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8EHQ- 98-14151	89110000359	6/7/11

COMMENTS: 8EFU

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MR#335938

DOW

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The Dow Chemical Company
Midland MI 48674
USA

1803 BUILDING
June 6, 2011

FED EX

8EHQ-98-14151

Document Processing Center (7407M)
(Attn: TSCA Section 8(e) Coordinator)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
1201 Constitution Avenue, NW
Washington, DC 20004-3302

8EHQ-0611-14151E
DCN: 89110000359

Re: Update of Previous Dioxin Mortality Study, 8EHQ-0398-14151

89110000359

Dear Sir/Madam:

The following information is being submitted by The Dow Chemical Company (Dow) pursuant to current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substances Control Act. Dow has made no determination as to whether a significant risk of injury to health or the environment is actually presented by the findings.

Submission 8EHQ-0398-14151 provided information from a probe study preliminary to a subsequent study designed to validate exposure estimates from Dow health studies of chemical workers potentially exposed to dioxins at one manufacturing facility. The report of that study was provided to the EPA on July 5, 2006.

On July 25, 2007, Dow shared with the EPA the results of an updated health study as part of Dow's ongoing surveillance of 2,192 Michigan Operations employees who were involved in the manufacture of trichlorophenol and pentachlorophenol.

The purpose of this notification is provide you an update of the health study as part of Dow's ongoing surveillance of 2,192 Michigan Operations employees. The current study re-sampled a subset of these chlorophenol workers to examine the elimination rates of these dioxins and to identify determinants other than past exposures that are related to dioxin levels.

In 2010 using the same protocol, procedures and laboratory as in the 2004-5 blood draw, the serum was analyzed. The serum samples were tested for 7 dioxins, 10 furans and 15 PCBs. Since previous studies on these workers indicated that workplace exposures only increased dioxins levels, dioxins were the focus of this study. However, the toxic equivalent (TEQ) which is a weighted sum of the dioxins, furans, and

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PCBs was calculated.

The serum 2,3,7,8 tetrachlorodibenzo-p-dioxin (TCDD) levels for the workers from the blood collections in 2004 or 2005 were compared to the same workers' serum TCDD levels in 2010. With the exception of one worker, the TCDD levels decreased for every worker. The average decrease for all workers between the two blood draws was 39% for TCDD. The decrease for the other dioxin congeners, the furans and the PCBs displayed similar decreases and there was a strong correlation between the dioxin levels in 2004-5 and 2010.

Questions may be addressed to the undersigned.

Sincerely, Sincerely,

Alicia M Fitzpatrick

Alicia M. Fitzpatrick
PH: 215-785-7033
FAX: 215-785-7227
E-MAIL: afitzpatrick@dow.com

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