August 22, 2016

Ms. Shirley Xu
Mail Stop T-8-E-24
Division of Material Safety, State, Tribal and Rulemaking Programs
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555
E-Mail: Shirley.Xu@nrc.gov

Dear Ms. Xu:

Attached is an application for OSRAM Sylvania, Inc., requesting a new E-Distribution License. The current license is part of a transfer of control to LEDVANCE LLC, a subsidiary of OSRAM Sylvania, Inc. This new license will be virtually the same as that issued to LEDVANCE LLC. I have attached the requisite information on the warehouses holding a possession license applicable to this E-Distribution license request. For both California and Kentucky, I have included the license numbers; when you contact Mr. Ron Rogus in California and Mr. Curt Pendergrass with the State of Kentucky, they will send you the required documents. Mr. John Chippo from the State of Pennsylvania, has not provided the license number for the possession warehouse in Pennsylvania.

If you have questions or concerns regarding this application, please contact our radiation consultant, Sue Engelhardt, at 262-227-2341, or at Sue@radexperts.com.

As we have emphasized in previous communications, it is imperative that this E-Distribution license be approved simultaneously with the transfer of control document for LEDVANCE LLC.

Sincerely,

Pamela E. Tracey
Vice President, General Counsel
Americas Region, OSRAM Sylvania, Inc.

Cc Sue Engelhardt
Peter van Breda
Ann Marie Zimmerman

OSRAM SYLVANIA
200 Ballardvale Street
Wilmington, MA 01887
☎ (978) 570-3000

www.sylvania.com

NRC FORM 313 (06-2016)
10 CFR 30, 32, 33, 34 35, 36, 37, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 **EXPIRES: 06/30/2019**

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

MATERIALS SAFETY LICENSING BRANCH
DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING,

SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
1600 E. LAMAR BOULEVARD
ARLINGTON, TX 76011-4511

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [x] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include ZIP code)*

OSRAM Sylvania, Inc.
200 Ballardvale St.
Wilmington, MA 01887

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

1651South Archibald Ave. Ontario CA
1100 Tyrone Pike, Versailles KY
2460 Brodhead Rd. Bethlehem PA

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Sue Engelhardt

BUSINESS TELEPHONE NUMBER: (262) 227-2341

BUSINESS CELLULAR TELEPHONE NUMBER:

BUSINESS EMAIL ADDRESS: sue@radexperts.com

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (Fees required only for new applications, with few exceptions*)
(See 10 CFR 170 and Section 170.31)
***Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.**

FEE CATEGORY: 3I AMOUNT ENCLOSED: $

13. CERTIFICATION. *(Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.*

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35 , 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.
WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE

Pamela Tracey, Vice President, General Counsel
Americas Region

SIGNATURE

DATE: 8/22/16

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		
APPROVED BY				DATE	

ITEM 5: RADIOCTIVE MATERIAL

Kryptron-85 (^{85}Kr)
Physical Form: Gas
Maximum Activity Per Item: 145 nCuries (5.365 kiloBq)

ITEM 6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED

1. Constituent of the fill gas in electron tubes called glow switches, hat are used as a starting device in fluorescent and other lamps.
    a. The glow switch series used: (1) GZ...[1]
    b. The following is the imported or domestically manufactured compact fluorescent lamp type (family) into which a series GZ glow switch is incorporated: (1) Dulux...[2]
    c. The following are imported fluorescent and high intensity discharge lamp starter types (families) into which a series GZ glow switch is incorporated: (1) ST....[1,(](2) STE...[2]
2. As a constituent of the fill gas in electron tubes, called arc tubes, which provide the light source for high intensity (HID) metal halide lamps
    a. The following are the imported or domestically manufactured metal halide lamp types (families) which contain arc tubes with ^{85}Kr gas: (1).HQI...[3] (2) MC...[3] (3). HSR...[3] (4).HTL...[3] (5). HSD..,[3] (6). HMD...[3] (7). HMP...[3]

The following pages contain technical information, including drawings, regarding the above described glow switch, arc tubes and typical lamps and lamp starter containing them.

LABELLING: We wish to use our exempt distribution license number on the immediate container for customers who receive lamps from us requesting that their name appear on those containers (commonly called private label packaging). We also wish an exemption to 10CFR32.15(d) as they apply to individual tubes or switches provided that each lamp container is labeled in accordance with 10CFR32.15(d). More detail on this is covered in the in the pages showing technical information, referenced above.

WAREHOUSE POSSESSION LICENSES

State of California: License number 8156. Contact Ron Rogus for the hard copy. (916-440-7971)
Ronald.Rogus@cdph.ca.gov
State of Kentucky: Contact Curt Pendergrass for the hard copy. (502-564-3700 EXTENSION 4183)
Curt.pendergrass@ky.gov
State of Pennsylvania: Contact John Chippo: jchippo@pa.gov

ITEM: 7 INDIVIDUALS RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE

The person responsible for the E-Distribution license is Peter van Breda. He is the Vice President, Logistics, for OSRAM Sylvania, Inc. This individual does not require radiation safety training as this license does not authorize possession of radioactive materials. This license does require knowledge of management of the radiation safety program and requirement to maintain licenses in accordance with regulatory statutes. The person in his position is ideal for this type of role.

ITEM 8: TRAINING FOR INDIVIDUALS FREQUENTING RESTRICTED AREAS

This would apply to the distribution centers listed in item 3 on the application form. The Wilmington, MA site does not distribute products containing radioactive materials.

ITEM 9: FACILITITES AND EQUIPMENT

This item does not apply to this license action. There is no distribution from the headquarters (Wilmington, MA) location. The individual warehouse locations have possession licenses that address the above.

ITEM 10: RADIATION SAFETY PROGRAM:

Same as Item 9.

ITEM 11; WASTE MANAGEMENT:

The Headquarters site would not be doing radioactive waste disposal. However, headquarters personnel would be available to assist the warehouses in procuring a method of disposing of broken or otherwise damaged lamps.

A. ITEMS CONTAINING KRYPTON-85

GLOW SWITCH TECHNICAL DATA

SERIES: GZ...[4]

MANUFACTURERS: OSRAM GmbH, Berlin, Germany
OSRAM SpA, Traviso, Italy

CONSTRUCTION: Quartz bulb

CONTAINMENT: Sealed in quartz bulb

CHEMICAL FORM: Krypton/Argon/Helium/Neon/<3% Hydrogen mixture

RADIOACTIVE CONTENT: Krypton-85

MAXIMUM ACTIVITY PER GLOW SWITCH: Less than 46 nanocuries

PROTOTYPE TESTS:

Prototype testing to demonstrate that byproduct material is not released to the environment under the most severe conditions of normal use is not necessary because in the unlikely event of the breakage a glow switch as normally installed in the base of a lamp or in a starter cannister, the resultant release of the very small quantity Krypton-85 would quickly dissipate to an air concentration of less than the 10 CFR 20, Appendix B, Table 2 limit.

QUALITY CONTROL:

After manufacture, all glow switches are tested for electrical function. A glow switch failing this test shall be considered a possible leaker and discarded. The quantity of Krypton-85 in a glow switch is a function of the volume of the switch and the specific activity of the gas. These parameters are set at the factory and are strictly monitored during production. Krypton-85 is the only radioactive gas used at the production facility, eliminating the possible use of any other radioactive material. *(Ref: Letter to Commission dated 11/10/93 - Encl. #2.3)*

RADIATION LEVEL:

Less than 1 microrad/hr at 1 centimeter from the surface of the lamp through 7 milligrams per square centimeter of absorber, (by calculation, with no account taken for inherent shielding).

LABELING: The immediate bulk glow switch container labeled in accordance with 10 CFR 32.15(d).

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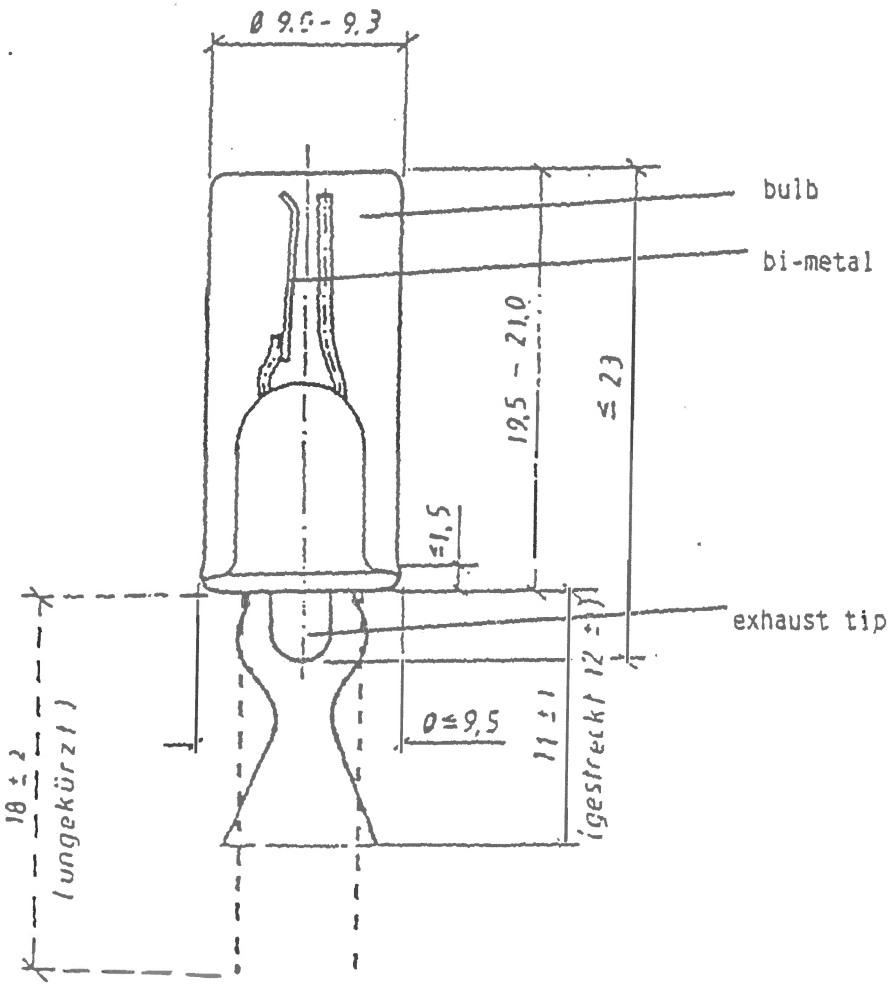
4 Specific model number indicator follows series (family) designation

SERIES GZ GLOW SWITCH:

Dimensions in mm



COMPACT FLUORESCENT LAMP TECHNICAL DATA

LAMP TYPE (FAMILY): DULUX...[5]

MANUFACTURER: Osram Sylvania Products, Maybrook, NY
OSRAM GmbH, Berlin, Germany
OSRAM, China
OSRAM, Korea

MAXIMUM LAMP WATTAGE: 26

RADIOACTIVE SOURCE: Series GZ glow switch

RADIOACTIVE CONTENT: Krypton-85

MAXIMUM ACTIVITY PER LAMP: Less than 14 nanocuries

SOURCE CONTAINMENT: Incorporated into plastic base of lamp

LABELING: The immediate lamp package, or in the case of bulk shipments, the smallest bulk package is labeled in accordance with 10 CFR 32.15(d), with the following exceptions:

1. Domestically manufactured lamps that are exported are labeled in the language of the destination country and pursuant to the requirements of that country (*Ref: Letter to Commission dated 11/21/86 - Encl. #2.4*);

2. For "private label packaging"[6] our exempt distribution license number is used in lieu of our name (*Ref: Letter to Commission dated 9/18/96 - Encl. #2.5*).

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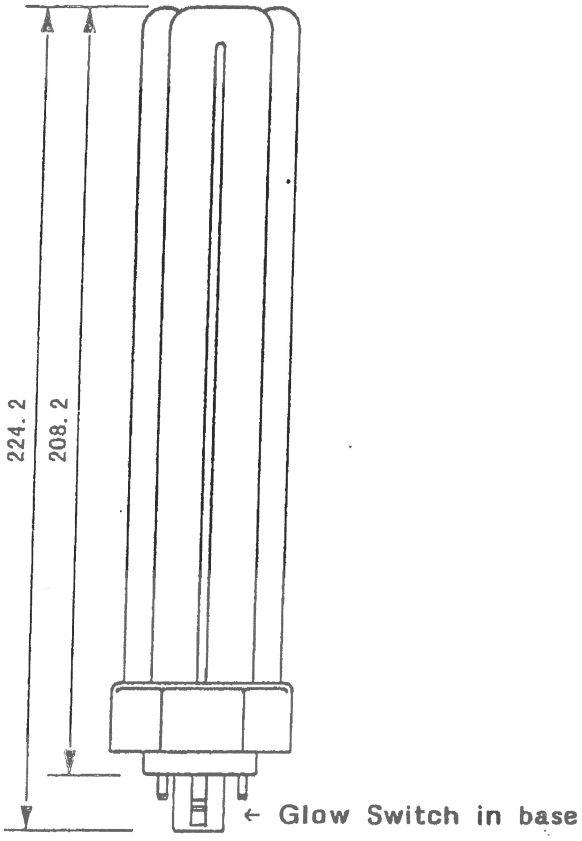
5 Letter /number indicators for number of tubes, wattage, lamp base and color temperature, etc. follow the lamp type (family) designation

6 Private label packaging is where a subsequent distributor's name is on the immediate lamp package rather than the manufacturer or initial distributor

TYPICAL COMPACT FLUORESCENT LAMP (DULUX T...):

Dimensions in mm



STARTER TECHNICAL DATA

STARTER TYPE (FAMILY): ST...[7]

MANUFACTURER: OSRAM GmbH, Berlin, Germany
OSRAM SpA, Traviso, Italy

RADIOACTIVE SOURCE: Series GZ glow switch

RADIOACTIVE CONTENT: Krypton-85

MAXIMUM ACTIVITY PER STARTER: Less than 46 nanocuries

SOURCE CONTAINMENT: Encased in a macrolon canister

LABELING: The immediate starter package container, or in the case of bulk shipments, the smallest bulk package is labeled in accordance with 10 CFR 32.15(d).

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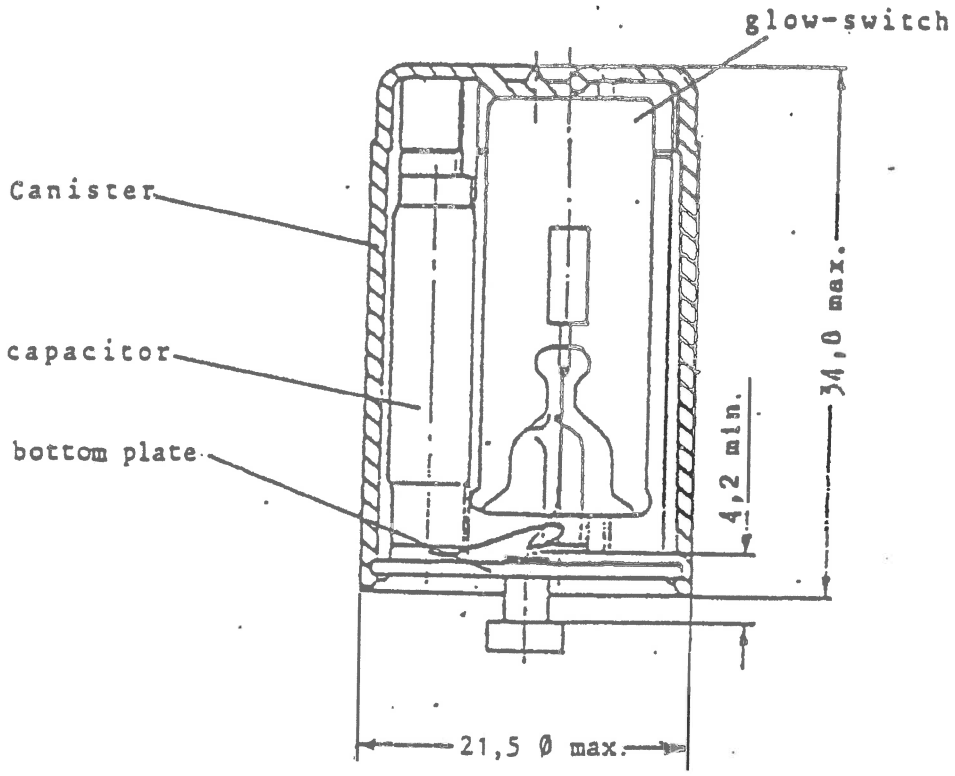
7 Specific model number follows starter type (family) designation

TYPICAL STARTER (ST100):

Dimensions in mm



12

ARC TUBE TECHNICAL DATA

MANUFACTURER: OSRAM GmbH, Berlin, Germany

CONSTRUCTION: 1. Quartz
2. Ceramic polycrystalline alumina (PCA)

CONTAINMENT: 1. Sealed quartz bulb
2. Sealed PCA tube

CHEMICAL FORM: Krypton/Argon mixture

RADIOACTIVE CONTENT: Krypton-85

MAXIMUM ACTIVITY PER ARC TUBE: 1. Less than 145 nanocuries
2. Less than 37 nanocuries

PROTOTYPE TESTS:

Prototype testing to demonstrate that byproduct material is not released to the environment under the most severe conditions of normal use is not necessary because in the unlikely event of the breakage of both the lamp and arc tube, the resultant release of the very small quantity Krypton-85 would quickly dissipate to an air concentration of less than the 10 CFR 20, Appendix B, Table 2 limit.

QUALITY CONTROL:

1. After manufacture, all quartz arc tubes are tested for electrical function. A quartz arc tube failing this test is considered a possible leaker and discarded. Each tank of the Argon-Krypton-85 mixture received from the supplier comes with a certification as to the Krypton-85 concentration. The quantity of Krypton-85 in an arc tube is a function of the volume of the tube and the specific activity of the gas. These parameters are set at the factory and are strictly monitored during production. Krypton-85 is the only radioactive gas used at the production facility, eliminating the possible use of any other radioactive material. (*Ref: Letter to Commission dated 11/10/93 - Encl. #2.3*)

2. Each tank of the Argon-Krypton-85 mixture received from the supplier comes with a certification as to the Krypton-85 concentration. During manufacture, the mixture is injected into the arc tubes to a specified pressure. The arc tube production output from each of three ovens is checked for proper pressure on an ongoing basis. The sampling rate is 18 arc tubes per every 5,000 manufactured. A destructive test is performed of each selected arc tube in a sealed chamber and the resultant pressure gradient measured. If the pressure is not within specification, the production run since the last successful QC test of the oven in question is withheld from further production and the necessary adjustments made to the oven, prior to any further production.

RADIATION LEVEL:

At one centimeter from the surface of the lamp through 7 milligrams per square centimeter of absorber (by calculation, with no account taken for inherent shielding):

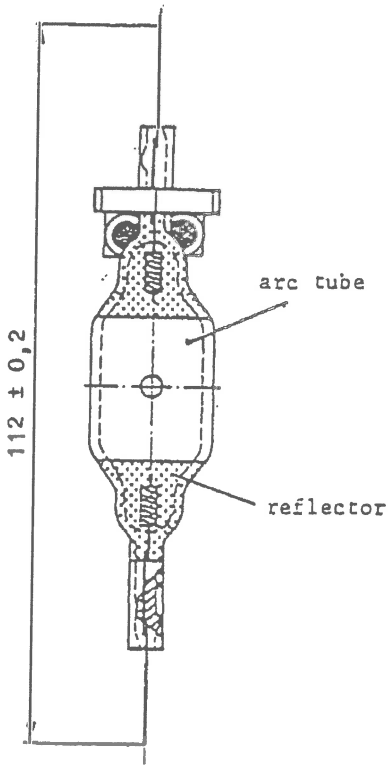
1. Less than 2.3 microrad/hr

2. Less than 1 microrad/hr

LABELING: The immediate bulk arc tube container labeled in accordance with 10 CFR 32.15(d).

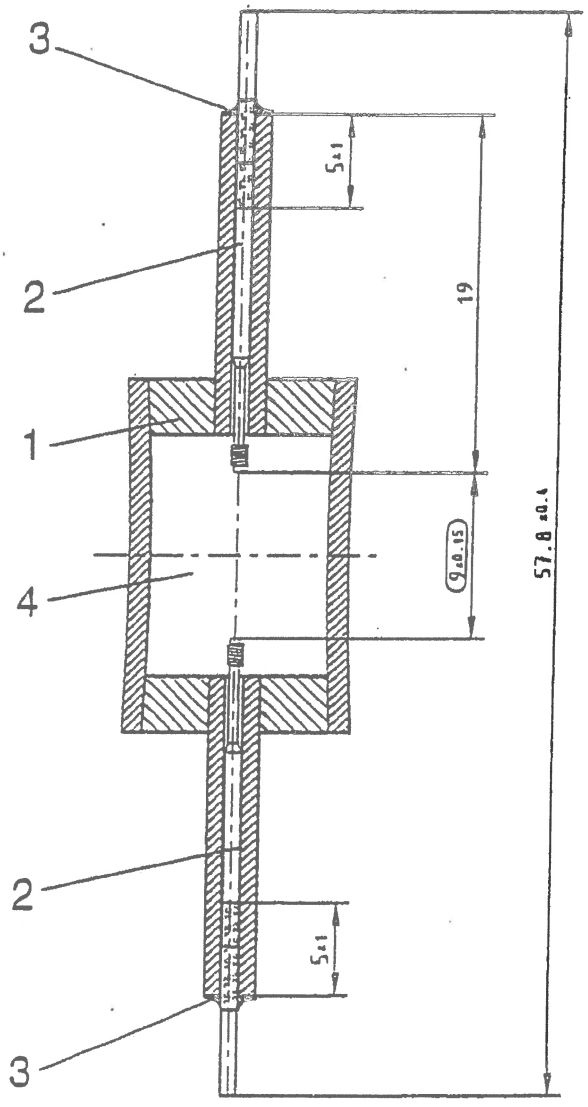
Typical Quartz Arc Tube:

Measurements in mm



Typical PCA Arc Tube:

Measurements in mm



LEGEND:

1. Ceramic arc tube
2. Electrode Assembly
3. Ceramic frit ring –seals arc tube
4. Gas and Chemical Fill

METAL HALIDE LAMP TECHNICAL DATA

LAMP TYPE (FAMILY): HQI... [8]

MANUFACTURER: OSRAM GmbH, Berlin, Germany

MAXIMUM LAMP WATTAGE: 250

RADIOACTIVE SOURCE: Quartz Arc Tube

RADIOACTIVE CONTENT: Krypton-85

MAXIMUM ACTIVITY PER LAMP: Less than 83 nanocuries

SOURCE CONTAINMENT: Sealed in quartz bulb

LABELING: The immediate lamp container, or in the case of bulk shipments, the smallest bulk package is labeled in accordance with 10 CFR 32.15(d).

— — — — — — — — — — — — —

LAMP TYPE (FAMILY): MC... [9]

MANUFACTURER: Osram Sylvania Products, Inc., Winchester, KY
Osram Sylvania Products, Inc., Manchester, NH [10]
OSRAM GmbH, Berlin, Germany

MAXIMUM LAMP WATTAGE: 150

RADIOACTIVE SOURCE: PCA Arc Tube

RADIOACTIVE CONTENT: Krypton-85

MAXIMUM ACTIVITY PER LAMP: Less than 35 nanocuries

SOURCE CONTAINMENT: Sealed in quartz bulb [11]

LABELING: The immediate lamp package, or in the case of bulk shipments, the smallest bulk package is labeled in accordance with 10 CFR 32.15(d), with the following exceptions:

1. Domestically manufactured lamps that are exported are labeled in the language of the destination country and pursuant to the requirements of that country (*Ref: Letter to Commission dated 11/21/86 - Encl. #2.4*);

2. For "private label packaging" [12] Osram Sylvania Products' USNRC exempt distribution license number is used in lieu of our name (*Ref: Letter to Commission dated 9/18/96 - Encl. #2.5*).

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8 Letter /number indicators for single or double ended, wattage, lamp base and color temperature, etc. follow the lamp type (family) designation

9 Letter /number indicators for reflector, wattage, lamp base and color temperature, etc. follow the lamp type (family) designation

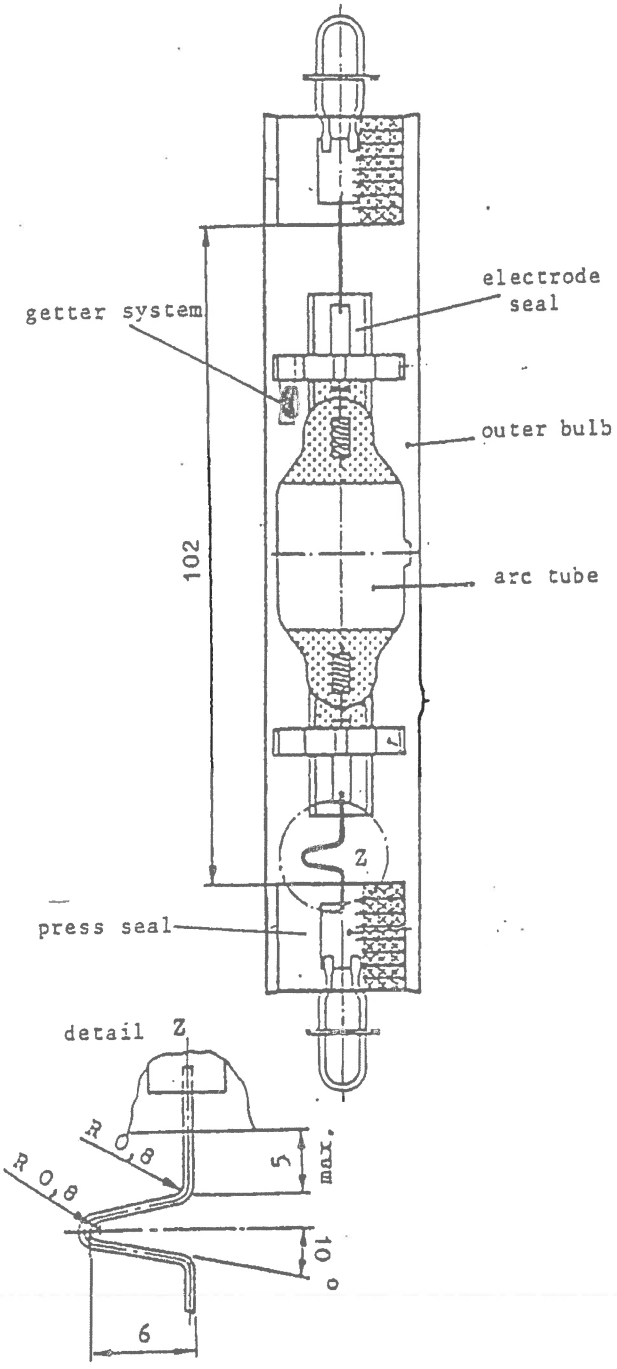
10 License amendment applied for (Encl. #1.10 & Encl. #2.2)

11 For certain lamp applications, the quartz enclosed PCA arc tube is sealed within an additional glass bulb or reflector

12 Private label packaging is where a subsequent distributor's name is on the immediate lamp package rather than the manufacturer or initial distributor

TYPICAL METAL HALIDE LAMP WITH QUARTZ ARC TUBE (HQI-DE 250/NDX):

Dimensions in mm



TYPICAL METAL HALIDE LAMP WITH PCA ARC TUBE (MCP70PAR30...):

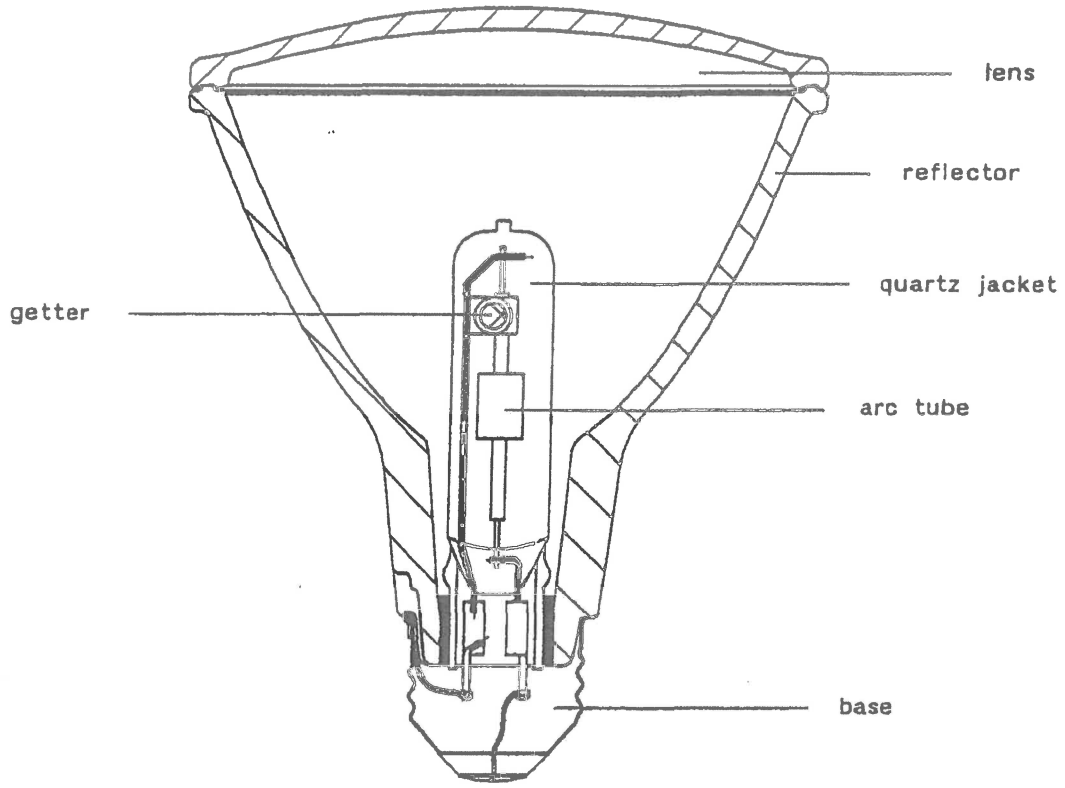
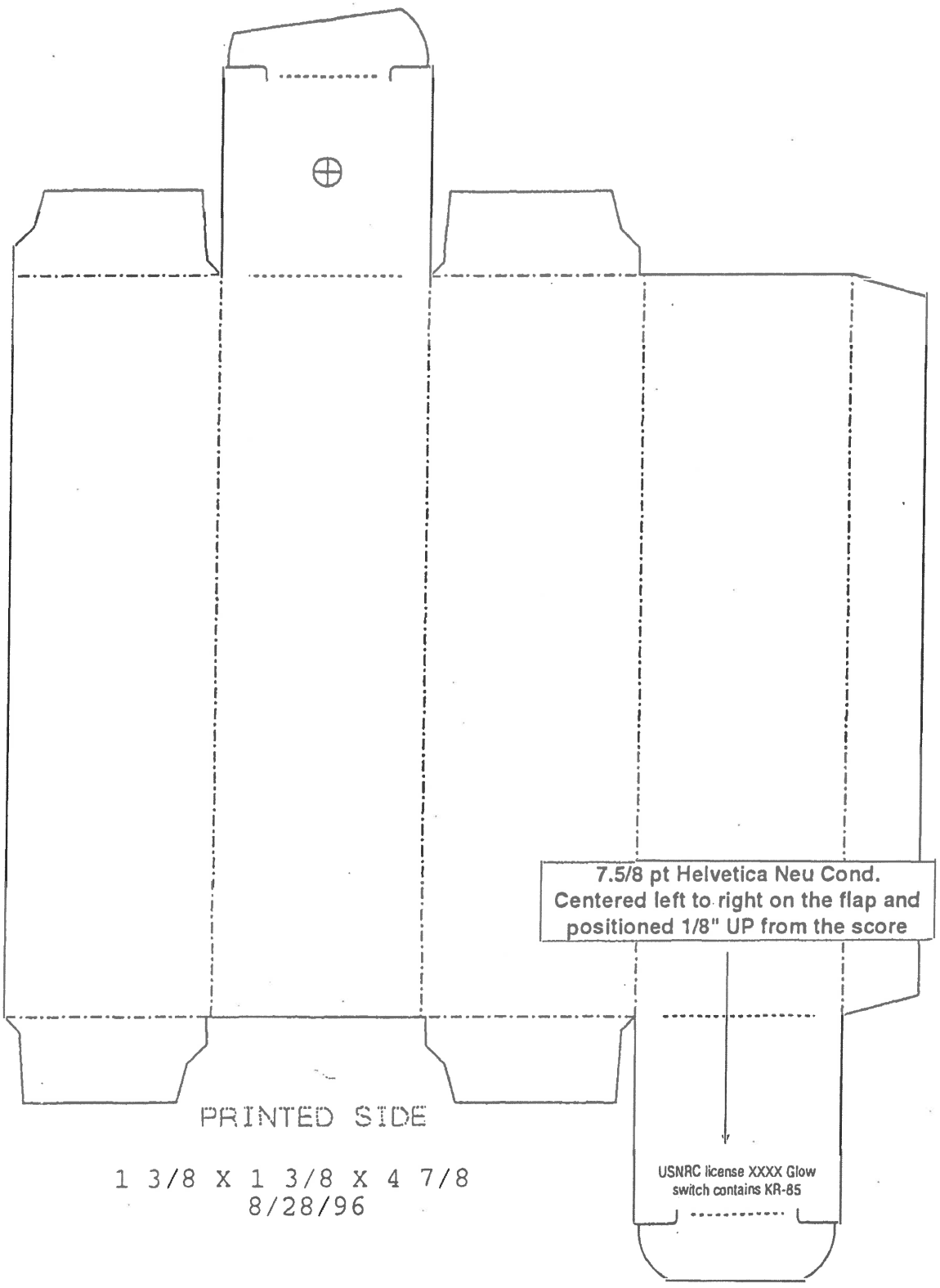


EXHIBIT I

OSRAM SYLVANIA



PRINTED SIDE

1 3/8 X 1 3/8 X 4 7/8
8/28/96

EXHIBIT II

OSRAM SYLVANIA

Item# *(Articulo Nº)* 04017 MASTER CARTON *CAJA PRINCIPAL*

Qty. *(Cantidad)* 50 Pieces Dom. Code F9TT/27K

Des. F9TT/27K/CD *Descripción* F9TT/27K/CD

Cu.ft. *(Metros Cúbicos)* _____ P.O.# _____

Wt. *(Peso)* 20346-1

MADE IN U.S.A.

USNRC license #XXXXXX
Glow switch contains KR-85

4 00 30721 04017 5

7.5/8 Helvetica neu condensed Reg.
2 lines centered beneath address
and manufacturing information
UP 1/8" from bottom chop