

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

DRAFT RULE 1005.1 STANDARDS

FOR

VINYL CHLORIDE

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MAY 24, 1979

SPECIFIC COMMENTS

BY

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PERFORMANCE CHEMICALS AND POLYMERS DIVISION

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SPECIFIC COMMENTS ON SOUTH COAST AIR QUALITY MANAGEMENT
DISTRICT BOARD DRAFT (5-24-79)

"RULE 1005.1 - STANDARDS FOR VINYL CHLORIDE"

GENERAL COMMENT: THE PROPOSED RULE 1005.1 HAS AS ITS OBJECTIVE THE REPLACEMENT OF RULE 1005 ADOPTED BY THE BOARD ON SEPTEMBER 14, 1977 AND THE IMPLEMENTATION OF THE STATE OF CALIFORNIA AIR RESOURCES BOARD RESOLUTION 78-30 ADOPTED MAY 30, 1978. THE BOARD IN ITS PROPOSAL APPEARS TO HAVE LOST SIGHT OF THE FIVE OBJECTIVES OF REGULATION. THESE ARE:

1. THE REGULATION MUST REDUCE THE IDENTIFIED HAZARD TO THE LOWEST FEASIBLE LEVEL.
2. THE REGULATION MUST BE ENFORCEABLE.
3. THE REGULATION MUST BE REASONABLE.
4. THE REGULATION MUST BE COMPLETED BY A TIME DEADLINE.
5. THE REGULATION MUST NOT DESTROY THE INDUSTRY BEING REGULATED.

REGULATORY OBJECTIVES ARE REFERRED TO ELSEWHERE IN THESE COMMENTS AND ARE REPEATED HERE TO PROVIDE A READY REFERENCE FOR ADDED MEANING TO SOME OF THE SPECIFIC COMMENTS.

"(1) THIS RULE APPLIES TO PLANTS WHICH PRODUCE:
(A) ETHYLENE DICHLORIDE BY ANY PROCESS"

COMMENT: ETHYLENE DICHLORIDE IS PRODUCED BY DIRECT CHLORINATION OF ETHYLENE AND BY REACTION OF OXYGEN AND HYDROGEN CHLORIDE WITH ETHYLENE. ONLY THE LATTER REACTION PRODUCES SOME SMALL AMOUNT OF VINYL CHLORIDE AS A BY-PRODUCT THUS THE RULE 1005 SPECIFICATION APPEARS TO BE BETTER:

"(A) ETHYLENE DICHLORIDE BY REACTION OF OXYGEN AND HYDROGEN CHLORIDE WITH ETHYLENE."

A REGULATION WITH TOO BROAD AN APPLICABILITY LOSES IMPACT AND ENFORCEABILITY.

"(B) VINYL CHLORIDE BY ANY PROCESS, AND/OR

(C) ONE OR MORE POLYMERS CONTAINING ANY FRACTION OF POLYMERIZED VINYL CHLORIDE."

COMMENT: THE BOARD'S INTENT HERE IS TO REGULATE AND CONTROL PLANTS USING VINYL CHLORIDE MONOMER TO PRODUCE POLYMERS AND NOT PLANTS WHICH USE VINYL CHLORIDE POLYMERS TO PRODUCE OTHER POLYMERS. UNION CARBIDE CORPORATION PRODUCES MANY SPECIALTY VINYL CHLORIDE RESINS AND LATEXES WHICH ARE CONVERTED TO OTHER POLYMERS IN THE FORMULATION AND USE OF COATINGS AND ADHESIVES WITHOUT EMISSION OF ANY VINYL CHLORIDE MONOMER. AGAIN THE APPLICABILITY OF THE PROPOSED RULE IS TOO BROAD AND IT SHOULD BE CHANGED TO:

"(C) ONE OR MORE POLYMERS CONTAINING ANY FRACTION OF POLYMERIZED VINYL CHLORIDE MADE FROM VINYL CHLORIDE MONOMER."

- (2) THIS RULE DOES NOT APPLY TO EQUIPMENT USED IN RESEARCH DEVELOPMENT IF THE REACTOR USED TO POLYMERIZE THE VINYL CHLORIDE PROCESSED IN THE EQUIPMENT HAS A CAPACITY OF NO MORE THAN 0.19 CUBIC METERS (50 GAL.).

THE BOARD PROPOSAL ERRS GREATLY WHEN IT ABANDONS THE ENVIRONMENTAL PROTECTION AGENCY CONCEPT THAT THE MONOMER STRIPPING OR REMOVAL STEP IN PVC RESIN PLANTS IS LOGICAL AND ENFORCEABLE CONTROL POINT FOR VINYL CHLORIDE MONOMER EMISSIONS DOWNSTREAM OF THAT POINT. THE EPA STANDARDS DEVELOPMENT AND ENGINEERING DIVISION GAVE THIS CONTROL OF VINYL CHLORIDE EMISSIONS A GREAT DEAL OF STUDY AND THE BOARD SHOULD CAREFULLY REVIEW THEIR WORK BEFORE IT CHOOSES A NEW REGULATORY TOOL. IF CALIFORNIA OR THE BOARD THINKS THAT THE BASIC 10 PPM VENT CONCENTRATION USED BY EPA IN NESHAPS IS EXCESSIVE THEN THE 400 PPM BY WEIGHT STRIPPING LIMIT FOR RVCM IN RESIN CAN BE REDUCED. THE INTRODUCTION OF A WHOLE NEW SET OF

PERFORMANCE PARAMETERS DOES NOT SEEM TO BE WARRANTED OR JUSTIFIED.

ENFORCEMENT OF THE REGULATION IS CERTAINLY MORE EFFECTIVE IF THE AREA UNDER CONTROL IS LIMITED. IT IS TO THE REGULATORS AND THE REGULATEE'S ADVANTAGE TO HAVE CLEAR CUT LIMITS AND/OR TARGETS FOR PERFORMANCE EVALUATION. IF THE BOARD IS TO CONTROL AMBIENT AIR VINYL CHLORIDE CONCENTRATIONS THEN IT SHOULD PROCEED TO DO SO AND IF IT IS TO CONTROL POINT SOURCE EMISSIONS THEN IT SHOULD COPY THE EPA'S REGULATION BUT ANY ATTEMPT TO CONTROL VINYL CHLORIDE EMISSIONS BY A COMBINATION OF RANDOMLY SELECTED PORTIONS OF BOTH CONCEPTS IS CHAOS.

RULE 1005 CONTAINED THE FOLLOWING ITEM:

- (3) SECTIONS OF THIS RULE OTHER THAN (E)(1)(A)
(2), (3) AND (4) DO NOT APPLY TO EQUIPMENT USED IN RESEARCH AND DEVELOPMENT IF THE REACTOR USED TO POLYMERIZE THE VINYL CHLORIDE PROCESSED IN THE³ EQUIPMENT HAS A CAPACITY OF GREATER THAN 0.19M³ (50 GAL) AND NO MORE THAN 4.07M³ (1100 GAL).

THIS ITEM IS SIMPLY AN EXTENSION OF THE EXEMPTION PROVIDED IN (2) UNDER APPLICABILITY FOR RESEARCH AND DEVELOPMENT REACTOR'S 0.19M³ OR LESS. THIS EXEMPTION FROM EPA'S RULE FOR RESIN STRIPPING RECOGNIZED THE FACT THAT THE DEVELOPMENT OF NEW PRODUCTS OR PROCESSES NEEDS MORE REGULATORY LEEWAY THAN PRODUCTION OF SAID PRODUCTS. IT IS SIMPLY NOT POSSIBLE TO MEET RIGID REGULATIONS AND DEVELOP NEW OR BETTER PRODUCTS AND PROCESSES THUS EPA IN ITS REGULATION RECOGNIZED AND MADE ALLOWANCE FOR THE PROBLEM. WHETHER THE SOUTH COAST AIR QUALITY MANAGEMENT BOARD CHOOSES TO MAKE ALLOWANCES FOR PRODUCT AND PROCESS DEVELOPMENT IN ITS AMBIENT AIR CONCENTRATION REGULATION OR ITS POINT-SOURCE CONCENTRATION REGULATION IS IMMATERIAL. THE MAIN POINT TO BE CONSIDERED IS THAT FAILURE TO PROVIDE FOR PRODUCT AND PROCESS TECHNOLOGY IMPROVEMENT IS TANTAMOUNT TO INSTRUCTING THE BUSINESS THAT IT IS TO WITHDRAW FROM THE AREA OVER THE LONG TERM. IF THE SOUTH COAST AIR QUALITY MANAGEMENT BOARD WANTS THE VINYL CHLORIDE POLYMER BUSINESS TO WITHDRAW FROM THE AREA THEN IT SHOULD SET A WITHDRAWAL DATE OTHERWISE IT SHOULD DRAFT ITS REGULATIONS TO PROVIDE FOR THE FUTURE OF THE INDUSTRY.

- (3) THE PROVISIONS OF THIS RULE SHALL BE EFFECTIVE ON JANUARY 1, 1980.

COMMENT: THE PROPOSED RULE 1005.1 IS MARKEDLY DIFFERENT FROM THE CALIFORNIA AIR RESOURCES BOARD RESOLUTION 78-30 APPROVED MAY 30, 1978 THEREFORE UNLESS THE SOUTH COAST AIR QUALITY MANAGEMENT BOARD HAS DATA INDICATING THAT INDUSTRY COMPLIANCE BY THAT DATE IS FEASIBLE THEN THE BOARD IS BEING ARBITRARY AND CAPRICIOUS IN ITS CONSIDERATION OF THE PROPOSED RULE 1005.1. IF THE BOARD FEELS IT MUST INSIST UPON THE JANUARY 1, 1980 COMPLIANCE DATE THEN IT SHOULD PROVIDE A PROCEDURE TO RELIEVE THOSE MANUFACTURERS WHO ARE SUBJECT TO UNAVOIDABLE DELAYS IN EQUIPMENT DELIVERY OR CONSTRUCTION.

(B) DEFINITIONS

- (1) ETHYLENE DICHLORIDE PLANT INCLUDES ANY PLANT WHICH PRODUCES ETHYLENE DICHLORIDE BY ANY PROCESS.

COMMENT: THIS DEFINITION SHOULD BE REVISED TO COINCIDE WITH THE RECOMMENDED CHANGES UNDER "APPLICABILITY."

- (2) VINYL CHLORIDE PLANT INCLUDES ANY PLANT WHICH PRODUCES VINYL CHLORIDE BY ANY PROCESS.
- (3) POLYVINYL CHLORIDE PLANT INCLUDES ANY PLANT WHERE VINYL CHLORIDE ALONE OR IN COMBINATION WITH OTHER MATERIALS IS POLYMERIZED.
- (4) SLIP GAUGE MEANS A GAUGE WHICH HAS A PROBE THAT MOVES THROUGH THE GAS/LIQUID INTERFACE IN A STORAGE OR TRANSFER VESSEL AND INDICATES THE LEVEL OF VINYL CHLORIDE IN THE VESSEL BY THE PHYSICAL STATE OF THE MATERIAL THE GAUGE DISCHARGES.

COMMENT: THE DEFINITION OF AND ALL REFERENCE TO "SLIP GAUGES" SHOULD BE DELETED. THESE GAUGES HAVE BEEN BANNED BY FEDERAL REGULATION AND HAVE NOT BEEN USED IN RECENT YEARS IN PLANTS MANUFACTURING VINYL CHLORIDE OR POLYVINYL CHLORIDE. SLIP GAUGES FOUND CONSIDERABLE USE ON EQUIPMENT FOR TRANSPORTATION OF LIQUIDIFIED GASES. THIS FUNCTION IS EXEMPT FROM THE PROPOSED REGULATION.

- (5) INPROCESS WASTEWATER MEANS ANY WATER WHICH, DURING MANUFACTURING OR PROCESSING, COMES INTO DIRECT CONTACT WITH VINYL CHLORIDE OR POLYVINYL CHLORIDE OR RESULTS FROM THE PRODUCTION OR USE OF ANY RAW MATERIAL, INTERMEDIATE PRODUCT, FINISHED PRODUCT, BY-PRODUCT, OR WASTE PRODUCT CONTAINING VINYL CHLORIDE OR POLYVINYL CHLORIDE BUT WHICH HAS NOT BEEN DISCHARGED TO A WASTEWATER TREATMENT PROCESS OR DISCHARGED UNTREATED AS WASTEWATER.
- (6) WASTEWATER TREATMENT PROCESS INCLUDES ANY PROCESS WHICH MODIFIES CHARACTERISTICS SUCH AS BOD (BIOCHEMICAL OXYGEN DEMAND), COD (CHEMICAL OXYGEN DEMAND), TSS (TOTAL SUSPENDED SOLIDS), AND PH, USUALLY FOR THE PURPOSE OF MEETING EFFLUENT GUIDELINES AND STANDARDS; IT DOES NOT INCLUDE ANY PROCESS THE PURPOSE OF WHICH IS TO REMOVE VINYL CHLORIDE FROM WATER TO MEET REQUIREMENTS OF THIS RULE.
- (7) IN VINYL CHLORIDE SERVICE MEANS THAT A PIECE OF EQUIPMENT EITHER CONTAINS OR CONTACTS A LIQUID OR A GAS THAT IS AT LEAST 10 PERCENT VINYL CHLORIDE BY VOLUME.

COMMENT: IN VINYL CHLORIDE SERVICE SHOULD BE DEFINED AS PER EPA'S NESHAPS REGULATION. IN VINYL CHLORIDE SERVICE MEANS THAT A PIECE OF EQUIPMENT CONTAINS OR CONTACTS EITHER A LIQUID THAT IS AT LEAST 10 PERCENT BY WEIGHT VINYL CHLORIDE OR A GAS THAT IS AT LEAST 10 PERCENT BY VOLUME VINYL CHLORIDE. THIS REGULATION DOES NOT APPLY TO EQUIPMENT NOT IN VINYL CHLORIDE SERVICE."

- (8) ETHYLENE DICHLORIDE PURIFICATION INCLUDES ANY PART OF THE PROCESS OF ETHYLENE DICHLORIDE PRODUCTION WHICH FOLLOWS ETHYLENE DICHLORIDE FORMATION AND IN WHICH FINISHED ETHYLENE DICHLORIDE IS PRODUCED.

COMMENT: THE NEED FOR A DEFINITION OF ETHYLENE DICHLORIDE PURIFICATION IS NOT APPARENT. THIS DEFINITION CAN BE DELETED.

- (9) VINYL CHLORIDE PURIFICATION INCLUDES ANY PART OF THE PROCESS OF VINYL CHLORIDE WHICH FOLLOWS THE FORMATION OF VINYL CHLORIDE AND IN WHICH FINISHED VINYL CHLORIDE IS PRODUCED.

COMMENT: THE NEED FOR A DEFINITION OF "VINYL CHLORIDE PURIFICATION" IS NOT EVIDENT IN THE PROPOSED RULE THEREFORE THIS SHOULD BE DELETED.

- (10) REACTOR INCLUDES ANY VESSEL IN WHICH VINYL CHLORIDE IS PARTIALLY OR TOTALLY POLYMERIZED INTO POLYVINYL CHLORIDE.
- (11) STRIPPER INCLUDES ANY VESSEL IN WHICH RESIDUAL VINYL CHLORIDE IS REMOVED FROM POLYVINYL CHLORIDE RESIN, EXCEPT BULK RESIN, IN THE SLURRY FORM BY THE USE OF HEAT AND/OR VACUUM. IN THE CASE OF BULK RESIN, STRIPPER INCLUDES ANY VESSEL WHICH IS USED TO REMOVE RESIDUAL VINYL CHLORIDE FROM POLYVINYL CHLORIDE RESIN IMMEDIATELY FOLLOWING THE POLYMERIZATION STEP IN THE PLANT PROCESS FLOW.

COMMENT: THESE DEFINITIONS OF A REACTOR AND A STRIPPER ARE GERMANE AND ESSENTIAL IF THE CALIFORNIA AIR RESOURCE BOARD CHOOSES TO REGULATE VINYL CHLORIDE EMISSIONS IN THE PATTERN SPECIFIED BY THE ENVIRONMENTAL PROTECTION AGENCY IN THEIR NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS - VINYL CHLORIDE. THE DEFINITIONS HAVE NO PLACE IN A REGULATION BASED ON AMBIENT AIR CONCENTRATIONS.

- (12) LEAK MEANS THE RELEASE OR ESCAPE OF ANY DETECTABLE LEVEL OF VINYL CHLORIDE, ABOVE THE BACKGROUND LEVEL. SUCH DETERMINATION SHALL BE MADE USING AN ANALYZER EMPLOYING FLAME IONIZATION OR PHOTO-DETECTION METHODS, WHICH MAY BE PORTABLE, AND HAVING A SENSITIVITY OF AT LEAST 1 PPM.

COMMENT: THE DEFINITION OF A "LEAK" IS NOT NECESSARY IN A REGULATION BASED ON AMBIENT AIR CONCENTRATIONS. IF IT BECOMES NECESSARY IN THE FINAL REGULATION THEN IT SHOULD READ AS FOLLOWS:

- "(12) LEAK - THE EMISSION OF VINYL CHLORIDE INTO THE AMBIENT AIR IS EVIDENCED BY TWO CONSECUTIVE MEASUREMENTS OF THE CONCENTRATION OF VINYL CHLORIDE WHICH ARE SIGNIFICANTLY IN EXCESS OF THE NORMAL MEAN VINYL CHLORIDE CONCENTRATIONS IN THAT PARTICULAR AREA. SIGNIFICANTLY IN EXCESS OF THE NORMAL MEAN VINYL CHLORIDE CONCENTRATION IS DEFINED AS MORE THAN THE PRODUCT OF THE BACKGROUND DEVIATION MULTIPLIED BY THREE."
- (13) BACKGROUND LEVEL MEANS THE CONCENTRATION OF VINYL CHLORIDE IN THE ATMOSPHERE WITHIN THE PLANT PREMISES, AND WHICH IS NOT INFLUENCED BY ANY SPECIFIC EMISSION POINT.

COMMENT: BACKGROUND LEVEL IS THE ARITHMETIC MEAN CONCENTRATION OF VINYL CHLORIDE IN THE PLANT ATMOSPHERE AS DETERMINED BY MULTIPLE MEASUREMENTS COVERING AT LEAST SEVEN DAYS.

(14) DESIGNATED PLANT MEANS AN ETHYLENE DICHLORIDE, VINYL CHLORIDE OR POLYVINYL CHLORIDE PLANT.

(c) CONTROL REQUIREMENTS

AFTER THE EFFECTIVE DATE OF THIS RULE, A PERSON OPERATING A DESIGNATED PLANT SHALL VENT THE FOLLOWING EQUIPMENT TO AIR POLLUTION CONTROL EQUIPMENT OR OTHER PROCESSES WHICH COMPLY WITH THE REQUIREMENTS OF SUBPARAGRAPH (F) OF THIS RULE:

COMMENT: THE PROPOSED RULE 1005.1 IN THIS SECTION IS SUPER-IMPOSING DESIGN SPECIFICATIONS ON TOP OF THE AMBIENT AIR CONCENTRATION LIMIT OF 10 PPB VINYL CHLORIDE MAXIMUM. WE BELIEVE THAT THE BOARD SHOULD CONSIDER PROMULGATING THIS SECTION AS A REGULATORY ALTERNATIVE TO CONTROL BY AMBIENT AIR CONCENTRATION. THE PLANT OWNER/OPERATOR COULD ACCEPT PERFORMANCE CONTROL VIA AMBIENT AIR LIMITS AND NOT BE SUBJECT TO DESIGN SPECIFICATIONS EXCEPT THOSE APPLIED ALREADY BY EPA OR HE COULD ACCEPT THE DESIGN SPECIFICATIONS AND NOT BE SUBJECT TO AMBIENT AIR CONCENTRATION CONTROL. IN THE FIRST SITUATION THE OWNER/OPERATOR MUST DEMONSTRATE COMPLIANCE WITH THE AMBIENT AIR LIMITS. IN THE SECOND CASE, THE BOARD WOULD ACCEPT COMPLIANCE WITH DESIGN SPECIFICATIONS AS EVIDENCE OF COMPLIANCE WITH THE AMBIENT AIR CONCENTRATION LIMITS. THE OWNER/OPERATOR WOULD BE REQUIRED TO SPECIFY WHICH REGULATORY SYSTEM HE WOULD USE IN ADVANCE.

IN ANY EVENT THE INITIAL PARAGRAPH SHOULD BE REVISED AS FOLLOWS:

"AFTER THE EFFECTIVE DATE OF THIS RULE, THE OPERATOR OF A DESIGNATED PLANT SHALL DUCT VENTS FROM THE FOLLOWING EQUIPMENT TO AIR POLLUTION CONTROL EQUIPMENT OR OTHER PROCESSES WHICH COMPLY WITH THE REQUIREMENTS OF SUB-PARAGRAPH (F) OF THIS RULE IF THE VINYL CHLORIDE CONCENTRATION OF THE VENTED GAS EXCEEDS THAT PERMITTED FOR AIR POLLUTION CONTROL EQUIPMENT IN SUB-PARAGRAPH (F)."

THE TWO CHANGES ARE:

1. THE OPERATOR MAY NOT NEED TO VENT CERTAIN EQUIPMENT ITEMS THEREFORE HE SHOULD NOT BE REQUIRED TO VENT THEM. MECHANICAL SEALS ARE AN EXAMPLE WHERE VENTING IS OPTIONAL.
2. THE OPERATOR SHOULD NOT HAVE TO DIRECT VENTS TO AIR POLLUTION CONTROL EQUIPMENT IF THE CONTAINED VINYL CHLORIDE IS EQUAL TO OR LESS THAN CONCENTRATIONS PERMITTED TO BE DISCHARGED FROM THE CONTROL EQUIPMENT.

"(1) VENTS OR OPENINGS OF OR APPURTENANCES VENTING:"

COMMENT: THE FOREGOING PHRASE FROM THE PROPOSED RULE IS TOO ALL INCLUSIVE AND IMPOSES A HARDSHIP ON THE PLANT OPERATOR AS REGARDS NON-ROUTINE MAINTENANCE OPERATIONS. WHERE POSSIBLE WE AGREE THAT ALL VENTS AND RELEASES FROM EQUIPMENT OPENINGS SHOULD BE DIRECTED TO AIR POLLUTION CONTROL EQUIPMENT BUT WHERE THIS IS NOT POSSIBLE THE VINYL CHLORIDE CONCENTRATION IN THE EQUIPMENT OR APPURTENANCES SHOULD BE REDUCED TO THE LOWEST FEASIBLE LEVEL PRIOR TO OPENING FOR MAINTENANCE. THE ENVIRONMENTAL PROTECTION AGENCY IN ITS NESHAPS STANDARD FOR VINYL CHLORIDE RECOGNIZED THAT NON-ROUTINE MAINTENANCE REQUIRED SEPARATE CONSIDERATION FROM PROCESS VENTS AND PROVIDED FOR THAT PROBLEM (40 CFR 61.65 (B)(6)) FOR A TYPICAL SUSPENSION PVC PLANT THESE NON-ROUTINE MAINTENANCE EMISSIONS WERE ESTIMATED TO AVERAGE ONLY 2 GRAMS PER HOUR.

THE PHRASE IN THE PROPOSED RULE 1005.1 SHOULD BE REVISED AS FOLLOWS:

- "(1) PROCESS VENTS OR ROUTINE EQUIPMENT OPENINGS OR ROUTINE APPURTENANCES VENTING (VINYL CHLORIDE EMISSIONS FROM NON-ROUTINE MAINTENANCE OF EQUIPMENT SHALL BE LIMITED TO THE LOWEST FEASIBLE AMOUNT AND MAY NOT EXCEED THAT SPECIFIED IN (40 CFR 61.65(B)(6))."
- (A) REACTORS
 - (B) STORAGE TANKS OR SURGE TANKS
 - (C) PURIFICATION VESSELS OR OTHER EQUIPMENT USED FOR PURIFICATION
 - (D) STRIPPER VESSELS

- (E) COMBINATION REACTOR-STRIPPER VESSELS
- (F) MIXING, WEIGHTING OR HOLDING TANKS
- (G) MONOMER RECOVERY EQUIPMENT
- (H) VESSELS AND OTHER EQUIPMENT USED AFTER THE STRIPPER PROCESS

COMMENT: AS NOTED PREVIOUSLY WE BELIEVE THAT THE PROPOSED RULE 1005.1 ERRS SERIOUSLY IN ABANDONING EPA'S STRIPPING CONTROL LIMITS EXPRESSED IN 40 CFR 61.64 (E). THE BOARD MAY NOT WISH TO ACCEPT THE EPA STRIPPING CONCENTRATION LIMITS BUT THE EPA STANDARD IS MEASUREABLE, READILY ENFORCEABLE AND PROVIDES INCENTIVE FOR THE PLANT OPERATOR TO LIMIT THE PLANT AREA WHERE EMISSIONS ARE LIKELY TO OCCUR.

- (I) RAILROAD TANK CARS, TANK TRUCKS AND SHIPPING CONTAINERS
- (2) SLIP GAUGES
- (3) SEALS FOR PUMPS, COMPRESSOR AGITATORS.

COMMENT: DOUBLE SEALS FOR PUMPS, COMPRESSORS AND AGITATORS WHEN INSTALLED BY EPA'S VINYL CHLORIDE STANDARD (40 CFR 61.65 (B)(3)) MAY NOT REQUIRE VENTS IF A PURGE FLUID IS USED BETWEEN THE SEALS AT A PRESSURE IN EXCESS OF THE PROCESS PRESSURE AT THAT POINT.

- (4) OTHER EQUIPMENT DESIGNATED IN WRITING BY THE EXECUTIVE OFFICER AS NECESSARY TO BE VENTED TO ENSURE THAT THE CALIFORNIA VINYL CHLORIDE AMBIENT AIR STANDARD IS NOT EXCEEDED.

COMMENT: THE AUTHORITY VESTED IN THE EXECUTIVE OFFICER BY THIS ITEM IS TOO BROAD. THE EXECUTIVE OFFICER SHOULD BE PERMITTED TO DESIGNATE OTHER EQUIPMENT FOR A SPECIFIC PLANT WHERE THERE IS EVIDENCE THAT SUCH EQUIPMENT IS CAUSING THAT PLANT TO EXCEED THE CALIFORNIA VINYL CHLORIDE AMBIENT AIR STANDARD. THE ITEM SHOULD BE REVISED AS FOLLOWS:

- (4) OTHER EQUIPMENT IN A SPECIFIC PLANT DESIGNATED IN WRITING BY THE EXECUTIVE OFFICER AS NECESSARY TO BE VENTED TO PREVENT THE CALIFORNIA VINYL CHLORIDE AMBIENT AIR STANDARD FROM BEING EXCEEDED.

(5) EMERGENCY-VENTING EQUIPMENT

COMMENT: THE PROPOSED RULE ERRS SERIOUSLY IN REQUIRING THAT EMERGENCY VENTING EQUIPMENT BE VENTED TO POLLUTION CONTROL EQUIPMENT. THIS STEMS FROM A LACK OF UNDERSTANDING FOR THE NEED FOR EMERGENCY VENTS AND FOR SOME OF THE EMERGENCY VENTING PROBLEMS PECULIAR TO THE VC POLYMER INDUSTRY.

INDUSTRY USES RELIEF VALVES, I.E. EMERGENCY VENTS, ON CHEMICAL PROCESS EQUIPMENT FOR THESE REASONS:

1. VESSEL VENTING IN CASE OF FIRE AND EXPLOSION.
2. VESSEL VENTING IN CASE OF EQUIPMENT MALFUNCTION.
3. VESSEL VENTING IN CASE OF A SERIOUS OPERATION ERROR.
4. VESSEL VENTING IN CASE OF UNCONTROLLABLE CHEMICAL REACTIONS INCLUDING POLYMERIZATIONS.

IN SELECTING AND SIZING RELIEF DEVICES THE DESIGN ENGINEER EVALUATES AND WEIGHS THE POTENTIAL EFFECTS OF EACH OF THESE ITEMS. GENERALLY, ONE OF THE REASONS FOR RELIEF VALVE INSTALLATION IS SO OVERRIDING IT IS CHOSEN AS THE BASIS OF SELECTION; FOR EXAMPLE, THE PRIMARY REASON FOR RELIEF DEVICE SELECTION ON A POLYMERIZER IS UNCONTROLLABLE CHEMICAL REACTION.

RELIEF VALVES TO PROTECT FROM HYDRAULIC SHOCK OR OVER-PRESSURE OF MECHANICAL EQUIPMENT, SUCH AS PUMPS OR COMPRESSORS, ARE INSTALLED ON THE DISCHARGE OR HIGH PRESSURE SIDE OF THE ITEM AND RELIEVE TO THE LOW PRESSURE OR SUCTION SIDE OF THE ITEM. LEAKAGE OF THE RELIEF VALVE REDUCES THE EQUIPMENT EFFICIENCY BUT THERE IS NO DISCHARGE TO THE AIR. REQUIRING RUPTURE DISKS, LEAK TELL-TALES AND DISCHARGE TO A COLLECTION SYSTEM CONTRIBUTES NOTHING TO THE ELIMINATION OF VCM EMISSIONS.

RELIEF VALVES ON STORAGE TANKS AND SIMILAR EQUIPMENT HAVE AS A PRIMARY FUNCTION PROTECTION OF THE EQUIPMENT FROM EXTERNAL FIRE EXPOSURE. PROTECTION FROM EQUIPMENT MALFUNCTION OR OPERATIONAL ERROR IS A VERY REMOTE NEED THOUGH IT IS ALSO PROVIDED. IN THIS CASE THE WORKING PRESSURE OF THE TANK IS LESS THAN 90% OF THE RELIEF

VALVE SETTING IF GOOD ENGINEERING PRACTICE IS FOLLOWED. IF THE RELIEF VALVE IS OF GOOD QUALITY AND IS SERVICED REGULARLY, LEAKAGE AT NORMAL WORKING PRESSURE IS NO MORE THAN ANY OTHER SHUT-OFF VALVE. IF THE VESSEL IS EVER EXPOSED TO FIRE, THE RELIEF VALVE OPENS AFTER A HEAT-UP TIME AND THE VENTED MATERIAL PROBABLY BURNS AT THE VALVE CHARGE PORT. THE CHANCES OF SUCH RELIEF ARE REMOTE BUT THE PLANT, TANK, AND COMMUNITY ARE PROTECTED FROM CATASTROPHIC EXPLOSIONS. THE REQUIREMENT FOR INSTALLATION OF VENT COLLECTION SYSTEMS, AND/OR FLARES, RUPTURE DISKS, AND TELLTALE VALVES IN THIS CASE IS REDUNDANT AND CONTRIBUTES VERY LITTLE TO REDUCTION OF VCM EMISSIONS.

RELIEF VALVES ON PROCESS EQUIPMENT, SUCH AS STILLs, HAVE A PRIMARY FUNCTION OF PROTECTING THE EQUIPMENT FROM EQUIPMENT MALFUNCTION, OPERATIONAL ERROR, OR LOSS OF UTILITIES. IN THIS CASE, THERE ARE MULTIPLE PERILS AND THE TIME LAG BETWEEN UPSET AND RELIEF VALVE RELEASE IS SHORTER.

DESPITE THE MULTIPLE PERILS AND SHORTER CONTROL TIME AVAILABLE, RELIEF VALVE RELEASES ARE ESSENTIALLY NON-EXISTENT IN PROPERLY DESIGNED SYSTEMS EQUIPPED WITH AUTOMATIC INTERLOCKED CONTROLLERS.

RELIEF VALVES AND OTHER DEVICES ON VINYL CHLORIDE POLYMERIZERS HAVE A PRIMARY FUNCTION TO PROTECT AGAINST CATASTROPHIC FAILURE OF THE VESSEL RESULTING FROM AN UNCONTROLLABLE CHEMICAL REACTION.

PVC REACTIONS ARE CATALYZED BY THE DECOMPOSITION OF PEROXIDE TO FORM FREE RADICALS. THESE FREE RADICALS INITIATE A CHAIN POLYMERIZATION WHICH CONTINUES UNTIL THE CHAIN GROWTH IS TERMINATED BY LACK OF MONOMER OR THE PRESENCE OF SOME CHAIN TERMINATOR. THE POLYMERIZATION RELEASES APPROXIMATELY 700 BTU/POUND OF RESIN FORMED. THE PEROXIDE IS NORMALLY CHOSEN FOR A DESIRED RATE RELEASE OF FREE RADICALS AT A PARTICULAR TEMPERATURE. THE AVAILABILITY OF A LARGE QUANTITY OF MONOMER, A TEMPERATURE SENSITIVE CATALYST, AND THE GENERATION OF LARGE AMOUNTS OF HEAT SET THE STAGE FOR A VERY RAPID LOSS OF REACTOR CONTROL IF THE SYSTEM IS MISCHARGED, THE AGITATOR OR CONTROL SYSTEM FAILS, OR COOLING IS LOST.

THE PVC INDUSTRY'S PRACTICE TO CONTROL OR ELIMINATE VINYL CHLORIDE POLYMERIZER EMERGENCY EMISSIONS IS BASED ON THE FOLLOWING:

1. PREVENTION BEFORE THE FACT VIA USE OF AUXILIARY POWER SYSTEMS, REDUNDANT CONTROLS, INTERLOCKED SYSTEMS AND OTHER SUCH PREVENTIVE TECHNIQUES.

2. ALARMS AND OTHER WARNING DEVICES AND PROCEDURES SIGNALING POLYMERIZER PROBLEMS ARE IN GENERAL USE.

3. MOST POLYMERIZERS ARE EQUIPPED WITH PIPING TO PERMIT VENTING EXCESSIVE PRESSURE TO GAS HOLDERS AND/OR MONOMER RECOVERY SYSTEMS. IN ADDITION PORTIONS OF THE REACTOR LIQUID CONTENTS CAN BE REMOVED TO THE REACTOR BLOW-DOWN OR STRIPPING SYSTEM. THIS IS THE FIRST STEP TO POLYMERIZER EMERGENCY CONTROL.

4. MOST POLYMERIZERS ARE EQUIPPED TO ADD POLYMERIZATION INHIBITORS OR SHORT STOPS. THESE INHIBITORS SLOW THE POLYMERIZATION; THEY DO NOT STOP IT. THE EFFECTIVENESS OF THE INHIBITOR ADDITION DEPENDS UPON MIXING, AND THE PARTICULAR STAGE OF THE POLYMERIZATION REACTION. THIS IS THE SECOND STEP TO POLYMERIZATION EMERGENCY CONTROL.

5. ALL POLYMERIZERS ARE EQUIPPED WITH RUPTURE DISKS AND/OR RELIEF VALVES. IF CONTROLLED VENTING, AND INHIBITOR ADDITIONS DO NOT ESTABLISH CONTROL, THEN THE REACTOR RELIEF VALVES AND RUPTURE DISKS MUST BE PERMITTED TO VENT FREELY TO PREVENT EXPLOSIVE FAILURE OF THE VESSEL. THE VIOLENCE OF A RUN AWAY POLYMERIZATION IS DIFFICULT TO VISUALIZE UNLESS ONE IS OBSERVED FIRST HAND. EPA HAS RECOGNIZED THIS SITUATION IN ITS STANDARD WHEN IT POINTS OUT THAT FLARING OR VENT COLLECTION IS NOT APPLICABLE TO THE LARGE RELIEF VALVES ON THE POLYMERIZATION REACTORS.

EMERGENCY RELIEF VENTING FOR THE VINYL CHLORIDE RESIN INDUSTRY IS FURTHER COMPLICATED BY THE EMISSION CONTROL EQUIPMENT AND BY THE IN PROCESS MATERIAL ITSELF. TO MEET THE LOW LEVEL OF PERMISSIBLE EMISSION CONCENTRATION, INCINERATORS OR LARGE SCRUBBERS ARE REQUIRED. THESE ITEMS CANNOT BE DESIGNED TO FUNCTION PROPERLY AT NORMAL EMISSION RATES AND TO FUNCTION SIMILARLY WHEN A LARGE

EMISSION LOAD IS APPLIED BY THE OPENING OF A RELIEF VALVE. THIS IS EQUIVALENT TO CHANGING THE SPEED OF A TRAIN FROM TEN MILES PER HOUR TO ONE HUNDRED MILES PER HOUR INSTANTANEOUSLY. ADDITIONALLY, EMERGENCY VENTING MANY TIMES RESULTS FROM A FIRE, A LOSS OF POWER OR A LOSS OF COOLING. SUCH UPSETS OFTEN CAUSE A SHUTDOWN OF THE CONTROL EQUIPMENT AS WELL AS OTHER PARTS OF THE PLANT THUS THERE IS NO DISPOSAL FOR EMISSIONS AND IN THE INTEREST OF PREVENTING GREATER CATASTROPHES, ATMOSPHERIC VENTING IS THE LESSER EVIL. THE THIRD COMPLICATING FACTOR IS THAT THE REACTORS DO NOT CONTAIN LIQUIFIED GAS WHICH IS EASILY VENTED; THEY CONTAIN A MIXTURE OF WATER, VINYL CHLORIDE AND SUSPENDED SOLIDS. THIS WATER WOULD EXTINGUISH AN INCINERATOR AND THE SUSPENDED SOLIDS FOUL PIPING AND CONTROL EQUIPMENT AND CAUSE BACK PRESSURE ON THE EMERGENCY RELIEF COLLECTION SYSTEM. EMERGENCY VENTING IN A MANIFOLDED SYSTEM HAS CAUSED DESTRUCTION OF OTHER RELIEF DEVICES AND EQUIPMENT RUPTURE.

WE RECOMMEND IN THE INTEREST OF OVERALL PLANT AND COMMUNITY SAFETY THAT THIS ITEM BE DELETED. THE BOARD SHOULD CERTAINLY QUESTION WHETHER A PARTICULAR EMERGENCY VENTING WAS UNAVOIDABLE BUT IT SHOULD NOT ATTEMPT TO CONTROL AMBIENT AIR VINYL CHLORIDE CONCENTRATIONS BY MAKING A DISASTER PROBABLE.

(D) PROCEDURAL REQUIREMENTS

AFTER THE EFFECTIVE DATE OF THIS RULE, A PERSON OPERATING A DESIGNATED PLANT SHALL COMPLY WITH THE FOLLOWING PROCEDURES:

COMMENT: AS WAS THE CASE FOR (C) CONTROL REQUIREMENTS: THE BOARD SHOULD CONSIDER PROMULGATING THIS SECTION AS A REGULATORY ALTERNATIVE TO CONTROL BY AMBIENT AIR CONCENTRATION. THE PLANT OWNER/OPERATOR COULD HAVE A CHOICE AS TO WHETHER HE IS CONTROLLED BY AMBIENT AIR CONCENTRATION OR WHETHER HE WOULD RATHER ACCEPT SPECIFIC PROCEDURAL REQUIREMENTS IN LIEU OF THE AMBIENT AIR CONTROL.

- (1) VINYL CHLORIDE LOADING AND UNLOADING LINES SHALL NOT BE OPENED TO THE ATMOSPHERE UNLESS:
 - (A) ALL VINYL CHLORIDE LIQUID HAS BEEN PUMPED OUT OF THE LINES, AND
 - (B) THE VINYL CHLORIDE LOADING AND UNLOADING LINES HAVE BEEN PURGED WITH AIR FOR A MINIMUM OF FIVE MINUTES.

COMMENT: THE INTRODUCTION OF AIR INTO A VINYL CHLORIDE SYSTEM LEADS TO POTENTIAL FIRES AND EXPLOSIONS AS WELL AS OPERATING EMERGENCIES AND RESULTING VENTING. THE USE OF INERT GAS FOR PURGING SHOULD BE SPECIFIED AS WELL AS THE PURGE RATE OR BETTER YET THE NUMBER OF VOLUME DISPLACEMENTS.

- (c) ALL VINYL CHLORIDE VAPORS RESULTING FROM THE OPERATIONS SPECIFIED IN THE ABOVE SUB-PARAGRAPHS (A) AND (B) SHALL BE VENTED TO AIR POLLUTION CONTROL EQUIPMENT OR OTHER PROCESSES IN ACCORDANCE WITH THE PROVISIONS OF SUB-PARAGRAPH (F) OF THIS RULE.

COMMENT: THE PROPOSED RULE'S CONCERN REGARDING EMISSIONS FROM UNLOADING AND LOADING LINES DOES NOT APPEAR WARRANTED. THE LOADING AND UNLOADING LINE EMISSIONS LIMITS IMPOSED BY EPA (40 CFR 61.65 (b)(1)) RESULT IN VINYL CHLORIDE EMISSIONS OF 0.021 GMS PER SHIPPING CONTAINER. UNION CARBIDE CORPORATION AT ITS LATEX FACILITY ESTIMATES UNLOADING LINE EMISSIONS HAS 0.0028 GMS PER CAR FOR A YEARLY EMISSION RATE FROM THIS OPERATION OF 17 GMS. LIMITING THE PLANT OWNER/OPERATOR TO A SINGLE METHOD THAT IS NEITHER WHOLLY RELIABLE NOR FOOL PROOF IS NO IMPROVEMENT OVER EPA'S STANDARD, THEREFORE IF THE BOARD SEES A NEED FOR A RULE ON UNLOADING AND LOADING LINE EMISSIONS THEY SHOULD ADAPT THE EPA RULE.

- (2) UNUSED PORTIONS OF SAMPLES SHALL BE RETURNED TO THE PRODUCTION PROCESS. SAMPLE CONTAINERS IN VINYL CHLORIDE SERVICE SHALL BE PURGED INTO A CLOSED PROCESS SYSTEM OR AIR POLLUTION CONTROL EQUIPMENT.

COMMENT: THE PROPOSAL IS NOT CLEAR REGARDING WHICH SAMPLES ARE TO BE RECYCLED. THE FOLLOWING REVISION IS SUGGESTED.

- (2) UNUSED PORTIONS OF SAMPLES TAKEN FROM EQUIPMENT IN VINYL CHLORIDE SERVICE SHALL BE RETURNED TO THE PRODUCTION PROCESS. SAMPLE CONTAINERS IN VINYL CHLORIDE SERVICE SHALL BE PURGED INTO THE PROCESS OR TO AIR POLLUTION CONTROL EQUIPMENT.
- (3) VINYL CHLORIDE EMISSIONS TO THE ATMOSPHERE FROM INPROCESS WASTEWATER SHALL BE REDUCED AS FOLLOWS:

- (A) THE CONCENTRATION OF VINYL CHLORIDE IN EACH INPROCESS WASTEWATER STREAM SHALL BE REDUCED TO NO MORE THAN 10 PPM VINYL CHLORIDE (BY WEIGHT), BEFORE BEING MIXED WITH ANY OTHER INPROCESS WASTEWATER STREAM, AND BEFORE BEING DISCHARGED TO A WASTEWATER TREATMENT PROCESS, OR BEFORE BEING DISCHARGED UNTREATED AS A WASTEWATER.
- THIS PARAGRAPH APPLIES TO WATER WHICH IS USED TO DISPLACE VINYL CHLORIDE FROM EQUIPMENT BEFORE SUCH EQUIPMENT IS OPENED TO THE ATMOSPHERE IN ACCORDANCE WITH SUB-PARAGRAPH (D)(1) OF THIS RULE OR WITH (C), BUT DOES NOT APPLY TO WATER WHICH IS USED TO WASH OUT EQUIPMENT AFTER THE EQUIPMENT HAS ALREADY BEEN OPENED TO THE ATMOSPHERE.

COMMENT: THE REFERENCE TO SUB-PARAGRAPH (D)(1) IS UNCLEAR. SUB-PARAGRAPH (D)(1) MAKES NO REFERENCE TO THE USE OF DISPLACEMENT WATER.

- (B) ANY VINYL CHLORIDE REMOVED FROM THE INPROCESS WASTEWATER IS TO BE DUCTED THROUGH THE AIR POLLUTION CONTROL EQUIPMENT SPECIFIED IN SUB-PARAGRAPH (F).

COMMENT: THE ABOVE RULE SHOULD BE REVISED TO PERMIT THE VINYL CHLORIDE TO BE RETURNED TO THE PROCESS OR TO BE DUCTED THROUGH THE AIR POLLUTION CONTROL EQUIPMENT.

(E) AMBIENT AIR CONCENTRATION REQUIREMENTS

COMMENT: THE BOARD SHOULD ACCEPT DESIGNATED PLANT COMPLIANCE WITH THE PROPOSED DESIGN AND PROCEDURAL RULES AS EVIDENCE OF COMPLIANCE UNDER THIS PARAGRAPH OR COMPLIANCE WITH THIS PARAGRAPH AS EVIDENCE THAT THE PROCEDURAL AND DESIGN RULES ARE UNNECESSARY.

AFTER THE EFFECTIVE DATE OF THIS RULE, A PERSON OPERATING A DESIGNATED PLANT SHALL NOT ALLOW THE DISCHARGE INTO THE ATMOSPHERE OF ANY MATERIALS WHICH RESULT IN AMBIENT CONCENTRATIONS OF VINYL CHLORIDE WHICH ARE EQUAL TO OR GREATER THAN 10 PARTS PER BILLION OF VINYL CHLORIDE, 24-HOUR AVERAGE MEASURED AT ANY POINT BEYOND THE PROPERTY LINE OF SUCH PLANT. SUCH MEASUREMENTS SHALL BE PERFORMED USING METHODS SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN ESTABLISHING THE VINYL CHLORIDE AMBIENT AIR QUALITY STANDARD. A COPY OF SUCH METHODS MAY BE OBTAINED FROM THE DISTRICT EXECUTIVE OFFICER UPON REQUEST.

COMMENT: THE GAS CHROMATOGRAPHIC TEST METHOD ON WHICH THE AMBIENT AIR REGULATION IS BASED LEAVES A GREAT DEAL TO BE DESIRED REGARDING ITS ACCURACY. PARAGRAPHS 3.1 AND 3.2 FROM THE ARB METHOD ARE AS FOLLOWS:

"3.1 ANY ORGANIC COMPOUND PRESENT IN THE SAMPLE HAVING A RETENTION TIME VERY SIMILAR TO THAT OF VCM UNDER THE OPERATING CONDITIONS DESCRIBED IN THIS METHOD IS AN INTERFERENCE. THEREFORE, PROOF OF CHEMICAL IDENTITY REQUIRES CONFIRMATION BY OTHER MEANS.

3.2 IF A PARTICULAR INTERFERING COMPOUND IS THOUGHT LIKELY TO BE PRESENT, NEW CHROMATOGRAPHIC PARAMETERS MUST BE CHOSEN SO AS TO RESOLVE THE VCM PEAK FROM THE INTERFERING PEAK."

THESE STATEMENTS MAKE THE INTERFERENCE PROBLEM SOUND SIMPLER THAN IT WILL BE IN ACTUAL PRACTICE. THE AMBIENT AIR COMPOSITION IN AN INDUSTRIAL/URBAN AREA SUCH AS LOS ANGELES IS CONSTANTLY VARYING AS REGARDS CONTAMINANTS AT THE 0 TO 10 PPB CONCENTRATION, THUS WHEN THE OWNER/OPERATOR SAMPLES THE POPULATED AREA AND SHOWS AN APPARENT VINYL CHLORIDE ANALYSIS BY THE METHOD OF 15 PPB HE IS CITED FOR VIOLATION OF THE REGULATION UNLESS HE HAS ACCESS TO A MASS SPECTROMETER TO CONFIRM THE PRESENCE OF AN INTERFERENT. CERTAINLY AS THE METHOD STATES IF HE KNEW THE SAMPLE COMPOSITION HE COULD MAKE SURE THE CHROMATOGRAPH YIELDED THE PROPER DATA. THIS LEADS TO A CONCLUSION BY THE UNINFORMED THAT IF HE KNEW THE SAMPLE COMPOSITION WHY OPERATE THE CHROMATOGRAPH. UNION CARBIDE CORPORATION HAS BEEN ANALYZING GAS SAMPLES CONTAINING VINYL CHLORIDE FOR A NUMBER OF YEARS BY GAS CHROMATOGRAPH AND HAS BEEN MISLED BY INTERFERENCE CAUSED BY ACETALDEHYDE AND ISOBUTENE. AMBIENT AIR SAMPLES TAKEN IN THE VICINITY OF AUTO SERVICE FACILITIES REGULARLY SHOW VINYL CHLORIDE CONCENTRATIONS OF 10 TO 20 PPB APPARENTLY CAUSED BY SOME EMISSION AT THAT POINT AND NOT RELATABLE TO THE VINYL CHLORIDE RESIN PLANT.

UNION CARBIDE CORPORATION IS MORE CONCERNED THAN OTHER CALIFORNIA VINYL CHLORIDE PRODUCERS AND USERS REGARDING THE INTEGRITY OF THE REFEREE ANALYTICAL METHOD BECAUSE ITS BUSINESS IN CALIFORNIA IS

SMALL (34 EMPLOYEES) AND IN THE PROCESS OF PROVIDING ENVIRONMENTALLY ACCEPTABLE COATINGS AND ADHESIVE RAW MATERIALS IT USES A VARIETY OF MONOMERS SUCH AS VINYL CHLORIDE, VINYL ACETATE, STYRENE, ACRYLONITRILE, ETHYL ACRYLATE, BUTYL ACRYLATE, ETHYL HEXYL ACRYLATE, METHYL METHACRYLATE, ISOBUTYL ACRYLATE, ACRYLAMIDE, DIBUTYL MALEATE AND DIBUTYL FUMARATE. HANDLING ALL THESE AND OTHER MATERIALS, PRODUCING THIRTY FOUR DIFFERENT PRODUCTS AND BEING A GOOD CITIZEN IS HARD WORK THEREFORE WE ARE INCLINED TO BE CONCERNED ABOUT QUESTIONABLE RULES AND REDUNDANT REGULATIONS.

BEFORE PROMULGATING THIS PROPOSED RULE THE BOARD SHOULD TAKE ALL REASONABLE STEPS TO VALIDATE THE AMBIENT AIR SAMPLING AND ANALYSIS METHOD UNDER FIELD INSULT CONDITIONS, TO PROVIDE FOR CONFIRMATION THAT THE MATERIAL ANALYZED IS TRULY VINYL CHLORIDE AND TO SET MEANINGFUL ENFORCEMENT LEVELS BASED ON THE SENSITIVITY AND PRECISION OF THE ANALYTICAL METHOD UNDER FIELD CONDITIONS. UNION CARBIDE CORPORATION WOULD BE VERY WILLING TO WORK WITH THE BOARD TO ACHIEVE THESE WORTHWHILE GOALS.

(F) AIR POLLUTION CONTROL EQUIPMENT

- (1) THE AIR POLLUTION CONTROL EQUIPMENT SPECIFIED IN THIS RULE SHALL AT ALL TIMES OPERATE AT AN EFFICIENCY SUFFICIENT TO LIMIT THE CONCENTRATION OF VINYL CHLORIDE IN THE DISCHARGE OF SUCH CONTROL EQUIPMENT TO EITHER LESS THAN 1.0 PPM, AND LESS THAN 1 GRAM PER HOUR.

COMMENT: THE PROPOSED RULE IS UNCLEAR WHEN IT SPECIFIES THAT AIR POLLUTION CONTROL EQUIPMENT SHALL AT ALL TIMES OPERATE AT AN EFFICIENCY.... THE ONLY WAY THE AIR POLLUTION CONTROL SYSTEM CAN "AT ALL TIMES OPERATE AT AN EFFICIENCY..." IS TO HAVE TWO COMPLETE SYSTEMS AND EVEN THEN THE TERM "AT ALL TIMES" IS AN IMPOSSIBLE REQUIREMENT. SOME PROVISION MUST BE BUILT INTO THE RULE FOR MALFUNCTION AND UNAVOIDABLE FAILURES. ON LINE CAPABILITY FOR A SYSTEM IS CONSIDERED GOOD AT 95% OF THE TIME AND SUPERLATIVE AT 99% OF THE TIME.

THE PROPOSED RULE SPECIFIES WITHOUT SUPPORTING DATA REGARDING THE EFFECT ON AMBIENT VINYL CHLORIDE CONCENTRATION THAT POLLUTION CONTROL EQUIPMENT EMIT EITHER LESS THAN 1.0 PPM OR LESS THAN 1 GRAM PER HOUR. SINCE MATHEMATICAL MODELING TECHNIQUES FOR DIFFUSION STUDIES ARE READILY AVAILABLE THERE APPEARS TO BE NO JUSTIFICATION FOR ARBITRARILY SETTING THE PERMISSIBLE OUTPUT CONCENTRATION OR VOLUME EMITTED FOR SUCH EQUIPMENT. THE CALIFORNIA AIR RESOURCES BOARD RESOLUTION 78-30 REQUIRES CONTROL OF THE AMBIENT AIR CONCENTRATION OF VINYL CHLORIDE, THEREFORE RULES SHOULD BE RELATED TO THAT REQUIREMENT.

THE CONCENTRATION SPECIFIED FOR THE POLLUTION CONTROL SYSTEM VENT IS NOT SPECIFIC, I.E. LESS THAN 1.0 PPM AVERAGED OVER ONE HOUR, OR 24 HOURS. NEITHER IS IT CLEAR WHETHER THE CONCENTRATION AND MASS LIMITS APPLY SINGLY OR COLLECTIVELY. ("TO EITHER LESS THAN 1.0 PPM AND (OR) LESS THAN 1 GRAM PER HOUR.") BOTH LIMITS ARE CLEARLY UNNECESSARY COLLECTIVELY.

- (2) THE CONTROL EQUIPMENT SHALL BE DESIGNED SO THAT ALL EMISSIONS VENTED TO SUCH EQUIPMENT ARE PICKED UP AND DELIVERED TO THE CONTROL DEVICE. FOR THE PURPOSE OF THIS SUBSECTION, THE TERM "ALL EMISSIONS VENTED" SHALL MEAN THAT EMISSIONS VENTED TO CONTROL EQUIPMENT SHALL BE VENTED SUCH THAT VINYL CHLORIDE CONCENTRATIONS IN THE VICINITY OF THE VENT ARE NOT MEASURABLE ABOVE THE GENERAL PLANT BACKGROUND CONCENTRATION OF THAT CONTAMINANT.

COMMENT: THIS SUB-PARAGRAPH IN THE PROPOSED RULE IS SUPERFLUOUS. IF VINYL CHLORIDE CONCENTRATIONS IN THE VICINITY OF THE VENT WERE SIGNIFICANTLY ABOVE THE GENERAL PLANT BACKGROUND CONCENTRATION FOR THAT CONTAMINANT THEN A LEAK REQUIRING REPAIR WOULD BE SAID TO EXIST, THEREFORE, THIS SPECIFICATION IS REDUNDANT.

- (3) OTHER METHODS MAY BE EMPLOYED WHICH REDUCE VINYL CHLORIDE EMISSIONS TO THE SAME DEGREE OF SUB-PARAGRAPH (F)(1) PROVIDED THAT:
- (A) A CONTROL PLAN IS SUBMITTED WHICH DETAILS THE MEASURES WHICH THE OWNER OR OPERATOR INTENDS TO IMPLEMENT; SUCH MEASURES ARE EQUIVALENT TO THOSE REQUIRED BY SUB-PARAGRAPH (F)(1); SUCH PLAN IS APPROVED BY THE EXECUTIVE OFFICER; AND
 - (B) APPLICATIONS ARE SUBMITTED FOR NEW PERMITS TO CONSTRUCT OR OPERATE BOTH THE BASIC AND CONTROL EQUIPMENT INVOLVED REGARDLESS OF WHETHER MODIFICATIONS OR ADDITIONS ARE TO BE MADE EITHER TO THE BASIC OR CONTROL EQUIPMENT, OR BOTH. EXISTING PERMITS TO OPERATE PERTAINING TO THE BASIC AND CONTROL EQUIPMENT AS SPECIFIED ABOVE SHALL BE SURRENDERED AND CANCELED AT THE TIME SUCH NEW PERMITS TO CONSTRUCT OR OPERATE ARE ISSUED. SUCH NEW PERMITS SHALL NOT BE EFFECTIVE UNLESS SURRENDER OF SUCH EXISTING PERMITS HAS BEEN MADE. IF SUCH NEW PERMITS ARE DENIED, SUCH EXISTING PERMITS SURRENDERED PURSUANT TO THIS SECTION SHALL BE RE-ISSUED AND RESTORED SUBJECT TO THE SAME CONDITIONS WHICH WERE APPLICABLE TO THE ORIGINAL PERMITS PRIOR TO SURRENDER AND THE PROVISIONS OF SUB-PARAGRAPH (F)(1) SHALL BE APPLICABLE. THE EXECUTIVE OFFICER SHALL IMPOSE THOSE WRITTEN CONDITIONS ON SUCH NEW PERMITS SPECIFYING EMISSION LIMITS OR OTHER CONDITIONS WHICH MAY BE NECESSARY TO INSURE THAT THE EMISSION REDUCTIONS REQUIRED UNDER THIS RULE ARE MADE.

COMMENT: THIS SUBSECTION OF THE PROPOSED RULE REPRESENTS PROGRESSIVE REGULATORY THINKING, I.E., PROVISION MUST BE MADE IN REGULATIONS SO THAT THERE IS NO RESTRICTION ON TECHNOLOGICAL DEVELOPMENT. THIS PRINCIPLE SHOULD BE EXTENDED TO ALL PARTS OF THE PROPOSED RULE. THE OBJECTIVE IS TO CONTROL AMBIENT AIR CONCENTRATIONS OF VINYL CHLORIDE. THE BOARD SHOULD NOT NEED TO BE OVERLY CONCERNED AS TO HOW THAT OBJECTIVE IS ACHIEVED.

- (4) A CONTINUOUS MONITORING SYSTEM MEASURING THE CONCENTRATION AND MASS FLOW RATE OF VINYL CHLORIDE DISCHARGED FROM THE CONTROL EQUIPMENT SHALL BE INSTALLED.

COMMENT: THIS REQUIRED INVESTMENT OF APPROXIMATELY \$100,000 IN A COMPLEX INSTRUMENT SYSTEM SHOULD BE OPTIONAL IF EQUIVALENT RESULTS CAN BE ACHIEVED BY RECORDED OPERATING PARAMETERS ON THE POLLUTION CONTROL EQUIPMENT. FOR EXAMPLE, ON INCINERATION CONTROL EQUIPMENT OPERATING PARAMETERS ARE MORE RELIABLE BECAUSE VARIABLE COMBUSTION AIR FLOW AND FUEL COMBUSTION GASES MAKE ANALYSIS OF THE FLUE GAS AND MEASUREMENT OF THE MASS EMISSION VERY IMPRECISE. SINCE INCINERATION IS THE MOST LOGICAL METHOD FOR ACHIEVING THE SPECIFIED EMISSION CONCENTRATIONS THIS SUB-PARAGRAPH SHOULD BE REVISED TO REFLECT THIS CASE.

"VIOLATIONS OF THE STANDARD SPECIFIED IN SUB-PARAGRAPH (F)(1), AND AS MEASURED BY SUCH SYSTEMS, SHALL BE REPORTED TO THE EXECUTIVE OFFICER WITHIN TWO HOURS OF SUCH MEASUREMENTS. THE RECORDS FROM SUCH MONITORING EQUIPMENT SHALL BE MAINTAINED FOR TWO YEARS AND SHALL BE SUMMARIZED MONTHLY IN THE FORM AND MANNER SPECIFIED BY THE EXECUTIVE OFFICER."

COMMENT: SINCE THE EXECUTIVE OFFICER IS TO BE INFORMED WITHIN TWO HOURS OF EVERY VIOLATION AND HE PRESUMABLY RECORDS THE SAME THERE APPEARS TO BE NO NEED FOR THE OWNER/OPERATOR TO SUPPLY A MONTHLY SUMMARY REPORT OF THE RECORDS.

(G) SEALS

AFTER THE EFFECTIVE DATE OF THIS RULE, SEALS ON EQUIPMENT LOCATED IN DESIGNATED PLANTS SHALL COMPLY WITH THE FOLLOWING:

- (1) VINYL CHLORIDE EMISSIONS FROM SEALS ON ROTATING PUMPS SHALL BE MINIMIZED BY INSTALLING SEALLESS PUMPS OR BY INSTALLING PUMPS WITH DOUBLE MECHANICAL SEALS.
- (2) VINYL CHLORIDE EMISSIONS FROM ROTATING COMPRESSORS, RECIPROCATING COMPRESSORS, OR AGITATORS SHALL BE MINIMIZED BY INSTALLING DOUBLE MECHANICAL SEALS.
- (3) DOUBLE MECHANICAL SEALS AS SPECIFIED IN SUB-PARAGRAPH (G)(1) AND (G)(2) SHALL BE INSTALLED AND OPERATED TO THAT ANY LEAK THAT OCCURS SHALL BE INTO THE PUMP, COMPRESSOR OR VESSEL AGITATED. VINYL CHLORIDE BETWEEN SUCH SEALS SHALL BE VENTED TO THE AIR POLLUTION CONTROL EQUIPMENT SPECIFIED IN SUB-PARAGRAPH (F).

COMMENT: THIS PARAGRAPH IN THE PROPOSED RULE WOULD BE CLEARER IF THE COMPLETE TEXT FROM EPA'S VINYL CHLORIDE STANDARD RELATED TO THIS SUBJECT WAS USED OR IF IT SIMPLY STATED THAT:

LEAKAGE FROM PUMP, COMPRESSOR AND AGITATOR SEALS WILL BE MINIMIZED AS DIRECTED IN 40 CFR 61.65 (b)(3).

(H) LEAKS

AFTER THE EFFECTIVE DATE OF THIS RULE:

- (1) A PERSON SHALL NOT USE ANY COMPRESSOR FLANGE, PUMP, VALVE, STORAGE CONTAINER, PROCESS VESSELS, OR OTHER EQUIPMENT CONTAINING OR USING VINYL CHLORIDE IN A DESIGNATED PLANT UNLESS SUCH EQUIPMENT IS FREE OF VINYL CHLORIDE LEAKS.

COMMENT: THIS SUB-PARAGRAPH IS IN CONFLICT WITH SUB-PARAGRAPH (H)(5) AND IMPLIES THAT THE PERSON WOULD BE GUILTY OF A VIOLATION IF SUCH EQUIPMENT WERE LEAKING WITHOUT HIS KNOWLEDGE. IN VIEW OF THE REQUIREMENTS TO MEET WORKPLACE AIR REGULATIONS, THE AMBIENT AIR REGULATION AND THE SUCCEEDING SUB-PARAGRAPHS ON EQUIPMENT INSPECTION AND LEAK REPAIR THIS SUB-PARAGRAPH APPEARS TO BE SUPERFLUOUS AND COULD BE DELETED WITHOUT AFFECTING THE STRENGTH OF THE PROPOSED RULE. IF THE SUB-PARAGRAPH IS RETAINED THEN IT SHOULD BE REVISED AS FOLLOWS:

- "(1) EXCEPT AS PROVIDED IN SUB-PARAGRAPH (H)(5), A PERSON SHALL NOT KNOWINGLY USE ANY COMPRESSOR FLANGE, PUMP, VALVE, STORAGE CONTAINER, PROCESS VESSEL OR OTHER EQUIPMENT IN VINYL CHLORIDE SERVICE IN A DESIGNATED PLANT UNLESS SUCH EQUIPMENT IS FREE OF VINYL CHLORIDE LEAKS."
- (2) A PERSON SHALL NOT USE ANY RAIL TANK CARS, TANK TRUCKS OR SHIPPING CONTAINERS USED TO TRANSPORT VINYL CHLORIDE UNLESS SUCH EQUIPMENT IS FREE OF VINYL CHLORIDE LEAKS.

COMMENT: THIS SUB-PARAGRAPH IS IN CONFLICT WITH SUB-PARAGRAPH (H) (5) AS NOTED IN THE PRECEDING COMMENT. THIS SUB-PARAGRAPH TOO APPEARS TO BE SUPERFLUOUS AND COULD BE DELETED; HOWEVER IF IT IS RETAINED IN THE RULE THEN IT SHOULD BE REVISED AS FOLLOWS:

- "(2) EXCEPT AS PROVIDED IN SUB-PARAGRAPH (H)(5), A PERSON SHALL NOT KNOWINGLY USE ANY RAIL CARS, TANK TRUCKS, OR SHIPPING CONTAINERS USED TO TRANSPORT VINYL CHLORIDE UNLESS SUCH EQUIPMENT IS FREE OF VINYL CHLORIDE LEAKS."
- (3) ALL FLANGES, PUMPS, VALVES, STORAGE CONTAINERS AND PROCESS VESSELS SHALL BE INSPECTED BY JANUARY 30, 1980. THEREAFTER, ALL COMPRESSORS, PUMPS AND VALVES SHALL BE INSPECTED EACH THREE MONTHS FOLLOWING SUCH INITIAL INSPECTIONS. ALL FLANGES, REACTORS AND PROCESS EQUIPMENT SHALL BE INSPECTED EACH SIX MONTHS FOLLOWING SUCH INITIAL INSPECTIONS. ALL INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE PLANT OPERATOR, AND SHALL INCLUDE CHECKS FOR POSSIBLE LEAKAGE IN SUB-PARAGRAPH (B)(12).

COMMENT: THIS SUB-PARAGRAPH IS UNCLEAR AS TO WHAT IS MEANT BY INSPECTION SINCE IT STATES THAT SUCH INSPECTION SHALL INCLUDE CHECKS FOR POSSIBLE LEAKAGE. ADDITIONALLY, IT COVERS EVERYTHING IN THE DESIGNATED PLANT AND PRESUMABLY LEAKAGE OF ALL TYPES OF MATERIALS. WE SUGGEST THAT THE INSPECTION BE LIMITED TO EQUIPMENT IN VINYL CHLORIDE SERVICE AND THAT THE TERM "INSPECTION" BE REPLACED BY "INSPECTION FOR LEAKAGE." WE ALSO SUGGEST THAT "INSPECTION FOR LEAKAGE" OF ALL EQUIPMENT BE DONE ANNUALLY; THAT ANY EQUIPMENT REMOVED FROM SERVICE FOR CLEANING, REPAIR AND/OR MAINTENANCE BE "INSPECTED FOR LEAKAGE" ON ITS RETURN TO SERVICE AND THAT ROTARY OR RECIPROCATING SEALS ON PUMPS, VALVES, COMPRESSORS AND AGITATORS BE INSPECTED FOR LEAKAGE AT THREE MONTH INTERVALS. THIS SUB-PARAGRAPH COULD BE REVISED AS FOLLOWS:

- "(3) ALL FLANGES, PUMPS, COMPRESSORS, VALVES, STORAGE CONTAINERS, PROCESS VESSELS AND APPURTENANCES IN VINYL CHLORIDE SERVICE SHALL BE INSPECTED FOR LEAKAGE OF VINYL CHLORIDE BY THIRTY DAYS AFTER THE EFFECTIVE DATE OF THIS RULE UNLESS SUCH AN INSPECTION WAS MADE IN THE TWO MONTHS PRIOR TO THE EFFECTIVE DATE OF THIS RULE. ALL FLANGES, PUMPS, COMPRESSORS, VALVES, STORAGE CONTAINERS, PROCESS VESSELS AND APPURTENANCES IN VINYL CHLORIDE SERVICE SHALL BE INSPECTED FOR LEAKAGE OF VINYL CHLORIDE FOLLOWING THEIR RETURN TO SERVICE AFTER CLEANING, REPAIR AND/OR MAINTENANCE AND AT TWELVE MONTH INTERVALS FOLLOWING THE PRECEDING INSPECTION. ALL ROTARY OR RECIPROCATING SEALS IN VINYL CHLORIDE SERVICE ON VALVES, PUMPS, COMPRESSORS, ETC. SHALL BE INSPECTED FOR LEAKAGE OF VINYL CHLORIDE EACH THREE MONTHS FOLLOWING THE INITIAL INSPECTION. ALL INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE PLANT OPERATOR."

- (4) ALL DETECTED LEAKS SHALL BE RECORDED IN AN INSPECTION RECORD ALONG WITH THE DATE AND INSPECTOR'S INITIALS. SUCH RECORDS SHALL BE MAINTAINED FOR TWO YEARS.

COMMENT: THE NEED FOR A RECORD OF ALL DETECTED LEAKS WITH THE DATE AND INSPECTORS INITIALS IS NOT APPARENT. AS LONG AS THE PLANT OPERATOR IS MAKING THE REQUISITE INSPECTIONS FOR VINYL CHLORIDE LEAKAGE AND IS REPAIRING LEAKS FOUND PROMPTLY THE OBJECTIVE OF THIS PARAGRAPH IS BEING MET. THIS SUB-PARAGRAPH SHOULD BE DELETED AND IF NOT DELETED IT SHOULD BE LIMITED TO VINYL CHLORIDE LEAKS.

- (5) ANY DETECTED LEAKS SHALL BE REPAIRED AND ELIMINATED WITHIN 24 HOURS OF DETECTION.

COMMENT: VINYL CHLORIDE MONOMER AND RESIN PLANTS ARE COMPLICATED SYSTEMS AND OFTEN THE OBVIOUS ACTION IS NOT THE BEST SOLUTION. WE RECOMMEND THE FOLLOWING REVISION TO THIS SUB-PARAGRAPH:

- "(5) ANY DETECTED VINYL CHLORIDE LEAKS SHALL BE REPAIRED AND/OR ELIMINATED WITHIN 24 HOURS OF DETECTION UNLESS SUCH PROMPT REPAIR OR ELIMINATION IS LIKELY TO RESULT IN GREATER VINYL CHLORIDE EMISSIONS THAN IF A LONGER REPAIR PERIOD IS USED. IN CASES WHEN REPAIR CANNOT BE COMPLETED IN 24 HOURS THE EXECUTIVE OFFICER SHALL BE NOTIFIED.

(1) AMBIENT AIR MONITORING.

AFTER THE EFFECTIVE DATE OF THIS RULE, A PERSON OPERATING A DESIGNATED PLANT SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS FOR AMBIENT AIR MONITORING FACILITIES:

- (1) PROVIDE AND OPERATE FOUR AIR MONITORING STATIONS TO CONTINUOUSLY MEASURE AND RECORD AMBIENT CONCENTRATIONS OF VINYL CHLORIDE. SUCH MONITORING STATIONS SHALL BE SITUATED IN THE NEAR VICINITY OF SUCH PLANTS AND LOCATED AS SPECIFIED BY THE EXECUTIVE OFFICER; AND

- (2) PROVIDE AND OPERATE AN ADDITIONAL FOUR AIR MONITORING STATIONS TO CONTINUOUSLY MEASURE AND RECORD AMBIENT CONCENTRATIONS OF VINYL CHLORIDE. SUCH MONITORING STATIONS SHALL BE SITUATED IN POPULATED AREAS IN THE VICINITY OF SUCH PLANTS AND LOCATED AS SPECIFIED BY THE EXECUTIVE OFFICER.

COMMENT: THIS PARAGRAPH SHOULD BE CORRECTED AND CLARIFIED SLIGHTLY. THE NUMBER REQUIRED SHOULD BE VARIABLE DEPENDING ON PLANT SIZE AND OTHER CONDITIONS WITH NO MORE THAN A TOTAL OF EIGHT BEING REQUIRED. THE AIR MONITORING STATIONS OBVIOUSLY ONLY SAMPLE CONTINUOUSLY WITH THE ANALYSIS BEING PERFORMED IN THE FOLLOWING 24 HOUR PERIOD.

- (3) CALIBRATE AND MAINTAIN THE REQUIRED AMBIENT AIR MONITORING STATIONS IN ACCORDANCE WITH PROCEDURES FILED WITH AND APPROVED BY THE EXECUTIVE OFFICER. SUCH PROCEDURES SHALL BE DEVELOPED BY THE OPERATOR AND FILED WITH THE EXECUTIVE OFFICER BY NOVEMBER 30, 1979. AS STATED IN SUB-PARAGRAPH (3), SUCH AMBIENT MEASUREMENTS SHALL BE PERFORMED USING METHODS SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN ESTABLISHING THE VINYL CHLORIDE AMBIENT AIR QUALITY STANDARD.
- (4) KEEP THE RECORDS FROM THE REQUIRED AIR MONITORING STATIONS FOR A PERIOD OF TWO YEARS. THE DATA FROM SUCH RECORDS SHALL BE SUMMARIZED MONTHLY AND SHALL BE SUBMITTED IN THE MANNER AND FORM SPECIFIED BY THE EXECUTIVE OFFICER.
- (5) BREAKDOWNS OF THE VINYL CHLORIDE MONITORING EQUIPMENT (BOTH AMBIENT AND EMISSION MONITORS) SHALL BE REPORTED TO THE EXECUTIVE OFFICER WITHIN 12 HOURS AFTER THE TIME SUCH BREAKDOWNS ARE FIRST FOUND. NON-OPERATION OR FAULTY OPERATION OF SUCH EQUIPMENT FOR LONGER THAN 24 HOURS SHALL BE DEEMED A VIOLATION OF THIS RULE.

COMMENT: THE STATEMENT, "NON-OPERATION OR FAULTY OPERATION OF SUCH EQUIPMENT FOR LONGER THAN 24 HOURS SHALL BE DEEMED A VIOLATION OF THIS RULE", IS ARBITRARY AND COULD IN MANY CASES BE CONSIDERED UNREASONABLE. SUCH A REQUIREMENT PARTICULARLY IMPOSES A BURDEN ON THE SMALL PLANT THAT DOES NOT HAVE THE REQUISITE SKILLS AVAILABLE TO REPAIR SOPHISTICATED ANALYTICAL DEVICES. FAILURE OF SUCH MONITORING EQUIPMENT DOES NOT INDICATE THAT VINYL CHLORIDE EMISSIONS ARE OUT OF CONTROL BUT ONLY THAT SUCH CONTROL CANNOT BE CONFIRMED, THEREFORE, A LONGER OUTAGE PERIOD AND/OR ALTERNATIVE MONITORING PROCEDURES SHOULD BE PERMISSIBLE. IN GENERAL, THE EXECUTIVE OFFICER SHOULD BE GIVEN AUTHORITY TO JUDGE EACH CASE ON ITS MERIT AND TO TAKE PUNITIVE ACTION IF THE PLANT OPERATOR IS NEGLIGENT OR IS NOT ACTING IN GOOD FAITH TO MAKE NECESSARY REPAIRS OR REPLACEMENT.

(J) NEW OR MODIFIED PLANTS

AFTER DECEMBER 31, 1979, A PERSON SHALL NOT BUILD OR MODIFY AN EXISTING DESIGNATED PLANT UNLESS THAT PERSON DEMONSTRATES TO THE EXECUTIVE OFFICER THAT THE AMBIENT AIR QUALITY WILL NOT EXCEED THE CALIFORNIA VINYL CHLORIDE AMBIENT AIR STANDARDS AS A RESULT OF THE EMISSIONS FROM SUCH PLANT.

COMMENT: THIS PARAGRAPH IS NOT CLEAR AND IS TOO BROAD IN SCOPE. A SUGGESTED REVISION IS AS FOLLOWS:

"(J) NEW OR MODIFIED PLANTS

AFTER THE EFFECTIVE DATE OF THIS RULE, A PERSON SHALL NOT BUILD A NEW VINYL CHLORIDE MONOMER OR POLYMER PLANT OR MODIFY AN EXISTING DESIGNATED PLANT UNLESS THAT PERSON DEMONSTRATES TO THE EXECUTIVE OFFICER THAT THE AMBIENT AIR CONCENTRATION OF VINYL CHLORIDE WILL NOT EXCEED THE CALIFORNIA VINYL CHLORIDE AMBIENT AIR STANDARD AS A RESULT OF THE EMISSIONS FROM SUCH PLANT. FOR PURPOSES OF THIS RULE "MODIFY" SHALL MEAN CHANGES IN AN EXISTING DESIGNATED PLANT WHICH WILL RESULT IN INCREASED EMISSIONS OF VINYL CHLORIDE.

(K) SEVERABILITY

IF ANY PORTION OF THIS RULE SHALL BE FOUND TO BE UNENFORCEABLE, SUCH FINDING SHALL HAVE NO EFFECT ON THE ENFORCEABILITY OF THE REMAINING PORTIONS OF THE RULE, WHICH SHALL CONTINUE TO BE IN FULL FORCE AND EFFECT.

COMMENT: PROBLEMS OF ENFORCEABILITY OF THE PROPOSED RULE WOULD MIGHT BE LESS TROUBLESOME IF THE PROPOSAL DIRECTED ITS EFFORT TO ENFORCING THE APPARENT INTENT OF THE CALIFORNIA AIR RESOURCES BOARD RESOLUTION 78-30 IN SETTING 0.010 PPM, TWENTY-FOUR HOUR AVERAGE AMBIENT AIR QUALITY STANDARD FOR VINYL CHLORIDE. WITH THIS DIRECTIVE THE PROPOSED RULE SHOULD CONSIST OF PARAGRAPH (3) AMBIENT AIR CONCENTRATION REQUIREMENTS, PARAGRAPH (I) AMBIENT AIR MONITORING AND PARAGRAPH (J) NEW OR MODIFIED PLANTS AND RULE 1005 SHOULD BE LEFT IN EFFECT. AS A REGULATORY ALTERNATIVE AN ALTERNATE RULE CONSISTING OF PARAGRAPHS (C) CONTROL REQUIREMENTS, (D) PROCEDURAL REQUIREMENTS, (F) AIR POLLUTION CONTROL EQUIPMENT (G) SEALS, (H) LEAKS AND (J) NEW OR MODIFIED PLANTS COULD BE OFFERED TO PLANT OPERATORS. COMPLIANCE WITH THIS ALTERNATIVE RULE WOULD BE CONSIDERED EVIDENCE OF COMPLIANCE WITH THE CALIFORNIA AMBIENT AIR QUALITY STANDARD FOR VINYL CHLORIDE. THE ATTEMPT BY THE PROPOSED RULE TO USE TWO PARALLEL REGULATORY APPROACHES TO CONTROL OF AMBIENT AIR VINYL CHLORIDE CONCENTRATION IS CONFUSING AND COSTLY TO THE REGULATORS AND THE REGULATEES.

RNW:KE.
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