

EMULSION POLYMERS COUNCIL
Comments on Proposed Notice Requiring the Preparation and
Implementation of Pollution Prevention Plans in Respect of Nonylphenol (NP)
and its Ethoxylates (NPEs) Contained in Products
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Submitted January 28, 2004

I. Introduction

The Emulsion Polymers Council (EPC) is pleased to submit the following comments on the Proposed Notice Requiring the Preparation and Implementation of Pollution Prevention (P2) Plans in Respect of Nonylphenol (NP) and its Ethoxylates (NPEs) Contained in Products (*Canada Gazette, Part I, November 29, 2003*). EPC is comprised of the major North American manufacturers of emulsion polymers including: Air Products & Chemicals, Inc.; BASF Corporation; The Dow Chemical Company; Dow Reichhold Specialty Latex LLC; Eastman Chemical Company; Johnson Polymer; National Starch & Chemical Company; Noveon, Inc.; and, Rohm & Haas Company. Several EPC members have manufacturing facilities throughout Canada and essentially all member companies sell products in Canada.

As described more fully in comments the EPC previously submitted,^{1,2} emulsion polymers are high molecular weight compounds produced by emulsion polymerization which can be important components of coatings used in the textile and paper industries. The ingredients in a typical emulsion polymer include water (as the continuous phase), monomers, surfactants (as stabilizers and emulsifiers), initiators and possibly specialty ingredients. The surfactant is employed to stabilize the monomers by forming emulsified monomer droplets dispersed in water; the surfactant also plays a critical role in stabilizing the polymer particles. The properties of the specific surfactant play a critical role in the functionality and effectiveness of the finished emulsion polymer as the surfactant critically influences the rheology, stability and compatibility of the system, along with other properties. Since some of these coatings are made with NPEs, EPC members have a particular interest in this proceeding.

EPC's comments address the following issues:

- Environment Canada should more fully define the facilities and processes that are and are not within the scope of "Wet Textile Processing"; and,
- The goal of the CEPA Pollution Prevention Planning requirements should be the overall Environmental Objective; reductions in use should not be advocated where conformance with the EQG has been achieved.

¹ Emulsion Polymers Council Comments on the Proposed Risk Management Strategy for the Wet Processing Textile Industry Addressing Textile Mill Effluents and Nonylphenol and Its Ethoxylates under CEPA 1999 (May 2002), Submitted September 16, 2002.

² Comments of the Emulsion Polymers Council on The Proposed Risk Management Strategy For Nonylphenol and Its Ethoxylates In Products Under CEPA 1999 (May 2002), Submitted September 30, 2002.

Each of these issues are separately discussed below.

II. Environment Canada Should More Clearly Define Processes That Are And Are Not Within The Scope Of “Wet Textile Processing”

The proposal as drafted, is directed at companies that:

(a) Own or operate a facility that manufactures or imports soap and cleaning products, or processing aids used in textile wet processing, or pulp and paper processing aids; and,

(b) Purchases or otherwise acquires 2,000 kg or more of NP and/or NPEs in at least one calendar year between January 1, 2003, and December 31, 2012.

Unlike the Textile Mill proposal, which provides a quantitative definition for wet textile processing, the Products proposal does not provide any meaningful definitions. As EPC has expressed in previous comments, this is particularly troubling with regards to “textile wet processing.” Partially to remedy this situation, Environment Canada developed an “Instruction Insert” which “provides additional information on how to complete the forms associated with the *Canada Gazette* Notice” and includes a brief narrative description of the covered processes.

The Instruction Insert defines Textile Wet Processing Aid as follows:

Textile Wet Processing Aids - refers to all processing aids containing NP and/or NPEs as an ingredient used in textile wet processing. Environment Canada considers wet processes to be those textile manufacturing or producing processes that use significant quantities of water. The pollution prevention planning requirements target the processing aids for the following textile processes, considered to be wet processes: scouring, neutralizing, desizing, mercerizing, carbonizing, fulling, bleaching, dyeing, printing, finishing and any other wet process.

While EPC greatly appreciates Canada’s efforts to better define these processes, EPC continues to believe that the definitions as drafted are too vague. Since emulsion polymers are water-based coatings, the water fraction of these emulsion polymers and associated coatings is significant. A typical textile emulsion polymer-based coating may have in excess of 75 percent of water in the finished product. Because of this large percentage of water in the product and the lack of a quantitative definition, EPC member companies are concerned that the rule may be misconstrued as applying to emulsion polymer-based coatings used within the textile industry even though these products are not themselves used in processes that employ additional process water.

EPC maintains that to provide the necessary clarification, the focus of Canada’s attention should not be on processes that use significant quantities of water but rather processes

that result in the discharge of significant quantities of water. We therefore recommend the following modification to the definition of Textile Wet Processing Aids:

Textile Wet Processing Aids - refers to all processing aids products containing NP and/or NPEs as an ingredient that are used in ~~textile wet processing~~. ~~Environment Canada considers wet processes to be those textile manufacturing or producing processes that result in the discharge of use~~ significant quantities of water. The pollution prevention planning requirements target the processing aids for the ~~following~~ textile processes, ~~considered to be wet processes: scouring, neutralizing, desizing, mercerizing, carbonizing, fulling, bleaching, dyeing, printing, finishing and any other wet process. Please see definitions described~~ in Table 4 ~~below except when those processes involve the use of water-based products (e.g., products based on emulsion polymers) that are not intended to be used in conjunction with large quantities of water and/or associated with the discharge of a waste water stream. of each wet process as defined in the supporting document to the Priority Substances List Assessment carried out on textile mill effluent.~~

In the attached, EPC has further provided recommended changes to the definitions as presented in the Instruction Sheet to clarify those processes that should not be considered as “wet” and as such covered by the Notice.

III. The Goal Of The CEPA Pollution Prevention Planning Requirements Should Be The Overall Environmental Objective; Reductions In Use Should Not Be Advocated Where Conformance With Environmental Quality Guidelines Has Been Achieved

As further described in comments filed by the Alkylphenols & Ethoxylates Research Council (APEREC), EPC believes that Environment Canada should incorporate the Environmental Objective in the list of Factors to Consider in developing Pollution Prevention Plans. In its May 2002 Risk Management Strategy Document for NP and NPE, Environment Canada states that:

All risk management actions have the same environmental objective, or long term goal, which is to achieve ambient concentrations in Canadian waters that do not exceed the draft Canadian Water Quality Guidelines of 1.0 µg/L NP TEQ for freshwater and 0.7 µg/L NP TEQ for marine waters, such that no adverse effects are likely to occur in the resident aquatic biota.

EPC believes that it is critically important for the Environmental Objective and associated Water Quality Guidelines to not only be discussed, but more importantly, these should be an integral part of the “Factors to Consider” in developing P2 Plans.

Without the inclusion of the Environmental Objective, the overriding focus for P2 planning becomes the so called “Risk Management Objective” to reduce use by 95%. EPC maintains that calling for such a significant reduction in use, without any clear

evidence that there is widespread non-compliance with Environment Canada's Environmental Quality Guidelines is inappropriate, particularly for "Track 2" substances.

Including the EO among the Factors to Consider will also encourage facilities to adopt practices that minimize their overall emissions rather than just emissions of NP and NPEs.