June 18, 1987

Lawrence A. Donnelly, P.E.
Donnelly Engineering
10 Jefferson Avenue
St. James, New York 11780

Re: Declaratory Ruling DEC 19-05
Contemporary Packaging Corporation Facility

Dear Mr. Donnelly:

This is in response to your request for a Declaratory Ruling on the applicability of 6 NYCRR Part 234, Graphic Arts, to the Contemporary Packaging Corporation facility located at 75 Commercial Street, Plainview, New York. You inquired specifically whether the meaning of the term "nonreactive volatiles" in §234.3(a)(2) can be derived from the definitions of "non-photochemically reactive solvents" in §205.2(f) and "photochemically reactive solvents" in §205.2(i). I conclude it cannot.

As it now reads §234.3(a)(2) imposes a requirement that:

the ink as it is applied to the substrate,
less nonreactive volatiles, contains
60.0 percent by volume or more nonvolatile material ....

Legally the phrase "non-photochemically reactive solvents" cannot be used as a substitute for "nonreactive volatiles" because these terms are contained in different parts of the regulations and are not explicitly equated by definition. The definitions contained in Part 200, "General Provisions", apply to all the air regulations unless specifically excluded. The definitions contained in §205.2 apply only to Part 205, entitled "Photochemically Reactive Solvents and Organic Solvents from Certain Processes — New York City Metropolitan Area". Consequently, the meaning of the term "nonreactive volatiles" as used in Part 234: "Graphic Arts" can only be derived from the general definitions contained in Part 200 and, since Part 234 was adopted pursuant to federal requirements, from background technical interpretative guidance issued by the United States.
Environmental Protection Agency ("EPA") on the treatment of exempt solvents and water in determining compliance of inks with the applicable regulations.

The term "nonreactive volatiles" is not expressly defined but is intended to refer to water\(^1\) plus all the compounds listed as excluded from the definition of "volatile organic compound (VOC)" in §200.1(hhh). This term is commonly understood by this Department's engineering staff and by the regulated community to have the above meaning.

The nonreactive volatiles have been determined by EPA, through extensive testing, to have a negligible photochemical reactivity. EPA guidance states that:

\[\text{volatile compounds classified by EPA as having negligible photochemical reactivity such as 1,1,1-trichloroethane and methylene chloride, etc., and listed as exempt in the applicable Federal and State VOC regulation, should be treated in the same manner as water.}\]

United States Environmental Protection Agency, Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink and Other Coatings (1984), p. III-5. Consequently, regardless of the amount of nonreactive volatiles present in a given ink they are not treated as VOCs.

"Non-photochemically reactive solvents", as defined in Part 205, can contain VOCs, which are photochemically reactive, but only in limited amounts. They are solvents that contain less than 20 percent by volume of the specifically listed chemical compounds or that do not exceed the limits found in §205.2(i). If the amount of these solvents exceeds the above-mentioned limits, the solvents are considered photochemically reactive. Therefore, the reactivity is based on the amount and type of the solvent, not, as with nonreactive volatiles, on the photochemical reactivity of the solvent alone. Consequently,

\[\text{Before the March 12, 1985 amendment to Part 234, §234.3(a)(2) imposed a requirement that}\]

\[\text{the ink as it is applied to the substrate, less water, contains 60.0 percent by volume or more nonvolatile material ....}\]

The amendment deleted the word "water" and replaced it with the term "nonreactive volatiles". The purpose of this amendment was to allow not only water but also other nonreactive volatiles to be considered as nonreactive constituents of the ink when determining compliance with §234.3(a)(2).
"non-photochemically reactive solvents", which contain some reactive solvents, cannot be equated with nonreactive volatiles, which are at most negligibly photochemically reactive.

Part 205 first became effective in January 1974 and was premised on the belief that only certain organic compounds were photochemically reactive and thus capable of contributing to contravention of the ambient air quality standard for ozone. Since that time it has been learned that almost all volatile organic compounds are photochemically reactive but vary in their speed of reaction. Thus, it became necessary to adopt regulatory measures applicable to all VOCs. Part 234, which regulates all VOCs emanating from a graphic arts process, was adopted for this purpose in 1981.

Part 234 was also adopted to meet the federal requirement, established as a condition of continued EPA approval of New York’s State Implementation Plan for the attainment and maintenance of the national ambient air quality standard for ozone, to adopt reasonably available control technology ("RACT") requirements for sources for which EPA issues control technology guidance. 40 CFR 52.1673. EPA issued guidance on the application of RACT for the control of VOC emissions from Graphic Arts Facilities in 1970. See United States Environmental Protection Agency, Control of Volatile Organic Emissions from Existing Stationary Sources - Volume VIII: Graphic Arts - Rotogravure and Flexography (1978). EPA’s guidance documents were used by the Department in drafting the terms of the 1985 amendments to Part 234.

For the reasons set forth above, I cannot agree with your interpretation of the 1985 amendment to 6 NYCRR §234.3(e)(2). Because the Contemporary Packaging Corporation facility is subject to Part 234, it must comply with that regulation.

Sincerely yours,

[Signature]

Janice K. Corr
Deputy Commissioner and
General Counsel