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January 7, 1994

Mr. Walter J. Pasciak
 Chief
 Industrial Applications Section
 Division of Radiation Safety and Safeguards
 Nuclear Regulatory Commission, Region I
 475 Allendale Road
 King of Prussia, PA 19406

Re: EEV, Inc. Docket No. 030-29356. License No. 31-23630-01E. CAL No. 1-93-011

Dear Mr. Pasciak:

In our November 19, 1993 reply to the NRC's Notice of Violation, EEV, Inc. ("EEV") promised to forward EEV's new procedures for byproduct material control by January 7, 1994. We have enclosed copies of these procedures for your review.

These procedures were revised to conform to the New York State Department of Labor ("NYSDOL") model procedures. They were submitted for NYSDOL's review on December 7, 1993 as part of EEV's application (Tab 8) for a byproduct material possession license.

Please feel free to call me if you have any questions regarding this matter.

Sincerely yours,

Rudy Wipier
 Executive Vice President
 Finance & Administration

110032

RW/ks
 ES2/10038/NRC

cc: Document Control Desk
 NRC, Washington

Enclosures

9401130064 940107
 PDR ADOCK 03029356
 C PDR

Change: NRC PDR 1 INP *Utr. Encl.* *JE07*

Tab 8

Item #16

EEV Radiation Protection Program

EEV Inc. imports quality finished products, manufactured by EEV Ltd (U.K.). EEV Ltd. is licensed under the United Kingdom's Radioactive Substances Act of 1960. EEV Ltd. is required to conduct its operations in compliance with the Ionising Radiations Regulations of 1985 and the conditions of its license. To ensure compliance, EEV Ltd. has established local rules and procedures governing its activities, which are implemented under the oversight of a Radiation Protection Supervisor.

Product ordering is done either directly for a customer's order or for stock against an established minimum/maximum inventory level. Minimum/maximum levels are periodically reviewed and adjusted. At no time will EEV Inc. hold more than 2.5 curies of byproduct material in its facility. Should a New York State Possession License and an NRC Distribution License be issued, EEV plans to cease the importation of surge arrestors and sell the remaining inventory. When this action is complete, EEV will have reduced its current byproduct material inventory by over 90%. EEV will then maintain a byproduct material inventory of well under one curie.

Products are packaged and shipped by air in accordance with the U.S. Department of Transportation and International Air Transport Association (IATA) Restricted Articles Regulations. Product containers, i.e., master cartons as well as smallest intermediate shipping cartons are marked with the following label:

EEV Ltd. - H3

Upon receipt, exterior shipping containers are thoroughly examined for signs of shipping damage. If intact, the cartons are moved to the designated storage area and either left as is or unpacked and stored on shelving in usual manner. If the container shows signs of shipping damage, the RSO will be summoned to supervise further opening.

EEV only deals with byproduct material contained in sealed sources. In the case of most EEV instruments, such as its TR limiters, the tritium used is injected under less than 12 mBar pressure into a quartz cell which is hermetically sealed and mounted in an aluminum housing. All EEV devices contain far less tritium than, under NRC regulations (10 C.F.R. § 30.15(a)(8)(i)), may be incorporated into exempt microwave protector tubes or electron tubes. The integrity of EEV units is confirmed by functional tests conducted by EEV Ltd.

Under 12 NYCRR 38.26, EEV is not required to perform regular leak tests on its products containing Hydrogen 3 unless there is reason to suspect that a source might be damaged. EEV does stock one model of spark gap (model MA973A) manufactured by Seimens which contains three microcuries of Promethium 147. Should the Department of Labor require, EEV can arrange for leak tests every six months. Any required leak tests will be conducted according to the model procedure for leak-testing sealed sources contained in appendix K of the New York State Department of Labor ("NYSDOL") Radiation Guide 10.3 (attachment A).

EEV estimates that its employees will not be exposed to the byproduct material contained in its products as a result of normal operations. In the unlikely event of on-site breakage of the tube envelope (very rugged metal, ceramic and hermetically sealed construction), the amount of radiation released would be very small. Once EEV sells its remaining surge arrestors, it will be impossible for any of its employees to be exposed to the Annual Limit on Intake ("ALI") specified by the NRC in 10 C.F.R. Part 20 or the permitted occupational doses as specified under 12 NYCRR 38.21. Under these regulations, the one-man ALI for tritium is 80,000 microcuries. Once EEV's remaining surge arrestors have been sold, EEV expects to hold less than this amount of byproduct material for its entire facility.

Should a theft, loss or breakage occur, EEV will report the incident to the Commissioner as required by 12 NYCRR 38.37. Should a fire occur, EEV would contact the local fire department. A copy of EEV's hazardous materials report form is attached (attachment B).

EEV follows the NYSDOL model procedure for ordering and accepting delivery of radioactive material as closely as possible. EEV also adopted a version of the NYSDOL's safe opening and spill procedures. Copies of these procedures are attached (attachments C, D, and E).

All goods are inventoried upon receipt and type/quantities are entered into a computerized inventory system. At any given point in time, EEV can ascertain levels of by-product material on hand and on order.

Order flow within EEV occurs with, 1) request for goods from the client base, 2) packing slip is computer generated and forwarded to warehouse staff, 3) order is picked and packed and left in designated storage area for transportation arrangements, and 4) order is forwarded from designated storage area to transport carrier upon arrival.

All EEV products are processed as required under the U.S. Department of Transportation ("DOT") regulations governing excepted instruments (49 C.F.R. § 173.422) for packaging, shipping, certification, marking and labelling.

Tab 8

Attachment A

PROCEDURE FOR LEAK-TESTING SEALED SOURCES

Procedures

- (1) Make a list of all sources to be tested. This should include at least the isotope, the activity on a specified date, and the physical form.
- (2) Prepare a separate wipe sample for each source. A cotton swab, injection prep pad, filter paper, or tissue paper is suitable. Number each wipe so you will know for which source it is to be used. Samples should be taken as follows:
 - a. For small sealed sources, it is easiest to wipe the entire accessible surface area. Pay particular attention to seams and joints. However, do not wipe the port of beta applicators.
 - b. For larger sealed sources and devices (survey meter calibrator, irradiators), take the wipe near the radiation port and on the activating mechanism.
- (4) The samples will be analyzed as follows:
 - (a) Select a suitable detector that is sufficiently sensitive to detect 0.005 microcuries. For beta sources, a proportional flow counter, liquid scintillation counter, or thin-end-window GM survey meter may be appropriate. For gamma sources, a crystal with a ratemeter or scales is usually necessary.
 - (b) Assay a check source that has the same isotope as the sealed source and whose activity is certified by the supplier. If one is not available, it will be necessary to use a certified check source with a different isotope that has a similar spectrum in order to estimate the detection efficiency of the analyzer used to assay the wipe samples.
 - (c) Assay the wipe sample. It must be in the same geometry relative to the detector as was the certified check source.
 - (d) Calculate the estimated activity in microcuries on the wipe sample.

- (e) Continue same analysis procedure for all wipe samples.
- (f) If the wipe sample activity is 0.005 microcuries or greater, notify the RSO. The sources must be withdrawn from use to be repaired or disposed of and the Health Department must be notified.
- (g) Record the wipe sample results on the list of sources, and sign and date the list.