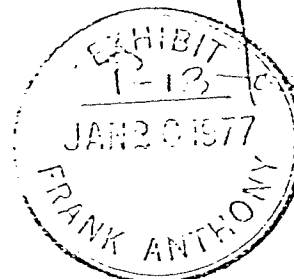


C. B. Thompson, Orohea, Wilmington,
P. J. Wingate, Orohea, Wilmington
V. R. Burk, Adm. Bldg.
F. Knowles, Adm. Bldg.) In
B. A. Hoss, Adm. Bldg.) Turn
F. W. Krastel, Adm. Bldg.
R. T. Read, Adm. Bldg.
Attn. J. D. Crompton, Naph. Int. Off.
J. H. Wetherhold, Medical Bldg.

September 22, 1958



Company Confidential

J. S. Queener, Mgr. (2)
Safety & Fire Protection Div.

HISTORY OF BETA NAPHTHYLAMINE MANUFACTURE -
CHAMBERS WORKS

Miss Mildred Styer of your office called and requested additional information concerning the history of the manufacture and use of beta naphthylamine on the Chambers Works. This information was requested in order that we might review our method of tabulation of the date of cases of bladder tumor discovered currently, but caused by exposures of years past. The following may be of assistance.

The manufacture of beta naphthylamine was started on the Chambers Works in 1919. It was cast in open pans, broken with a pick, and transferred by hand into barrels, ground in an open mill, and shoveled by hand into operating equipment. There was no ventilation provided. Gross exposures occurred.

In 1932 the occurrence of bladder tumors and their possible connection with beta naphthylamine was first recognized. In the ensuing months a still, flaker and mill were installed in the Low Pressure Autoclave Building and positive ventilation was installed on all equipment handling this material. This equipment was put in operation in 1934, and the casting and grinding was discontinued. We consider that the period of general gross exposure was terminated April 1, 1934.

From 1934 to 1948 various minor improvements, were made in the existing equipment. In 1948 a sulfonator was installed in the Low Pressure Autoclave House eliminating the processing of the material at the Sulfonating House. Also an automatic packaging machine was installed to eliminate exposure. Both these items were major improvements.

J. S. Quasner

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September 22, 1958

In 1950 construction was started on a new beta naphthylamine manufacturing plant or building designed so that each piece of equipment handling the material was isolated in an individual cell, and the plant was operated from a separate control room. Flaking and packaging were totally enclosed and ventilated. Waste liquors were treated before reaching plant ditches, and dust laden ventilating air went into a combustion chamber. This plant started in February 1951. After that date, possibility of exposure was greatly reduced. Dated records have been kept to show where gross exposures might have occurred due to unusual incidents.

In December 1955 manufacture of beta naphthylamine on the Chambers Works was discontinued, and the plant was decontaminated during the first quarter 1956. After decontamination, facilities were installed for the manufacture of other products. We do not believe that any beta naphthylamine exposure could have occurred to Chambers Works employees after April 1, 1956.

Development of bladder tumors occurs many years after the exposure according to our experience to date. In the past we have tabulated each case against the last date of known gross exposure, or where that has not been possible, 12-1/2 years prior to date of discovery. A procedure for this was developed in 1951 and agreed to by the Chambers Works and your group.

We have had no cases discovered which did not have possible exposure prior to February 1951, and almost all had records of exposure prior to April 1934. We suggest that in the future all cases discovered and accepted as company responsibility be tabulated as follows:

1. Where there was known or likely gross exposure, tabulate on the last date of such exposure.
2. Where there was no known incident involving exposure, tabulate on a date 12-1/2 years prior to discovery but not later than February 28, 1951.

D. T. Smith
D. T. Smith, Supervisor
Protection Division

Beta naphthylamine was not used in the manufacture of any material on the Chambers Works after Jan 1 1956. per J. J. Degeers records.

DTS:cmb

DTS

(10A)