

February 2, 2005

MEMORANDUM TO : George C. Pangburn, Director
Division of Nuclear Materials Safety, RI

FROM: Richard P. Correia, Acting Chief **/RA/**
Materials Safety and Inspection Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

SUBJECT: RESPONSE TO TECHNICAL ASSISTANCE REQUEST DATED
JANUARY 24, 2005, PHILLIP MORRIS

I am responding to your technical assistance request (TAR) dated January 24, 2005.

Issue:

On December 20, 2004, Phillip Morris requested authorization to replace the sealed sources in 8 of their 20 MAID N gauges. The sealed source and device (SSD) registration sheet for the MAID N gauge (NR-462-D-803-B) only permits the use of an Amersham Model SIF Q2874 sealed source containing 25 millicuries of Sr-90. Amersham no longer manufactures this model source but advised Phillip Morris that their Model SIF K2365 can be used in the MAID N gauge. Amersham claimed that the Model SIF Q2874 and Model SIF K2365 sources have the same external dimensions and also contain 25 millicuries of Sr-90. The TAR requested a review to determine if the Model SIF K2365 is compatible for use in the MAID N gauge and if there will be any adverse affects if the new source is used.

Action Approved:

Phillip Morris' December 20, 2004, letter included drawings of the SIF K2365. Based on a comparison with drawings of the Model SIF Q2874, from the original SSD application for the MAID N gauge, we conclude that the use of the Model SIF K2365 is an acceptable replacement for the Model SIF Q2874. Additionally, we conclude that there would be not adverse affect with the use of the Model SIF K2365 source. The SSD registration sheet need not be changed because the action affects one licensee. The source replacement should be reflected in Phillip Morris' license.

Discussion:

Custom registration for this change is not needed per NUREG-1556, Volume 3, Section 5.1.3 when the activity is below 200 mCi and the licensee is qualified to "handle radioactive material in unsealed form". This was written for the worst case scenario, i.e. the source containment fails and the material becomes unsealed. Since the two sources are physically, structurally, and radiologically equivalent the safety risk has not changed. The licensee is qualified to handle the replacement sources thus the criterion for "handling material in unsealed" form is not applicable.

CONTACT: Nima Ashkeboussi, IMNS/NMSS
301-415-7637

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*see previous concurrence

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