

Note: This is a reference cited in *AP 42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.



EXTRUDED
LATEX THREAD

Globe
MANUFACTURING CO.

456 BEDFORD STREET · FALL RIVER, MASS. 02720

CODE 617 674-3585
CABLE ADDRESS GLOBELAST

SYNTHETIC FIBERS
AP-42 Section 5.19
Reference Number
50

August 26, 1981

Central Docket Section (A-130)
Attention: Docket Number A-80-T
U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20460

RECEIVED
ENVIRONMENTAL PROTECTION
AGENCY

SEP 15 1981

Gentlemen:

CENTRAL DOCKET
SECTION

We respectfully request that the enclosed copies of information sent to Mr. Don Goodwin at Research Triangle Park be included in the "Docket" Number A-80-7.

Very truly yours,

GLOBE MANUFACTURING CO.

RICHARD LEGENDRE
CHIEF ENGINEER

RL:hg
Enc.

Glospan
GLOBE SPANDEX FIBER



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August 25, 1981

Mr. Don R. Goodwin, Director
Emission Standard & Engineering Division
U.S. Environmental Protection Agency
Research Triangle Park
North Carolina 27711

Dear Mr. Goodwin:

We have received and reviewed your proposed "New Source Performance Standards for Synthetic Fiber Production Facilities" and appreciate the opportunity to provide critical comment prior to final promulgation of these regulations.

As we have previously stated to your Mr. Farmer and Mr. Zerbonia of P.E.S., Globe considers most, if not all of its equipment and technology to be proprietary information. The fact that Globe is the only synthetic (spandex) fiber producer to have developed the art of reaction spinning in the entire United States leads us to believe we are unique and that trade secrets must be closely guarded. Because of this, P.E.S. did not conduct a process inspection and the proposed standards were developed without any significant input from Globe. We trust our present input will result in a revision to your proposed standards which takes into consideration our unique circumstances.

We offer the following points to demonstrate that the proposed NSPS are not germane to our process:

1. All of the models used, except one, were of dry-spinning processes which are totally different than reaction spinning.
2. The only wet-spinning model was based on water soluble solvents (DMAC) whereas our solvent is toluene which is immiscible;
3. Although carbon fouling was mentioned in the BID (pg. 4-18) it was not incorporated into any of the models. In our questionnaire response to P.E.S., we indicated that carbon fouling was a major problem (question #30) in our process.

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Mr. Don R. Goodwin, Director

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4. Carbon losses have been estimated by P.E.S. at 30 tons per year for the entire synthetic fiber industry (pg. 7-11). Actual carbon losses at Globe, as a result of reactivation of fouled carbon, amount to 20 tons per year.
5. The summary of the NSPS (pg. 18) and the discussion in the BID indicate that the most significant variable affecting the overall level of solvent recovery is the number and efficiency of the capture devices. At Globe, the entire room containing the spinning operation is vented to carbon adsorption as is our oven exhaust. We have already minimized fugitive emissions.
6. Emission rates are based on control devices that are 98% efficient. In our questionnaire response (question 34) we indicated a recovery of about 85% , yet, this was apparently also disregarded when the NSPS models were developed by P.E.S.
7. Economic analysis by P.E.S. indicate a net annual savings if Alternative III is adopted, however, many of the assumptions made by P.E.S. are not universally valid. In Globe's case, the carbon adsorption system does not operate at a profit.
8. The P.E.S. report concludes that expansion of production facilities would not be hampered by implementation of the NSPS. Since the reaction spinning process could not meet the requirements of the new standards, all expansion would be prohibited or would have to be constructed outside of the United States.
9. Although the summary states that this regulation will not have significant impact on any small entities, it most certainly will have dramatic impact on Globe's spandex fiber production. Since the production of all spandex, TFE-fluorocarbon, and vinyon combined only account for 0.2% of U.S. man-made fiber production, we certainly must qualify as a small entity in the synthetics fiber industry.

We believe that the installation and operation of carbon adsorption systems by Globe represents the application of the best demonstrated system of continuous

Globe

Mr. Don R. Goodwin, Director

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emission reduction and that we are complying with the intent of the Clean Air Act. We also believe our process is unique in the industry and that it would be both economically and technically impossible to comply with the proposed New Source Performance Standard. We believe a better understanding of our unique position will result in a further subcategorization for reaction spinning if not total elimination from your new standards.

We would appreciate the opportunity to discuss the standards as they apply to Globe with you and/or your staff at your earliest convenience. We are anxiously awaiting your reply.

Very truly yours,

GLOBE MANUFACTURING CO.

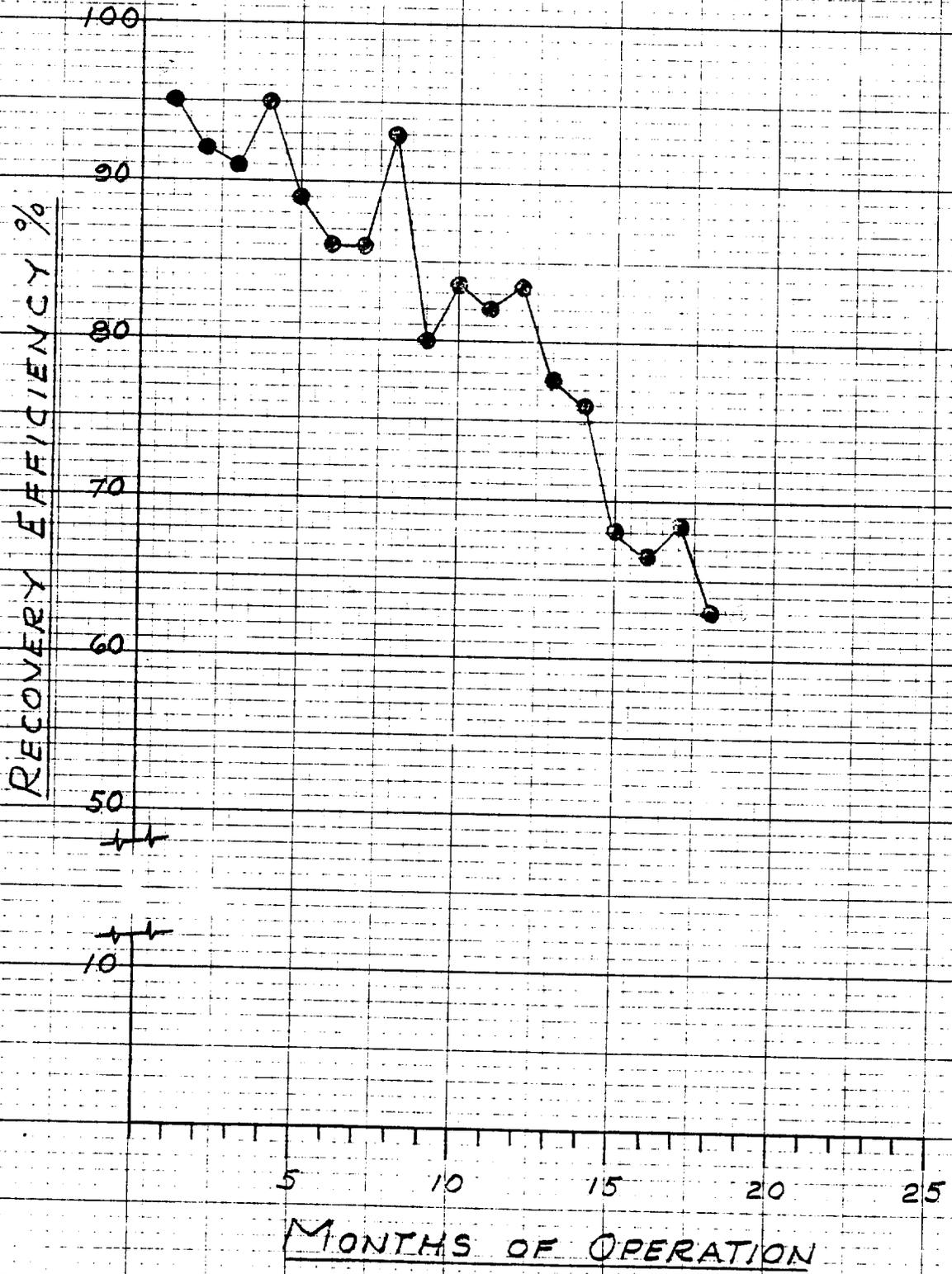


RICHARD LEGENDRE
CHIEF ENGINEER

RL:hg

cc: Central Docket Section

MONTHLY TOLUENE RECOVERY
AS A FUNCTION OF CARBON AGE



MADE IN U.S.A.

10 X 10 PER INCH

ESTIMATED ANNUALIZED COSTS (PER BID w/ADJUSTMENT)

NOTES					
	<u>DIRECT OPERATING COSTS</u>				
1	3 OPERATORS	324000			
	SUPERVISOR	48600			
2.	OPERATING MATERIALS	156378			
	MAINTENANCE LABOR	324000			
	MAINT. MATERIAL	46450			
3	ELECTRICITY	198332			
4	STEAM	414892			
	WASTE DISPOSAL	16483			
		<u>1 528135</u>			
	<u>INDIRECT OPERATING COSTS</u>				
	OVERHEAD	564850			
	PROPERTY TAX	15483			
	INSURANCE	15483			
	ADMINISTRATION	30966			
	CAPITAL RECOVERY COST	185801			
		<u>812583</u>			
	<u>TOTAL COSTS *</u>	<u>2 340718</u>			
	<u>CREDITS</u>				
5	RECOVERED SOLVENT	1 438323			
	<u>NET ANNUAL LOSS</u>	<u>902395</u>			
	 <u>NOTES:</u>				
1	3 OPERATORS USED TO CONTROL TWO SEPARATE PLANTS				
2.	COST OF CARBON REPLACEMENT & REACTIVATION				
3.	BASED ON ACTUAL USAGE OF \$0.0635 IN MASS. & \$0.0263 IN N.C.				
4.	BASED ON ACTUAL USAGE @ \$7.00/100 LBS ACTUAL COST				
5.	BASED ON PROJECTED VALUE OF \$1.77/GAL				

TABLE 8-16. BASIS FOR ESTIMATING ANNUALIZED COSTS
FOR REGULATORY ALTERNATIVES

<u>Direct Operating Costs</u>	
(1) Operating Labor	
Direct Operator	\$108,000/yr/man/shift
Supervision	15 percent of direct labor
(2) Operating Materials	per plant control process
(3) Maintenance	
Labor	Equal to operating labor
Material	3 percent of total capital costs
(4) Utilities	
Water	\$0.25/1000 gal.
Electricity	\$0.04/kWh
Steam	\$4.0/1000 lbs.
(5) Waste Disposal	1 percent of total capital costs
<u>Indirect Operating Costs</u>	
(6) Overhead	80 percent of operating and maintenance labor plus maintenance materials
(7) Property Tax	1 percent of total capital costs
(8) Insurance	1 percent of total capital costs
(9) Administration	2 percent of total capital costs
(10) Capital Recovery Costs	12 percent of total capital costs
<u>Credits</u>	
(11) Recovered Solvent	dependent on specific plant process and recovery system
