



PPG INDUSTRIES, INC./ONE GATEWAY CENTER/PITTSBURGH, PENNSYLVANIA 15222/AREA 412/ 434-3573

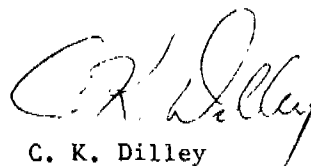
March 10, 1976

Distribution Department
Industrial Chemical Division

Mr. J. C. Crawford
Compressed Gas Association, Inc.
500 Fifth Avenue
New York, New York 10036

SUBJECT: VCM Committee - Minutes

Please note the attached Minutes for your review and submittal to all our VCM Committee Members and Correspondents, with copies to the Tank Car and Transportation Committee Chairman.


C. K. Dilley

CKD/clb

Attachment

cc: Mr. M. Petruccelli
Mr. C. Clyburn
Mr. J. LaFluer/Mr. W. Caillouet/Mr. D. Pinkston
Mr. L. Elzey/Ms. V. Zuccher
Organics Business Team

SL 091208

PROCEEDINGS
COMPRESSED GAS ASSOCIATION
AD HOC COMMITTEE ON VINYL CHLORIDE

MINUTES - Seventh Ad Hoc Committee Meeting on VCM.

PLACE - Houston, Texas - Hyatt Regency Hotel

TIME - This meeting was held on 1/27/76 in the Raintree Room at 9:00 a.m.

THOSE ATTENDING:

C. K. Dilley, Chairman	PPG Industries
W. Mecklem	Allied Chemical Corporation
W. C. Koch	Allied Chemical Corporation
R. J. Holden	Bureau of Explosives
G. E. Fitzgerald	ACF Industries, Inc.
R. H. Wagner	Bordon Chemical
A. Price	GATX
C. S. Edmonds	Diamond Shamrock Chemical Co.
E. A. Phillips	UTLX
A. D. Harbin	Diamond Shamrock Chemical Co.
J. Portis	Midland Manufacturing
R. Zoch	Resource Engineering, Inc.
D. Armstrong	Continental Oil Company
J. F. Pinkman	Continental Oil Company
S. R. Wells	Shell Oil Company
R. E. Gates	Shell Oil Company
M. M. Anderson	Union Carbide Corporation
R. Wilson	Stauffer Chemical

January 27, 1976

UNFINISHED BUSINESS

U-1) APPROVAL OF THE PREVIOUS MEETING MINUTES

The minutes of the 6/17/75 meeting were approved.

U-2) DOCKET 68-8 EMERGENCY KITS FOR TANK CARS

KIT I

The first phase of this testing is complete. A report dated November 7, 1975, by GATC was circulated detailing this phase of testing.

The second phases will begin with the field application of this kit on 3 to 4 cars built by four car manufacturers.

Bill Mecklem of Allied asked this Task Force to consider removing and/or relocating the cover plate outer lip which the present kits contacts when engaged for service. This will be reviewed at our next Task Force meeting to see what merit this suggestion would have if we were to alter the perimeters of the first phase of testing.

One question was asked concerning the clearance of the large handwheel used for 3" valves in the application of this kit. The Task Force will also review a VCM Vapor Pressure Table to see what our present 100 PSI condition represents in degree's Fahrenheit or Centigrade.

KIT II

Cost consideration will be outlined for the potential application of this Kit. First, the car would have to be made safe for entry. This would be expensive as current methods of cleaning have many inefficiencies. Second, the existing Safety Valve would have to exchange places with the location of the gauging device. Third, a kit (s) have to be developed to the extent of providing significant protection from leaks occurring in one or more of the valves (liquid, air, safety, etc.) presently on cars in service.

The Historical Data Sheet has not been forwarded by car owners to the CGA office as requested in November 1975. This is the second such request and a sample copy is attached. Car Owners are to complete as indicated and forward to the CGA office or to this Chairman.

HM 125 is to be reviewed by this Task Force to see what new dome arrangements may be in service. A few shippers have 105A cars in VCM service with more cars of this type entering every few months.

Bob Wilson of Stauffer presented a slide presentation on his company's development of a Hydrogen Sulfide Safety Kit. This kit approximates the Chlorine Kit now used by Chlorine shippers.

U-3) DOCKET 74-18 MUTUAL AID PROGRAM

Roy Holden of the Bureau of Explosives confirmed the interest of the Bureau in this program. Brian Castle of the Bureau is the Supervisor of the Emergency Team in charge of handling VCM accidents.

This Chairman will contact John Zercher of CHEMTREC and review with him the VCM Producers and Shippers who have volunteered to support the CHEMTREC organization. Any additional information Mr. Zercher will

make available including the number of VCM incidents, would be helpful in furthering the interest of this Committee in the Mutual Aid Program.

A map detailing the locations of VCM shippers, producers and consumers will be obtained and reviewed at our next meeting in June 1976.

The establishment of a formal Mutual Aid Program (such as CHLOREP) has not met with any real success through the promotional efforts of this Committee. A letter will be drafted by C. K. Dilley and forwarded through the CGA office requesting shippers to advise the CGA of shipper interest in a Mutual Aid Program.

U-4) DOCKET 69-72 AAR-RPI RESEARCH UPDATE

The following report on this Docket item was covered in the Tank Car Committee and has been incorporated into our Minutes, as many of those present had already heard Earl Phillips' report on this subject:

Mr. E. A. Phillips of the RPI/AAR Tank Car Safety Project presented the initial portion of this report. Discussion centered on the proposed design considerations for head shields and thermal shields on the DOT 112 and 114 type tank cars.

Head Shields -

Amendment HM 109 requires that all existing 112 and 114 type tank cars be retrofitted with an FRA design head shield by the end of 1977. A proposal has been prepared by the Tank Car Safety Project outlining design and test criteria requirements that must be met for approval of a retrofit design. This proposal has been presented to the AAR Tank Car Committee and it is quite certain that the Committee will take final action on it at its March 9th and 10th meeting.

To date, four designs, one by ACFX, GATX, NATX and UTLX have been impact and in-train tested. At this point, Mr. Heller interjected that he believes the AAR Tank Car Committee will require a service trial period before any final approval is considered for the proposed FRA design coupled with the Tank Car Safety Project design criteria.

It is estimated that the approved head shields would add approximately 1,600 to 2,000 pounds light weight to each car.

Thermal Shields -

The FRA has indicated that thermal shielding of either a coating or insulation-jacket type will be required on the 112A and 114A type cars by the end of 1978. It was reported that since 1970 research has been conducted both by the FRA and the Tank Car Safety Project to develop a fire resistant coating, but to date there has been no success in finding one which has low maintenance and longevity of adhesion to the tanks. Currently, the FRA has seven cars in field test (two coatings involved).

The Tank Car Safety Project has developed design criteria which are based on a 1650°F "pool" type fire and a 2100°F "torch" type fire. There are specific times specified for exposure of the thermal shield system to prevent the backface plate (representing the tank car steel) temperature from increasing to a certain maximum degrees F.

A report is being prepared by the Tank Car Safety Project outlining these criteria and giving the background leading to their development. Ultimately, it is hoped that the AAR Tank Car Committee will control the test facilities which will be physically located at the AAR Technical Center in Chicago. The Technical Center will then approve or disapprove coatings or insulation-jacket systems which are submitted.

Because coatings do not have a favorable low maintenance quality, the Tank Car Safety Project is also pursuing the possibility of special insulating material with a steel outer jacket. It should be noted that certain design problems are inherent in this feature and that, if more than 1" thickness is added to existing cars, approximately two-thirds of the 22,000 existing cars will exceed plate C clearance. A mineral fiber material has successfully passed laboratory tests and is ready to be tested for shakedown resistance on four cars at the FRA Pueblo test facility. The total weight add on to a standard 33,000 gallon tank car would be about 15,000 pounds. This would include a heavier (1/2") jacket to double as a head shield.

It is noted that this proposed insulation-jacket system on the 112, 114 type cars will not meet the insulation requirements for the Spec. 105A car; therefore, consideration is being given to proposing new tank car specifications for the modified 112 and 114A cars.

At this point, a discussion was held regarding the economic justification for the introduction of a combined thermal shielded, head shielded car. It was noted that since the introduction of EO #5 there has been a reduction of switch year accidents together with purported shortened transit times for tank car movements.

A motion was made and passed as follows: The CGA Tank Car Committee requests that the CGA Transportation Committee poll its membership for an indication of the effect on movements of noninsulated pressure cars since the issuance of Emergency Order #5 in October 1974. If it is noted by this survey that there has been an improvement in turnaround time, this info coupled with the reduced accident data should be forwarded to the Department of Transportation in the form of a petition for considering a revision to the proposed HM 109 head shield requirement and thermal shielding of noninsulated pressure cars used in flammable compressed gas service. An addendum to this amendment also requested that the Transportation Committee review what effects the new FRA track standards have had on a number of derailments.

Mr. F. Heller, Chairman of the Tank Car Research Committee reported on the current status of that trade association committee. No meeting has been held since May, 1974, but there is a definite need for the membership to assemble to discuss active and proposed DOT regulatory notices that have severe impact on transportation equipment in the compressed gas industry. It was noted that DOT actions have virtually halted the production of new cars due to the uncertainty of established design criteria and potential rule making considerations.

At this point a motion was made that a meeting of the Tank Car Research Committee be called by the Chairman as soon as possible to discuss the direction of this group. The discussion should include consideration of shippers' ideas prior to the submittal of a petition to the FRA for new car design classifications. It was further requested that the Tank Car Research Committee obtain data from the CGA Transportation Committee regarding the number of accidents involving non-insulated pressure cars that have occurred since EO #5 became effective. The motion passed with E. A. Phillips abstaining.

U-6-74) JUMBO TANK CARS OPERATIONAL AND MAINTENANCE PROBLEMS

The docket will now include 100 ton equipment, as well as continued reporting on cars of larger truck capacities. PPG reported on center plate failures on their 100 ton equipment which was 5 to 8 years old.

Apparently the FRA had questioned the serviceability of 112A cars which they considered "Dirty". This condition is not clearly stated in rule 179.101-1-Note 4.

U-7-74) GAUGING DEVICES

Bob Wilson reported on his Task Force activity covering the Ultronic Device currently being tested on four cars. These cars made five trips with no problems encountered to date.

PPG is in the process of preparing to equip five cars at its Lake Charles, Louisiana, plant with a Drexelbrook's electronic device. This test will have started by our June 1976 meeting.

U-8-74) EXPOSURE STANDARDS FOR VCM

The CGA had recently forwarded a Federal Register dated 12/24/75 to the VCM Committee. This Register reported on proposed VCM standards. Bill Koch of Allied will provide this Committee with a detailed report on this proposal and its potential affect on us in transportation.

Bob Zoch of Research Engineering reviewed a report his company made for PPG, Industries, covering the cleaning of several VCM tank cars at Richmond Tank Cars, Angleton, Texas, facility. Copies were distributed for further comments by Committee members.

PPG discussed several cleaning techniques for tank cars which they had tested for VCM emission, efficiency, and economic considerations. Further testing is necessary until they have found a satisfactory means of disposing, storing, neutralizing and/or cleaning waste materials used in the purging of tank cars.

U-9-74) VCM DETECTION DEVICES

This docket item was covered, however, there was no new information recorded. It will continue on our agenda. COD

U-11-74) DOCKET 72-34 CGA PAMPHLET P-1

This pamphlet will be forwarded to VCM Committee Members when completed. This docket item will be RFD.

U-12-74) DOCKET 72-1 CGA COMPRESSED GAS HANDBOOK - CHAPTER ON VCM

This pamphlet will be forwarded to VCM Committee Members when completed. This docket item will be RFD.

U-13-74) EM 109 - HEAD SHIELDS

This docket will be covered in U-4 of these minutes.

The concern of this Committee was covered by Bob Wilson in his letter dated 11/18/75 on this subject. Copies of this letter were forwarded with the agenda and additional copies were handed out at this meeting. Our concern is if we have to comply, the VCM shippers (as well as others) will want to have as a minimum choice. Head Shields and Thermal Coating and/or Jacketing and Insulation. Whatever our choice,

January 21, 1976

the added weight will come out of our load. This also concerns us as there will be freight penalties and possibly increased risk due to the additional outage and vapor space which will be created as a result of the added light weight to 112A equipment in VCM service.

Motion: A two part motion was made, and seconded. Part I was to request the CGA's representative, on the Tank Car Research Committee, Frank Heller or Ed Olsen, to advise this VCM Committee on the action taken on Head Shields and the Thermal Shield projects at the Tank Car Research Meeting which is tentatively scheduled for the last week in February 1976. Part II was to request the CGA's representative on the AAR's Tank Car Committee, Frank Heller, to advise us of the outcome of discussions on the new tank car specification for 112A cars which is to take place at a Tank Car Meeting scheduled for March 9 and 10.

U-14-74) HM 103 & 112

This docket was not discussed but some action is to take place within the next six weeks.

NEW BUSINESS

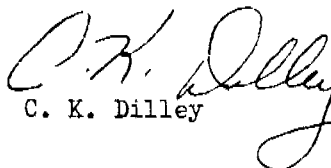
There was not sufficient time to cover our New Business for the second time. The next meeting of this Committee is tentatively scheduled for June at which time our New Business will be discussed first.

It was further requested that the Tank Car, Transportation, and VCM Committees not meet at the same time. This may be conveniently done by the CGA scheduling the VCM Committee to meet in the afternoon.

The shipper attendance at this meeting was an improvement over our last meeting in June 1975. The presence of Shell, one of the three largest shippers, was appreciated, however, those of us who are in a position to request the attendance of Dow and B. F. Goodrich should take the opportunity and request their participation. The success of this Committee can only be guaranteed if we have all three participating on this Committee.

Once again, I want to remind all those interested shippers to contact me at least two full weeks prior to our June meeting in Seaview, New Jersey, if they do not plan on attending or sending a representative. If convenient we may reschedule at some other place and date to review our business.

An updated VCM Committee address list is attached for your convenience. If you note any address changes, personnel, or corrections, please advise this Chairman.


C. K. Dilley

DUE MAY 1, 1976

Docket U-2; Kit II

HISTORY

Please Complete And/Or Comment As Noted In Example Below

<u>Name of (1)</u> <u>Car Owner</u>	<u># of Cars (2)</u> <u>Owned-VCM</u>	<u>DOT Class</u>	<u>Water</u> <u>Capacity</u> <u>Gallage</u>	<u>Manway</u> <u>Dimensions</u>	<u>Valve Size</u> <u>Reducer Size</u>	<u>Type Gauging Device</u> <u>and Manufacturer</u> <u>(Open or Closed)</u>
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(EXAMPLE)

<u>Name of</u> <u>Car Owner</u>	<u># of Cars (2&3)</u> <u>Owned-VCM</u>	<u>DOT Class</u>	<u>Water</u> <u>Capacity</u> <u>Gallage</u>	<u>Manway</u> <u>Dimensions</u>	<u>Valve Size</u> <u>Reducer Size</u>	<u>Type Gauging Device</u> <u>and Manufacturer</u> <u>(Open or Closed)</u>
PPG	89	112A340W	33,000	20"	3"/W2" Redcr.	Open-MGM
PPG	2	112A340W	11,000	20"	3"/W2" Redcr.	Open-MGM
PPG	110	112A340W	26,000	20"	3"/W2" Redcr.	Open-MGM

(1) - SHIPPERS USING FULL SERVICE LEASED CARS IN VCM SERVICE SHOULD MAKE SURE THE OWNER COMPLETES AND INCLUDES SAME.

(2) - Owned and/or net leased, (Treat Net Financed leased cars as owned if maintenance responsibility is not included in the lease rate).

(3) - As of 1/1/76.

C.K.D.
3/1/76

SL 091216

DOCKET U-2
CGA 68-8

VCM
VAPOR PRESSURE

