MILLER AND TURETSKY A PROFESSIONAL CORPORATION ATTORNEYS AT LAW 21 WEST AIRY STREET MITCHELL W. MILLER MARK D. TURETSKY NORRISTOWN, PA. 19401 JOHN A. RULE (215) 279-3100 JOSEPH S. HOCKY OF COUNSEL June 5, 1981 Mr. James M. Allan, Deputy Victor Stello, Jr. Director Director U.S. Nuclear Regulatory Comm. Office of Inspection & 631 Park Avenue Enforcement U.S. Nuclear Regulatory Commission King of Prussia, PA 19406 Washington, D.C. 20555 ke: Docket No. 30-5998 License No. 37-00611-09EA 81-25 Gentlemen: On May 21, 1981, Mr. Earl Mayes, Radiation Safety Officer at the Automation Industries, Inc., Sperry Products Division facility in Phoonixville, Pennsylvania received the enclosed letter report prepared by Frazier L. Bronson of Radiation Management Corporation. The contents of the report are self-explanatory. As you can see, there was an error in the earlier report sent to you on May 15, 1981. Apparently, Mr. Bronson discovered certain inaccuracies in his original report and noted that the information for subjects "A" and "B" had been transposed. Mr. Bronson has indicated to us as shown in his letter that a formal report documenting the data used and arriving at these results will be completed within thirty days. If you have any questions concerning the enclosed report, please don't hesitate to contact my office immediately. Very truly yours, MILLER AND TURETSKY Mark D. Turetsky MDT/jv Enclosures 8107070343 810629 NMS LIC30 37-00611-09



May 19, 1981

Mr. Earl Mayes Automation Industries P.O. Box 245 Phoenixville, PA 19460

Dear Earl,

This letter is to recommend doses to be assigned for each of the three individuals involved in Ir-192 source cleaning activities using the ten hole cleaning bank procedure. This is a revision and further explanation of the doses provided in the letter of May 15, 1981. There was a transposition of data from one chart to another; therefore, the data were inaccurate.

The doses were derived as follows:

- A) Time and motion studies were made from video taped re-enactments of the source cleaning procedure for source types Al and Nl.
- B) Spatial dose rate measurements were made to define the source exposure area.
- C) Depth dose measurements were made in the source exposure area.
- D) The time that each finger segment was in the beam and position of the finger segment was determined from the video tapes.
- E) Dose per wipe per curie of source was then determined for each half of each finger segment exposed.
- F) Production data were used to obtain:
 - 1) Average curies per source;
 - 2) Number sources per year;
 - 3) Fraction of sources per type per year;
 - 4) Fraction of sources cleaned by each subject per year.
- G) Calculation of the dose to the maximum finger segment half for each year for each subject was then made.

radiation management corporation

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It is therefore recommended that the following doses be assigned for the subjects. The location of the maximum dose is the left half of the outer joint of the right thumb. Depth dose measurements indicate the same dose for the skin as for the bone of the thumb. The subject identification is as per Appendix I, Subject Identification. The number of significant figures does not indicate a corresponding level of precision.

SUBJECT	DOSE IN REM TO MAXIMUM FINGER SEGMENT									
	1981(JAN)	1980	1979	1978	1977	1976	1975	1974	1973	TOTA
A	0	22,066	11,730	11,76	10,937	11,826	13,141	12,237	10,172	103,8
В	0	3,193	1,998	2,004	1,834	1,927	2,090	1,904	0	14,9
С	3,315	4,243	0	0	0	0	0	0	0	7.5

In approximately 30 days a formal report documenting the data used in arriving at these results will be completed.

Sincerely.

Frazier L. Bronson , CHP

Vice President

FLB:sk attachment