



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 5, 2015

Hess Fine Art  
ATTN: Jerome Sirois  
1131 4<sup>th</sup> Street North  
St. Petersburg, FL 33701

SUBJECT: SECOND REQUEST FOR ADDITIONAL INFORMATION REGARDING HESS  
FINE ART EXEMPT DISTRIBUTION LICENSE RENEWAL APPLICATION

Dear Mr. Sirois,

This letter refers to your response letter dated November 2, 2015, Agencywide Documents Access and Management System (ADAMS) Accession No. ML15307A054 which responds to our first request for additional information dated October 6, 2015 (ADAMS Accession No. ML15274A068). In reviewing your response letter, we have determined additional information is required to complete our review. In order to continue our review please address the issues listed below.

The intention of this request is to have an up-to-date document that provides all of the information required by the regulations in 10 CFR 32.14, "Certain items containing byproduct material; requirements for license to apply or initially transfer," 10 CFR 32.22, " Self-luminous products containing tritium, krypton-85 or promethium-147: Requirements for license to manufacture, process, produce, or initially transfer," and described in the relevant guidance document NUREG-1556 Volume 8 titled "Program-Specific Guidance about Exempt Distribution Licenses." It is acceptable to reuse previously submitted documents as long as they are provided as attachments to a new document describing your current program. The new document should provide the answers to each of the requested information listed below, either as a statement within the new document itself, or by referring to an attached, previously-submitted document.

A. Information required by 10 CFR 32.14 and 32.22

1. The address in your Florida possession license is 1920 Dr. Martin Luther King, Jr., Street North, Suite C to F, St. Petersburg, FL 33704. Your U.S. Nuclear Regulatory Commission exempt distribution license no. 09-23920-01E authorizes the distribution of self-luminous watches only from your facility located at 1920 DR. Martin Luther King, Jr., Street North, Suite C, St. Petersburg, Florida 33704. Please clarify if you are distributing only from Suite C or Suite C to F.
2. In our letter dated October 6, 2015 we requested a list of watch models that will be distributed under 10 CFR 32.14 and a list of watch models that will be distributed under 10 CFR 32.22. In your letter dated November 2, 2015, you provided a table under attachment B that includes model numbers for watches that are distributed under 10 CFR 32.14 and 32.22. The model numbers you provided for watches under 10 CFR

32.22 do not match the model numbers on the Sealed Source and Device registration certificate NR-1265-D-101-E. Please clarify the relationship of the model numbers you provided under attachment B and the model numbers in the SSD.

3. In our letter dated October 6, 2015, we requested the model number of the sources used for each part of the watch (dial, hour hand, minute hand, second hand, etc.), for each watch model. In your letter dated November 2, 2015, you stated that the sources used are mb-microtec model 400/1 and 4002. Please specify the source model used for the dial, hour hand, minute hand and second hand for each watch model. This information can be provided in a table.
4. In our letter dated October 2, 2015, we requested the maximum quantity of the byproduct material per timepiece, per dial and per hand for products under 10 CFR 32.14. In your letter dated November 2, 2015, you provided under attachment B a table that includes the total activity of byproduct material per timepiece. In addition to the total activity per timepiece, please provide the activity per dial and per hand (i.e. second, minute and hour) for each watch model under 10 CFR 32.14.
5. In our letter dated October 2, 2015, we requested the method of labeling or marking each unit, and its container with the identification of the manufacturer or initial transferor of the product and the byproduct material in the product. In your letter dated November 2, 2015, you stated that all timepieces are marked with the watch model number, the serial number, and "3H mb microtec illumination" or "3H MBM." You also stated that watches containing tritium greater than 25 mCi will have "T Swiss" or "T" printed on the lower left of the dial face, and that all watches containing tritium greater than 25 mCi but less than 100 mCi will have "T100." This labeling method is missing the identification of the initial transferor or manufacturer. Please provide the method of labeling or marking each unit with the identification of the manufacturer or initial transferor. Please provide a picture or drawing as an example.
6. In our letter dated October 2, 2015, we requested an engineering drawing (for each watch model) that describes the construction aspects of the product including components of the product, material of construction, dimensions, assembly methods, and source containment and shielding. In addition, these drawings should include Tritium sources dimensions (length and width), location of all sources, distance from sources to the edge of dial, and distance between sources. In your letter dated November 2, 2015, you provided under attachment D the Spec Sheets and the assembly drawings for twenty-five watches. The Spec Sheets and assembly drawings are missing the following required information (please provide the requested information for all watch models that will be distributed under your exempt distribution license):

- a. Location of tritium sources in each watch model. Please identify all tritium sources in an engineering drawing for each watch model.
  - b. Distance from each source to the edge of dial for each watch model.
  - c. Distance between sources for each watch model.
  - d. Some dimensions in the Speck Sheets are missing the units. Please make sure that all units are included.
- B. Information required by 10 CFR 32.22 (NOTE: Please be aware that this request only applies to watch models distributed under this part)
1. In our letter dated October 6, 2015, we requested the maximum external radiation levels at 5 and 25 centimeters from any external surface of the product, averaged over an area not to exceed 10 square centimeters, and the method of measurement. In your letter dated November 2, 2015, you provided the maximum annual dose of a watch with 100 mCi of Tritium. Please note that we requested the external radiation level, not the annual dose. Please provide the maximum external radiation levels at 5 and 25 centimeters from any external surface of the product, averaged over an area not to exceed 10 square centimeters, and the method of measurement.
  2. In our letter dated October 6, 2015, we requested the total quantity of byproduct material expected to be distributed in the product annually. In your letter dated November 2, 2015, you provided the maximum activity per watch. Your response does not answer our request. Please provide the total quantity of watches and total activity of byproduct material that is expected to be distributed under 10 CFR 30.22 annually.
  3. In our letter dated October 6, 2015, we requested the procedure for prototype testing of the product to demonstrate the effectiveness of the containment, shielding, and other safety features under both normal and severe conditions of handling, storage, use, and disposal of the product. We also requested the results of the prototype testing of the product, including any change in the form of the byproduct material contained in the product, the extent to which the byproduct material may be released to the environment, any increase in external radiation levels, and any other changes in safety features.  
  
In your letter dated November 2, 2015, you stated that the watches are manufactured to military specification MIL-PRF-46374G. You also stated that if the prototype testing is unsuccessful, the watch model is discarded. All prototype testing is performed in a laboratory in Switzerland under controlled testing procedures.  
  
Your response does not answer our request. Please provide the procedures for prototype testing and results of this prototype testing.
  4. In our letter dated October 6, 2015, we requested the estimated external radiation doses and dose commitments relevant to the safety criteria in 10 CFR 32.23 and the basis for such estimates. We also requested a determination that the probabilities with respect to the doses referred to in 10 CFR 32.23(d) meet the criteria of that paragraph. The response you provided in your letter dated November 2, 2015, does not answer are

request. Please provide a dose assessment as described in NUREG-1717, "Systematic Radiological Assessment of Exemptions for Source and Byproduct Materials," section 2.3, "Timepieces, Hands, and Dials."

- a. External dose calculation for distribution workers and members of the public who might be exposed during product distribution.
- b. External dose calculation of routine use of wristwatches. Exposure to airborne releases of H-3 from the wristwatches and exposure to skin contact.
- c. External dose calculation during watch repair.
- d. External dose calculation during an accident or misuse of wristwatch.

Any correspondence regarding your application should reference the control number specified below. Please submit the requested information within 30 days of the date of this letter. If we have not received complete information within 30 days of the date of this letter, we will consider your application as having been abandoned by you. This is without prejudice to the submission of a complete application.

Please be aware that upon your request, proprietary information submitted to the NRC may be withheld from public disclosure. To do this, you must follow the procedures in 10 CFR 2.390(b) including requesting withholding at the time the information is submitted and complying with the document marking and affidavit requirements set forth in 10 CFR 2.390 (b)(1).

In accordance with 10 CFR 2.390 a copy of this letter will be available electronically for public inspection in NRC's Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

If you have any questions regarding the exempt distribution license, please contact me at (301) 415-6004 or email at [Hector.Rodriguez-Luccioni@nrc.gov](mailto:Hector.Rodriguez-Luccioni@nrc.gov).

Sincerely,

**/RA/ [Original Signed By]**

Hector Rodriguez-Luccioni, Ph.D.  
Materials Safety Licensing Branch  
Division of Material Safety, State, Tribal  
and Rulemaking Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 030-36971  
Mail Control No. 588743

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Sincerely,

**/RA/ [Original Signed By]**

Hector Rodriguez-Luccioni, Ph.D.  
 Materials Safety Licensing Branch  
 Division of Material Safety, State, Tribal  
 and Rulemaking Programs  
 Office of Nuclear Material Safety  
 and Safeguards

Docket No. 030-36971  
 Mail Control No. 588743

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<b>OFC</b>	NMSS/MSTR/MSLB	NMSS/MSTR/MSL B	NMSS/MSTR/MSL B	NMSS/MSTR/MSLB
<b>NAME</b>	Hector Rodriguez-Luccioni	Shirley Xu	Hipolito Gonzalez	Hector Rodriguez-Luccioni
<b>DATE</b>	11/04/2015	11/04/2015	11/05/2015	11/05/2015

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