

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
PETITION OF ROYAL FIBERGLASS POOLS,) AS 2009-04
INC. FOR AN ADJUSTED STANDARD FROM) (Adjusted Standard-Air)
35 ILL. ADM. CODE 215.301)
)

NOTICE

TO: John Therriault, Assistant Clerk
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Carol Webb, Hearing Officer
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PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the APPEARANCE and RECOMMENDATION OF THE ILLINOIS ENVIROMENTAL PROTECTION AGENCY a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Charles E. Matoesian

Charles E. Matoesian
Assistant Counsel
Division of Legal Counsel

DATED: August 20, 2009

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**THIS FILING IS SUBMITTED
ON RECYCLED PAPER**

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APPEARANCE

The undersigned hereby enters his appearance as an attorney on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Charles E. Matoesian
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RECOMMENDATION OF THE ILLINOIS EPA

The Illinois Environmental Protection Agency (“Illinois EPA”) hereby submits its recommendation in the above captioned matter pursuant to the regulations of the Pollution Control Board (“Board”) at 35 Ill. Adm. Code Section **104.416**. The Illinois EPA recommends that the Board **GRANT** the Amended Petition of Royal Fiberglass Pools, Inc., subject to the terms and conditions contained in this recommendation. In support of this recommendation, the Illinois EPA states as follows:

BACKGROUND

1. Royal Fiberglass Pools, Inc. (“Royal”) filed its Petition for Adjusted Standard on April 3, 2009, pursuant to Section 28.1 of the Illinois Environmental Protection Act (“Act”), 415 ILCS 5/28.1, and the regulations of the Board at 35 Ill. Adm. Code Section 104.402. An amended petition (“Amended Petition”) was filed on July 17, 2009. The Amended Petition requests that the Board grant Royal an adjusted standard from 35 Ill. Adm. Code Section 215.301, the Use of Organic Material Rule, better known as the "8 lb/hr Rule" as it applies to the emissions of volatile organic material (“VOM”) from Royal's Dix, Illinois, fiberglass swimming pool manufacturing facility. The 8 lb/hr Rule states:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in

Sections 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material.

2. The Amended Petition for Adjusted Standard stems from Royal's request to use averaging to comply with the 8 lb/hr Rule for VOM as set forth in its modification (submitted July 14, 2009) to its application for a Clean Air Act Permit Program ("CAAPP") permit (no. 96030137) originally received by the Illinois EPA in November, 2004. (Pet. at 1). On January 10, 2006 the Illinois EPA issued Violation Notice A-2005-00281 to Royal. (Pet. at 2). Receipt of the notice was followed by several meetings between the parties during which Royal presented evidence that it could not reasonably comply with the 8 lb/hr Rule on a strict hourly basis. Id. After reviewing the evidence, the Illinois EPA agreed that Royal would file a petition for an Adjusted Standard. This Amended Petition covers the Royal gelcoat and resin application areas, plus other pool manufacturing activities at the source.

3. On April 24, 2009, Royal filed a Proof of Publication of Notice with the Board for the initial Petition. The notice appeared in the Mt. Vernon Register-News on April 13, 2009.

4. Pursuant to 35 Ill. Adm. Code Section 104.416, the Illinois EPA is required to file a response to a Petition for Adjusted Standard within 45 days of filing.

5. However, due to the need for additional information, Royal was required to file an Amended Petition. In return, the Illinois EPA filed several motions to extend the time for filing a response.

DESCRIPTION OF THE FACILITY

6. The Royal facility is located at 312 Duncan Road in Dix, Jefferson County, Illinois. (Pet. at 1). Royal manufactures 20 different models of fiberglass pools with a facility-wide production cap

of 400 pools per year (per CAAPP application). (Pet. at 4). The CAAPP application requests a limit of 400 pools which correlates to full production of two pools per day in Spring, Summer, and Fall. Id. During the peak season, Royal employs approximately 20 people in its facility and another five to ten contract haulers. Id. Concerning emissions, Royal hired an environmental consultant, Engineering Environmental Consulting Services (“EECS”), to aid the company in computing the VOM emissions associated with the manufacture of the various pools Royal constructs. Id. at 2. Royal estimates that annual VOM emissions at the Dix plant for 2007 and 2008 were 14.8 and 11.6 tpy, respectively. Id. at 5. The CAAPP application, however, estimates maximum VOM emissions at about 29.76 tpy, approximately 27.54 tons of which are potential styrene emissions. Id. The Illinois EPA accepts Royal’s description of its facility and process and incorporates by reference Section II. D of the Amended Petition.

7. A new Maximum Achievable Control Technology (“MACT”) standard for composites (“Composites MACT”) became effective on April 21, 2006. 40 CFR Part 63, Subpart WWW. Royal is already in compliance with this new MACT standard. (Pet. at 5). To comply with the work practice standards in the Composites MACT, Royal “adopted standards requiring that all resin containers are closed when not in use, and implementing the use of acetone, which has no HAP or VOM emissions.” Id.

COMPLIANCE ALTERNATIVES

8. Royal asserts in its Amended Petition that its operations were not contemplated by the 8lb/hr .Rule, which was established in 1971. Id. at 11. Royal states that the manufacture of fiberglass pools is significantly different than other operations which emit organic material, Id. at 12.

Fiberglass pool manufacturing “involves a batch-type process, rather than a continuous application process.” Id. at 11. Because materials are not applied continuously, but rather in steps, VOM emissions are not constant and even. Id. at 12. Royal states that emission controls are more economically feasible where processes are continuous. Id.

9. Finally, Royal asserts the requirements of Occupational Safety and Health Administration’s (“OSHA”) worker protection regulation at 29 CFR 1910 prevent compliance with the 8 lb/hr Rule. Id. at 11. OSHA rules require workplaces that emit styrene to “maintain an in-plant work area atmosphere...of less than 100 ppm.” Id. at 12. To protect workers from styrene emissions, Royal has thus installed a ventilation system “that exhausts approximately 35,000 cubic feet of plant air every minute.” Id. Because of the enormous rate of air transfer, Royal asserts that add-on emission controls are fiscally impractical. Id. Royal further asserts that the Board in 1971 could not have possibly anticipated the promulgation of the OSHA rules. Id.

10. Royal considered the following compliance alternatives, “(1) reducing VOM content in production materials; (2) using alternative operating procedures and methods; and (3) installing add-on emission control technologies.” Id. at 6. Royal asserts that, “other than add-on emission controls, many of the alternatives investigated would not allow Royal to comply with the 8 lb/hr Rule on a strict hourly basis. In addition, Royal could not identify any feasible compliance alternatives to further reduce VOM emissions from Royal’s operations.” Id.

11. Royal states that it has already reduced the VOM concentration in its production materials and that further reductions of styrene in the resins is not “currently technically feasible” while maintaining product integrity. Id.

12. Concerning add-on air pollution controls, Royal relies heavily on a report, *Feasibility and Cost of the Capture and Control of Hazardous Air Pollutant Emissions from the Open Molding of Reinforced Plastic Composites*, prepared by their environmental consultant, EECS, and submitted to the United States Environmental Protection Agency (“USEPA”) in April 2000 as part of the Composites MACT rule. Id. at 7 and 8. The study lists the various air pollution control systems that are available and Royal lists their feasibility for use at the Dix plant. Id. at 7-8. Royal contends that the report finds most forms of add-on technology either technologically or economically infeasible for the Dix plant. Id. Royal also states that the Composites MACT does not require a facility like the Dix plant to install add-on air pollution controls. Id. at 7. Royal contends that the only technically feasible add-on control is economically infeasible, stating that a “skid-mounted RTO control option would have an installed capital cost...” of, “approximately \$709,500 and would have annual operating costs of over \$470,000 per year.” Id. at 9. This would equate to a cost of \$18,400 per ton of styrene and methyl methacrylate (“MMA removed”). Id. Based upon the information submitted, the Illinois EPA agrees with this analysis.

13. Royal has already reduced Hazardous Air Pollutant (“HAP”) concentration in its production materials in order to comply with the MACT standard. Id. at 5. Some of the HAPs are also VOM. Compliance with the MACT does not yield compliance with the 8 lb/hr Rule. Id. at 6. Royal states that reduction of styrene in the resins, beyond that required by the MACT, is not currently technically feasible while maintaining product integrity. Id. Royal has also investigated alternative procedures which could result in reduced VOM emissions. Id. These resulting problems are listed on pages six and seven of the Amended Petition but all alternatives seem to be ruled out by the large size of the

pool molds and the need for a high-quality gelcoat finish. *See generally*, pages 6 and 7.

PROPOSED ADJUSTED STANDARD

14. Royal has requested an Adjusted Standard from the Board's air pollution control requirements found at 35 Ill. Adm. Code Section 215.301, insofar as that regulation applies to the VOM emissions from Royal's manufacturing facility in Dix, Illinois. The Illinois EPA recommends that the Board **GRANT** Royal's Amended Petition, and requests that the Board allow Royal to operate its pool manufacturing facility subject to the following conditions:

a. Royal shall operate in full compliance with the National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composite Manufacturing Facilities, set forth at 40 CFR Section 63 Subpart WWWW, as may be amended in the future.

b. Operation in full compliance with the National Emission Standard for Hazardous Air Pollutants for Reinforced Plastic Composite Manufacturing Facilities, set forth at 40 CFR Section 63 Subpart WWWW, as may be amended in the future, shall be in lieu of compliance with the 8 lb/hr Rule found at 35 Ill. Adm. Code Section 215.301.

c. Royal shall continue to investigate swimming pool production methods which generate fewer VOM emissions and materials that have a reduced VOM content. Where practicable, Royal must substitute current materials with lower VOM content materials as long as such substitution does not result in a net increase in VOM emissions. Royal shall be required to do any test of new technologically or economically reasonable production methods or materials applicable to the open-mold swimming pool manufacturing industry, which may reduce VOM emissions at Royal's facility which the Illinois EPA specifically requests in writing they do.

After performance of such tests, Royal must prepare and submit a report summarizing the activities and results of these investigatory efforts. The report must be submitted to the Illinois EPA, Bureau of Air, Compliance and Enforcement Section.

d. The relief granted in this proceeding shall be limited to the emission activities at Royal's Dix facility as of the date of this filing.

e. Royal shall operate in full compliance with the Clean Air Act, its CAAPP, the National Emission Standard for Hazardous Air Pollutants for Reinforced Plastic Composite Manufacturing Facilities, set forth at 40 CFR Section 63 Subpart WWWW, as may be amended in the future, the Illinois Environmental Protection Act and other applicable regulations not otherwise discussed herein.

ENVIRONMENTAL IMPACT

15. Royal's environmental consultant, EECS, aided the company in computing the VOM emissions associated with the manufacture of the various pools Royal constructs. Id. at 1. Royal estimates that annual VOM emissions at the Dix plant for 2007 and 2008 were 14.8 and 11.6 tpy, respectively. Id. at 5. The CAAPP application, however, estimates maximum VOM emissions at about 29.76 tpy, approximately 27.54 tons of which are potential styrene emissions. Id.

16. Royal asserts that the granting of the petition will not increase per unit emissions. Id. at 10.

17. Royal asserts that no cross-media impact is expected from the granting of the adjusted standard. Id.

18. Considered together, the batch process nature of the business which produces VOM emissions in spikes, the fact that the Section 215.301 rule did not anticipate an operation like

Royal's, compliance with the recent MACT standard, and the high cost of add-on control technology due in part to OSHA requirements, the Illinois EPA believes that an adjusted standard for Royal is warranted.

STANDARD OF REVIEW

19. Section 28.1 of the Act states that the Board may grant individual adjusted standards from rules of general applicability whenever the Board determines that an applicant can justify an adjustment. In adopting a rule of general applicability, the Board may specify the level of justification required of a petitioner for an adjusted standard. If a rule of general applicability does not contain a level of justification that the petitioner must meet to obtain an adjusted standard, the requirements of Section 28.1(c) of the Act apply. Section 28.1(c) states that the Board may grant individual adjusted standards whenever the Board determines that:

- (1) Factors relating to that petitioner are substantially and sufficiently different from the factors relied upon by the Board in adopting the general regulations applicable to that petitioner;
- (2) The existence of those factors justifies an adjusted standard;
- (3) The requested standard will not result in environmental or health effects substantially and sufficiently more adverse than the effects considered by the Board in adopting the rule of general applicability; and
- (4) The adjusted standard is consistent with any applicable federal law.

20. The regulation of general applicability from which Royal seeks an adjusted standard, 35 Ill. Adm. Code Section 215.301, does not specify a level of justification that Royal must satisfy to obtain an adjusted standard. Therefore, Royal must satisfy the level of justification set forth in Section 28.1(c) of the Act. As summarized below, the requested adjusted standard for Royal's fiberglass

pool manufacturing operations is justified.

21. The Illinois EPA agrees, for purposes of this Adjusted Standard application, with Royal's analysis of the justification for its proposed Adjusted Standard as set forth in Section II.H of the Amended Petition, and generally accepts Royal's reasoning in this context. However, the Illinois EPA does not endorse Royal's interpretation of the history of the 8 lb/h rule. Nor does the Illinois EPA agree with Royal's assertion on page 13 of the petition that the revocation of the one-hour average ozone standard results in the, "elimination of one of the fundamental purposes of the 8 lb./h rule." (Pet. at 13.)

22. Nevertheless, the 8 lb/hr Rule at Section 215.301 simply did not anticipate the type of operation Royal maintains. Unlike many other manufacturers, Royal emits VOM in concentrated bursts as it applies a "skin" to the pool. What is more, reasonable alternative emission control technologies either do not result in compliance with the 8 lb/hr Rule or are prohibitively expensive due in no small part to the OSHA requirement for continual ventilation.

CONSISTENCY WITH FEDERAL LAW

23. The Board may grant the proposed adjusted standard consistent with federal law under Section 110 of the Clean Air Act, 42 U.S.C. Section 7410, which grants the individual states the authority to promulgate a plan for the implementation, maintenance, and enforcement of air quality standards, subject to approval by USEPA. Pursuant to federal law, states also have the authority to revise such a plan, subject to USEPA approval. By following its adjusted standard procedure with respect to the Board's federally authorized and approved air emission regulations, the Board is exercising the authority granted to the states through Section 110 of the Clean Air Act. If the

requested adjusted standard is adopted by the Board, Illinois EPA has the authority and will submit the adjusted standard to USEPA as a SIP revision, thus complying with federal law.

HEARING

24. Royal has requested a hearing before the Pollution Control Board.

WHEREFORE, the Illinois EPA recommends that Royal's Amended Petition for Adjusted Standard be **GRANTED**, and an order be entered adopting the adjusted standard with the specific language presented in this Recommendation.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Charles E. Matoesian
Charles E. Matoesian
Assistant Counsel
Division of Legal Counsel

Dated: August 20, 2009

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STATE OF ILLINOIS)
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CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state that I have served electronically the attached APPEARANCE and RECOMMENDATION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, upon the following persons:

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