

Interoffice Memorandum

TO (Name and Location)	J. Chervenka - Dallas	DATE	2-27-81
FROM (Name and Location)	M. A. John - Pampa	REFERENCE NO.	MAJ-118-81

PAMPA RFA 331-571
PLANT BREATHING AIR SYSTEM
-MOB-

PLAINTIFF'S EXHIBIT

CEL-1027

Capital	\$321,000
Expense	<u>30,000</u>
Total	\$351,000

Pampa Plant requests \$351,000 to assure that all users of breathing air are supplied with breathing quality air that meets OSHA requirements.

Presently, the breathing air system consists of tie-ins to the instrument/service air system with backpacks being provided for emergency use. The instrument/service air system is also used as a source for various process uses. On several occasions, process chemicals have been identified in the system.

The breathing air system having instrument/service air as its supply is not safe, in our opinion, and is in direct violation of OSHA standards due to process interconnections, lack of proper supply filtering and no continuous contaminant monitoring.

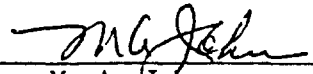
The proposed facilities will provide a separate breathing air system to include purification of compressed air, plant wide distribution network and in-unit distribution. Total carbon and carbon monoxide monitors will be part of the new system as well as marked lines and strict conformance to the plant connection standard. Alarms will be provided to warn of any condition causing loss of air quality or quantity.

The new facilities will ensure that all breathing air is safe and will meet OSHA requirements.

Funds for this project are included in the 1981 Capital Plan (\$731M) and Expense Budget.

This project will not have any impact on Plant Energy Consumption and will not require additional headcount.

Facilities will be operational 10 months after approval and will be closed 13 months after approval.


M. A. John

MAJ:mb

010519

REQUEST FOR APPROPRIATION

DEPARTMENT	Engr./Maint.	PLANT	Pampa	DIVISION	Chemical	NUMBER	831-571
DATE						2-25-81	
ESTIMATE GRADE						10%	
AMOUNT						CAPITAL	321,000
COST						EXPENSE	30,000
TOTAL						351,000	
Complete the request form provided as follows: using additional sheets if necessary: 1. Object, 2. Description of the problem and proposed solution and facilities (indicating essential differences), 3. Justification, 4. Project and Expenditure Schedule.							
Object: Provide a plant breathing air system that will be safe and meet OSHA requirements.							
Description: Present Operation & Facilities At present, instrument air from the instrument and service air system is used as breathing air for air line masks used for routine vessel entry, entry and 30 minutes backpacks are used for emergencies. Currently, there are numerous process tie-ins to the present instrument/service distribution system and in a plant-wide inspection, approximately 50 such tie-ins were identified. On several occasions, process chemicals have been identified in the instrument/service air system. The plant breathing air system is currently applied as a direct violation of OSHA standards due to the recognized interconnecting high process operating back of proper filtration and contaminant monitoring.							
Proposed Operation & Facilities: The proposed facilities consist of standard purification units (multiple capacity) and maintenance units, multiple air compressors, new headers for plant distribution and new unit distribution systems. Outlets will be provided only at normal use points including a station tower where breathing air is usually required. Backpacks will continue to be used for emergencies, for maintenance and for emergency monitoring. A shutdown of the breathing air system will be made in case of compressor suction contamination. No tie-in except breathing air buffers will be made on the distribution system. Alarms will be installed to warn of any condition causing a loss of air quality or quantity.							
Justification: The present breathing air system cannot be contaminated and is felt to be unsafe. It is also in direct violation of OSHA standards. The Occupational Safety and Health Administration (in 29 CFR 1910.134) requires that all breathing air meet at least the requirements of the specific regulations for Grade "D" breathing air as described in the Compressed Gas Association Commodity Specifications G-71-1966 (20 ppm CO, 1000 ppm CO₂, 5 ppm H₂S or condensed hydrocarbons). To achieve the necessary quantity and quality of breathing air needed, the above facilities are required.							
REMAINING						010520	
ENGINEERING	MANAGER	CONTROLLER	ENGINEERING	MANUFACTURING	MANAGER	CORPORATE	

IV. Timing

This project will be operational 10 months after funds approval and closed 13 months after approval.

V. Engineering & Construction

Engineering and construction will be done by the Pampa Engineering/Maintenance Department, utilizing contract draftsmen and labor as required.

VI. Patents

No patent infringement or patentable items are involved.

VII. Headcount

No change in headcount will result from this project.

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ESTIMATE SHEET

TITLE Plant Breathing Air System					
ESTIMATE NO 331-571		W O		DATE 2-23-81	
LOCATION		DEPT. Engr./Maint.			
ITEM	DESCRIPTION	CAPITAL		EXPENSE	
		MATERIAL	LABOR	MATERIAL	LABOR
1	Equipment				
	Monitors and Purifiers	35,000	6,000		
2	Piping				
	Headers, Manifolds and Supports	55,600	96,100		
3	Instrumentation				
	Alarms and controllers	7,500	7,200		
4	Electrical				
	Equipment and Building	5,000	7,000		
5	Painting and Marking	4,000	10,000		
6	Building	7,000	7,000		
	Direct Material & Labor	114,100	133,300		
	Engineering	22,000			
	Construction Overhead			30,000	
	Escalation	13,200	11,400		
	Contingency	14,000	13,000		
	Total Material and Labor	163,300	157,700	30,000	
	Total Capital and Expense	321,000		30,000	
	Total Project	351,000			
APPROVED		DATE			

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COMPARISON OF ALTERNATIVES

FINANCIAL COMPARISON OF ALTERNATIVES			
	PROPOSED	ALT. II	ALT. I
TOTAL INVESTMENT	\$ 351,000	\$	\$ 711,000
LONG TERM OPERATING INCOME	\$	\$	\$
DCF RATE	%	%	
EXTRA INVESTMENT ABOVE NEXT LOWER ALTERNATIVE	\$	\$	\$
INCREASE/DECREASE IN LONG TERM AVERAGE OPERATING INCOME AFTER TAX OVER NEXT LOWER ALTERNATIVE	\$	\$	\$
DCF RATE ON EXTRA INVESTMENT	%	%	
DESCRIPTION OF ALTERNATIVES			

Alternate #1

The funds noted (\$711,000) would provide a totally separate system to include air compressors and purifiers as well as a high pressure back-up and bottle filling compressor. The proposed alternate will fulfill all existing OSHA requirements and plant considerations.

Notes:

- 1) All Chemical Co. plants were canvassed and information obtained as to known OSHA violations, design requirements, and current practices. Because of their limited usage compared to ours, Bay City and Clear Lake can and do use bottled air. Bishop is currently reviewing their system.
- 2) Bottled air alternate was considered for use at Pampa and was found to be far in excess of the \$711 M considered in Alternate I. This is due to a combination of usage rates and availability to Pampa.
- 3) Portable compressors for localized use were also considered and discounted due to reliability, \$'s required for turnaround sizing, maintenance requirements and service contaminants monitoring.

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ENVIRONMENTAL CONTROL DATA

RFA NO. 331-571		PLANT Pampa		DIVISION Chemical	
AMOUNT OF ENVIRONMENTAL CONTROL EXPENDITURE IN PROJECT					
CAPITAL EXPENDITURE		PROJECT EXPENSE		TOTAL COST	
AMOUNT (000's)	% TOTAL CAPITAL	AMOUNT (000's)	% TOTAL EXPENSE	AMOUNT (000's)	% TOTAL CAPITAL AND EXPENSE
	None		None		None
MAJOR ITEMS OF ENVIRONMENTAL CONTROL EQUIPMENT					
LIST AND SUB-TOTAL BY MATERIAL CONTROLLED	ITEM	CAPITAL (000's)	EXPENSE (000's)	TOTAL COST (000's)	% TOTAL CAPITAL AND EXPENSE
	TOTAL EXPENDITURE				
BRIEF DESCRIPTION OF THE PROBLEM, TYPE OF TREATMENT TO BE USED AND THE ANTICIPATED QUANTITATIVE RESULTS					

010524

RAW MATERIALS AND ENERGY
SOURCE SUMMARY
INSTRUCTIONS ON BACK

RFA NO. _____
COMPANY Chemical
DATE 2-23-81

TYPE	REQUIREMENTS	SOURCE	COMMITMENT
FOR RAW MATERIALS/FEEDSTOCKS			
N.A.			
FUEL AND ENERGY			
Electric	No impact on present consumption.	Plant power under existing contract w/SWPS.	
AUXILIARY CHEMICALS			

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