

Monsanto Enviro-Chem

Monsanto Enviro-Chem Systems Inc.
Corporate Square Office Park
Box 14547
St. Louis, Missouri 63178
Phone: (314) 694-1000

174-10711
CE76-41-48

623-1367-23

September 1, 1978

RECEIVED SEP 5 1978

Mr. Carl Glaser
ASARCO, INC.
P.O. Box 1111
El Paso, Texas 79999

Re: Final Tower Brink Acid
Spray

Dear Carl:

In connection with the final tower Brink acid sprays requested by Fred Scott, I have sent under separate cover complete design drawings and Bill of Materials required to complete the installation.

The cost of this installation would be approximately \$5000 which includes the following: \$1000 (60 manhours) of design engineering, \$2500 materials including cast iron fitting, alloy 20 pipe and fittings and spray nozzles and \$1500 labor to install. This work will be charged to our contract number 2156.

Please let me know of your decision to proceed at your earliest convenience.

Sincerely,

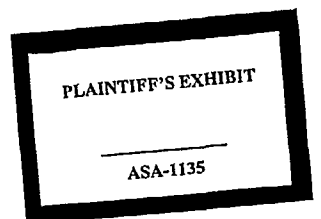
Julio Serra-Jones

Julio Serra-Jones
Manager, Project Engr.

JS:emr

cc: M. Ernhart (El Paso) 623-1367-

Approved
9-5-78
CJD



ASARCO ELP 0007981

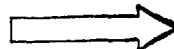
ASARCO INCORPORATED
CENTRAL ENGINEERING DEPARTMENT
FIELD CONSTRUCTION

GAS HANDLING, CLEANING & ACID PLT
EL PASO, TEXAS
JULY 17, 1978

Monsanto Enviro-Chem Systems, Inc.
Corporate Square Office Park
Box 14547
St. Louis, Missouri 63178

ATTN: Mr. Julio Serra-Jones

RE: EA-26-EP, N.Y. 3954, Plt 623
Gas Handling, Cleaning & Acid Plant
CE-77-EP-48; 17H-0711
Monsanto Enviro-Chem
Acid Plant Stack Extension



Gentlemen:

The following enclosed drawings have been marked to indicate the required 30' extension to the acid plant stack:

5-317 Rev. 6 - Steel Ducts
5-210 Rev. 2 - Offset Steel Stack

Also enclosed are copies of the following letters concerning the extension and sampling locations.

R. Kinnan Goleman letter dated May 15, 1978
William F. Harris letter dated May 12, 1978
W. R. Kelly letter dated May 16, 1978

This information, along with Rod Hunt's sketch which was transmitted to you last week, should give you an idea of what is required. Please advise if you have any questions.

Yours Truly,

Carl Glaser
Construction Engineer

CLG:bo
Encls. - as stated
cc: W. T. Sweat
W. R. Kelly
W. R. Mahoney
623-13539-23
623-FC-315

ASARCO ELP 0007982

JAY H. BROWN (1910-1975)
 JACK D. MARONEY
 HOWARD V. ROSE
 RICHARD C. BAKER
 WILL G. BARDER
 E. RICHARD CRISS, JR.
 CHARLIE D. OYE
 ROBERT L. DAVIS
 R. KINNAN GOLEMON
 RICHARD T. MCCARROLL
 ACE PICKENS
 J. CARY BARTON
 RICHARD L. ALEXANDER
 GEORGE S. BUTTS
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 RAYMOND L. STURM
 DAVID B. ARNBRUST
 JERRY M. KETS
 ROBERT E. MORRISON
 MICHAEL G. MULLEN
 BEA ANN SMITH
 WILLIAM J. MOLTZ

LAW OFFICES
BR 'N, MARONEY, ROSE, BAKER & BARDER
 1300 AMERICANBANK TOWER
 221 WEST SIXTH STREET
 AUSTIN, TEXAS 78701

RECEIVED MAY 26 1978

WFO
 SOE
 RCM
 CAN
 WOF
 AREA CODE 512
 472-5456

May 15, 1978

El Paso Smelting

BSS
COPIED 5-19-78 - pls. copy
WTE
JB

Mr. W. R. Kelly
 Plant Manager
 ASARCO Incorporated
 P.O. Box 1111
 El Paso, Texas 79999

Re: Alternate Sampling Sites on the New
 Lead Sintering Machine and Ore Un-
 loading and Storage System

Dear Mr. Kelly:

Enclosed please find copies of the three letters which we recently received from the Texas Air Control Board (TACB) in response to our requests of May 8, 1978 for TACB approval of alternate sampling sites at the El Paso Smelting Works. As you can see, the proposals have been approved with some changes. Please review these letters and advise our office regarding the difficulties, if any, that might be presented in complying with the TACB changes.

As you are aware, it is also necessary for ASARCO to file similar requests with the U. S. Environmental Protection Agency (EPA) for the alternate sites relating to measurement of emissions from the Lead Sintering Machine. I have enclosed a draft of such a request which incorporates the TACB modifications to the proposals. This request should be sent to the EPA Administrator as indicated on the attached draft.

If you have any questions or comments, please feel free to call.

Very truly yours,

R. Kinnan Golemon
 R. Kinnan Golemon

*Pls. send to EPA
 Environmental - Correspondence*

RKG:pl
 Enclosures

cc: Messrs. Nelson, Travis, Varner, Muth and Duncan
 Copied for W.R. Mahoney, Rod Hunt

RECEIVED
 MAY 19 1978
 D.O.E.

8520 SHOAL CREEK BOULEVARD
AUSTIN, TEXAS 78758
512/451-5711

JOHN L. BLAIR
Chairman
CHARLES R. JAYNES
Vice Chairman

BILL STEWART, P. E.
Executive Director



WILLIAM N. ALLAN
JOE C. BRIDGEFARMER, P. E.
FRED HARTMAN
D. JACK KILIAN, M. D.
FRANK H. LEWIS
WILLIAM D. PARISH
JEROME W. SORENSON, P. E.

May 11, 1978

Mr. R. Kinnan Golemon
Brown, Maroney, Rose,
Baker & Barber
1300 AmericanBank Tower
221 West Sixth Street
Austin, Texas 78701

Dear Mr. Golemon:

Your letter of May 8, 1978 on the subject of the location of sampling facilities for the stack serving the new lead sintering machine at ASARCO, El Paso has been referred to me for reply.

As you are well aware, we wish to avoid whenever possible any sampling in a horizontal duct. This is due to the problem of "stratification" which is magnified under these conditions. However, in recognition of the magnitude of the physical obstacles which must be overcome in order to sample this stack in a more conventional manner, we agree to a sample conducted at the location and in the manner which you have proposed - with the following exceptions:

1. The ports must be modified so as to include a total of seven (7) points across the top of the stack instead of the four that are currently provided. To accompany this, the width of the stack should be divided in seven segments of equal lengths and a port placed at the center of each.
2. Seven traverse points must be located on each traverse thus providing a matrix of 7 X 7 and a total of 49 points.

I trust that this has satisfactorily responded to your inquiry but should you have any further questions please don't hesitate to call.

Sincerely,

William F. Harris
William F. Harris, P.E.
Chief
Source Evaluation Section

*Spec'ing into
Lead Stack*

ASARCO ELP 0007984

TEXAS AIR CONTROL BOARD

8520 SHOAL CREEK BOULEVARD
AUSTIN, TEXAS 78758
512/451-5711

JOHN L. BLAIR
Chairman
CHARLES R. JAYNES
Vice Chairman

BILL STEWART, P. E.
Executive Director



WILLIAM N. ALLAN
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FRED HARTMAN
D. JACK KILIAN, M. D.
FRANK H. LEWIS
WILLIAM D. PARISH
JEROME W. SORENSON, P. E.

May 12, 1978

3

Mr. R. Kinnan Golemon
Brown, Maroney, Rose,
Baker, & Barbara
1300 AmericanBank Tower
221 West Sixth Street
Austin, Texas 78701

Re: Your letter of May 8, 1978 concerning Texas
Air Control Board Construction Permit #C-5127
ASARCO, Inc. (El Paso)

Dear Mr. Golemon,

I have reviewed the referenced letter and concur in general with your proposal for sampling the stacks of the Metallurgical Scavenger Sulfuric Acid Plant.

Your attention is invited to your proposal which involves placing the sampling ports four feet above the platform. This location of the ports will cause additional expenditure on your part due to the fact that the railing opposite the ports must be cut away in order to permit traversing with sampling equipment. Moreover, it complicates sampling operations by restricting the movement of personnel beneath the monorail and sampling box. It is therefore requested that the platform be located five and one-half feet below the centerline of the ports so as to avoid these problems. Your proposal is otherwise accepted as outlined in the referenced letter.

If I can be of any further assistance, don't hesitate to call.

Sincerely,

William F. Harris

William F. Harris, P.E.
Chief
Source Evaluation Section

Handwritten signature and initials

ASARCO ELP 0007985

May 16, 1978

Mr. Douglas M. Costle
Administrator
United States Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Re: Request for Approval of Alternate Sampling Points on ASARCO
Incorporated's (El Paso, Texas) Lead Sintering Machine Stacks

Dear Mr. Costle:

Pursuant to 40 CFR §60.8 and 40 CFR §60.13(i), ASARCO Incorporated (ASARCO) hereby requests approval of alternate sampling sites for use on a source subject to federal New Source Performance Standards (NSPS). The source subject to the NSPS is a new updraft lead sintering machine being installed for the replacement of six (6) existing downdraft sintering machines at ASARCO's El Paso Smelting Works, located in El Paso, Texas. The applicable NSPS is found at 40 CFR Part 60, Subpart R. The provisions which ASARCO requests be altered relate to the location of sampling sites for the monitoring of particulates in sintering machine offgases. These provisions are set out at 40 CFR Part 60, Appendix A, Method 1. By this letter ASARCO requests approval of the following alternate sampling sites: (1) Use of a sampling site located 2.3 diameters downstream and 1.3 diameters upstream from a stack gas flow disturbance for monitoring the weak SO₂ bearing offgas streams from the lead sintering machine and (2) use of a sampling site located 4.5 diameters downstream and 1.0 diameter upstream of a stack gas flow disturbance for monitoring the strong SO₂ bearing offgases from the lead sintering machine. The reasons for this request along with a more detailed description of the accompanying circumstances is set out more specifically below.

40 CFR §60.186(a) provides that the reference method to be used for monitoring of particulates in the stack gases from lead sintering machines subject to NSPS is Method 5 of 40 CFR Part 60, Appendix A. 40 CFR §60.186(b) further provides that the sampling sites are to be selected according to Method 1 of Appendix A. Method 1 provides, in pertinent part, as follows: [At 40 CFR Part 60, Appendix 1, Method 1, Subparagraph 2.1]

ASARCO ELP 0007986

...Sampling or velocity measurement is performed at a site located at least eight stack or duct diameters downstream and two diameters upstream of any flow disturbance such as a bend...in the stack ...If necessary, an alternative location may be selected, at a position at least two stack or duct diameters downstream and a half diameter upstream from any flow disturbance...

ASARCO Incorporated finds it necessary to select alternative sampling sites for use on two stacks at the El Paso Smelting Works.

The offgases from the new lead sintering machine are of two types. The first type (strong SO_2 bearing offgases) contain sufficient concentrations of SO_2 for treatment in a new 800 ton per day metallurgical scavenger sulfuric acid plant and related equipment before any of the offgases are vented to the atmosphere. The second type (weak SO_2 bearing offgases) contain primarily particulates and will be treated in the existing D & L baghouse before the cleaned gases are vented through the existing Lead Department Stack. This request concerns (1) the sampling site for the cleaned weak SO_2 bearing offgas stack (i.e. the existing Lead Department Stack) and (2) sampling site for the cleaned and treated strong SO_2 bearing offgas stack (i.e. acid plant stack emissions). The following discussion is divided into a section describing each of these requests and the reasons therefore.

Alternate Sampling Sites For The Weak SO_2 Bearing Offgases

As mentioned previously, the weak SO_2 bearing offgases will first be cleaned in the D & L baghouse. After the offgases exit the baghouse, they travel through a rectangular, horizontal flue to the base of the 612 foot Lead Department stack. There are, therefore, two possible sampling sites: (1) in the horizontal flue and (2) in the 612 foot stack. The 612 foot stack has been in existence for many years. In addition, there presently are sampling sites and other related access facilities on the horizontal flue which have been accepted and approved by the Texas Air Control Board as an alternate location for measurement of these emissions.

The specifications of 40 CFR Part 60, Appendix A, Method 1 require the sampling sites to be located according to the distance from stack gas disturbances. The general rule is eight (8) flue diameters downstream and two (2) diameters upstream from disturbances. The two disturbances in the baghouse offgas occur as the offgases leave the baghouse and enter the horizontal flue and as the offgases leave the horizontal flue and enter the 612 foot stack. As can be seen, there is a disturbance at each end of the horizontal flue. Due to the insufficient length of this flue, the 8 diameters - 2 diameters general rule cannot be met. Instead, the existing sampling sites are located 2.3 diameters downstream and 1.3 diameters upstream from the disturbances. This location is within the criteria of the alternate position specified in Method 1. In addition, it is proposed that the existing system utilizing four sampling points on the horizontal flue be modified by dividing the width of the flue into seven equal segments with a sampling port placed at the center of each. Seven traverse points will be located on each traverse, thus providing a matrix of 7 X 7 and a total of 49 sampling points. ASARCO Incorporated

ated requests that the existing sampling site with the modifications as described above be approved for monitoring the baghouse offgases according to 40 CFR Part 60, Appendix A.

The only sampling site location which could meet the 8 diameters - 2 diameters general rule would be on the 612 foot stack. Due to the extreme height and large diameter of this tapered stack, however, the sampling site would be at a height of approximately 275 feet above grade level (based on the average stack diameter below the sampling ports). Conducting sampling activities at this height would pose a substantial safety hazard and be quite burdensome on plant personnel and others required to perform source monitoring. In addition, installation of the necessary access facilities and handling of the probes would be prohibitive. We believe that a much safer and practical approach would be to utilize the existing sampling sites on the horizontal flue. This is especially true since these existing sites conform to the specifications for alternate sites contained in Method 1.

Additional design information for the above described facilities is as follows:

1. Stack height - 612'.
2. Stack I.D. - tapered.
3. Distance of sampling ports from stack wall (approximate, taken from scale) - 20'.
4. Distance of sampling ports from nearest upstream disturbance (bend in the flue exiting D & L baghouse) - 34'.
5. Inside dimensions of flue at sampling ports (approximate, taken from scale) - 12'5" across, 17'5" deep.
6. Seven sampling ports providing a total of 49 sampling points.
7. Height of monorail above sampling ports - 25' (the monorail system and caged access ladder were installed a year ago and the experience in collecting samples vertically from the flue has demonstrated that no difficulty is encountered in handling a 20-foot probe in the vertical mode.)

Due to the reasons set forth above, ASARCO respectfully requests that the general criteria of 8 diameter downstream - 2 diameter upstream of any disturbance recommended in Method 1 of Appendix A be altered. Specifically, ASARCO urges that the present sampling location at 2.3 diameters downstream and 1.3 diameters upstream of any disturbance be designated as an acceptable sampling location for use to ensure that the weak SO₂ bearing offgases are in compliance with the applicable NSPS by the appropriate reference method.

Alternate Sampling Sites For The Strong SO₂ Bearing Offgases

The second type of sintering machine offgases, strong SO₂ bearing, will be vented to the atmosphere after cleaning in the offgas purification system

and treatment in the metallurgical scavenger sulfuric acid plant by a new stack. The same general rule of 8 diameters downstream - 2 diameters upstream of a disturbance as discussed previously apply to the sampling port location on this new stack. The engineering drawings for the stack have been reviewed and disclose the following:

1. Stack height - 101'.
2. Stack I.D. - 9'0".
3. Distance from top of breeching (81'2") to sampling ports (90'8") is 9'6", or roughly 1 diameter downstream from a major disturbance.
4. Distance from sampling ports to top of stack is 10'4", or roughly 1 diameter upstream from stack exit.
5. Four sampling ports, 5'6" from platform.
6. Platform is 4' wide.
7. Guardrail is 42" high.

ASARCO urges that the general criteria of 8 diameters downstream - 2 diameters upstream for the sampling port locations be altered. Specifically, ASARCO requests that the stack height be increased to 131 feet and that the sampling ports and platforms be relocated at a height one (1) diameter from the top of the stack. At such location the sampling ports would be located approximately 4.5 diameters downstream from the last major disturbance. Representative sampling could be accomplished at this requested location by the use of thirty-six (36) sampling points. This requested alternate sampling port location conforms to the criteria specified in 40 CFR Part 60, Appendix A, Method 1 and has been approved by the Texas Air Control Board.

The primary reason for this request is safety. As can be determined from the stack specifications shown above, the stack would have to be approximately 171 feet tall to meet the general sampling site criteria. In addition, the sampling facilities on the stack would have to be approximately 150 feet from grade level. By utilizing the requested alternate sites, the stack height is reduced by about 40 feet and the work area for sampling is lowered about 28 feet. We believe this height reduction would do much to reduce the safety hazards associated with stack gas sampling and stack maintenance.

It should also be noted that the 171 foot stack needed to comply with the general criteria may be contrary to good engineering practice. As was shown above, the engineering design of the stack originally called for a 101 foot height. This height was specified by the engineers responsible for the design of the new facilities and represents a height which is needed for proper stack operation and for the stack to provide the needed dispersion. ASARCO suggests that this height should only be increased to a level necessary to achieve adequate stack gas sampling. This could be accomplished at the 131 foot height requested and be well within the alternate site location criteria of Method 1. We believe that requiring an additional 40 feet be added to this

Mr. Douglas M. Costle
May 16, 1978
Page 5

stack would accomplish nothing in the way of improved sampling or improved operation but would create a safety hazard, as discussed previously, and impose an unnecessary burden of redesign and associated increased costs.

For these reasons ASARCO requests that the proposed sampling site locations for sampling the strong SO₂ bearing offgases as they leave the 800 ton per day metallurgical scavenger sulfuric acid plant and are vented to the atmosphere be altered as set out in more detail above.

Very truly yours,

W. R. Kelly
Plant Manager

WRK:pl

cc: Adlene Harrison
Regional Administrator, Region VI
United States Environmental Protection Agency

Bill Stewart
Executive Director
Texas Air Control Board

William F. Harris
Chief
Source Evaluation Section
Texas Air Control Board

CHANGE ORDER

PAGE 1 OF

DATE	6/8/78
ORDER NO.	17 H - 0711

ASARCO Incorporated

PURCHASING DEPARTMENT
120 BROADWAY, NEW YORK, N.Y. 10005

REQUISITION NO
CE-77-EP-48

PLANT JOB/APPROPRIATION NO
623/NY 3954

TO: Monsanto Enviro-Chem. Sys., Inc.
P.O. Box 1457
St. Louis, Mo. 63178
Attn: Mr. D. C. Hale

FINAL DESTINATION-PLEASE NOTE CONSIGNMENT AS
INDICATED ON ORIGINAL ORDER

El Paso, Texas

(68250-2)

DATE REQUIRED AT DESTINATION

SHIPPING INTERVAL PROMISED

SELLER WILL SHIP BEFORE

RECEIVED JUN 16 1978

QUANTITY	UNIT	SPECIFICATIONS	ITEM NO.	UNIT PRICE
(CO-78-113)		THE PURPOSE OF THIS CHANGE ORDER NO. 17 IS: To record variation order No. 22 to our contract as identified by our above numbered order as follows: To adjust the contract guaranteed maximum price by the cost of performance premium paid to Worthington which was not part of original contract. Cost of variation - Which increases the guaranteed maximum by a like amount. This contract variation order is issued to adjust guaranteed maximum cost only. No increase in fixed fee results from this change. NOTE TO PLANT: M.L. Leary: Above per your June 2nd, 1978 memo.		\$12,125.00 Lot

VC

IMPORTANT



This change order is not binding on purchaser unless the attached Acknowledgment Card is signed by an authorized agent of seller and returned promptly to purchaser.

PLEASE ENTER OUR CHANGE ORDER FOR THE ITEMS SPECIFIED ABOVE
SUBJECT TO ALL INSTRUCTIONS AND PROVISIONS ON REVERSE SIDE.

FOR PURCHASING DEPARTMENT USE ONLY

TVO ☐ URGENT CC 601 PC 206
DISTRIBUTION 1-W.T. Sweat/1-W.R. Kelly
1-L. Green

By _____
PURCHASING AGENT

ASARCO
PD 1C - REV:SLD 5/75

ASARCO ELP 0007991