PDR 71-9142

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## Monsanto

\_ENGINEERED PRODUCTS

MONSANTO RESEARCH CORPORATION

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5 March 1980

Mr. Charles E. MacDonald, Chief Transportation Branch Division of Fuel Cycle and Material Safety Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. MacDonald:

MRC-20Wd-4

In accordance with the provision of 10CFR 71.42, Monsanto Research Corporation requests approval to ship Pu-238 in quantities greater than 20 but no greater than 100 curies in DOT Specification 20 WC-4 shipping containers (49 CFR 178.194).

The Plutonium-238 sources will be at least double-encapsulated in metal containers such that the sources meet spetal form criteria as defined in 10 CFR 71.4 (o). After welding, each encapsulation will be individually leak tested per ANSI N542-1977, procedure A 2.2.3 (He pressure bubble test), or other methods at least as stringent. Prior to shipment, the outer capsule will be smear tested per ANSI N542-1977, pro-A2.1.1 except that the wipe will not moisten with solvent. If the wipe shows less than 10 pCi removable contamination, the source will be shipped to the customer.

For this request we enclose 8 copies of MRC drawing B2625-AA00 which describes the 20WC container we are building. We also enclose a check for \$350 to cover the \$200 application fee for a regulatory service, category 11E per 10CFR 170.31. The remainder of the \$350 is to be applied to the approval fee.

Category 11E is selected because: (1) the package will contain radioactive material less than 20 times the type A quantity for special form material as defined in 10 CFR71.4(q), and (2) we intend to ship no more than 6 grams of Pu-238.

Monsanto has several customers waiting for deliveries of Pu8 sources. We intend to use the DOT specification 20WC for these deliveries, and we respectfully request your prompt review and approval of this submittal.

stand a subsidiary of Monsanto Company

Robert R. Tylor Manager Operations

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