



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF AIR QUALITY CONTROL
Highland Building
121 South Highland Avenue
Pittsburgh, Pennsylvania 15206-3988
(412) 645-7100 (answers 24 hrs.)

December 19, 1988

Mr. Howard J. Cable
Chairman
Vanport Municipal Authority
285 River Avenue
Vanport, PA 15237

Dear Mr. Cable:

Please find attached a revised Plan Approval for the proposed Air Stripper (04-330-001A). A revision was made to special condition 4 to allow for an emission rate of less than one pound per hour. This was done based on my discussions with your consultants (Duncan, Lagnese and Associates, Inc.). The emission rate reflects the numbers supplied in the Plan Approval Application and was the value used in our dispersion calculations.

If you have any additional questions concerning this, please give me a call.

Sincerely,

Joseph P. Pezze
Regional Air Pollution
Control Engineer
Southwest Regional Office

cc: aqfile
W. Trach

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF AIR QUALITY CONTROL

PLAN APPROVAL

Permit No.:04-330-001A

Source: Air Stripper

Owner: Vanport Township Municipal Authority

Air :

Address: 285 River Avenue
Vanport, PA 15237

Cleaning:

Devices :

Attention: Howard J. Cable
Chairman

Plant:

Location:Vanport Township

County: Beaver

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and with Chapter 127 of the Rules and Regulations of the Department of Environmental Resources, The Department on 12/19/88 approved plans for the construction of the above indicated air contamination source(s).

This PLAN APPROVAL expires 10/31/89

The plan approval is subject to the following conditions:

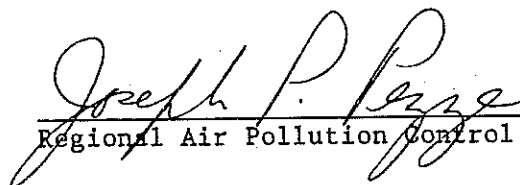
1. The source is to be constructed in accordance with the plans submitted with the application (as approved herein).

2. This plan approval shall also serve as a temporary operating permit in accordance with the provisions of 25 PA Code 127.23. This temporary operating permit is valid for 120 days from completion of construction (modification, reactivation, or installation of control equipment) to allow for startup and debugging of the source and/or control equipment, provided that notification of completion of construction is given to the Department within five (5) working days of the completion date. Should a period longer than 120 days be needed, a separate temporary operating permit renewal shall be obtained.

3. This plan approval is contingent upon receipt of all applicable Department permits or actions.

Notify the person noted below when the installation is completed so that the source can be inspected for issuance of an OPERATING PERMIT.

NOTE: Bruce A Fry
Engineer
(412) 645-7129


Regional Air Pollution Control Engineer

SPECIAL CONDITIONS FOR 04-330-001A

1. A schedule for sampling and testing of influent and effluent concentrations of trichloroethylene shall be submitted to the Department of Environmental Resource's Bureau of Air Quality at least thirty (30) days before initiating the air stripping operation.
2. The quality of water processed shall be monitored and results made available to the Department of Environmental Resources upon request.
3. The Department of Environmental Resources reserves the right to require appropriate control measures if testing shows the need for such controls.
4. The process shall not exceed 1 pound an hour trichloroethylene in the stack's effluent.



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January 17, 1989

Mr. Ron Bumiller, Chairman
Vanport Township Municipal Authority
205 River Avenue
Vanport, PA 15009

RE: January 11, 1989 Meeting Summary
PENNVEST Funding Issues
Vanport Township Municipal Authority

Dear Mr. Bumiller:

At the request of Representative Nicholas Colafella, a meeting was held at his office in Monaca on January 11, 1989 between representatives of the Vanport Township Municipal Authority, the Department, and Mark Leevan, Deputy Director of the Pennsylvania Infrastructure Investment Authority. The purpose of the meeting was to resolve on-going design and cost-effectiveness questions so that funding for VTMA's trichloroethylene removal project can receive final consideration by the PENNVEST Board.

Much of the project delay has been due to misunderstanding over the minimum treatment requirements recommended by the Department and the final project design and associated costs as submitted by VTMA and their engineer. The specific issues resolved at the meeting are as follows:

1. Certain monitoring costs and the basic sole source contract between VTMA and the Ohio Drilling Company were incurred because of the emergency nature of the problem. The Department concurs over the inclusion of these costs with the final PENNVEST application. Mr. Leevan also indicated that these items could be funded.
2. Mr. James Ryan of Duncan-Lagnese & Associates, Inc. indicated in a December 5, 1988 letter to Mr. Paul Marchetti, PENNVEST Executive Director, that the Department has required a single-tower air stripper. It was agreed that the Department has not mandated a single-tower; the single tower has been permitted by the Department as submitted by VTMA.
3. The Department agrees that refitting the five existing wells with low service pumps is necessary as stated in Mr. Ryan's December 5 letter. Provision of high service pumps to pump from the clearwell into the distribution system is also necessary, along with new chlorination equipment. The Authority should meet with their engineering consultant as soon as possible to obtain a clear cost breakdown on these items.

1/18/89 Copy to Brooks
Bumiller
and Repastak
and Board

4. The TCE design concentration change was from 100 ppb to 1,000 ppb, not 5,000 ppb as indicated by Mr. Ryan. The Authority's facility permit application specified 1,000 ppb removal and was so permitted by the Department on November 4, 1988. This design parameter confirms the Department's recommendation of 26 feet for tower height. Mr. Ryan confirms a similar height of 30 feet for 1,000 ppb removal. The 40 feet specified by the Authority in their October facility application therefore represents overdesign. The Authority has agreed to consider reducing the tower height by 10 feet to reduce costs. The final decision on tower height is the Authority's. The Department's November 4 permit is for construction of the 40-foot tower proposed by the Authority; it does not require a 40-foot tower.
5. The Department has recommended variable speed blowers for more efficient energy utilization and better treatment control in the event of varying TCE concentrations. The Authority agrees that variable speed blowers are to be provided.
6. DER has not recommended demolition of the two existing underground chlorine contact tanks, only discontinuing their use. Expanding the size of the proposed clear well will provide the necessary contact time which is not presently available with the two underground tanks. The Authority has agreed with this recommendation.
7. The Department agrees that provision of a gas chromatograph will give the Authority better control of treatment requirements on a day-by-day basis.
8. It was agreed that the legal fee of \$10,000 should be reduced to \$1,000.
9. A contingency cost of 15% is still considered high by both the Department and PENNVEST. Further cost breakdown by the Authority's engineer is required.
10. Use of stainless steel rather than fiberglass for tower construction is a more expensive alternative; selection of stainless steel is up to the Authority and its engineer. It was agreed that the Authority would pursue additional cost comparisons on this item. Yearly painting or other maintenance of fiberglass could substantially affect long-term costs associated with the tower. Use of stainless steel is an option of the Authority and is not mandated by the Department.
11. All parties agreed that the engineering cost items listed on page 5 of Mr. Ryan's letter need more definition as to specific activities and the costs associated with them. The Authority agreed to meet with its consultant and provide additional cost breakdown items to the Department by January 31.

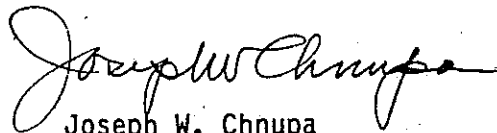
January 17, 1989

12. The Department cannot recommend the proposed pilot study on iron and manganese removal for funding by PENNVEST, however, providing the actual equipment for protection of the tower can be approved for this project. Mr. Leevan agreed that a pilot study is not appropriate for this project.
13. Mr. Leevan also indicated the need to obtain a clear commitment from Brighton Township officials over continued water service by the Vanport Township Municipal Authority, Brighton Township's failure to commit to either continued participation or discontinuance makes it impossible to properly calculate the financial capability of the Authority in meeting PENNVEST loan/grant criteria. Both the Authority and the Department will approach Brighton Township on this issue.

Revisions to the plans and specifications and all additional information requested by PENNVEST must be completed and submitted to the Department by January 31, 1989. All PENNVEST projects for water system improvements will be evaluated at a technical ranking meeting in mid-February. It is imperative that all information be provided by January 31, 1989 in order to properly evaluate your project.

If you have any questions on this letter or if we can be of any further assistance, please do not hesitate to call.

Sincerely,



Joseph W. Chnupa
Sanitarian Regional Manager
Bureau of Community Environmental Control

JWC/lid

cc: File

Mr. Sam Holland
Mr. Tom Franklin
Mr. Tom Vayansky
Mr. David Plank
Mr. Charles Duritsa
Mr. Mark Leevan
Mr. John Fruehstorfer
Representative Nicholas Colafella
Senator James Ross

PENNSYLVANIA INFRASTRUCTURE INVESTMENT AUTHORITY
"PENNVEST"

P. O. Box 1344
22 South Third Street
Harrisburg, Pennsylvania 17105
(717) 787-8137

Governor Robert P. Casey, Chairman

February 13, 1989

Vanport Township Municipal
Authority
285 River Avenue
Vanport, PA 15009

&

Brighton Township Water
Authority
1300 Brighton Road
Beaver, PA 15009

Dear Sirs:

I am writing in regards to Vanport Township Municipal Authority's application to PENNVEST for \$1,396,400 to finance a TCE removal system. As you know, this project raised a series of questions. With excellent cooperation from all parties, we have been able to work on and address most of the issues, however, there is at least one major item still outstanding. This relates to the Intermunicipal Agreement between the Vanport Township Municipal Authority and the Brighton Township Water Authority covering the bulk purchase of water by Brighton from Vanport. This agreement represents over 40% of the revenues which Vanport receives in any given year, and thus has a significant impact on the financial condition of Vanport and the type of financing that PENNVEST may be able to provide. This agreement, as you know, expires in 1991 and the term of any PENNVEST financing would be likely to run well beyond that date.

PENNVEST's independent financial advisor has already advised that if the PENNVEST Board approves this financial assistance request that any such approval be conditioned upon an extension of the Intermunicipal Agreement to a term acceptable to PENNVEST, which would likely be equal to the term of any PENNVEST financial assistance.

We recognize that negotiations between the two Authority's are ongoing and we do not mean to be threatening or impose added pressure to a delicate situation. However, we find it impossible to make a firm recommendation to the Board on this project with such a major part of the financing unresolved. Therefore, we will not be able to take this project to the Board until some agreement between Brighton and Vanport has been reached.

In order for us to complete our analysis and provide the Board members with information in advance of the March 15, 1989 Board meeting, we will need some resolution to this issue by March 1, 1989. I recognize that this is an

Vanport Township Municipal Authority - Brighton Township Water Authority
Page 2
February 13, 1989.

extremely tight timetable, however, it is necessary in order to meet the March meeting requirements. If we do not hear from you, it will mean that the Vanport project will need to be deferred to a future meeting.

If there is anything that PENNVEST, DER, or any other Commonwealth agency can do to help negotiate and expedite a solution, please let us know.

If Brighton Township is going to continue to purchase water from Vanport, either at the current level or some portion thereof, we will need to have a copy of the annual financial statements for the years 1985, 1986 and 1987 to ensure that we properly assess the impact of this project on the Brighton customers as well as on the Vanport customers in our recommendation to the PENNVEST Board.

We are hopeful of coming up with a solution that is equitable to all. Thank you again for your cooperation in this matter. If you have any questions or need additional information, please feel free to contact me at (717) 787-8137.

Sincerely,



Mark A. Leevan
Deputy Executive Director

cc: Senator Ross
Representative Colafella

duncan, lagnese & associates, inc.

3185 BABCOCK BOULEVARD, PITTSBURGH, PA. 15237
TELEPHONE: (412) 931-8400 • (412) 364-5403

consulting engineers



February 13, 1989

Mr. David Brooks, Superintendent
Vanport Township Municipal Authority
285 River Avenue
Vanport, Pennsylvania 15009

INCREMENTAL ANNUAL COSTS
TCE REMOVAL PROJECT

Dear Mr. Brooks:

Pursuant to your request, we have made a preliminary estimate of incremental annual costs associated with the TCE removal project. We emphasize that these costs are incremental and in addition to current annual costs for operating the water system. We also emphasize that these cost estimates are preliminary in nature.

The following assumptions have been made in preparing this preliminary cost estimate:

1. The estimated project cost will be \$1,500,000.
2. A PennVest loan would be 1% for 20 years.
3. Conventional financing would be 8% or 10% for 20 years. Two interest rates have been used for comparison purposes.
4. Annual average water production will be 1,400,000 gallons per day.
5. Labor cost is \$30,000/person/year including wages, benefits, and employee costs (i.e. FICA, Workmens Compensation, Insurance, etc.).
6. Power cost is \$0.06/KW
7. Chemical cost (sodium hexametaphosphate, 36% sol.) \$8/gallon.
8. Total iron and manganese is 0.5 mg/l.

February 13, 1989

Mr. David Brooks, Superintendent
Vanport Township Municipal Authority
285 River Avenue
Vanport, Pennsylvania 15009

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7. Chemical cost (sodium hexametaphosphate, 36% sol.) \$8/gallon.
8. Total iron and manganese is 0.5 mg/l.

February 13, 1989
Page Two

Based on the above assumptions, our preliminary estimate of incremental total annual costs for TCE removal are shown below:

ESTIMATED TOTAL ANNUAL COST
TCE REMOVAL
VANPORT TOWNSHIP MUNICIPAL AUTHORITY
BEAVER COUNTY, PENNSYLVANIA

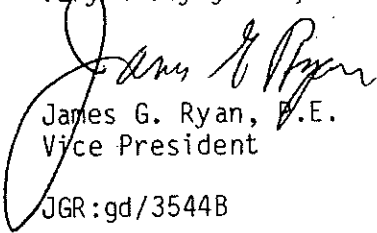
| | <u>PennVest Loan</u> | <u>Conventional Financing</u> | |
|---------------------------|--------------------------|-----------------------------------|--------------|
| Interest Rate | 1% | 8% | 10% |
| Term | 20 years | 20 years | 20 years |
| Amount Financed | \$1,500,000 | \$1,500,000 | \$1,500,000 |
| Capital Recovery Factor | 0.05542 | 0.10185 | 0.11746 |
| Annual Debt Service | \$83,000 | \$152,000 | \$176,000 |
| Operation and Maintenance | | | |
| Labor | \$ 30,000 | \$ 30,000 | \$ 30,000 |
| Power | 28,000 | 28,000 | 28,000 |
| Chemicals | 12,000 | 12,000 | 12,000 |
| Parts, Supplies, Service | <u>7,000</u> | <u>7,000</u> | <u>7,000</u> |
| TOTAL ANNUAL COST | \$160,000 | \$229,000 | \$253,000 |

Please note that the above estimates do not include any cover for conventional financing and do not include a contingency on operation and maintenance costs. Further, we would caution against using the above estimates for any consideration of rate setting as they are very preliminary in nature.

February 13, 1989
Page Three

If you have any questions or wish any additional information, please contact the undersigned.

Very truly yours,



James G. Ryan, P.E.
Vice President

JGR:gd/3544B

cc: Avis Watt
Dennis E. Graham