



Printing Industry of Illinois/Indiana Association

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Pollution Control Board

Dorothy Gunn, Clerk

JRTC

100 W. Randolph Street, Suite 11-500

Chicago, Illinois 60601

Dockets: R04-12/R04-20 - Second Notice

Dear Ms. Gunn:

This letter is submitted to supplement the comments submitted on June 30, 2005 in response to the Clean-up Part III Amendments to 35 Ill. Adm. Code Parts 211, 218, and 219 published in the May 27, 2005 issue of the *Illinois Register* and to respond to the comments of the Illinois Environmental Protection Agency ("Illinois EPA") and decision of the Illinois Pollution Control Board ("Board") to make no changes to the first notice of the proposed amendments in proposing the second-notice amendments.

After having the opportunity to review the Illinois EPA's comments and the Board's analysis regarding the status of the Coatings regulations under Parts 218 and 219, Subpart F and the Printing and Publishing regulations under Parts 218 and 219, Subpart H, the Printing Industry of Illinois/Indiana Association (PII) provides the following comments and clarification of previously submitted information for the second notice of these proposed regulations.

As background, the PII represents the commercial printing industry in the states of Illinois and Indiana. Printing is one of the largest manufacturing industries in Illinois, comprising at least 2,775 printers with over 80,000 employees. Approximately 80% of the establishments have 20 or fewer full time employees, making the printing industry a prime example of small business manufacturing.

Of the 2,775 establishments, about 60% utilize the offset lithographic printing process. The three main forms of offset lithography are sheetfed, heatset web, and nonheatset web. Although all three use a planographic plate to deliver an inked image to the substrate (which differentiates lithography from the other printing processes), they differ in the feed, delivery, and ink drying mechanisms.

As stated in our June, 2005 comments, PII is very concerned about the regulatory requirements for coatings applied in the lithographic printing process as proposed in the changes to 35 Ill. Adm. Code Parts 218 and 219. The key issues are:

- The regulation of a single piece of equipment (a printing press) under two separate regulations with differing applicability thresholds and compliance requirements, namely the Coating regulations of Subpart F and the Printing and Publishing regulations of Subpart H;
- The Illinois EPA's dismissal of PII's concerns relating to these provisions;
- The air permitting and compliance implications of including lithographic printing under the coating regulations of Subpart F;
- The environmental impact of excluding lithographic printing operations from the coating regulations of Subpart F; and
- The history and intent of the paper coating exemption.

Dual Regulation

The Board Analysis in the March 2, 2006 Opinion and Order of the Board provides a clear explanation as to why coating application on lithographic printing lines need not and should not be regulated separately from the printing process in citing EPA's objection to the then current SIP in 1989 and EPA's discussion of FIP in 1990 as follows:

An exemption from the paper coating limitations would not be acceptable unless the sources were covered by the State's graphic arts [printing and publishing] regulations, which they are not in Illinois. 54 Fed. Reg. 53084 (December 27, 1989).

As discussed below, it seems clear that coating operations in lithographic operations are now covered by the State's graphic arts rules in 35 IAC 218.405 through 218.411 and 35 IAC 219.405 through 219.411. Regarding the application of the printing and coating regulations to printing presses, EPA clearly states its position that a graphic arts source should not be regulated under two separate regulations.

The equipment must be subject to either the paper coating or graphic arts rule, *but not both*. (emphasis added) 55 Fed. Reg. 26850 (June 29, 1990).

The position taken by the Illinois EPA, stating that lithographic printing lines with coating equipment should be subject to both Subpart F and Subpart H, is contrary to USEPA's position and its merit is therefore questioned. As noted below, it seems clear that coating operations in lithographic operations should be covered *only* by the State's graphic arts rules in 35 IAC 218.405 through 218.411 and 35 IAC 219.405 through 219.411 and, consistent with USEPA's position, that no provisions of Subpart F are or should be applicable to these operations.

As currently proposed, a lithographic printing operation in the Chicago or St. Louis nonattainment area that applies a "coating" as part of its graphic arts operations will be subject to the paper coating requirements of Parts 218 or 219, Subpart F, and lithographic printing regulations under Parts 218 or 219, Subpart H. As a result, a printer utilizing "inks" and "coatings" on the same printing press will have a portion of the press subject to one regulation and another portion subject to entirely different requirements as follows:

- For heatset lithographic printing operations, if maximum theoretical emissions are less than 100 tons per year, if emissions are limited to 100 tons per year before control via a

federally enforceable limitation or if actual emissions are less than 100 pounds per day before control, there are no limitations on the ink VOM content or control requirements. If emissions are higher than these levels, then Subpart H imposes limits on cleaning solvent and fountain solution composition and a 90 percent destruction efficiency requirement, but no VOM content limitations or specific capture requirements for the ink.

- For nonheatset lithographic printing operations, if actual emissions are less than 100 pounds per day, there are no limitations on the ink, fountain solution, or cleaning solvent composition or other control requirements. If emissions are higher than this level, then Subpart H imposes limitations on cleaning solvent and fountain solution composition, but no VOM content limitations for the inks.
- If the press is used to apply an overprint coating and actual coating emissions are less than 15 pounds per day (vs. 100 tons per year or 100 pounds per day for printing emissions), there are no limitations on the coating VOM content or other control requirements. If emissions are higher than this level, then Subpart F limits the VOM to 2.3 lb/gal; requires a 90 percent destruction efficiency and a capture system to achieve an overall 81% control efficiency for coating VOM emissions; or requires a daily weighted average coating composition of 2.3 pounds VOM per gallon.

As described in PII's June, 2005 comment letter, the proposal to regulate coatings applied on a printing press has the greatest impact on the use of varnish, which is, except for the absence of pigment, essentially identical to lithographic ink. Under the proposal, this unpigmented ink is proposed to be regulated differently – as a “coating” and not an ink – even though the composition and physical properties are no different. Varnish is applied by the same piece of equipment and in the same manner as ink. Additionally, varnish and ink dry in the same manner, which means that not all of the VOM in the varnish is emitted. In the case of varnish applied via sheetfed and nonheatset web offset presses, the amount of VOM released is only 5 percent and in the case of varnishes applied on heatset presses, 80 percent is released. For heatset presses, the VOM released is captured by the dryer with the same efficiency as VOM from lithographic inks and, for presses with add-on controls, VOM emissions from a coating application are controlled in the same manner as those from ink

The differing applicability thresholds, composition limitations, capture and control requirements, and compliance options for identical materials (i.e., ink and varnish) are confusing, complicated, contradictory, and totally unnecessary.

To add to the complexity of this situation, the definitions of “ink” and “coating” are also overlapping and contradictory as follows (emphasis added):

35 211.1190 Coating

b) "Coating" means, for purposes of 35 Ill. Adm. Code 218 and 219, a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, adhesives, thinners, diluents, and *inks*.

35 211.3110 Ink

"Ink" means a *coating* used in printing, impressing, or transferring words, pictures, designs or other images onto a substrate.

35 211.3450 Lithographic Printing Line

"Lithographic printing line" means a web or sheetfed printing line in which each roll printer uses a roll where both the image and non-image areas are essentially in the same plane (planographic).

35 211.4470 Paper Coating

"Paper coating" means any protective, decorative or functional coating applied on paper, plastic film, or metallic foil to make certain products, including but not limited to adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper, or pressure sensitive tapes. For purposes of 35 Ill. Adm. Code 218 and 219, paper coating includes coatings applied by impregnation or saturation.

35 211.5150 Printing

"Printing" means the application of words, designs, pictures, or other images to a substrate using ink.

35 211.5170 Printing Line

"Printing line" means an operation consisting of a series of one or more roll printers and *any associated roll coaters*, drying areas, and ovens wherein one or more *coatings* are applied, dried, and/or cured.

35 211.5690 Roll Coater

"Roll coater" means an apparatus used for roll coating.

35 211.5710 Roll Coating

"Roll coating" means a method of applying a coating to a moving substrate by means of rotating hard rubber, elastomeric or metal rolls.

Examination of these definitions results in the observation that the terms "inks" and "coatings" are used interchangeably in the Illinois regulations and that the definition of printing line, and, therefore, lithographic printing line, includes both printing units (i.e., "ink" application) and roll coaters (i.e., "coating" application) on the same process line, making no distinction between these two processes.

As the provisions for lithographic printing under 35 IAC 218.405 through 218.411 and 35 IAC 219.405 through 219.411 refer to "lithographic printing line(s)", Illinois EPA's contention that, "PII's proposal would exempt a group of sources from the rules with unforeseen environmental impact" is without merit, as these regulations already address coating operations on lithographic printing lines. Additionally, the IEPA position that, "the note in 218 and 219.204(c) pre-dates the rulemaking for the current version of the lithographic printing regulation, and thus could not have been intended to cover emissions limitations which were not yet even proposed" has no bearing on this situation since, as the lithographic printing regulations in Subpart H already address coating operations on lithographic printing lines, no exemption from the paper coating regulations is required.

“Confusion” Regarding Coating Requirements

The Illinois EPA’s response to PII’s comments misrepresents PII’s concerns as being primarily about the inconsistencies between the attainment and nonattainment area printing and coating regulations and categorizes these differences as the primary source of “confusion”. This was only one of the issues raised in PII’s comments and the only issue that the Illinois EPA responded to directly, failing to provide an adequate response to any of the other concerns raised. With respect to this one issue, the Illinois EPA’s reply to II’s concern about a lack of rationale for the differences was non-responsive, stating simply that there are differences, without providing any basis for why these differences are what they are or how it was determined that the differences are appropriate and necessary.

PII’s comments did raise the question about confusion – not because the applicability of the paper coating regulations is proposed to be “clarified”, but because the Illinois EPA has inconsistently interpreted and applied these very regulations. As noted in the attachment to PII’s comments, “confusion” is apparent in the inconsistency that Illinois EPA permits writers have shown in applying Subparts F and H to lithographic, rotogravure and flexographic printing operations. This level of “confusion” among Illinois EPA personnel is a clear indication that the basis for these regulations is unclear and that the Illinois EPA’s understanding and implementation of the Board’s rules has been inconsistent since these regulations were adopted in 1991.

Air Permitting and Compliance Implications

As noted above, the Illinois EPA has issued multiple construction and operating permits for lithographic printing facilities explicitly stating that the paper coating requirements of Subpart F *do not* apply. Printers, therefore, have complied with their permit terms and conditions, accepting this as a non-applicable requirement, including CAAPP permitted sources. Annual compliance certifications from these sources have been submitted documenting compliance with all applicable permit requirements. If the applicability of Subpart F is now modified to make the paper coating requirements applicable to these facilities, the question of enforcement on these locations, who have been certifying compliance with (in Illinois EPA’s opinion, at least) erroneous CAAPP permit conditions becomes a serious concern. Since these are permits issued by the Illinois EPA, what liability does the printer have for any compliance certifications based on a permit issued as a result of an Agency error?

Environmental Impact of Excluding Lithographic Printing Subpart F Regulations

Both the Illinois EPA and the Board made statements to the effect that the environmental impact of PII’s request had not been documented. Additionally, the Illinois EPA claims that PII offered no technical support for its position.

PII’s comments included a detailed technical review of the various types of coatings used in the lithographic printing, including data on the composition of the materials, a discussion of how varnishes are essentially identical to lithographic printing inks (including data on physical properties of the VOM constituents), and a discussion on the VOM emissions from these materials. Without more specifics from the Illinois EPA in terms of what information is

necessary, PII is unaware of what additional technical support is needed. PII would be more than willing to provide any additional technical support that Illinois EPA might feel appropriate.

In terms of the environmental impact of PII's request, we believe the exclusion of lithographic printing operations from the requirements of any Subpart F provisions will be inconsequential for several reasons. First, as documented in PII's earlier comments, VOM emissions from coatings used in printing operations are generally very low, based on the physical properties and composition of the various coatings used, the limited VOM emissions from nonheatset coatings, capture and control of heatset varnishes and limited usage and emissions relative to other graphic arts materials. Pursuant to the requirements of Subpart H, all VOM emissions from the usage of inks, coatings, fountain solutions and cleaning solvents are routinely tracked, recorded and reported. The Illinois EPA should have all relevant emissions data from printers to evaluate the industry's environmental impact.

Secondly, as noted above, many printers are currently operating in compliance with their permits that specifically exempt them from Subpart F requirements. As many of these are larger sources (i.e., CAAPP and FESOP facilities), the environmental impact has already been assessed. Similarly, the impact from Lifetime Operating Permit facilities has also been addressed in terms of evaluating their potential to emit to qualify for this type of permit.

Based on this information, it is unclear what additional environmental impact information the Illinois EPA or Board would require.

History and Intent of the Paper Coating Exemption

Based on the collective knowledge and understanding of PII and its members, the comments above address the historical development and intent of Subparts F and H. PII was actively involved in the development of the nonattainment lithographic rules and, at that time, there did not appear to be any concerns from the Illinois EPA regarding the applicability or nonapplicability of the Subpart F requirements to the lithographic printing process. As a result, the issues that are now the focus of these comments were not raised at that time, primarily due to the apparent parallel requirements between the applicability of the coating requirements to graphic arts as found in Part 215 and in Parts 218 and 219.

In the Board's analysis, it is stated, "The Board observes that flexographic and rotogravure printing are regulated differently from lithographic printing under Subpart H" as part of the rationalization for the differing applicability of the coating requirements to printing in the nonattainment areas. Although the PII does not disagree with this statement, it also fails to understand the relevance of this statement. Flexographic and rotogravure printing are also regulated differently from lithographic printing under the Part 215 regulations, yet the coating exemption applies to all processes under these regulations.

The PII has no additional insight into the intent of what is now being interpreted as a different applicability of the coating regulations to graphic arts in Illinois' nonattainment areas and would welcome the opportunity to further review the regulatory record and assess any additional justification from the Board or the Illinois EPA to determine if indeed the intent was to make such a distinction.

Summary and Conclusion

In examining the definitions and regulations that cover printing and paper coating activities, there are several aspects that are overlapping, conflicting and confusing. This situation has resulted in the Illinois EPA inconsistently interpreting these requirements, which is reflected in multiple permits with inconsistent applicability of the paper coating requirements to printing lines.

The composition of materials, method of application and definition of a printing line all indicate that printing lines applying both inks and coatings are appropriately regulated only as printing lines and should not be subject to the paper coating requirements. The Board and Illinois EPA now have the opportunity to revise the regulations to clarify the applicability of the coating regulations so that small business can readily understand and meet its compliance obligations.

We urge the Board to reconsider the earlier decision to restrict the coating exemption to only flexographic and rotogravure printing and clarify the regulatory language in Subpart F to explicitly state that the coating exemption includes lithographic printing operations as well.

If you have any questions or concerns regarding the recommendations, please feel free to contact me at (312) 580-3032.

Sincerely,

Joanne Rock
Executive Vice President

