

**REPORT ON THE MANUFACTURE, USE, AND RELEASES
OF PFCs AT THE 3M COTTAGE GROVE FACILITY**

CONFIDENTIAL ATTACHMENTS

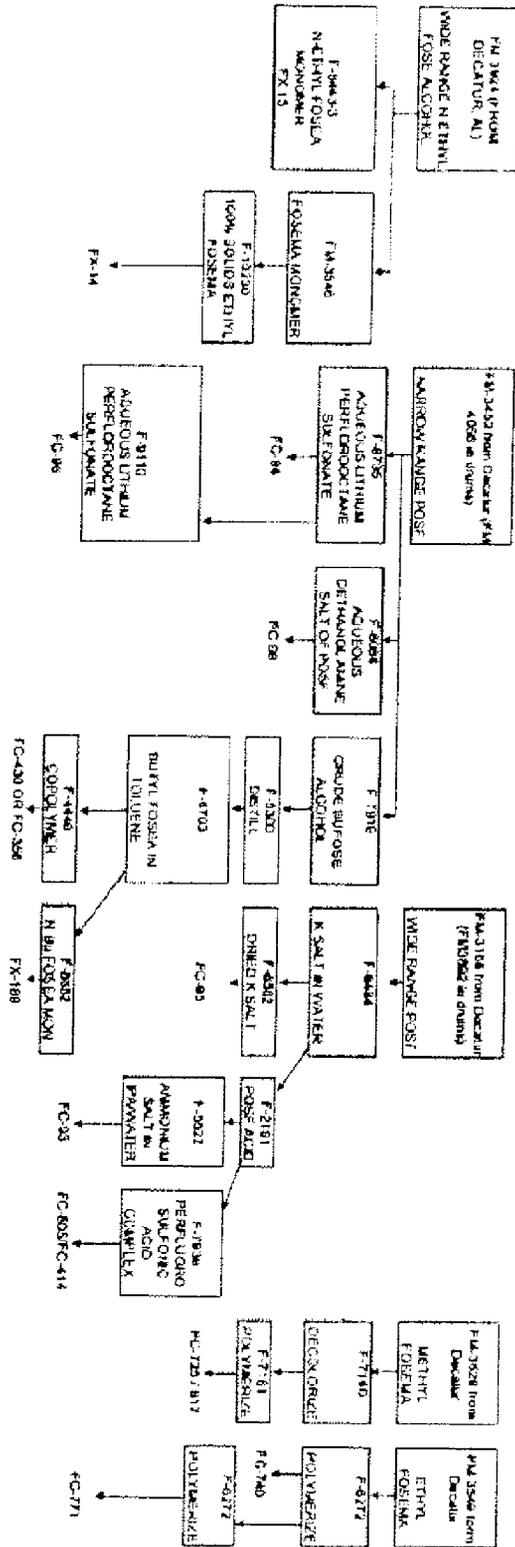
**Exhibit
2764**

State of Minnesota v. 3M Co.,
Court File No. 27-CV-10-28862

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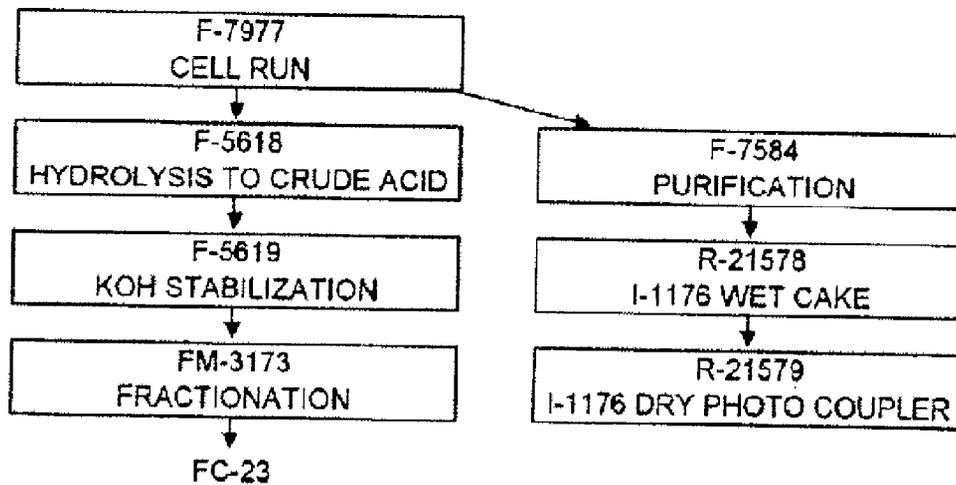
Attachment 2



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Attachment 4
Typical PFBA Flowsheet



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Attachment 5

Cottage Grove PFC Manufacturing Facility
 Summary of Cell Output (1976-1998)¹

Cell Output (in thousands of pounds of Finished Goods)²

<u>Base</u>	<u>1976-80</u>	<u>1981-85</u>	<u>1986-90</u>	<u>1991-95</u>	<u>1996-98</u>	<u>TOTAL</u>
PFPA	0	0	7	5	0	12
PFBA	477	196	152	117	91	1033
PFOA	407	364	547	750	454	2522
PMSF	3	3	0	0	0	6
PBSF	0	0	2	63	260	325
PECHS	63	39	43	58	49	252
POSF	0	0	0	0	0	0
PDSF	3	16	53	101	57	230
TOTAL	953	618	804	1094	911	4380

Legend:

PFPA -	Perfluoropropane Carboxylates
PFBA -	Perfluorobutane Carboxylates
PFOA -	Perfluorooctane Carboxylates
PMSF -	Perfluoromethane Sulfonates
PBSF -	Perfluorobutane Sulfonates
PECHS -	Perfluoroethylcyclohexane Sulfonates
POSF -	Perfluorooctane Sulfonates
PDSF -	Perfluorodecane Sulfonates

¹ The electrofluorination cells at Cottage Grove were shut down in 1998.

² The fraction of PFC-based compounds in "Finished Goods" varied widely. Depending on the product, typical levels ranged from a fraction of a percent to substantial percentages. Accordingly, the weight of "Finished Goods" indicated in this table includes significant percentages of non-PFC constituents.

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Attachment 6

Summary of Cottage Grove PFC Production Records

		Production Levels			
		Mlb	Lots	Mgal	Other
1953-1958	PFMA-based	19.4			
	PMSF-based	0.2			
	PFPA-based	1.0			
	PFBA-based	16.5	1		
	PFBS-based	0.3			
	PFOA-based	95.1		0.06	
	PECHS-based	35.7	7		
	Fire-Fighting Foam	2.7		0.7	
	PFOS-based	312.7		2.3	Y

1960-1969	PFMA-based	17.2			Y
	PMSF-based	0.9	10	0.1	
	PFPA-based	1.3	1		
	PFBA-based	21.4			Y
	PFHxS-based	2.4			
	PFOA-based	310.0	53	26.1	Y
	PECHS-based	17.2	4	0.001	Y
	Fire-Fighting Foam	146.3	11	204.1	Y
	PFOS-based	1,466.6	250	49.6	Y
	PFDA-based	0.5			

Legend:

- PFMA - Perfluoromethane carboxylate
- PFMS - Perfluoromethane sulfonate
- PFPA - Perfluoropropane carboxylate
- PFBA - Perfluorobutane carboxylate
- PFBS - Perfluorobutane sulfonate
- PFHxS - Perfluorohexane sulfonate
- PFOA - Perfluorooctane carboxylate
- PECHS - Perfluoroethylcyclohexane sulfonate
- Fire-Fighting Foam - Contained small fraction PFOS-based and/or PFHxS-based materials
- PFOS - Perfluorooctane sulfonate
- PFDA - Perfluorodecane carboxylate
- PFDS - Perfluorodecane sulfonate

Notes:

1. This attachment provides a summary of currently available records from the time periods specified. However, records are not currently available for all months/years in these time periods.
2. Information in currently available records is not sufficient to specify whether the manufacturing of materials recorded in those records was initiated in the electrofluorination cells at Cottage Grove or initiated elsewhere and worked up at Cottage Grove.
3. Explanation of Units: Mlb - thousands of pounds; Lots - Number of lots specified, but no volume/weight; Mgal - thousands of gallons; Other - Production of materials noted in record, but no quantity information.

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		Production Levels			
		Mlb	Lots	Mgal	Other
1970-1979	PFMA-based	16.3			
	PMSF-based	62.7	27		Y
	PFPA-based	0.6	1		
	PFBA-based	418.3	37		Y
	PFHxS-based	2.2	2		
	PFOA-based	96.3	117	0.3	Y
	PECHS-based	130.9	8	66.0	Y
	Fire-Fighting Foam	5,438.9	48	2,852.1	Y
	PFOS-based	1,165.7	117	31.4	Y
	PFDA-based	15.3	2		
PFDS-based	4.4	1			

1980-1989	PFMA-based		1		Y
	PMSF-based	142.7	16		Y
	PFPA-based	3.6			Y
	PFBA-based	269.1	15		Y
	PFOA-based	668.9	81		Y
	PECHS-based	78.2	30		Y
	Fire-Fighting Foam	453.8	8	824.7	Y
	PFOS-based	822.3	175	12.3	Y
	PFDA-based	16.9	2		
	PFDS-based	26.1			

Legend:

- PFMA - Perfluoromethane carboxylate
- PFMS - Perfluoromethane sulfonate
- PFPA - Perfluoropropane carboxylate
- PFBA - Perfluorobutane carboxylate
- PFBS - Perfluorobutane sulfonate
- PFHxS - Perfluorohexane sulfonate
- PFOA - Perfluorooctane carboxylate
- PECHS - Perfluoroethylcyclohexane sulfonate
- Fire-Fighting Foam - Contained small fraction PFOS-based and/or PFHxS-based materials
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		Production Levels			
		Mlb	Lots	Mgal	Other
1990-1991	PMSF-based	16.5	3		
	PFPA-based		2		
	PFOA-based	27.8	5		Y
	PECIIS-based	11.9	10		
	Fire-Fighting Foam	255.0	6	0.4	Y
	PFOS-based	124.0	20		
	PFDA-based	0.1			

Legend:

- PFMA - Perfluoromethane carboxylate
- PFMS - Perfluoromethane sulfonate
- PFPA - Perfluoropropane carboxylate
- PFBA - Perfluorobutane carboxylate
- PFBS - Perfluorobutane sulfonate
- PFHxS - Perfluorohexane sulfonate
- PFOA - Perfluorooctane carboxylate
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