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C-8 GROUND-LEVEL CONCENTRATIONS - WASHINGTON WORKS

Attached is a report from R. I. Wevodau, Engineering Services Division, concerning C-8 ground-level concentrations for Washington Works. Concentrations of C-8 were calculated using C-8 emission estimates based on a capacity production* and meteorological data covering a five-year period.** Annual mean, eight-hour maximum, and 1-hour maximum C-8 concentrations were calculated for 2400 points in a receptor grid. Concentrations of C-8 were calculated for two cases:

- Case 1A represents concentration estimates for the period before May, 1981.
- Case 1 represents expected C-8 concentrations after the May, 1981 shutdown (when dryer stack heights were increased by 15 feet).

In summary:

- Case 1A and 1 annual mean C-8 concentrations are well below the provisional AEL of 10 ug/m³. The highest Case 1A annual mean C-8 concentration is only about 5% of the provisional AEL. Since long-term accumulation of C-8 in the blood is a major concern, the annual mean concentration is the most important indicator of potential employee exposure.

* Actual C-8 emissions will be less since Teflon® production does not always operate at capacity.

** Meteorological data collected in the Parkersburg area between January 1, 1973 and December 31, 1977

There's a world of things we're doing something about

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- All Case 1A and 1 eight-hour average C-8 concentrations are below the provisional AEL. The highest Case 1A eight-hour average is about 83% of the provisional AEL.
- Increasing dryer stack heights by 15 feet reduced the expected annual mean C-8 concentrations at the 15 selected receptor points by an average 33%.

Joseph G. Loschiavo
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Attachment
Addressee Only

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