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6AAH



STATE OF OKLAHOMA
OFFICE OF THE GOVERNOR
OKLAHOMA CITY

DAVID L. BOREN
GOVERNOR

March 28, 1977



John C. White
Regional Administrator
EPA Region VI
First International Building
1201 Elm Street
Dallas, Texas 75270

Dear Mr. White:

Forwarded under separate cover are five (5) copies of Addendum I to Chapter IV of Oklahoma Air Quality Implementation Plan.

This Addendum is related to the required "Emission Offsets" pertaining to the proposed General Motors Assembly Plant for Oklahoma City.

The Oklahoma Air Quality Council endorsed the inclusion of this Addendum after public hearing at their regular meeting on March 27, 1977.

It is my understanding that this will satisfy the Federal ruling requirements for the proposed General Motors Facility and I would appreciate your prompt consideration of this matter.

Sincerely yours,

David L. Boren
DAVID L. BOREN



RECEIVED

APR 7 1977

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ADDENDUM I TO CHAPTER IV
Oklahoma State Implementation Plan
Emission Offset Agreements
In Re General Motors Permit Application

On some rare occasions, during Calendar Year 1975 and Calendar Year 1976, the core area of Metropolitan Oklahoma City has experienced minor violations of the adopted Ambient Air Standard for the pollutant oxidants. These violations are considered minor in that the maximum excursion during Calendar Year 1976 was less than double the stated Ambient Air Standard. However minor the violations might be, KPA determines that the Air Quality Control Region 184 is a non-attainment region for the pollutant photochemical oxidants.

A recent assessment of photochemical oxidant control strategy using the currently available KPA control strategy guidelines (Appendix J) suggested a 38 percent hydrocarbon emission reduction will be required to attain the primary Ambient Air Quality Standard in the Oklahoma City area. This percentage equates to 22000 tons of hydrocarbon per year. In that approximately three fourths of the emissions in the City area emanate from automobiles, substantial progress will not be made except with the attrition of uncontrolled automobiles. Thus, attainment is not forecast until in the mid 1980's.

Further, the State Board of Health promulgated Regulation 14, Permits Required as recommended by the Air Quality Council, January 1972 (amended June 1975), which requires in part that a permit be issued if "The Source as designed or modified does not endanger maintenance or attainment of any applicable Ambient Air Quality Standard (emphasis added).

In the fall of 1976 the State and Local Air Pollution Control Authorities were approached by representatives of the General Motors Corporation concerning installation of an Automobile Assembly Facility in the Metropolitan Oklahoma City area. This facility is estimated to emit a total of 3240 tons of hydrocarbons per year from several facilities within this source. This volume when added to the current estimated hydrocarbon inventory and subjected to the Best Available Control Projection Techniques (appendix J and rollback) indicated that this source would delay attainment a maximum of 18 months. Thus, it was determined by the Air Quality Service that in view of the (1) severity of current violations, (2) the benefit of the proposed facility to the community (3) the legislative guidelines laid down to the Air Quality Service and Air Council enabling legislation (63OS2001) and (4) the acknowledged inaccuracies of the projection techniques, that a possible delay of 18 months in achieving attainment was not of such a magnitude as to conclude this source in itself would "endanger attainment". Therefore, the State was of the opinion that, if the source installed Best Available Control Technology (BACT) and met the individual emission limitation regulations, a permit should be issued.

In December 1976 the EPA promulgated an interpretative ruling relating to issuance of permits in non-attainment areas. This ruling, among other things, requires that prior to issuance of a State Air Pollution Control Permit in a non-attainment area a greater than one for one emission reduction from existing sources must be obtained to accommodate the new source. The policy (rational) statement contained in part expressed threat of Federal intervention to quash any permit issued in contravention of this guideline.

Preliminary discussions between the prospective applicant, the State and Region VI of EPA ascertained the following positions.

(1) The Regional Administrator had no alternative but to insist the policy be accommodated.

(2) The State Control Agency felt it has no authority to promulgate regulations to specifically benefit entry of a new pollution source.

(3) The Company questioned the propriety of challenging the EPA position in a lawsuit or securing the required emission offset.

To resolve these conflicting positions, the Oklahoma City Chamber of Commerce used its office to negotiate the required offset requirements and agreements. These agreements, totaling not less than 3340 tons, are contained in Appendix 1 of this addendum. The calculations of emission reductions corresponding to each agreement is contained in Appendix 2 of this addendum.

STATE
OF
OKLAHOMA
THE ATTORNEY GENERAL
LARRY DERRYBERRY

STATE CAPITOL, OKLAHOMA CITY, OKLAHOMA 73105, TELEPHONE 684/281-3000



March 22, 1977

John White
Regional Administrator
Environmental Protection Agency
First International Building
1201 Elm Street
Dallas, Texas 75270

Dear Mr. White:

Relating to the General Motors' application to construct an auto assembly facility in Oklahoma City:

Enclosed are several agreements executed between the Oklahoma Commissioner of Health and companies owning crude oil storage tanks in the State of Oklahoma.

They are submitted with the General Motors' application to satisfy EPA's December 21, 1976 Interpretative Ruling requiring emission offsets in order to add new sources of greater than 100 tons in non-attainment areas.

The agreements herein are enforceable in Oklahoma, since they constitute binding contracts under Oklahoma law.

The agreements will also be enforceable by the Environmental Protection Agency, since they will be made part of the Oklahoma State Implementation Plan by the Oklahoma Air Quality Council and are hereby submitted as part of the required air quality analysis.

Sincerely,

A handwritten signature in cursive script, appearing to read "Larry Derryberry".

Larry Derryberry
Attorney General
State of Oklahoma

LD/jp
encls

STATE
OF
OKLAHOMA

Addendum 1, Appendix I
Chapter IV OKSIP

THE ATTORNEY GENERAL
LARRY DERRYBERRY

STATE CAPITOL, OKLAHOMA CITY, OKLAHOMA 73105. TELEPHONE 462/121-3771

March 22, 1977



John White
Regional Administrator
Environmental Protection Agency
First International Building
1201 Elm Street
Dallas, Texas 75270

Dear Mr. White:

It has come to my attention that a second method of complying with the requirements of the EPA Interpretative Ruling (FR 41, Number 246, page 55525) has been sought by the State Air Quality Service, the Oklahoma City Chamber of Commerce, and the Sun Company, which will be utilizing pollution control devices.

I have examined the suggested letters and believe there are three legal considerations which are key:

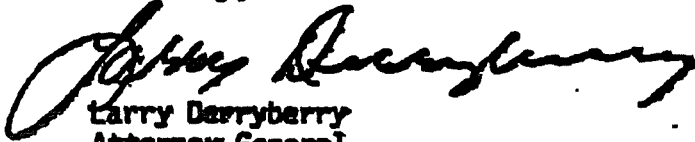
- (1) Does the Sun Company, by the language in the letter, effectively transfer its rights to use emission reductions for offset to the State of Oklahoma? Yes, the donative intent is present.
- (2) Are the representations of the Sun Company sufficient to guarantee action by the Company? In my judgment, they are. The funds for installation of the devices are budgeted and are a matter of company record. The Company officials are fully aware that reductions must be achieved by February 1, 1979. The Sun Company recognizes it will be subjected to sanctions of law if the reductions are not made.
- (3) Can the agreement be effectively incorporated in the Oklahoma State Implementation Plan so that necessary elements of enforceability are present? Yes, in the same fashion that the State Air Council can incorporate the consent agreements in Chapter 4 of the SIP to provide for EPA enforceability. The Sun letter, together with the Council's addendum to the SIP, pledges the reduction as an official state offset. The controls will be enforceable.

Having answered my principal questions affirmatively, I believe these letters effectively transfer rights to utilize emission reductions for offset to the

John White
March 22, 1977
Page 2

State of Oklahoma. Once the letter is incorporated into the State Implementation Plan by resolution of the Oklahoma Air Quality Council, then the reductions will be required under Oklahoma law, and, in my judgment, will give the State of Oklahoma and EPA the enforcement latitude required by the offset ruling (FR 4T, Number 246, page 55525).

Sincerely,



Larry Derryberry
Attorney General
State of Oklahoma

LD/jp

State Board of Health

STANLEY BRYANT, D.D.S., President
WALTER D. ATKINS, D.D.S., Vice President
JAMES H. BROWN, D.D.S., Secretary
JAMES H. BROWN, D.D.S., Treasurer
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JAMES H. BROWN, D.D.S., Member
JAMES H. BROWN, D.D.S., Member



Addendum 1, Appendix I
Chapter IV OKSIP *Acting Commission*

WALTER D. ATKINS, D.D.S., M.P.

Oklahoma

State Department of Health

Northeast 10th Street & Stonewall
Post Office Box 53251
Oklahoma City, Oklahoma 73105

March 18, 1977

Mr. W. W. Dickinson
Sun Oil Company
P.O. Box 820
Duncan, Oklahoma 73503

Dear Mr. Dickinson:

This letter acknowledges receipt of your March 10, 1977 letter, wherein you voluntarily relinquish to the State of Oklahoma your rights to utilize emission reductions as offset credit to satisfy EPA's ruling (FK 41, Number 246, page 55525), and wherein you authorize the Oklahoma Department of Health to utilize the reductions to aid new business growth in the Oklahoma City region.

We consider your letter to be the binding commitment of your company to control tanks 121 and 122 in Duncan, Oklahoma. In order to be enforceable emission offset, it must become part of the Oklahoma State Implementation Plan by action of the State Air Quality Council. The Council will incorporate your authorization as part of the SIP on March 22, 1977.

As you have been advised, your emission reduction will be used to partially offset the General Motors' Assembly Facility in the Oklahoma City area. That being the case, your controls, to be usable credit, will be required before the date on which the GM facility will be operational (approximately August, 1979).

Thank you for your civic-minded gesture.

Sincerely,


John W. Gallion, Chief
Air Quality Service

JWG:PL

cc Mr. Harold Elkin, Sun Oil
cc Mr. John C. White, EPA



PROJECTS GROUP
c/o A. DeWitt
Refinery Manager, Duncan Refinery

SUN OIL COMPANY POST OFFICE BOX 878, DUNCAN, OKLAHOMA 73105 (405) 258-4408

March 16, 1977

Mr. John W. Gallion
Chief Air Quality Service
Oklahoma State Dept. of Health
P. O. Box 53551
Oklahoma City, OK 73105

Dear Mr. Gallion:

This will acknowledge Mr. John W. Drake's letter of March 2, responding to our detailed questions concerning the implementation of the emission offset and significant deterioration policies by your department.

Mr. Drake's letter was very informative and thorough in its discussion of our concern for future expansion at our Duncan refinery. We found your department's interpretations reassuring concerning our intended plans for necessary additional processing facilities at our refinery.

Accordingly, we are proceeding and have budgeted programs for converting two existing 80,000 barrel capacity cone-roof crude oil tanks, numbers 121 and 122, to floating roof conservation storage. The emission reductions from these tanks, following conversion, are estimated at 1068 tons per year of hydrocarbons. We expect to accomplish these tank conversions well before your August 1, 1979 target date. Present plans call for the capital expenditure to be made in 1977 with completion in late '77 or early '78.

On the basis of your March 2 letter that these emission reductions will probably not be necessary for any offsets in connection with planned expansion at our refinery, we have no objection to the department of Health or any other appropriate authority utilizing these emission credits for community-initiated industrial expansion programs in the Oklahoma City region.

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Mr. John W. Gallion
March 10, 1977

While we are completely supportive of community development for the benefit of all regions in Oklahoma, we continue to have serious reservations concerning the applicability of the emission offset policy in its present form without substantial modifications. In the interim, however, we are very willing to cooperate with your department, other agencies and appropriate public groups in order to permit continued community development.

Yours very truly,

SUN PETROLEUM PRODUCTS COMPANY



M. M. Dickinson
Refinery Manager

jj

A G R E E M E N T

IN THE MATTER OF)
General Motors Permit Application)
Oklahoma City, Oklahoma)

FINDING:

(1) Pursuant to the authority of 63 Okla. Stat. Ann. §2002 (1971) the Oklahoma Board of Health has adopted the following listed Regulations for the protection and enhancement of Clear Air within the State of Oklahoma.

(a) Regulation 3 defines the Ambient Air Standard for the pollutant photochemical oxidant as 160 ug/M3 not to be exceeded more than one time annually.

(b) Regulation No. 14, Permits Required, states in part that authority to construct or modify will not be granted if the new sources will endanger attainment/maintenance of Ambient Air Standards.

(2) The Ambient Air Standard for Photochemical Oxidants has been exceeded on more than one occasion in the two proceeding calendar years in the metropolitan Oklahoma City area. Thus, the said City is considered as nonattainment.

(3) The Apco Oil Corporation owns and operates a petroleum refinery at Cyril, Oklahoma. Contained therein are petroleum

storage tanks known as tank numbers 118 and 119, used for the purpose of storing gasoline. These tanks are used to store gasoline, and therefore, are exempt from the hydrocarbon control regulations issued by the Oklahoma Board of Health pursuant to their statutory authority.

(4) The General Motors Corporation has filed an application to construct an automobile assembly facility in the metropolitan Oklahoma City area. This facility, when in operation, will emit more than 100 tons of hydrocarbon per year.

(5) The United States Environmental Protection Agency has stated in 41 F.R. 55528 (December 21, 1976) that states may issue permits in areas which exceed a national ambient air quality standard only if certain conditions are met.

(6) Condition 3 of the EPA ruling (41 F.R. 55529, December 21, 1976), states:

"Emission reductions ("offsets") from existing sources in the area of the proposed source (whether or not under the same ownership) are required such that the total emissions from the existing and proposed sources are sufficiently less than the total allow-

A G R E E M E N T

IN THE MATTER OF)
General Motors Permit Application)
Oklahoma City, Oklahoma)

FINDING:

(1) Pursuant to the authority of 63OS197T, Section 2002, the Oklahoma Board of Health has adopted the following Listed Regulations for the protection and enhancement of the Clean Air within the State of Oklahoma:

(a) Regulation 3 defines the Ambient Air Standard for the pollutant photochemical oxidant as 160 ug/M^3 not to be exceeded more than one time annually.

(b) Regulation No. 15, Control of Emission Organic Materials, requires in part that organic storage vessels utilize control devices specified in Section 15.21T. However, this Regulation exempts some organics, including crude oil.

(c) Regulation No. 14, Permits Required, states in part that authority to construct or modify will not be granted if the new sources will endanger attainment/maintenance of Ambient Air Standards.

AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma

Page 2

(2) The Federal EPA regards metropolitan Oklahoma City as a non-attainment area for photochemical oxidants.

(3) The Continental Pipe Line Company owns and operates a crude oil storage tank number 286 in Oklahoma County, Oklahoma. This tank is used to store crude petroleum and, therefore, is exempt from control of hydrocarbons, as per Air Pollution Control Regulation 15.27.

(4) The General Motors Corporation has filed an application to construct an automobile assembly facility in the metropolitan Oklahoma City area. This facility, when in operation, will emit more than 100 tons of hydrocarbon per year.

(5) The Federal EPA has stated in the Federal Register of December, 1975 that states should not issue permits in non-attainment areas to sources emitting more than 100 tons of a given pollutant without a corresponding emission offset from existing pollution sources. Nothing herein is to be construed as an adoption or indorsement of the said Federal EPA statement of interpretation.

IT IS THEREFORE AGREED:

In consideration of the State Commissioner of Health or his designee issuing permits to construct and operate the specified automobile

able emissions from the existing sources under the SIP prior to the request to construct or modify so as to represent reasonable progress toward attainment of the applicable NAAQS. Only intra-pollutant emissions offsets will be acceptable (e.g. hydrocarbon increases may not be offset against SO2 reductions).

IT IS THEREFORE AGREED:

In consideration of the State Commissioner of Health or his designee issuing permits to construct and operate the specified automobile assembly plant, the Apco Oil Corporation will relinquish and waive the regulatory exemption now being observed in regard to the aforesaid tank numbers 118 and 119.

In consideration of the Apco Oil Corporation relinquishing and waiving its right of exemption from control of the tanks, the Commissioner agrees to cause to be conducted, at state expense, necessary source inspections/tests, to assure that the control effectiveness of the devices utilized by Apco Oil Corporation on the tanks specified herein above is as agreed upon by the Apco Oil Corporation and the seller of the control device or devices. As further consideration, the Commissioner agrees to utilize any emission reductions achieved from the control of the said tanks

AGREEMENT

General Motors Permit Application
Oklahoma City, Oklahoma

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as offset credit to satisfy the requirements of the EPA interpretive ruling. (41 F.R. 55524, December 21, 1976, in order that new sources emitting more than 100 tons of hydrocarbon per year may be added in Air Quality Control Region 184.

~~Failure of the Apco Oil Corporation to bring the said tanks into conformance with the requirements of Regulation 15.211 prior to February 1, 1979, shall subject Apco Oil Corporation to the penalties associated with the failure to comply with the requirements of the Oklahoma Clean Air Act.~~ OK

By signature of the Company official on this Agreement, the Company acknowledges that it has reviewed this Agreement and believes it to be reasonable.

Having taken into account the seriousness of ambient air problems in Oklahoma City and the desirability and need for industrial growth in this area, The Commissioner of Health herewith determines that this Agreement is in conformity with the applicable laws and regulations and proscribes a reasonable approach to these conflicting problems. It is agreed, however, that should the Commissioner fail to issue the permit or permits for which these tonnage offsets are sought herein, or should the Environmental Protection Agency fail to sustain such permits when issued by the Commissioner, then this Agreement shall become null and void.

AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma.

APCO OIL CORPORATION

By: *John R. [Signature]* *W.D. Bell*
Sr. Vice President, Administration Commissioner of Health

Date: March 17, 1977 Date: 3/18/77

Date 3-18-77
Notary - Dorothy [Signature]
Notary Expires 6-3-78

AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma

Page 3

assembly plant, the Continental Pipe Line Company will relinquish and waive the Section 15.211 regulatory exemption now being observed in regard to the aforesaid tank number 286

In consideration of the Continental Pipe Line Company relinquishing and waiving its right of exemption from installation of control devices on the tank, the Commissioner agrees to cause to be conducted, at state expense, necessary source inspections/tests, to assure that the control effectiveness of the devices utilized by the Continental Pipe Line Company on the tank specified herein above is as agreed upon by the Continental Pipe Line Company and the seller of the control device or devices. As further consideration, the Commissioner agrees to utilize any emission reductions achieved from the control of the said tank as offset credit to satisfy the requirements of the Federal EPA Interpretative Ruling (41FR55524), published December 21, 1976 in order that the General Motors Corporation may build an assembly plant in metropolitan Oklahoma City, emitting more than 100 tons of hydrocarbon per year, in Air Quality Control Region 184.

Failure of the Continental Pipe Line Company to bring the said tank into conformance with the requirements of Regulation 15.211 prior to February 1, 1979 shall subject Continental Pipe Line Company to the penalties associated with the failure to comply with that requirement

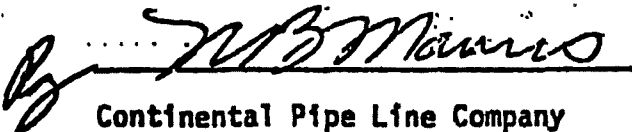
AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma

Page 4

of the Oklahoma Clean Air Act, subject to any defenses or other grounds for relief otherwise available to Continental Pipe Line Company under the Oklahoma Clean Air Act.

By Signature of the Company official on this Agreement, the Company acknowledges that it has reviewed this Agreement and believes it to be reasonable.

Having taken into account the seriousness of ambient air problems in Oklahoma City and the desirability and need for industrial growth in this area, the Commissioner of Health herewith determines that this Agreement is in conformity with the applicable laws and regulations and prescribes a reasonable approach to these conflicting problems. It is agreed, however, that should the Commissioner fail to issue the permit or permits for which this tonnage offset is sought herein or should the Environmental Protection Agency fail to sustain such permits when issued by the Commissioner, then this Agreement shall become null and void.


Continental Pipe Line Company


Commissioner of Health

Date: 3/16/77

Date: 3/18/77

A G R E E M E N T

IN THE MATTER OF)
General Motors Permit Application)
Oklahoma City, Oklahoma)

FINDING:

(1) Pursuant to the authority of 63OS1971 Section 2002 the Oklahoma Board of Health has adopted the following listed Regulations for the protection and enhancement of Clean Air within the State of Oklahoma.

(a) Regulation 3 defines the Ambient Air Standard for the pollutant photochemical oxidant as 160 ug/M^3 not to be exceeded more than one time annually.

(b) Regulation No. 15, Control of Emission Organic Materials, requires in part that organic storage vessels utilize control devices specified in Section 15.211. However, this Regulation exempts some organics, including crude oil.

(c) Regulation No. 14, Permits Required, states in part that authority to construct or modify will not be granted if the new sources will endanger attainment/maintenance of Ambient Air Standards.

(2) The Ambient Air Standard for Photochemical Oxidants has been exceeded on more than one occasion in the two preceding calendar years in the metropolitan Oklahoma City area. Thus, the said City is con-

AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma

Page 2

sidered as nonattainment.

(3) Champlin Petroleum Company currently owns and utilizes three 80,000 Barrel crude oil storage tanks at their Noble Station located @ 13th and Bryant Streets in Oklahoma City, Oklahoma. These tanks are used to store crude petroleum and, therefore, are exempt from control of Hydrocarbons, as per Air Pollution Control Regulation 15.27.

*only 3
but have 20
Permit 20*

(4) General Motors Corporation has filed an application to construct an automobile assembly facility in the metropolitan Oklahoma City area. This facility, when in operation, will emit more than 100 tons of hydrocarbon per year.

(5) The Federal EPA has stipulated in the Federal Register of December, 1976 that states will not issue permits in nonattainment areas to sources emitting more than 100 tons of a given pollutant without a corresponding emission offset from existing pollution sources.

IT IS THEREFORE AGREED

In consideration of the State Commissioner of Health or his designee issuing permits to construct and operate the specified automobile assembly plant, Champlin Petroleum Company will relinquish and waive the regulatory exemption now being observed in regard to the aforesaid 80,000 barrel crude oil storage tanks.

In consideration of Champlin Petroleum Company relinquishing

AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma

Page 3

and waiving its right of exemption, the Commissioner agrees to cause to be conducted, at state expense, necessary source inspections/tests, to assure that the control effectiveness of the devices utilized by Champlin Petroleum Company is as agreed upon by Champlin Petroleum Company and the seller of the control device or devices. As further consideration, the Commissioner agrees to utilize any emission reductions achieved from the control of the said tanks or removal of the said tanks from service as offset credit to satisfy the requirements of the Federal EPA interpretive ruling (41FR55524), published December 21, 1976, in order that new sources emitting more than 100 tons of hydrocarbon per year may be added in Air Quality Control Region 184.

Failure of the Champlin Petroleum Company to bring the said tanks into conformance with the requirements of Regulation 15.211 or remove uncontrolled tanks from service prior to September 1, 1979, shall subject Champlin Petroleum Company to the penalties associated with the failure to comply with the requirements of the Oklahoma Clean Air Act.

By signature of the Company official on this Agreement, the Company acknowledges that it has reviewed this Agreement and believes it to be reasonable.

Having taken into account the seriousness of ambient air problems in Oklahoma City and the desirability and need for industrial growth in

AGREEMENT
General Motors Permit Application
Oklahoma City, Oklahoma

Page 4

this area, the Commissioner of Health herewith determines that this Agreement is in conformity with the applicable laws and regulations and prescribes a reasonable approach to these conflicting problems. This Agreement shall become null and void if the any one or all of the following occur:

- (a) The Commissioner fails to issue the permit or permits for which these tonnage offsets are sought herein.
- (b) The Environmental Protection Agency fails to sustain such permits when issued by the Commissioner.
- (c) General Motors elects not to construct said plant, or
- (d) General Motors has not commenced construction within one (1) year after the permit is issued.

J. M. D. T. C.
A
QEB
 Champion Petroleum Officer

W. D. Bell
 Commissioner of Health

Date: 3/1/77

Date: 3/18/77

Date - 3-18-77
 Notary - Dorothy Williams
 Notary Expires 6-3-78

Conoco Tank 286
Sec 32 - 12N - - 2W
Oklahoma County

*Del City
East of OK City*

*East of Vicinity on NE 10th St
1/2 block on S side of 10th St*

Working Loss

Fivefold

$$\frac{43500 \text{ HBL} \times 42 \text{ Gal/H} \times 7.3 \text{ lbs/1000 Gal} \times 365 \text{ day/year}}{1000 \text{ Gal} \times 2000 \text{ lbs/ton}} = 2434 \text{ tons/year}$$

Loss (Breathing Loss)

$$\frac{55000 \text{ HBL capacity} \times 42 \text{ Gal/HBL} \times 365 \text{ day/yr} \times .17 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lbs/ton}} = 72 \text{ tons/year}$$

Loss (Standing Loss) *from floating roof*

$$\frac{55000 \text{ HBL Cap} \times 42 \text{ Gal/H} \times 365 \text{ day/yr} \times .071 \text{ lb/1000 gal}}{1000 \text{ Gal} \times 2000 \text{ lbs/ton}} = 29.9 \text{ tons/year}$$

Equals

Reduction of 2476 tons/year

May 16 1977 John Drake says OK State checked on throughput & really is that high. Will send copy of letter from Conoco confirming throughput.

Champlin Petroleum Corp
Three Tanks at
13th Bryant St.
Oklahoma City

Individual tank through put was not available, thus, the total annual through put is equally divided to each of the three tanks.

6,833,105 B/Y — 3 Tanks = 2,277,701 B/Y/Tank

Working Loss

2,277,701 B/Y X 42 Gal/B X 7.3 lbs/1000 Gal = 349 Tons
1000 Gal X 2000 lbs/Ton

Plus Breathing Loss

80,000 BBL X 42 Gal/B X .17 lb/1000 Gal X 365 day/year = 104 Tons
1000 Gal X 2000 lb/Ton

Less Standing Loss

80,000 BBL X 42 Gal/B X .071 lb/1000 Gal X 365 day/year = 43 Tons
1000 Gal X 2000 Tons

Total Reduction 410-Tons/Tank

Times (3) Tanks equal 1230 Tons Total Reduction

APCO Oil Corp.
Cyril Refinery
Gasoline Tanks 118 and 119

Tank 118

Working Loss (9.0)

$$\frac{208,000 \text{ B/yr} \times 42 \text{ Gal/B} \times 9.0 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/ton}} = 39 \text{ tons/year}$$

Plus (Breathing Loss) (.25)

$$\frac{30,000 \text{ BBL capacity} \times 42 \text{ Gal/B} \times 365 \text{ days/year} \times .25 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/ton}} = 37 \text{ tons/year}$$

Less (Standing Loss)

$$\frac{30,000 \text{ BBL} \times 42 \text{ Gal/B} \times 365 \text{ days/year} \times .088 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/ton}} = 20 \text{ tons/year}$$

Equals 76 tons/year reduction

Tank 119

Working Loss

$$\frac{144,000 \text{ B/yr} \times 42 \text{ Gal/B} \times 9.0 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/ton}} = 27 \text{ tons/year}$$

Plus (Breathing Loss)

$$\frac{20,000 \text{ BBL} \times 42 \text{ Gal/B} \times 365 \text{ days/year} \times .25 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/ton}} = 38 \text{ tons/year}$$

Less (Standing Loss)

$$\frac{20,000 \text{ BBL} \times 42 \text{ Gal/B} \times 365 \text{ days/year} \times .088 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/ton}} = 13 \text{ tons/year}$$

Equals 52 tons/year reduction

Total APCO Reduction = 128 tons/year

ADDENDUM I APPENDIX 2
Chapter IV OKIP

Sun Oil Company
Crude Oil Tank 121 & 122
Sun Refinery, Duncan, Oklahoma

Individual tank through put was not available. The total annual through put is equally divided to each of the two tanks of 4,000,000 BBLs/year each.

Working Loss

$$\frac{4,000,000 \text{ B/Y} \times 42 \text{ Gal/B} \times 7.3 \text{ lb/1000 Gal}}{1000 \text{ Gal} \times 2000 \text{ lb/Ton}} = 611 \text{ Tons}$$

Plus Breathing Loss

$$\frac{80,000 \text{ BBL} \times 42 \text{ Gal/BBL} \times .17 \text{ lb/1000 Gal} \times 365 \text{ Day/Y}}{1000 \text{ Gal} \times 2000 \text{ lb/Ton}} = 104 \text{ Tons}$$

10960
B/D

Less Stand Loss

$$\frac{80,000 \text{ BBL} \times 42 \text{ Gal/BBL} \times .071 \text{ lb/1000 Gal} \times 365}{1000 \text{ Gal} \times 2000 \text{ lb/Ton}} = 44 \text{ Tons}$$

Total Reduction 673 Tons/Tank

Times 2 Tanks equals 1346 Tons Total Reduction

03/28/79