

§101.20. Compliance with Environmental Protection Agency Standards.

Any person owning or operating a source of air contaminants shall comply with any applicable new source performance standards promulgated by the Environmental Protection Agency pursuant to Section 111 of the Federal Clean Air Act, as amended, and any applicable emissions standards for hazardous air pollutants promulgated by the Environmental Protection Agency pursuant to Section 112 of the Federal Clean Air Act, as amended.

§101.21. The National Primary and Secondary Ambient Air Quality Standards.

The National Primary and Secondary Ambient Air Quality Standards, as promulgated pursuant to Section 109 of the Federal Clean Air Act, as amended, will be enforced throughout all parts of Texas.

§101.22. Effective Date.

The general rules contained in this chapter shall be in force immediately and shall supersede all previous General Rules of the Texas Air Control Board.

March 20, 1981

UCC
051343

3-31-81

TO: ① ~~GEORGE TACQUARD~~ / ~~STEVE DERRISON~~ ② ↓ ③ JACK ELDON
BOB ARNOLD
TOM GRAY
GALEN REESE / FRANK JOHNSON
RAY RANKIN - CLC

RE: EPA'S RESPONSE (INTERNAL) TO OUR
REQUEST FOR ANALYTICAL RELIEF
FROM NESHAPS VCM ANALYSIS OF
STRIPPED VARNISH.

PLEASE READ ATTACHED LETTER +
LET ME HAVE ANY COMMENTS, SUGGESTIONS,
ETC THAT COME TO MIND.

IT APPEARS THEY ARE NOT AWARE
IF CONTINUOUS STRIPPING (DISTILLATION)
AND THIS COULD MAKE A DIFFERENCE —
HOWEVER, I WOULD LIKE TO EXPLORE THE
OPERATING PARAMETER IDEA MORE
CAREFULLY TO SEE IF WE CAN DERIVE
SOME RELATIONSHIPS. OBVIOUSLY, THE
UNIT RUNS THE STRIPPING OPERATION
BY SOME CONTROL LEVELS — WHAT ARE
THEY? AND HOW CAN WE USE WHAT
WE'VE ALWAYS KNOWN TO PROVE WE'RE RIGHT.

JACK ELDON

UCC
051344

ROUTING AND TRANSMITTAL SLIP

Date

3/23/81

TO: (Name, office symbol, room number,
building, Agency/Post)

Initials

Date

1. Mr. J. F. Erdmann, P.E.

2. Union Carbide Corporation

3. P.O. Box 471

4. Texas City, Texas 77590

B.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
☒ As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS As per your telephone request this date, I have enclosed the Evaluation of your proposal for the Alternative NESHAP sampling procedure for Vinyl Chloride (Method 107) which reflects our current direction.

Please note that enclosure is for purpose of discussion as you requested and does not constitute the formal response from this office to your request at this time.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Martin E. Brittain, P.E.
EPA, Region 6

Room No.—Bldg.

Phone No.
214-767-2755

6AEA

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

U.S. GOVERNMENT PRINTING OFFICE: 1979-281 (847)

UCC
051345

RECEIVED

FEB 26 1981

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Quality Planning and Standards
Research Triangle Park, North Carolina 27711

DATE 19 FEB 1981

SUBJECT: Evaluation of Alternative NESHAP Sampling Procedure for Vinyl Chloride (Method 107)

FROM: Don R. Goodwin, Director
Emission Standards and Engineering Division (MD-13)

TO: Diana Dutton, Director
Enforcement Division, Region VI (6AE)

6AEA

We have evaluated your request of October 31, 1980, concerning an alternative sampling procedure for determining compliance with the vinyl chloride (VC) standard for sources following polyvinyl chloride (PVC) resin strippers. The request, originated by Union Carbide Corporation in Texas City, Texas, concerns the approvability of sampling on a weekly basis rather than a daily basis as required by the VC standard. After evaluating this request, we recommend that it not be approved. However, we recommend another procedure which we could consider as an alternative to the required procedure. Our reasoning is presented below.

Union Carbide Corporation (UCC) shows that it consistently reduces the concentration of residual vinyl chloride monomer in the PVC resin (residual VCM/PVC) at its Texas City plant to less than 400 ppm. This type of resin is produced by a unique solvent-based process. UCC removes the residual VCM/PVC through distillation. The result of this control, according to UCC's data, is an average level of 10 ppm or less residual VCM/PVC. UCC concluded that their data indicate that daily sampling and analytical procedures may not be necessary to show compliance with the VCM standard; therefore, less costly, weekly procedures should be approved as an alternative procedure for showing compliance.

Weekly sampling does not allow for the determination of compliance for any day other than the day of sampling. Operating parameters can vary from one batch to another and batches can vary from one day to another. Because operating parameters greatly influence the residual VCM/PVC, a residual VCM/PVC sample on one day would not be a reasonable indicator of the residual VCM/PVC on another day. Thus, we do not consider a weekly sampling procedure adequate for determination of compliance with the residual VCM/PVC standard.

The situation that UCC describes was considered during proposal and promulgation of the VC standard. The standard's support information explains that it may be possible to establish a relationship between the measured emissions and the corresponding operating parameters used to comply with the standard. If a relationship can be established between the residual VCM/PVC and operating parameters, then an individual plant could be allowed, under the authority of emission test waiver and alternative test method provisions, to record certain parameters rather than to conduct emission measurement. Thus, we could approve an alternative sampling procedure based on establishing a relationship between residual VCM/PVC and operating parameters.

*You ARE
LIGHT
WE NEED TO
MAKE THEM
AWARE OF
CONTINUOUS
STRIPPING AS
A STRAT.
I THOUGHT
WE PURSUED
THIS RELATIONSHIP
APPROACH BUT
FAILED TO FIND
ANY PARAMETER
THAT PRODUCED
THE AVG. WAS SO LOW.
MAYBE WE CAN SHOW THAT
NO VARIABLES WOULD
TO THE EXTENT THAT
WE WOULD DRIVE UCC
OVER THE LIMITS. WE
NEED THIS REUSE VERY
BADLY. KEEP UP THE
PRESSURE.*

EPA Form 1320-6 (Rev. 3-76)

*Previous studies showed
no relationship between bps and
RVC in context. An R+R computer
program for strippers also fails to
provide any useful correlation between
operating parameters and RVC in context*

UCC
051348

To establish the relationship, if any, between the residual VCM/PVC and operating parameters, a plant would need to establish a predictive equation which would reasonably estimate the residual VCM/PVC given the operating parameters (such as pressure, temperature, grade of resin, and residence time). An analysis of variances may be the most appropriate statistical tool to establish a predictive equation in this situation. Variances between samples and within samples could be used to establish a predictive equation and to show whether the process can be predicted with a reasonable degree of certainty.

After establishing a relationship, a plant could record the operating parameters and these would be used for determining compliance. A plant could also measure the residual VCM/PVC upon request (e.g., semi-annually or annually) if you or the appropriate enforcement agency believed that verification of the predictive equation was necessary on a periodic basis.

In summary, we recommend that you do not approve the alternative sampling procedure as requested by UCC because it does not allow an adequate determination of compliance with the residual VCM/PVC standard. However, we could approve an alternative sampling procedure based on establishing a relationship between residual VCM/PVC and operating parameters which would achieve UCC's desire to reduce costly measurements yet would allow an adequate determination of compliance. If you have any questions, please contact Fred Dimmick (FTS 629-~~5477~~) or Leslie Evans (FTS 629-5454). 5578
541-2118
1450


Don R. Goodwin

cc: Martin Brittain, Region VI (6AEAE)
Richard Biondi, DSSE (EN-341)
Susan Wyatt, SDB (MD-13)

UCC
051347

REFERENCES

1. Attachments to memorandum from Diana Dutton to Don R. Goodwin, dated October 31, 1980.
2. SSEIS: Emission Standard for Vinyl Chloride (EPA-450/2-75-009), page 8-44.
3. Miller, I., and Freund, J.E.; Probability and Statistics for Engineers, Prentice-Hall, Inc. 1965, Chapters 12-14.

UCC
051348

5 SHEET
Role of Communications on this Project

SUBJECT

DATE

PRIMARY
 1-23-81-

8+(214)-767-2755

YES

called Brittain again - to get in status -

① has he rec'd the add'l statistical correlation data

18 mos of data? - any questions?

② What needs to be done to expedite this request?

- been hanging for almost a year -

→ he had call from RTP → OFF. APPROVAL PLAN + STOS

- unofficial thinking -

another in equipment
 of in WASH

In early days use was not made of this kind of proposal was not found
 acceptable from STATISTICAL correlation.

Alternative Procedures → 86166 - Equip. Equipment + Procedures -

- They can possibly work as Alternates
 to Procedures prescribing new schedules -

What they need - they can accept Operating Parameters

Record residual VCM data vs Oper. data - if show
 we're under STD + Varmish base temp is above a certain point
 may want to establish a range of parameters -

- may want to establish new parameters -

Various of Testing -

→ probably a Prelimin. Approval w/ opportunity for Pub. Hearing -

Alt. to Procedures goes to EPA for approval -

- they will be looking for us to set the Parameters

For Each Grade of Product

3-30-81

→ ok definition to be sure that many
 GRADES we have -

3:10 PM

3-19-81 called Brittain back - can he give me names of people in Wash
 (not in office today) ROPs and Equipment in Wash to discuss this problem with -

→ call FBI - alt 845-9000

3/20/81 - tried again - 845-9000 - alt 845-9000 - but he didn't -

3/23/81 " " - 1350 - he gave me some names @ RTP + in Wash

said also he had letter from DON GOODWIN @ RTP summarizing
 their objections - he'll send that to me in mail + also with EPA/Dallas
 response to the whole thing -

(FLIP OVER)

AT RTP → SUSAN WYATT - Ofc of AIR BURE. PLANNING and
Standards - OACPS -
she's one who had lot to do w/orig
NESHAPS neg on VCM.

FRED DIMMICK - (919) 451-5477
LESLEY EVANS - " " 5454

AT WASH - RICHARD BIONDI - DIV of Statutory Source Enforcement
(202)-755-2564

3-30-81 - Rec'd the letter from Brittain -
made copies + sent w/ note requesting comments -
to R³, TACQUARD/ARNOLD, GRAY, REESE + F. JOHNSON -
DICKERSON

UCC
051350