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DU PONT
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E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE 19898

POLYMER PRODUCTS DEPARTMENT

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October 28, 1983

TO: D. R. HARKEY
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FROM: J. J. HEGENBARTH

PROGRAM/ACTION POINTS
C-8 (AMMONIUM PERFLUOROOCTANOATE)
AIR AND WATER EMISSIONS - WASHINGTON WORKS

In your absence, I represented the Fluoropolymers Division at a meeting to discuss the status of all C-8 programs at Washington Works on October 20. Attendees were J. W. Raines, H. E. Serenbetz, J. C. Besperka, B. W. Karrh, and R. R. Bonczek.

J. W. Raines presented a history of C-8 including information on use, industrial hygiene, toxicity, and environmental control programs. Charts used by Raines are attached.

Karrh and Bonczek were very complimentary to PPD and the plant for the reduced exposures of employees to C-8. They indicated two concerns:

(1) The amount of C-8 discharged into the Ohio River - 25M lbs./yr. from the FEP plant.

(2) Concentrations of C-8 in the atmosphere outside plant boundaries which result from emissions from the fine powder dryer vents.

Serenbetz asked that we document C-8 air and water emissions from our Dordrecht and Shimizu plants in the same way as had been done at Washington Works.

Manufacturing, R&D, and FPD have agreed on the following program to try to improve these conditions.

(1) Replacement of C-8 with TBSA in FEP production

We will continue to expedite program to replace C-8 with TBSA (Telomer B sulfonic acid). We will complete the final qualification EOD in November with commercial implementation by IIQ of next year (assuming success in the November EOD).

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	ACTION ITEMS	COMPLETION DATE
A)	Qualify TBSA from new process in semiworks	Complete (R&D)
B)	Qualify TBSA from new process in plant	November (Mfg./R&D)
C)	Qualify FEP products at TSL Quality FEP product at select customers	December (FPD) IQ (FPD)
D)	Support Petchem project for commercial TBSA facilities	December
E)	Complete TBSA toxicity testing at Haskell (including TBSA decomposition products which will be vented if Haskell advises)	IQ (R&D/Mfg.)
F)	Complete any Wash. Wks. plant modifications, if required	IQ (Mfg.)
G)	Complete production of TBSA in commercial facilities	IIQ
H)	Commercialize FEP production with TBSA	IIQ

We believe the probability of success of these programs is high.

(2) Reduce C-8 emissions from fine powder dryer vents

We will determine the feasibility of removing C-8 from this vent stream. If feasible, we will generate basic data and initiate a project for Management consideration.

	ACTION ITEMS	ESTIMATED COMPLETION DATE
A)	Initiate EWR for feasibility study and VGA estimate	Complete
B)	Review feasibility study for PPD Management. Reach agreement on next steps depending on feasibility.	IQ (Mfg./FPD)
C)	If feasible - generate required basic data	IIIQ (R&D/Mfg.)

ACTION ITEMS	ESTIMATED COMPLETION DATE
D) Scope project and initiate P&E for initial design and estimate	IVQ (Mfg.)
E) Initiate project for Management approval and authorization	IQ '85 (Mfg./FPD)

Removal of very low concentrations of C-8 from large volume of air is considered a very difficult engineering problem. Engineering will study both scrubbing and thermal decomposition techniques. However, initial work by R&D and the plant indicate that the probability of success at reasonable investment and cost is not high.

(3) C-8 air and water emissions at Dordrecht and Shimizu

ACTION ITEMS	COMPLETION DATE
A) Determine C-8 materials balance and and atmospheric concentrations at Dordrecht	IIQ '84 (Mfg./FPD)
B) Review C-8 status with MFC and determine appropriate future actions	4Q '83

JJH:c