your Freedom of Information Act/Privacy Act (FOIA/PA) request on September 18, 2007.

Your request has been assigned the following reference number that you should use in any future communications with us about your request: FOIA/PA 2007-0333

To ensure the most equitable treatment possible of all requesters, the NRC processes requests on a first-in, first-out basis, using a multiple track system based upon the estimated time it will take to process the request. Based on your description of the records you are seeking, we estimate completion of your request will take 10-20 workdays (2-4 weeks). We will advise you of any change in the estimated time to complete your request.

For purposes of assessing fees in accordance with our regulations (10 CFR 9.33), we have placed your request in the following category: Commercial

If applicable, you will be charged appropriate fees for Search, Review, and Duplication of records.

A sheet has been enclosed that explains in detail the fee charges that may be applicable. Please do not submit any payment unless we notify you to do so.

The following person is the FOIA/PA Specialist who has been assigned responsibility for your request: Reginald Sheppard, 301-415-6975.

If you have questions on any matters concerning your FOIA/PA request please feel free to contact the assigned FOIA/PA Specialist or me at (301) 415-7169.

Sincerely,

Russell A. Nichols
FOIA/Privacy Act Officer
Office of Information Services

Enclosures:
Incoming Request
Explanation of Fees
RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

PART I -- INFORMATION RELEASED

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- We are continuing to process your request.
- See Comments.

PART I.A - FEES

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PART I.B - INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

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PART I.C COMMENTS (Use attached Comments continuation page if required)

The incoming FOIA/PA-2007-0333 request is in ADAMS at ML072620111.

Enclosed is an ADAMS listing of records responsive to your request. The records are publicly available in the NRC's Public Electronic Reading Room (PDR) at http://www.nrc.gov/reading-rm/adams.html. Also, enclosed is a copy of the procedures for obtaining copies of records from the PDR.

For assistance in obtaining any records, please contact the NRC's Public Document Room (PDR) at 1-800-397-4209 or email at pdr@nrc.gov.
Re: FOIA/PA-2007-0333

APPENDIX A
RECORDS ARE PUBLICLY AVAILABLE

<table>
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<tr>
<td>1.</td>
<td>N/A</td>
<td>ADAMS Listing of publicly available documents relating to equipment and standards used in neutron irradiated gemstones at licensed facilities (5 pages).</td>
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</tbody>
</table>
Forwards background info on staff paper re exempt concentrations amend to Part 30.

Forwards application for license to distribute gemstones containing byproduct material to persons containing.

Application for license, authorizing return of gemstones to unlicensed individuals per 10CFR32.1.

Requests fee re application for license to distribute gemstones containing byproduct material...

Forwards payment of fee for application for license to distribute gemstones containing byproduct material...

Requests additional info to support application for license per 10CFR32.11 to distribute neutron, 

Requests review & comments on end documents, including info needed from domestic reactor &...

Forwards comment from review of Univ of Missouri & Nuclear Theory & Technologies application...

Submits addendum to B Morris 880623 memo reviewing application for license to distribute neutron...

Forwards flow chart & lists of operations & QA procedures being prepared in support of request...

Summary of 880822-23 meeting w/representatives of Univ of Missouri Research Reactor (MUR)...

Forwards draft sections of Univ of Missouri research reactor gemstone license submission re ex...

Requests add info re 870819 application for license to distribute irradiated topaz to persons exempt...

Forwards minutes of 881107 meeting w/representatives of Univ of Missouri research reactor (MUR)...

Forwards amended application to replace material furnished in 870819 application for byproduct material...

Forwards amended application to replace material furnished in 870819 application for byproduct material...

Application for license, authorizing distribution of neutron irradiated gemstones.

Forwards flow chart & lists of operations & QA procedures being prepared in support of request.

Requests review & comments on end documents, including info needed from domestic reactor &...

Philadelphia Flow Diagram & lists of operations & QA procedures being prepared in support of request.

Summarizes 880822-23 meeting w/representatives of Univ of Missouri Research Reactor (MUR)...

Forwards draft sections of Univ of Missouri research reactor gemstone license submission re ex...

Requests add info re 870819 application for license to distribute irradiated topaz to persons exempt...

Forwards minutes of 881107 meeting w/representatives of Univ of Missouri research reactor (MUR)...

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Forwards amended application to replace material furnished in 870819 application for byproduct material...

Application for license, authorizing distribution of neutron irradiated gemstones.
<table>
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<tr>
<td>Provides certification that less than 50% of annual cost of owning &amp; operating facility devoted t...</td>
<td>A1891:328-A1891:328</td>
<td>Publicly Available</td>
<td>01/12/1998</td>
<td>04/16/2001</td>
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<td>Safety &amp; compliance insp on 980519 of license 24-00513-36E. Insp findings: no violations identifi...</td>
<td>A3622:281-A3622:281</td>
<td>Publicly Available</td>
<td>05/19/1998</td>
<td>04/18/2001</td>
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<td>Provides required five year rept of all gemstones transferred under provision of license 24-00513-36E,...</td>
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<td>01/28/1999</td>
<td>04/14/2001</td>
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<td>03032052</td>
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- **Application for license, authorizing distribution of irradiated gemstones to persons exempt from license:**
  - Date Applied: 02/06/1991
  - Date Rejected: 04/24/2001
  - Availability: Publicly Available
  - Assignment Number: 9210050280

- **Matls licensing package for license 04-23787-01E for Gemological Inst of America, Inc.**, Control: 21825:
  - Date Published: 02/06/1991
  - Date Issued: 04/30/2001
  - Availability: Publicly Available
  - Assignment Number: 9105200310

- **Matls licensing package for license 04-23787-01E for Gemological Inst of America, Inc.**, Control: 21825:
  - Date Published: 04/11/1991
  - Date Issued: 05/01/2001
  - Availability: Publicly Available
  - Assignment Number: 9105200310

- **Matls licensing package for amend 1 to license 04-23787-01E for Gemological Inst of America, Inc.:**
  - Date Published: 03/12/1992
  - Date Issued: 04/27/2001
  - Availability: Publicly Available
  - Assignment Number: 9203270180

- **Matls licensing package for amend 1 to license 04-23787-01E for Gemological Inst of America, Inc.:**
  - Date Published: 03/12/1992
  - Date Issued: 04/27/2001
  - Availability: Publicly Available
  - Assignment Number: 9203270180

- **Voided matls licensing action for Gemological Inst of America, Control: 21825:**
  - Date Published: 06/05/1996
  - Date Issued: 04/24/2001
  - Availability: Publicly Available
  - Assignment Number: 9610250264

- **Matls licensing package for amend 2 to license 04-23787-01E for Gemological Institute of America:**
  - Date Published: 12/20/1996
  - Date Issued: 04/24/2001
  - Availability: Publicly Available
  - Assignment Number: 9612260178

- **Safety & compliance insp on 980226 of license 04-23787-01E. Insp findings: as of 980226, repts ha:**
  - Date Published: 02/26/1998
  - Date Issued: 04/18/2001
  - Availability: Publicly Available
  - Assignment Number: 9804290054

- **Informs that no testing of radioactive gemstones were conducted during period of 980101-0630:**
  - Date Published: 07/02/1998
  - Date Issued: 04/19/2001
  - Availability: Publicly Available
  - Assignment Number: 9807210375

- **Informs that no radioactive gemstones were released during period of 980701-1231, per cond:**
  - Date Published: 01/04/1999
  - Date Issued: 04/14/2001
  - Availability: Publicly Available
  - Assignment Number: 9901290320

- **Informs that licensee resumed testing program, per purchase of upgrade to gamma spectroscopy:**
  - Date Published: 04/23/1999
  - Date Issued: 04/20/2001
  - Availability: Publicly Available
  - Assignment Number: 9904300011
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<th>Name</th>
<th>Notes</th>
<th>Document Title</th>
<th>Docket Number</th>
<th>Document Date</th>
<th>Date Added</th>
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</table>
Part I. - Information Released

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Part I.A - Fees

<table>
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<tr>
<th>Amount</th>
<th>You will be billed by NRC for the amount listed.</th>
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<th>Fees waived.</th>
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<tr>
<td>$411.92</td>
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Part I.B - Information Not Located or Withheld From Disclosure

- No agency records subject to the request have been located.
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Part I.C Comments (Use attached Comments continuation page if required)

Per your conversation with Reginald Sheppard of my staff, you narrowed your request to records for the last 5 years. Based on our search, no additional records were located. Please also note that the license for the University of Missouri (Docket No. 0303062) was terminated in February 2002. The license for the Gemological Institute of America (Docket No. 03032052) was terminated in October 2000. In addition, the license for Gem Testing & Research (Docket No. 03032571) was terminated in October 1993.

Finally, you will receive a refund in the amount of $411.92, the cost for review.