



INTERNAL CORRESPONDENCE

*E-file w/ NESHADE 149-2*  
*REQUEST FOR*  
*RELIEF*

SOLVENTS & INTERMEDIATES DIVISION

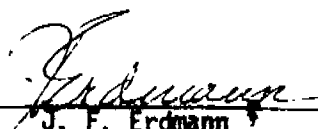
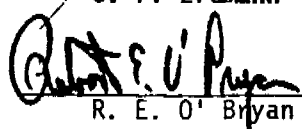
P. O. BOX 471, TEXAS CITY, TEXAS 77590

TO: Mr. A. H. Cheely - 511      DATE: May 20, 1981  
cc: Mr. J. B. Leverton - 515  
Mr. R. R. Rankin - 803  
SUBJECT: Clean Air Act Case Study  
Ref: Letter to Mr. M. E. Eisenhour et al, from Mr. T. L. Collins  
dated May 11, 1981, received May 18, 1981

Dear Al:

In response to the referred letter, attached are two cases which hopefully illustrate some "problem" areas regarding EPA's "enforcement" of the Clean Air Act provisions.

Yours very truly,

  
\_\_\_\_\_  
J. F. Erdmann  
  
\_\_\_\_\_  
R. E. O' Bryan

/eg

Attachments

UCC  
051264

## CASE STUDY QUESTIONNAIRE

### Industrial Development Problems Under the Clean Air Act

#### Case:

U. S. Environmental Protection Agency (EPA) Contractor Air Compliance Inspections; 1979 U.S. EPA Air Pollutant Emission Report (APER) - Union Carbide Corporation, Texas City, Texas Plant

The Director of the Enforcement Division for EPA Region 6 (Diana Dutton) via letter dated March 3, 1980, notified the Union Carbide Corporation - Texas City Plant that EPA intended to conduct a Clean Air Act Section 114(a) (2) unannounced compliance inspection. The unannounced compliance inspection was to be performed by a private contractor (PEDCo) and in preparation for the inspection, a comprehensive 1979 APER was to be submitted within 30 days.

Union Carbide recognizes the right of the EPA "Administrator or his authorized representative" to conduct an air emissions compliance inspection of its Texas City Plant under the authority of Section 114(a) (2) of the Clean Air Act. However, we dispute the right of a private contractor such as PEDCo to conduct or take part in such an inspection. In our view, the "authorized representative" of the EPA who may lawfully conduct such an inspection must be a full-time employee of EPA subject to the regulatory requirements of 40 C.F.R. Part 2, and the criminal sanctions of 18 U.S.C. §1905. Our position on this "authorized representative" issue is fully supported by relevant Congressional legislative history.

Union Carbide also objected to any Clean Air Act Section 114(a) (2) compliance inspection being unannounced. A Section 114(a) (2) compliance inspection of a Union Carbide facility may not, absent a warrant, be conducted without first obtaining our permission. Our right to object to a warrantless inspection was confirmed by the U. S. Supreme Court in Marshall vs Barlow's Inc., 98 S. Ct. 1816 (1978). See also the April 11, 1979 EPA Office of Enforcement memorandum entitled "Conduct of Inspections After the Barlow's Decision."

Union Carbide believes that it is in the best interests of the Corporation, EPA, and the taxpaying public for exploratory type inspections for the purpose of determining compliance with the Clean Air Act and other environmental and health statutes to be conducted in accordance with a previously agreed upon plan. If notice of such an inspection is given to the facility involved, agreements can be reached in an orderly manner as to the handling of confidential information and the appropriate scope of the inquiry. The facility will be able to make necessary arrangements for the presence of appropriate employees, sampling equipment, etc. Additionally, records, documents, data, etc. sought by the inspectors can be gathered at an earlier time so that they will be available to the inspectors at a convenient plant location. Such prior arrangements serve to avoid unnecessary complications and assure that inspections will be conducted

UCC  
051265

as thoroughly and efficiently as possible.

As mentioned above, in preparation for the compliance inspection, the Union Carbide - Texas City Plant completed the 1979 APER. This comprehensive, detailed document contained over 1,000 pages and required 2,989 manhours (33 persons) to complete. We strongly felt that this request was unwarranted because the Texas City Plant was required to complete a similar comprehensive 1980 air emission inventory for the Texas Air Control Board about six months later. The completion of one air emission inventory would allow the better use of available resources, would eliminate duplication, and would provide the best information to both agencies.

R. E. O'Bryan

REO/eg

UCC  
051266

## CASE STUDY QUESTIONNAIRE

### Industrial Development Problems Under the Clean Air Act

#### Description of the Case:

At the Texas City Plant of Union Carbide Corporation, Solvents and Intermediates Division, we have a process for the production of Solvent Vinyl Resins which, because of the use of vinyl chloride monomer as a basic raw material, comes under the jurisdiction of EPA's National Emission Standards for Hazardous Air Pollutants (NESHAPS), (40 C.F.R. 61) Sub-part 4 (Vinyl Chloride). We have complied with all parts of this regulation which apply to this particular production facility, although our process is technologically unique in many respects, and the regulation was not very well written to accommodate it. In this regard, there is a requirement that polymer streams coming from the reactors must be stripped of residual unpolymerized vinyl chloride monomer (VCM) before subsequent processing to recover the finished polymeric product. In this case, we are required to meet a 400 ppm weighted average maximum concentration of unreacted VCM based on the amount of dry polymer produced each calendar day. In order to assure that this requirement is met, every eight hours (once per shift) each stripping line must be sampled and analyzed within 24 hours for residual VCM by Method 107 from NESHAPS Regulation. We have four strippers on four production lines operating most of the time, as that we must take and analyze up to 12 samples daily to meet this requirement. Our stripping operation is a continuous still system operating with completely liquid/vapor interfaces, since the polymeric product at this stage is dissolved in a carrier solvent in the form of varnish or lacquer. VCM stripping is accomplished by passing solvent vapors up through the varnish in a special trayed column taking the VCM vapors out with the solvent vapors overhead to a recovery system. This rectification technique is much more effective because there are no solid polymer particles present to slow the equilibrium conditions as normally occurs in the stripping of suspension slurries or latexes, for which the regulation was basically intended.

The net result of this is that our stripping results consistently fall below the 50 ppm level and for the past two years have averaged below 20 ppm. We have exceeded the 400 ppm level only three times in the two years the analyses have been run in accordance with the regulation. This effort has cost our plant around \$65,000 per year in direct laboratory costs, not including support from the production records and environmental protection groups to prepare and report the results. There is no reasonable justification in requiring this much analytical effort to show that we are consistently in the lowest 5% of the acceptable range of values.

We have petitioned for relief through TACB, citing a statistical review that indicates a random once per week analysis would provide adequate assurance that our process was providing adequate VCM stripping. This was acceptable to TACB, but EPA overview was required since the regulation is Federal and cannot be changed by the states. The EPA rejected our proposal for weekly testing on the basis that the Congressional intent (as apparently determined from the Regulation writing workshops for the NESHAPS regulation) was to require a daily monitoring of the stripping operation, which was generally

UCC  
051267

understood to be a batch-wise procedure which can vary greatly from day to day. EPA has asked us to consider a secondary control approach based on establishing the basic stripping parameters which influence the VCM stripping operation and monitoring those daily to show compliance with the 400 ppm level. This approach is being actively investigated, but it is inefficient and wasteful to have to discard a very clear and obvious proof from the past two years of actual data to start all over again to establish a new procedure, which will probably require another year's confirmation data before EPA will accept it. These delays and bureaucratic nit-picking are wasting our time and funds on controls which are clearly redundant, unnecessary and non-productive. No improvement in protection is afforded to our workers and their environment that is not already being done.

J. E. Erdmann, P.E.  
Environmental Protection Coordinator  
Texas City Plant

JFE/eg

UCC  
051268

Table A

PROBLEMS ILLUSTRATED BY THE CASE

| PROBLEMS                                                                                         | IMPORTANT IN THIS CASE? | COMMENTS                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>General Problems</u>                                                                          |                         |                                                                                                                                                                                                                                                                                 |
| 1. Unnecessary Delays                                                                            | YES                     | No one told us that our initial proposal for weekly analytical testing would be unacceptable on the basis of contrary Congressional intent. No one at EPA/Dallas had sense enough to find out and tell us before almost two years went by.                                      |
| 2. Uncertainties and Complexities in Review Process                                              | YES                     | See above                                                                                                                                                                                                                                                                       |
| 3. Excessive Costs (can be permit costs, construction delay costs, control costs; specify which) | YES                     | While the delays continue, we are spending money needlessly to stay in compliance (at the rate of about \$200/day for laboratory costs, plus the time and effort of highly skilled laboratory people who could be doing constructive work instead of these redundant analyses). |
| 4. Excessive Control Requirements                                                                | YES                     | Required sampling much too frequent. Statistical analysis supports random or skip-lot frequency of once per week instead of three times per day as now required.                                                                                                                |
| <u>Specific Issues and Problems</u>                                                              |                         |                                                                                                                                                                                                                                                                                 |
| 1. Changing regulations or Interpretations                                                       | YES                     | See item (1) above - interpretation by EPA of events we could not be expected to know about provided them with a reason for rejecting our proposal.                                                                                                                             |
| 2. Redundant reviews (e.g., state/Federal)                                                       | YES                     | Had to get TACB approval first (they have been given NESHAPS delegation). Then to EPA and got rejection.                                                                                                                                                                        |

UCC  
051269

Table A continued

| PROBLEMS                                                                       | IMPORTANT IN THIS CASE? | COMMENTS                                                                                                                   |
|--------------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 3. Inaction on part of review agency                                           | SOMEWHAT                | Every time I got information from EPA on this it was because I called or otherwise inquired. No response otherwise.        |
| 4. Delays in obtaining completeness determinations                             | YES                     | See all my comments about EPA's procedures above.                                                                          |
| 5. New data required because of public hearing                                 | NO                      | No Public Hearing involved                                                                                                 |
| 6. Difficulties in obtaining offsets                                           | NO                      | --                                                                                                                         |
| 7. Difficulties with determination of PSD increments and increment consumption | NO                      | --                                                                                                                         |
| 8. Excessive monitoring requirements                                           | YES                     | See Above                                                                                                                  |
| 9. Excessive modeling requirements                                             | NO                      | None required except EPA switched to a secondary control technique involving process variable correlation with VCM levels. |
| 10. PSD increment constraints in rough terrain regions                         | NO                      | --                                                                                                                         |
| 11. Disputes about BACT/LAER determinations                                    | NO                      | --                                                                                                                         |

UCC  
051270

Table A continued

| PROBLEMS               | IMPORTANT IN<br>THIS CASE? | COMMENTS |
|------------------------|----------------------------|----------|
| 12. Other<br>(specify) | --                         | --       |

UCC  
051271

TABLE B

CHRONOLOGY OF THE CASE

NOTE: The form provided is not appropriate for the activities involved in this case, so I have used the following format:

1. Proposal sent to TACB for review and approval January, 1980  
(Based on six months of analytical data)
2. Additional six months of data submitted - April, 1980.
3. Request for better statistical analysis from TACB - May, 1980.
4. Submitted log-normal statistical evaluation on one year of data - August, 1980.
5. Approval by TACB, forwarded to EPA/Dallas - October, 1980.
6. Requested status from EPA/Dallas-proposal sent to Washington, RTP offices - November, 1980.
7. Submitted third six month's data evaluation. Combined with previous year's data in a log-normal evaluation - January, 1981
8. Received EPA Inter-office Memo (upon my request) rejecting our proposal - May, 1981
9. Discussed problem of procedure with EPA/RTP and determined that all previous work unacceptable - March, 1981.  
  
Requested to go back to a process variable correlation with VCM concentrations on a daily process monitoring basis - April, 1981
10. Considerable frustration throughout our organization - constantly increasing.