ILLINOIS POLLUTION CONTROL BOARD
October 15, 1987

IN THE MATTER OF:	)	
	)	
PROPOSED AMENDMENTS TO PART 211 AND 215, LEAKS FROM SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING EQUIPMENT	)	R86-39

PROPOSED RULE. SECOND NOTICE.

PROPOSED OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This matter comes before the Board upon a September 23, 1986 proposal for the adoption of amendments to 35 Ill. Adm. Code 211 and 215 filed on behalf of the Illinois Environmental Protection Agency (Agency). The proposal was accepted and authorized for hearing by order of September 25, 1986. Hearings were held on February 25, 1987 in Springfield and March 11, 1987 in Chicago. The Agency filed an amended proposal on April 13, 1987 and a second amended proposal on May 4, 1987. The Department of Energy and Natural Resources filed a negative declaration on June 1, 1987 and the Economic and Technical Advisory Committee concurred with that declaration on June 10, 1987.

On July 16, 1987, the Board proposed the amendments to 35 Ill. Adm. Code 211 and 215 for first notice. On August 6, 1987, the Board adopted two sets of corrections to the July 16, 1987 Order: (1) Sections 215.420 through 215.428 were recodified to become Sections 215.421 through 215.429, and (2) the July 16, 1987, Order was amended to reflect the recodification and three definitions, inadvertently omitted from the July 16, 1987, Order, were added. The proposed amendments were published at 11 Ill. Reg. 13173 and 13293 on August 14, 1987. The statutory 45-day comment period ended on September 28, 1987. Non-substantive comments were received from the Secretary of State's Administrative Code Unit regarding form and format of the proposed rules. Those changes have been made at second notice. Three substantive comments were received during the first notice period. The Agency filed its comments on September 28, 1987. The Stepan Company (Stepan) also filed comments on September 28, 1987. On October 1, 1987, the Illinois Environmental Regulatory Group (ERG) filed its comments with a motion to file instanter. The motion to file instanter was granted by Hearing Officer Order. The comments focused on a number of issues, each of which will be addressed in turn.

Definition of "Component"

All three commenters objected to the last sentence of the definition of component proposed at first notice. In the first notice order, the Board adopted the language from the Agency's Second Amended Proposal, which read as follows:

> Except for Subpart Q, this definition excludes valves which are not externally regulated, flanges and equipment in heavy liquid service."

In its comments, the Agency suggested that the last sentence be revised to read:

> For purposes of Subpart Q, R, and U, this definition excludes valves which are not externally regulated, flanges and equipment in heavy liquid service."

ERG also argued that a revision would be in order and suggested this language:

> This definition excludes valves which are not externally regulated, flanges, bleed ports of gear pumps in polymer service and equipment in heavy liquid service."

(The language related to the bleed ports for gear pumps is addressed below.)

The Agency commented that the definition must be changed because "incorporating the specific elements ... needed for the SOCMI rule into the present definition of component, the Board erred." The Agency noted that the Control Techniques Guideline (CTG) for this category (Ex. 5) excludes from routine monitoring flanges, connections, and equipment in heavy liquid service, but stated that any component that appears to be leaking should be repaired. The Agency believes that the Illinois rule can and should exclude those pieces of equipment which the CTG excludes. In support of its suggested revision, the Agency stated that particular subparts are specified because it is necessary to have flanges, etc., considered components for certain other sections of the rules, such as Sections 215.581(d), (e) 215.583(d), (e), and 215.601(c).

In its comments, ERG opposed exempting Subpart Q from the general exclusion of non-externally regulated valves, flanges and equipment in heavy liquid service. ERG argued that flanges, properly installed, have a very low possibility of leakage, and that the Board has recognized this by excluding flanges from existing Subpart Q in RACT III (R82-14, Dockets A and B). ERG

argued that equipment in heavy liquid service (1) is also excluded by proposed Section 215.430, (2) by its nature will not leak volatile organic material to any extent and therefore does not need monitoring, and (3) is not intended to be covered under the leak detection program, as evidenced by the New Source Performance Standard and the CTG. As to valves not externally regulated, ERG argued that it is not logical to require a test for leaks in a component which cannot leak unless the component itself were cracked. ERG pointed out that a non-externally controlled valve has no external stem or packing gland with which to test.

ERG also opposed the Agency's suggested revision. ERG argued that the considerations involved in adding Subparts R and U to the exclusion are not a subject of this proceeding and are not established in the record.

The Stepan Company also suggested that the exception for Subpart Q in the last sentence of the definition of component be eliminated. Stepan's position was founded on its belief that emissions from components, including flanges, in heavy liquid service would be minimal.

In response to the comments, the Board has deleted the language added to the last sentence of the definition of component proposed at first notice. The Board is persuaded that valves not externally regulated, flanges, and equipment in heavy liquid service merit the general exclusion. The Board is also persuaded that the Agency's suggested revision is not established by the record and, furthermore, is not necessary. The definition of "component" as it presently exists in Section 211.122 excludes flanges, etc., for purposes of all subparts. The Agency's specification of Subparts Q, R, and U not only gives nothing more to Subpart Q but also affects all the other subparts in a manner clearly not intended by this proceeding.

The Agency also suggested that a provision be added to conform to the CTG requirement of repairing leaks which are otherwise excluded from the monitoring requirements of the rule. The Agency stated that the best place for the proposed subsection would be in proposed Section 215.432, after subsection (f) and before Subsection (g), as a new Subsection (g). The Agency suggested the following:

> g) Routine instrument monitoring of valves which are not externally regulated, flanges, and equipment in heavy liquid service is not required. However, any valve which is not externally regulated, flange, or piece of equipment in heavy liquid service that appears to be leaking on the basis of sight, smell or sound should be repaired as soon as possible.

The Board agrees in substance and has added language to Section 215.432 for second notice.

The Stepan Company offered additional comment on the definition of component. First, Stepan stated that process drains should be deleted from the definition

> "because the regulations already require capped sample lines and no leakage from pumps which would minimize the flows into process drains and thereby the need for leak testing process drains."

Also, Stepan states, if drains are capped, potentially explosive vapors could accumulate in the closed pipe causing injury. Finally, Stepan asserts that the final USEPA CTG drops all reference to process drains as a fugitive emission source.

The Board is not persuaded to delete the reference to "process drains": Stepan's comments are not supported by the record.

Stepan also suggested that a comma be inserted after the word "flanges" in the last sentence of the definition to clarify that flanges are excluded and not flanges in heavy liquid service.

The Board has added the comma in the definition proposed for second notice.

COMPLIANCE DATE

The Board's first notice order noted the concerns regarding the date for compliance with the proposed rules and requested comment on this issue. The Stepan Company proposed that compliance begin December 31, 1988 or one year after the adoption of the regulations, whichever is earlier. Also, Stepan urged that language be added to each section stating "Compliance will be demonstrated by the completion of at least one monitoring period by that date." Stepan argued that this language allows facilities additional time for compliance while demonstrating to USEPA (1) that regulated facilities are taking reasonable progress toward compliance and (2) that Illinois is achieving the attainment of the ozone standard with this SIP.

ERG, noting the Board's "dilemma" in attempting to balance the rigorous statutory deadlines imposed by USEPA with the mandate in Section 27 of the Illinois Environmental Protection Act (Act) to adopt regulations which are technically feasible and economically reasonable, proposed to define compliance as having a modified leak inspection and repair program in place by

December 31, 1987, which program requires actual field inspection and repair activities to begin no later than July 1, 1988. ERG argued that this change would allow sufficient time for facilities to comply with the proposed rule, as well as demonstrate that Illinois is making reasonable further progress towards attainment of the ozone standard.

The Agency objected to ERG's suggested approach. The Agency noted that the mere filing of a "compliance plan" does not change the effective date of the rule for Clean Air Act purposes. Also, the filing of the plan would add a "bureaucratic step" to the process without giving the Agency any control or power to reject sufficient plans. The Agency further noted the Board's decision on this issue in its Second Notice Opinion in R85-21 (Docket B) which stated:

> The CAA requires that RACT rules, including that proposed here, be in place by December 31, 1987. Jefferson Smurfit (PC #4, #27-31) and Printpack, Inc. (PC #25) have questioned whether it it realistic to expect compliance by this same date, given its immediacy. The Agency contends, however, that many facilities have already begun implementing compliance plans (R. at 657), and that presumably therefore compliance by December 31 will not constitute a general hardship.
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> Jefferson Smurfit (PC #4, #12, #28, #29) and Printpack, Inc. (PC #25) have suggested as a remedy that there be a provision in the rule which allows facilities from one to three years after USEPA approval to come into compliance. However, the Board does not believe that this is a viable option because there is no apparent authority for the Board to adopt a rule which features a compliance extension beyond the CAA December 31, 1987, deadline. The Board can only note for the record that facilities unable to meet the compliance deadline can petition the Board for variance pursuant to Ill. Rev. Stat., ch. 111 1/2, par. 1035 et seq. and 35 Ill. Adm. code 104. However, in so saying, the Board cautions that it is uncertain that variance can be granted under the CAA.

The Agency also noted that the issue of the deadline is somewhat tempered by the fact that the rule imposes a quarterly inspection program. If the rule is effective December 31, 1987, the first quarterly report will not be due until March 31, 1988.

The Board believes that the proper course is that outlined in R85-21 (Docket B): The Board will not adopt a rule which includes a compliance extension beyond the CAA December 31, 1987, deadline. As in R85-21, the Board notes that facilities unable to meet the deadline can petition for variance; however, the same caveat applies.

BLEED PORTS OF LEAK PUMPS IN POLYMER SERVICE

In its comments, ERG stated that it has recently become aware that certain kinds of equipment in VOC service are "designed" to "leak" safely, but cannot be economically retro-fitted or repaired. As an example, ERG cited bleed ports of gear pumps commonly employed in manufacturing polymers, such as polystyrene. ERG described this type of equipment as follows:

> The shaft seals for these gear pumps use the viscous polymer solution for lubricating the shaft, and this lubricating fluid flows out of the seal through ports. Upon exposure to atmosphere, the polymer solution freezes and extrudes out of the port in strands. At the exit port, VOM concentrations may exceed 10,000 ppmv.
>
> The shaft seals on these gear pumps in polymer service are an integral part of the pump configuration. The manufacturer of the pump has stated that it is not possible to retrofit another seal design. Moreover, simply plugging the bleed ports will eventually cause severe damage to the pumps and reduce their reliability. (Note: IERG members have consistently achieved 98% annual service factor with this design.) Each pump would cost more than $200,000 to replace, and at least one IERG member has eight affected pumps; another member has three affected pumps. One member estimates that the cost of an exhaust system to capture and control these emissions at its facility would be approximately $200,000. IERG believes that it is inappropriate for a capital expenditure of $200,000 to $1,600,000 to stop these leaks at a plant whose <u>total</u> annual VOM emissions are less than 40 tons per year.
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> (Comments of Illinois Environmental Regulatory Group, filed October 1, 1987, p. 4-5).

ERG argued that "in these circumstances it is not appropriate even to monitor equipment, such as these gear pumps,

where the leaks are built into the design of the equipment, the equipment operates safely, and the cost of control is clearly not reasonable." ERG stated that it met with representatives of the Agency to discuss this issue, and the Agency requested more information upon which to base its position.

The Agency's comments noted the discussions with ERG and stated that if the information it requested is included in ERG's comments and if the information establishes ERG's assertions, then the Agency would believe it appropriate that this narrow class of components not be considered to be "leaking" for purposes of this rule. Further the Agency suggested that if ERG's information merits the exemption, the best solution would be to simply state that these are not leaks, rather than state that they are not components. The Agency suggested adding such a sentence to Section 215.430.

ERG, however, proposed that the language addressing this issue be included in the definition of "Component" in Section 211.122. ERG's reasoning was that facilities other than those identified by ERG, and possibly located in attainment counties, may have similar gear pumps in polymer service.

Initially, the Board notes that issues such as that presented here are best discovered and addressed early in the proceeding. The first notice public comment process is not well suited to permit the introduction of new issues. However, the Board will address itself to this issue because the emissions from this equipment "designed to leak" appear to be de minimis and the cost of replacement prohibitive.

The Agency has informed the Board by comments filed October 15, 1987, that although the information submitted by ERG was not entirely adequate, it too viewed these emissions as de minimis and the cost of replacement unreasonable. The Agency, therefore, supported the exemption.

The Board agrees that this type of equipment merits exemption from the proposed regulations. The Board is persuaded that the proper location for this exemption is in the definition of "Component" in Section 211.122. Located in this definition, this equipment will be excluded from coverage in both attainment and nonattainment areas. Exclusionary language therefore is included in the definition of component at second notice.

The Stepan Company commented on several other aspects of the first notice order. First, Stepan suggested that a section be added either in the definition of "component" or in Section 215.430 to indicate that the leak inspection requirements cover only those components involved in the SOCMI manufacturing areas which process more than 4033 tons of gaseous and/or light liquid VOM's per year, and not all other light liquid components within

the plant. Also, Stepan commented that equipment handling heavy liquid chemicals should be exempt from the definition since the low pressure of these chemicals should allow for collection and processing through wastewater treatment facilities or as a solid waste.

The Board is not persuaded that the record establishes justification for amendment to the definition of "component" beyond that discussed above.

Second, Stepan suggested that a definition of "Light Liquids" be added to Section 211.122. Stepan's only justification for such a definition was that USEPA's CTG for control of VOC leaks from SOCMI includes such a definition. The Board is not persuaded. The Board is not required to adopt regulations identical in substance to the USEPA CTG for control of VOC leaks from SOCMI.

Third, Stepan suggested that the definition of heavy liquid include a vapor pressure limit, such as 0.0019 psi, below which materials would not be regulated. Stepan asserts that such a limit is necessary to reduce the cost burden on regulated facilities, since very low vapor pressure liquids would have no significant impact on air quality. The Board does not find the record sufficient to justify Stepan's assertions. Stepan has not provided any estimates to demonstrate the anticipated cost burden on regulated facilities. Further, Stepan offers no evidence to establish what impact low vapor pressure liquids will have on air quality.

Fourth, Stepan suggested that amendments be made to proposed Section 215.421 to define a leak as an instrument reading and to exclude process units at a facility which do not manufacture synthetic organic chemicals or polymers, Stepan's only justification for defining a leak as an instrument reading was to assert that under the regulation as proposed, "a leak detection instrument would (1) have to be calibrated for each organic compound or (2) require a response factor to be derived for each compound relative to the calibration gas and each instrument reading subsequently multiplied by that factor to determine the hydrocarbon concentration, which is confusing and time consuming, could delay compliance and may make compliance difficult to determine." Stepan offered no justification for the exclusions it proposed.

The Board finds little support in the record for Stepan's assertions. Therefore, the Board cannot accept Stepan's proposed changes. The Board can only note that a facility unable or unwilling to comply with the proposed regulations has the option to petition for variance or seek a site-specific rule.

Fifth, Stepan proposed amendments to Section 215.432 as follows:

> b) Test quarterly ~~all other pressure relief valves in gas service~~ pumps in light liquid service, valves in light liquid ~~service~~ and ~~in~~ gas service, and compressors.
>
> . . .
>
> f) Test any pressure relief valve initially and thereafter within 24 hours after it has vented to the atmosphere.
>
> . . .
>
> i) Any component that is in vacuum service, pressure relief devices connected to an operating flare header, ~~or~~ vapor recovery devices or open-ended valves are exempt from the monitoring devices in this Section.

Stepan argued that the requirement that workers monitor and annually test components which are "unsafe" to monitor routinely, unnecessarily exposes employees to hazardous situations and exposes employers to unreasonable liabilities. Stepan argued that because of the small number of such "unsafe" components annual testing is unnecessary, and if required at all should be conducted when monitoring is safe. As to the deletion of the quarterly testing requirement for pressure relief valves in gaseous service, Stepan argued that if a pressure relief valve is tested initially and found not to leak there is a substantial likelihood that the valve will not leak until it relieves and does not properly reset. Stepan proposed exemption of open-ended valves "due to the fact that open ended valves are required to be capped or plugged." Stepan asserted that leakage around the valve seated surface is unlikely and, if at all, de minimis.

Based on the existing record, the Board cannot adopt Stepan's suggestions. Stepan has not adequately justified its assertions. As previously noted, a facility unable or unwilling to comply with the proposed regulations may seek relief through other means.

Finally, the Board notes that it has made non-substantive typographical changes throughout the text of the proposed amendments. Also, proposed Sections 215.420 and 215.430 incorporated certain materials by reference. Language was added to indicate that the materials are formally incorporated, pursuant to Section 6.02(a) of the Illinois Administrative Procedure Act and 1 Ill. Adm. Code 220.760, in Section 215.105.

ORDER

The following amendments to 35 Ill. Adm. Code 211 and 215 are directed to the Joint Committee on Administrative Rules for second notice review.

DEFINITIONS AND GENERAL PROVISIONS

Section 211.122 Definitions

"Component": Any piece of ~~petroleum refinery~~ equipment which has the potential to leak volatile organic material including, but not limited to, pump seals, compressor seals, seal oil degassing vents, pipeline valves, pressure relief devices, process drains and open ended pipes. This definition excludes valves which are not externally regulated, flanges, and equipment in heavy liquid service. For purposes of Subpart Q, this definition also excludes bleed ports of gear pumps in polymer service.

Section 215.104 Definitions

~~"Component": Any piece of equipment which has the potential to leak volatile organic material including, but not limited to, pump seals, compressor seals, seal oil degassing vents, pipeline valves, pressure relief devices, process drains and open ended pipes. This definition excludes valves which are not externally regulated, flanges, and equipment in heavy liquid service. For purposes of Subpart Q, this definition also excludes ball and plug valves.~~

"In Vacuum Service:" For the purposes of Subpart Q, Sections 215.430 through 215.438 equipment which is operating at an internal pressure that is at least 5 kPa (0.73 psia) below ambient pressure.

"Open-Ended/Valve": Any valve, except pressure relief devices, having one side of the valve in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

"Repaired": For the purposes of Subpart Q, Sections 215.430 through 215.438 equipment component which is adjusted, or otherwise altered, to eliminate a leak.

SUBPART Q: LEAKS FROM SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING EQUIPMENT

Section 215.420 Applicability

The provisions of Sections 215.421 through 215.429 of this subpart shall apply to all plants in the State of Illinois which manufacture synthetic organic chemicals and polymers, except those located in any of the following counties: Will, McHenry, Cook, DuPage, Lake, Kane, Madison, St. Clair, Macoupin, and Monroe. The provisons of Section 215.430 through 215.438 shall apply to the counties specifically enumerated above.

In addition, if any county is redesignated as nonattainment by the USEPA subsequent to December 31, 1987, the owner or operator of a plant located in that county shall comply with the requirements of Sections 215.430 through 215.438 upon the effective date of the redesignation.

(Source: Added at Ill. Reg. , effective)

Section 215.421 General Requirements

The owner or operator of a plant which has more than 1,500 components in gas or light liquid service, which components are used to manufacture the synthetic organic chemicals or polymers listed in Appendix D, shall conduct leak inspection and repair programs in accordance with this Subpart for that equipment containing more than 10 percent volatile organic material as determined by ASTM method E-~~20~~260, E-168,and E-169~~.~~, incorporated by reference in Section 215.105. A component shall be considered to be leaking if the volatile organic material concentration exceeds 10,000 ppm when measured at a distance of 0 cm from the component. The provisions of this Subpart are not applicable if the products listed in Appendix D are made from natural fatty acids for the production of hexadecyl alcohol.

Section 215.428 Compliance Dates ~~and Geographical Areas~~

~~a)~~ ~~Except as otherwise stated in subsection (b),~~ eEvery owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Sections 215.421 through 215.427 shall comply with the standards and limitations of those Sections beginning ~~October 31, 1985~~ December 31, 1987.

~~b)~~ ~~If a plant is not located in one of the counties listed below, the owner or operator of the plant shall comply with the requirements of Sections 215.420 through 215.426 no later than December 31, 1987:~~

~~Bond~~
~~Clinton~~
~~Cook~~
~~DeKalb~~
~~DuPage~~
~~Madison~~
~~McHenry~~
~~Monroe~~
~~Montgomery~~
~~Morgan~~

~~Franklin~~	~~Pope~~
~~Greene~~	~~Randolph~~
~~Jackson~~	~~Saline~~
~~Jersey~~	~~Sangamon~~
~~Johnson~~	~~St. Clair~~
~~Kane~~	~~Union~~
~~Lake~~	~~Will~~
~~Macoupin~~	~~Williamson~~

~~(Board note: Counties are designated as attainment or nonattainment for ozone by the United States Environmental Protection Agency (USEPA). The USEPA noted in its redesignation rulemaking, that it will publish a rulemaking notice on Williamson County's attainment status. (45 Fed. Reg. 21949, May 16, 1983.) Should Williamson County be redesignated as attainment prior to October 31, 1985, it and the counties contiguous to it will be considered deleted from the above list.)~~

~~c)~~ ~~Notwithstanding subsection (b), if any county is redesignated as nonattainment by the USEPA at any time subsequent to the effective date of this Section, the owner or operator of a plant located in that county who would otherwise by subject to the compliance date in subsection (b) shall comply with the requirements of Sections 215.420 through 215.426 within one year from the date of redesignation but in no case later than December 31, 1987.~~

(Source: Amended at 11 Ill. Reg. ___, effective _____)

Section 215.429 Compliance Plan

a) The owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Section 215.428~~(a) or (b)~~ shall submit to the Agency a compliance plan, no later than December 31, 1985<u>7</u>.

~~b) The owner or operator of a plant subject to Section 215.427(c) shall submit a compliance plan within 90 days after the date of redesignation, but in no case later than December 31, 1986.~~

~~c) The owner or operator of a plant subject to Section 215.427(c) shall not be required to submit a compliance plan if redesignation occurs after December 31, 1986.~~

~~d~~<u>b</u>) The plan and schedule shall meet the requirements of 35 Ill. Adm. Code 201.

(Source: Amended at 11 Ill. Reg. ___, effective _____)

Section 215.430 General Requirements

The owner or operator of a plant which processes more than 3660 Mg/yr (4033 tons/year) gaseous or light liquid volatile organic material, and whose components are used to manufacture the synthetic organic chemicals or polymers listed in Appendix D, shall conduct leak inspection and repair programs for that equipment in accordance with this Subpart. Leak inspection and repair programs shall be conducted for that equipment containing 10 percent or more by weight volatile organic material as determined by ASTM method E-168, E-169 and E-260, incorporated by reference in Section 215.105. A component shall be considered to be leaking if the volatile organic material is equal to, or is greater than 10,000 ppmv as methane or hexane as determined by USEPA Reference Method 21, as specified at 40 CFR 60, Appendix A, incorporated by reference in Section 215.105, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed. The provisions of this Subpart are not applicable if the equipment components are used to produce heavy liquid chemicals only from heavy liquid feed or raw materials.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.431 Inspection Program Plan for Leaks

The owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Section 215.430 shall prepare an inspection program plan which contains, at a minimum:

a) An identification of all components and the period in which each will be monitored pursuant to Section 215.432.

b) The format for the monitoring log required by Section 215.434.

c) A description of the monitoring equipment to be used pursuant to Section 215.432, and

d) A description of the methods to be used to identify all pipeline valves, pressure relief valves in gaseous service, all leaking components, and components exempted under Section 215.432(i) such that they are obvious and can be located by both plant personnel performing monitoring and Agency personnel performing inspections.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.432 Inspection Program for Leaks

The owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Section 215.430 through 215.438, shall for the purposes of detecting leaks, conduct a component inspection program consistent with the following provisions:

a) Test annually those components operated near extreme temperature or pressure such that they would be unsafe to routinely monitor, and those components located more than two meters above permanent worker access structures or surfaces;

b) Test quarterly all other pressure relief valves in gas service, pumps in light liquid service, valves in light liquid service and in gas service, and compressors.

c) If less than or equal to 2 percent of the valves in light liquid service and in gas service tested pursuant to subsection (b) are found not to leak for 5 consecutive quarters, no leak tests shall be required for three consecutive quarters. Thereafter, leak tests shall resume for the next quarter. If that test shows less than or equal to 2 percent of the valves in light liquid service and in gas service are leaking, then no tests are required for the Next 3 quarters. If more than 2 percent are leaking, then tests are required for the next 5 quarters.

d) Observe visually all pump seals weekly.

e) Test immediately any pump seal from which liquids are observed dripping.

f) Test any relief valve within 24 hours after it has vented to the atmosphere.

g) Routine instrument monitoring of valves which are not externally regulated, flanges, and equipment in heavy liquid service, is not required. However, any valve which is not externally regulated, flange, or piece of equipment in heavy liquid service that is found to be leaking on the basis of sight, smell or sound shall be repaired as soon as practicable but no later than 30 days after the leak is found.

h) Test immediately after repair any component that was found leaking.

i) Within 1 hour of its detection, a weatherproof and readily visible tag bearing an identification number and the date on which the leak was detected must be affixed on the leaking component and remain in place until the leaking component is repaired.

j) Any component that is in vacuum service, pressure relief devices connected to an operating flare header or vapor recovery devices are exempt from the monitoring requirements in this Section.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.433 Repairing Leaks

All leaking components must be repaired and retested as soon as practicable but no later than 15 days after the leak is found unless the leaking component cannot be repaired until the process unit is shutdown. Records of repairing and retesting must be maintained in accordance with Section 215.434 and 215.435.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.434 Recordkeeping for Leaks

a) The owner or operator of a synthetic organic chemical or polymer manufacturing plant shall maintain a leaking components monitoring log which shall contain, at a minimum, the following information:

1) The name of the process unit where the component is located;

2) The type of component (e.g., valve, seal);

3) The identification number of the component;

4) The date on which a leaking component is discovered;

5) The date on which a leaking component is repaired;

6) The date and instrument reading of the recheck procedure after a leaking component is repaired;

7) A record of the calibration of the monitoring instrument;

8) The identification number of leaking components which cannot be repaired until process unit shutdown; and

9) The total number of valves in light liquid service and in gas service inspected, the total number and the percentage of these valves found leaking during the monitoring period.

b) Copies of the monitoring log shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report prepared.

c) Copies of the monitoring log shall be made available to the Agency upon verbal or written request, at any reasonable time.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.435 Report for Leaks

The owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Section 215.430 through 215.438 shall:

a) Submit a report to the Agency quarterly, including prior to the 1st day of July listing all leaking components identified pursuant to Section 215.432 but not repaired within 15 days, all leaking components awaiting process unit shutdown, the total number of components inspected, the type of components inspected, and the total number of components found leaking, the total number of valves inspected and the number and percentage of valves found leaking.

b) Submit a signed statement with the report attesting that all monitoring and repairs were preformed as required under Section 215.430 through 215.436.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.436 Alternative Program for Leaks

The Agency shall approve an alternative program of monitoring, recordkeeping, or reporting to that prescribed in Sections 215.430 through 215.438, upon a demonstration by the owner or operator of such plant that the alternative program will provide plant personnel and Agency personnel with an equivalent ability to identify and repair leaking components. The owner or operator utilizing an alternative monitoring program shall submit to the Agency an alternative monitoring program plan consistent with the provisions of Section 215.431.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.437 Open-Ended Valves

a) Each open-ended valve shall be equipped with a cap, blind flange, plug, or a second valve, except during operations requiring fluid flow through the open-ended valve.

b) Each open-ended valve equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

c) Open-ended valves which serve as a sampling connection shall be equipped with a closed purge system or closed vent system such that:

1) Purged process fluid be returned to the process line with zero VOM emissions to atmosphere, or

2) Purged process fluid be collected and recycled to the process line with zero VOM emissions to atmosphere.

(Source: Added at 11 Ill. Reg. ___, effective _____)

Section 215.438 Compliance Date

The owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Sections 215.430 through 215.438 shall comply with the standards and limitations of those Sections no later than December 31, 1987.

(Source: Added at 11 Ill. Reg. ___, effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Proposed Opinion and Order was adopted on the 15th day of October, 1987 by a vote of 6-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board