

ORC

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee

1. Gemological Institute of America

2. 5355 Armada Drive
Carlsbad, California 92008In accordance with letter dated
September 5, 1996,3. License Number 04-23787-01E is amended in
its entirety to read as follows:

4. Expiration Date April 30, 2001

5. Docket or
Reference No. 030-320526. Byproduct, Source, and/or
Special Nuclear Material7. Chemical and/or Physical
Form8. Maximum Amount that Licensee
May Possess at Any One Time
Under This LicenseA. Any byproduct material
with atomic numbers
between 1-83A. Neutron-irradiated
gems

A. Not applicable

9. Authorized Use

Pursuant to Section 32.11, 10 CFR Part 32, the licensee is authorized to distribute processed neutron-irradiated gems containing byproduct material to persons exempt from the requirements for a license pursuant to Section 30.14, 10 CFR Part 30, or equivalent provisions of the regulations of any Agreement State.

CONDITIONS

10. Licensed material shall be distributed only from the licensee's facility located at 5355 Armada Drive, Carlsbad, CA.
11. Licensed material shall be distributed by, or under the supervision of, Dr. James E. Shigley.
12. This license does not authorize possession or use of licensed material.
13. A. The licensee shall file periodic reports as specified in Section 32.12, 10 CFR Part 32.
B. The licensee shall file a report at intervals not to exceed 14 months, listing the names and license numbers of all specific licensees to which the licensee has transferred neutron-irradiated gems.

260020

961226017B 961220
PDR ADOCK 03032052
C PDR0/1 ML400
Custodian
WFO

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 04-23787-01E

Docket or Reference Number 030-32052

Amendment No. 02

CONDITIONS

(Continued)

14. Notwithstanding the requirements of Section 32.11(c) of 10 CFR Part 32, the licensee may distribute processed neutron-irradiated gems for the purpose of being worn by human beings.
15. Except as specifically provided otherwise by this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Letter dated February 6, 1991;
 - B. Letter dated April 9, 1991; and
 - C. Letter dated September 5, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DATE: December 20, 1996

BY: *SB 12/23/96* *12/20/96 CB*
12/21/96 SWS
ORIGINAL SIGNED BY
Steven L. Baggett, Section Leader
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards
Washington, DC 20555

J. Shigley

-2-

5. Submit a complete renewal application (with proper fee) or termination request (no fee required) at least 30 days before the expiration date on your license. You should receive a reminder notice approximately 90 days before the expiration date. Continued distribution of products containing radioactive material after your license expires is a violation of NRC regulations.
6. In accordance with 10 CFR 30.36, request termination of your license if you plan to permanently discontinue activities involving distribution of products containing radioactive material.

You will be periodically inspected by NRC. Failure to conduct your program in compliance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action(s) against you. This could include issuance of a notice of violation; proposed imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the "General Statement of Policy and Procedures for NRC Enforcement Actions," (NUREG-1600).

If you have any questions, please feel free to contact me at (301) 415-5799.

Sincerely,

ORIGINAL SIGNED BY

Stephen W. Holmes
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Docket No. 030-32052

Enclosure: Amendment No. 02

cc: Edgar D. Bailey, Chief
Radiologic Health Branch
Food, Drugs & Radiation Safety Division
State Department of Health Services
714/744 P Street
P.O. Box 942732
Sacramento, CA 94234-7320

DISTRIBUTION:
License File 04-23787-01E
IMAB r/f

DOCUMENT NAME: G:\GEMO.cjb

To receive a copy of this document, indicate in the box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

OFFICE	IMAB:NMSS	<input checked="" type="checkbox"/>	IMAB:NMSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAME	SWholmes:cjb	<input checked="" type="checkbox"/>	SLBaggett	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DATE	12/10/96	<input checked="" type="checkbox"/>	12/13/96	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OFFICIAL RECORD COPY

December 20, 1996

Gemological Institute of America
ATTN: James E. Shigley, Ph.D.
Radiation Safety Officer
5355 Armada Drive
Carlsbad, California 92008

Dear Dr. Shigley:

Enclosed is Amendment No. 02 amending NRC License No. 04-23787-01E in its entirety.

Please review the enclosed license carefully and be sure that you understand all the conditions. If there are any errors or questions, please contact me so that appropriate corrections and answers can be provided.

Please be advised that you must conduct your program involving radioactive materials in accordance with the conditions specified in your NRC license, representations made in your license application, and other rules, regulations, and orders of the U.S. Nuclear Regulatory Commission, now or hereafter in effect, to include the following:

1. Comply with applicable NRC regulations in 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"; 10 CFR Part 32, "Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material"; and other applicable regulations.

NOTE: Licensees authorized to distribute or initially transfer products containing byproduct material must also possess a valid possession license issued either by NRC or an Agreement State(s) which authorizes possession and use of byproduct material.

2. Distribute only those products containing radioactive material which are specifically authorized in your license.
3. Notify NRC in writing within 30 days of any change in mailing address (no fee is required if the location of radioactive material remains the same).
4. Request and obtain appropriate amendments if you plan to change control or ownership of your organization, change locations of distribution of products containing radioactive material, or make any other changes in your program which are contrary to the license conditions or representations made in your license application and any supplemental correspondence with NRC. A license fee may be charged for the amendments if you are not in a fee-exempt category.



Gemological Institute of America

The Nonprofit Educational Organization of the Jewelry Industry

GIA

P.O. Box 2110
1660 Stewart Street
Santa Monica, California 90406
(213) 829-2991
FAX (213) 829-0247

580 Fifth Avenue
New York, New York 10036
(212) 944-5900
FAX (212) 575-3095

December 11, 1996

U.S. Nuclear Regulatory Commission
ATTN: NMSS-IMNS-IMBA (Steven Holmes)
Washington, DC 20555-0001

RE: License 04-23787-01E

Dear Mr. Holmes:

Enclosed please find a copy of the amended radioactive material license 5383-37 issued to the Gemological Institute of America by the state of California. Thank you for your assistance in processing our request for an amendment to our NRC license. If I can be of further assistance, please contact me at (619) 603-4019.

Sincerely,

GEMOLOGICAL INSTITUTE OF AMERICA

James E. Shigley, Ph.D.
Radiation Safety Officer

JES:sp

enc.

RADIOACTIVE MATERIAL LICENSE

Page 1 of 2 pages

Pursuant to the California Code of Regulations, Division 1, Title 17, Chapter 5, Subchapter 4, Group 2, Licensing of Radioactive Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, use, possess, transfer, or dispose of radioactive material listed below, and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders of the Department of Health Services now or hereafter in effect and to any standard or specific condition specified in this license.

1. Licensee	Gemological Institute of America	3. License No.	5383-37	Amendment No: 6
2. Address	5355 Armada Drive Carlsbad, CA 92008	4. Expiration date	April 4, 1997	(6)
Attention:	James E. Shigley, Ph.D. Radiation Safety Officer	5. Inspection agency	San Diego Department of Health Services	

License Number 5383-19 is hereby amended as follows:

6. Nuclide	7. Form	8. Possession Limit
A. Any radionuclide with atomic number 3-83 inclusive.	A. Irradiated gem stones and calibration sources.	A. Not to exceed 9.9 millicuries total.
B. Any radionuclide with atomic number 84-105 inclusive.	B. Treated gem stones, contaminated jewelry and calibration sources.	B. Not to exceed 10 microcuries total.

9. Authorized Use

A. - B. To be used incidental to analyzing irradiated/treated gem stones, contaminated jewelry and instrument calibration.

LICENSE CONDITIONS

10. Radioactive material shall be used only at the following locations:

(a) 5355 Armada Drive, Room A237, Carlsbad, CA

11. This license is subject to an annual fee for sources of radioactive material authorized to be possessed at any one time as specified in Item 6, 7, 8 and 9 of this license. The annual fee for this license is required by and computed in accordance with Title 17, California Code of Regulations, Sections 30230-30232 and is also subject to an annual cost-of-living adjustment pursuant to Section 113 of the California Health and Safety Code.

12. Radioactive material shall be used by, or under the supervision of, the following individuals:

- (a) James E. Shigley, Ph.D.
- (b) Immanuel Fritsch, Ph.D.
- (c) Mary L. Johnson, Ph.D.

LICENSE FEE AND DEBT COLLECTION BRANCH
DIVISION OF ACCOUNTING AND FINANCE
OFFICE OF THE CONTROLLER
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

TYPE OF ACTION

- ☐ NEW LICENSE
☐ RENEWAL OF LICENSE
☒ AMENDMENT TO LICENSE

REQUESTED DATE

9-5-96

LICENSE NUMBER

04-23787-01E

CONTROL NUMBER

021869

I. APPLICATION FEE DUE

II. FEE NOT REQUIRED

[illegible]

FEE(\$)	DUE	\$	860.00
PAYMENT	RECEIVED	\$	0.00
AMOUNT	DUE	\$	860.00

- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Your request was received without the prescribed application fee. |
| <input type="checkbox"/> | We received your Check _____ in the amount of \$ _____. Payment of the additional fee noted above is required. |
| <input type="checkbox"/> | Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2). |
| <input type="checkbox"/> | Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a). |

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

- ☐ Enclosed is Check No. _____ which accompanied your request. The fee is not required because:
- ☐ We received your Check No. _____ in payment of the fee.
- ☐ The Licensing staff has informed us that your request is to be considered as a continuation of your request dated _____, Control No. _____.
- ☐ Your request was combined, prior to review, with your request, Control No. _____.

III. CHECK RETURNED

- ☐ Enclosed is Check No. _____ which was returned to us
by the bank for:
- ☐ INSUFFICIENT FUNDS
- ☐ ACCOUNT CLOSED
- ☐ OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

- ☐ License No. _____ Amendment No. _____, issued on _____
_____ was issued without the required fee being collected. The fee required is noted in Section I of this form.
- ☐ The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section 1 of this form. Refer to Section 170.31 and Footnote 1(d)(2).
- ☐ Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section 1 of this form.

SIGNATURE -- LICENSE FEE ANALYST

LFCB

LFDCB

Distribution:

DATE _____

Sandra Kimberley

sk

9/24/96

LEA RB S/F (LK-3.2.7)
" R/F S. Lawrence Hqs

9/24/96



Gemological Institute of America

The Nonprofit Educational Organization of the Jewelry Industry

GIA

P.O. Box 2110
1660 Stewart Street
Santa Monica, California 90406
(213) 829-2991
FAX (213) 828-0247
580 Fifth Avenue
New York, New York 10036
(212) 944-5900
FAX (212) 575-3095

5 September 1996

Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

The Gemological Institute of America requests amendment #2 to license 04-23787-01E which permits us to test neutron-irradiated gemstones. This amendment is requested due to the recent relocation of our company from Santa Monica to Carlsbad, California. Our new address is as follows:

Gemological Institute of America
5355 Armada Drive
Carlsbad, CA 92008

Attachment "A" to this letter shows the floorplan of the second floor of our building at 5355 Armada Drive, where our radiation testing equipment is located in room A237. This floor is a secure area because of our company's regular business of the quality grading of gemstones. The radiation testing room cannot be reached from the outside of the building except by several controlled-access doors, as indicated on this floorplan.

There are no other changes to the radiation testing procedure stated in our license.

At this time, we are not carrying out any radiation testing of gemstones because our testing equipment is not yet fully operational. I will advise you when we resume radiation testing later this fall.

I can be contacted at my new telephone number: (619) 603-4019 or by fax at (619) 603-4021.

Sincerely,

GEMOLOGICAL INSTITUTE OF AMERICA

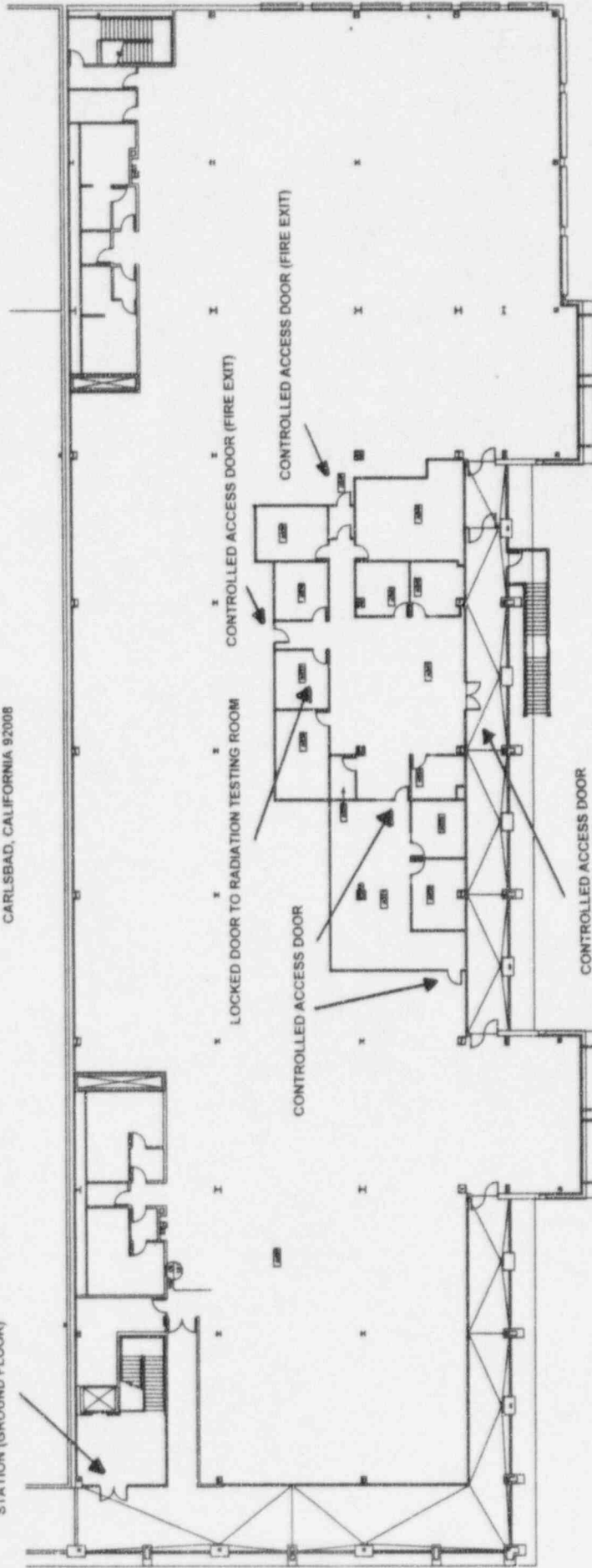
James E. Shigley

James E. Shigley, Ph.D.
Radiation Safety Officer

021869

GEMOLOGICAL INSTITUTE OF AMERICA
5355 ARMADA DRIVE
CARLSBAD, CALIFORNIA 92008

CONTROLLED ACCESS DOOR WITH SECURITY GUARD
STATION (GROUND FLOOR)



ATTACHMENT A

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03250
Status Code: 0
Fee Category: 3I
Exp. Date: 20010430
Fee Comments: DIST OF TOPAZ
Decom Fin Assur Req: N
.....

LICENSE FEE TRANSMITTAL

A. REGION 0

1. APPLICATION ATTACHED

Applicant/Licensee: GEMOLOGICAL INSTITUTE OF AMERIC
Received Date: 960910
Docket No: 3032052
Control No.: 021869
License No.: 04-23787-01E
Action Type: Amendment

2. FEE ATTACHED

Amount: _____
Check No.: /

3. COMMENTS

Signed _____
Date 9/11/96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /)

1. Fee Category and Amount: 3I \$860

2. Correct Fee Paid. Application may be processed for:

Amendment /
Renewal _____
License _____

3. OTHER _____

Signed _____
Date 11/4/96

26 SEP 12 AM 8:56

Log	<u>SEP 1 #PS</u>
Remitter	<u>6IA Enterprises, Inc.</u>
Check No.	<u>300786</u>
Amount	<u>\$860</u>
Fee Category	<u>3I</u>
Type of Fee	<u>AMD</u>
Date Check	<u>11/4/96</u>
Date Comp.	<u>SA</u>
By:	

LTS WORKSHEET

DOCKET NO : 03032052 LICENSE NO : 04-23787-01E STATUS: 0
MAIL CONTROL: 021869 RECEIPT DATE : 960910 ACTION TYPE: 4
DUE DATE : 961209
FED. GOVT : 961220 INST. CODE : 23787 LICENSE REGION: 0
ISSUE DATE: ~~920512~~ ORIGINAL DATE: 910411 EXPIRATION DATE: 20010430
NAME : GEMOLOGICAL INSTITUTE OF AMERICA DECOM FIN ASSUR REQD: N
SUBM: -
DEPT/BUREAU: _____ CONT PLAN REQD: N APPRV: -
BUILDING : _____
STREET : ~~1630 STEWART STREET~~ 5355 ARMADA DRIVE
CITY : ~~SANTA MONICA~~ CARLSBAD STATE: CA ZIP: ~~904044088~~ 92008
CONTACT PERSON: DR. JAMES E. SHIGLEY PHONE: ~~310-829-2991~~
PRIMARY PGM CODE : 03250 SECONDARY PGM CODES: 619.603.4019
INSPECTION REGION: 4 PRIORITY CODE: 5 INSPECTION CATEGORY: E2
RADIATION SAFETY OFFICER: _____
STATES WHERE USE IS AUTHORIZED: 1
0 - ALL LISTED STATES
1 - SAME AS STATE IN ADDRESS
2 - ALL STATES
3 - NON-AGREEMENT STATES
AUTHORIZED STATES: _____ (USE ONLY IF ABOVE IS ZERO)
REPORTING IDENTIFICATION SYMBOL: _____
APPROVAL FOR: REDISTRIBUTION: N STORAGE ONLY: N
TEMPORARY JOB SITES: _____ INCINERATION: _____
BURIAL: _____
EXEMPTIONS: (1) _____ (2) _____

pls assign

(Signature)

POSSESSION LIMIT INFORMATION

PAGE: 2

MATERIAL TYPE : NPA FORM CODE: NPA AGGREGATE CODE: NPA
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : 0000000.000000000 UNIT: _____
OTHER : - # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : - # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : - # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : - # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : - # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : - # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : - # SOURCES: _____

NAME

AUTHORIZATION

ADDRESS WHERE MATERIAL IS USED OR POSSESSED

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
ROOM:
STREET:
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BUILDING:
ROOM:
STREET:
CITY:
STATE:

07465 BAY
CA 93008

DOCKET: 03032052 LIC: 04-23787-01E NAME: GEMOLOGICAL INSTITUTE OF AMERICA

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PARTY ISSUING MECHANISM: ASSUR TYPE : - (C=CERT D=DFP)
NAME : MECH TYPE : -
ADDR1: MECH AMOUNT: -
ADDR2: APPROVED? DATE: -
CITY : EXPIRES ? - DATE: -
STATE: ZIP: -

PAGE: 5

MEDICAL QUALITY MANAGEMENT PROGRAM REQUIRED: N RECEIVED: APPROVED:

DECOMMISSIONING FINANCIAL ASSURANCE REQUIRED: N SUBMITTED:

CONTINGENCY PLAN REQUIRED: N APPROVED:

DECAY-IN-STORAGE APPROVED: N HOLDING FOR < 10 HALF-LIVES APPROVED:

T 1/2 > 65 DAYS, ISOTOPE(S): _____

INTERIM STORAGE UP TO 1996: N