

MCDONNELL DOUGLAS

McDonnell Aircraft Company

07 September 1988

Ms. Patricia J. Whiston
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

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Subject: Byproduct Material License 24-02261-03, Control Number 85205

- Reference:
- (a) J.J. Murphy letter to G.M. McCann, Nuclear Regulatory Commission (NRC) Region III, dated 25 March 1988
 - (b) Federal Register, Volume 53, No. 37, "Order Modifying General License Issued to Minnesota Mining and Manufacturing Company," 25 February 1988, pages 5661 - 5662
 - (c) Materials License 24-02261-03, Amendment 30, conditions 13.A.3, 13.C, and 13.E
 - (d) J.H. Copeland letter to G.M. McCann, NRC Region III, dated 19 July 1984, with attachments

Dear Ms. Whiston:

We are submitting additional information for Control Number 85205 to clarify our Reference (a) license amendment application.

In our Reference (a) letter, we requested authorization to retain forty 3M devices, for storage only pending disposal, beyond the Reference (b) return due date. These devices are currently in our inventory. During our Radiation Safety Committee review of device storage criteria, we discovered that compliance with certain of the conditions of References (c) and (d) either defeats the purpose of retaining the devices or is unnecessary to assure safety of personnel and prevent facility contamination. We therefore request authorization to amend the requirements of References (c) and (d) as follows:

All of the above devices were tested for leakage in accordance with procedures approved by NRC. Most of the devices failed those tests and are already considered to be leaking. We therefore request that the Reference (c) conditions pertaining to quarterly leak tests, leak tests prior to transfer, and corrective actions for failed sources be waived for the polonium-210 devices.

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The action levels specified on page 32, in paragraph 11(A)(v) of Reference (d), were intended for loose alpha emitters, as opposed to microspheres where the alpha-emitting radionuclide is fixed within ceramic. We propose to continue use of the action levels approved by NRC on 5 February 1988 for the cleanup of McDonnell Douglas Corporation (MDC) facilities contaminated by failed 3M devices. They are the action levels approved for uranium and associated decay products listed on page 2 of Enclosure (18), Reference (d). Notwithstanding the above, we will attempt to decontaminate all surfaces to background levels prior to release. We plan to continue to use the action levels for protective clothing, personal clothing, and skin described on page 1 of Enclosure (31), Reference (d).

Routine worker surveys will be conducted on a daily basis whenever the sources are handled. It is likely, however, that the devices will only be handled when physical inventories are conducted, i.e., on a quarterly basis. We propose, therefore, to amend the Reference (d), paragraph 11(A)(i)(c), page 31 worker survey criteria to specify that daily surveys will be required for the polonium-210 devices. In accordance with Reference (d), paragraph 15(B)(i), page 36, we interpret daily to mean each day the sources are handled, as opposed to each calendar day.

We also wish to amend the paragraph 11(A)(ii) worker survey procedures to indicate that removable contamination surveys will not be required unless contamination is found during a direct frisk of the surface of interest (including protective and personal clothing and exposed areas of the skin). In this case, we feel that satisfactory contamination surveys can be conducted without performing wipe tests because the microspheres are readily detectable (nominally 0.1 microcurie when new) with portable equipment.

We have chosen the Type B laboratory (Reference (d), paragraph 7(a)(i)(b), page 11) as the most appropriate facility classification for the ionizers and a sublicense will be issued accordingly. We feel, however, that the quarterly Radiation Safety Officer (RSO) inspection required by paragraph 10(A)(i), page 28 of Reference (d), is unnecessary for a facility where the sources are held in storage only. We therefore propose to amend that provision to indicate that RSO inspections of the polonium-210 devices will be conducted on a semiannual basis.

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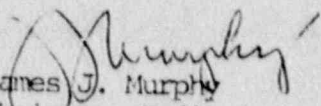
Page Three

Finally, the bench that is being held for decay-in-storage is under the RSO's supervision. Therefore, a sublicense will not be issued to authorize that activity. The RSO will perform quarterly inventories and surveys as needed. However, the bench is currently wrapped in multiple sealed layers of thick plastic. Since the bench contamination is fixed, we feel it is unnecessary to conduct routine surveys of the bench and its surroundings. Therefore, bench and surrounding storage area surveys will only be conducted when the bench wrappings are removed or disturbed.

The above requested changes are specific to storage criteria for the contaminated bench and forty polonium-210 devices. Should there be any questions, please do not hesitate to contact Debbie Hillman, Radiation Safety Officer, phone [314] 233-4195 or me.

Sincerely,

MCDONNELL DOUGLAS CORPORATION


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