A-16

CAL:RFB

OCT 31 1956

Davison Chemical Company
Division of W. R. Grace & Co.
Baltimore 3, Maryland

Delivered by hand 10/31 by LB

Attention: Mr. T. C. Runion
Reactor Materials

Gentlemen:

This is in reply to your October 15, 1956, letter to Mr. Eber Price, which has been referred to this office for reply. In your letter you requested advice on what concentration of thorium might be considered permissible for discharge into a stream.

The AEC published in July, 1955, as a notice of proposed rule-making, a proposed regulation establishing standards for protection of personnel and the public against radiation hazards. This proposed regulation is entitled "Standards for Protection Against Radiation". A copy is attached. While this proposed Regulation is not presently generally applicable to all licenses it is probable that it will be promulgated, with some modifications, as an effective regulation in the reasonably near future.

Please note Sec. 20.14(a) of the proposed Regulation which provides that, except as specifically authorized by the Commission in writing, no licensee shall possess, use or transfer licensed material in such manner as to release, discharge, or dispose of, into air or water (excluding public sewers, disposal of which is covered by Sec. 20.33) beyond the effective control of the licensee, radioactive material in any concentration (measured at the point where the licensee loses effective control over the material) in excess of the limits established in Appendix B, Table II.

Appendix B, Table II, in the enclosed copy of the proposed regulation, does not include a maximum permissible average concentration in air and water for thorium 232. At the present time it is anticipated that the concentration that will be established for thorium 232 will be 5×10^{-8} microcuries per milliliter of water for non-occupational exposure. This concentration, converted into the units you requested, is abort 0.45 parts per million of thorium 232 in water, for non-occupational exposure.

Very truly yours,

Th-232 figures obtained from Dr. Western - μc/ml data in newest ~~draft~~ Revision of Part 20, which is available in Stetina's files. Dr. Western showed, in detail, how to convert μc/ml figure to ppm. This calculation in Borkik's files RFB 10/29/56

OFFICE ▶	CAL	CAL	Lyall Johnson	CAL	
SURNAME ▶	RFBorkowski:ew	CTEdwards	Chief, Licensing Branch Division of Civilian Application	LJohnson	
DATE ▶	10/24/56	10/[illegible]/56		10/[illegible]/56	

Enclosure: 10 CFR 20

Form AEC-3