

ILLINOIS POLLUTION CONTROL BOARD  
March 25, 1993

IN THE MATTER OF: )

QUANTUM CHEMICAL CORPORATION )

USI DIVISION )

AS 93-1

(Adjusted Standard)

ORDER OF THE BOARD (by J. C. Marlin):

On February 11, 1993, Quantum Chemical Corporation (Quantum) filed a petition for adjusted standard from certain water quality standards found at 35 Ill. Adm. Code 304.120(c). Newspaper notice was published on February 18, 1993. On February 25, 1993, a request for hearing was filed by Donald Bekker of Morris, Illinois. The request for hearing was granted by Board order on March 11, 1993.

The Board finds the petition does not provide enough information to comply with the requirements of Section 28.1(c) of the Environmental Protection Act (Act) or with 35 Ill. Adm. Code 106.705 regarding the contents of a petition for adjusted standard. (415 ILCS 5/28.1(c) (1992).)<sup>1</sup>

Section 28.1(c)(1) of the Act requires the petitioner for an adjusted standard to provide adequate proof that the factors relating to it are substantially and significantly different from those relied on by the Board in adopting the regulation. Additionally, Section 28.1(c)(2) of the Act requires the petitioner to provide adequate proof that the existence of its different factors justifies an adjusted standard.

Quantum asserts that federal effluent guidelines for the Organic Chemical, Plastic and Synthetic Fiber (OCPSF) Industry TSS limits, pursuant to 40 CFR 414.41, are more appropriately applied to its Outfall 005. Quantum also asserts that 35 Ill. Adm. Code 304.120, which establishes effluent limitations for "deoxygenating wastes" and specifically 35 Ill. Adm. Code 304.120(c), which sets TSS limits for effluents discharging at a dilution ratio of less than five to one, have been improperly applied to the discharge of Outfall 005. 35 Ill. Adm. Code 304.120 reads in part:

Section 304.120 Deoxygenating Wastes

Except as provided in Section 306.103, all effluents containing deoxygenating wastes shall meet the

---

<sup>1</sup>The Act was formerly codified at 1991, Ill.Rev.Stat. ch. 111 1/2 par. 1001 et. seq.

following standards:

\* \* \*

- c) No effluent whose dilution ratio is less than five to one shall exceed 10 mg/l of BOD5 or 12 mg/l of suspended solids, except that sources employing third-stage treatment lagoons shall be exempt from this subsection (c) provided all of the following conditions are met:

\* \* \*

A portion of Quantum's justification for receiving an adjusted standard appears to be based on the idea that the nature of the TSS loading at Outfall 005 is fundamentally different from the types of loadings anticipated by the Board when 35 Ill. Adm. Code 304.120 was promulgated. The Board questions whether Quantum has provided sufficient information for the Board to evaluate its request.

An unsupported statement that polyolefins do not exert a biological oxygen demand (Exh. F at 7) coupled with the statement that the suspended solids from Outfall 005 contain an average of 80% polymer (polyolefins) (Exh. F at 5) does not provide sufficient information for a Board decision.

Section 28.1(c)(3) of the Act requires the petitioner to give adequate proof that the adjusted standard, if granted, will not result in substantially and significantly more adverse environmental or health effects than the rule of general applicability. 35 Ill. Adm. Code 106.705(g) requires the petitioner to demonstrate the level of environmental impact predicted to result from the proposed adjusted standard.

Quantum has offered Exhibit F to fulfill the above requirements. Exhibit F contains information on Outfall 005 effluent characteristics, Aux Sable Creek and Illinois River stream characteristics; a literature review on the water quality effects of suspended solids; and predictions of incremental increases in TSS in Aux Sable Creek and the Illinois River under storm and low flow conditions if the adjusted standard is granted. Exhibit F states that "since the polyolefins are biochemically inert, they will not accumulate in aquatic life tissue and thus offer no potential for toxicity through the ingestion of aquatic life exposure route. In terms of water contact recreation, the lack of toxicity of the polyolefins assures that there is no potential for adverse human health effects due to exposure to these TSS." (Exh. F at 16.)

The Board notes that Quantum has provided no data to support the assertion that polyolefins are nontoxic or that the suspended

solids, not just polyolefins, in Outfall 005 have not or will not impact the aquatic life of Aux Sable Creek or the Illinois River. The petition also does not contain information on the biological nature of Aux Sable Creek and the Illinois River.

Based on the above, the Board requests that Quantum file an amended petition on or before May 31, 1993, with the following information:

1. A description of the type of suspended solids loadings anticipated by the Board in promulgation of 35 Ill. Adm. Code 304.120 and specifically Section 304.120(c). (See, Section 28.1(c)(1) of the Act).
2. Data indicating the 5-day biochemical oxygen demand (BOD5) of Outfall 005 effluent during all types of flow, especially during low flow and storm events.
3. Data indicating the BOD5 and dissolved oxygen content of Aux Sable Creek and the Illinois River under varying flow conditions, especially low flow and storm events.
4. A more detailed description, complete with specific data, of the composition of Outfall 005 TSS.
5. Scientific data regarding the toxicity, biological oxygen demand, and biodegradation of polyolefins.
6. Scientific data regarding the toxicity of the effluent of Outfall 005.
7. Scientific and historical data regarding the biological nature of Aux Sable Creek and the Illinois River near the confluence of Aux Sable Creek.
8. A discussion, with supporting data, to indicate whether the following conditions (taken from Exh. F description of potential water quality impacts of suspended solids in streams; page 8) have been observed in Aux Sable Creek or in portions of the Illinois River affected by Aux Sable Creek:
  - a. Increases in turbidity, resulting in decreased growth of aquatic plant life;
  - b. Blanketing of the bottom of the stream, limiting or preventing the growth of benthic invertebrate organisms;
  - c. Impacts on fish; either mortality or reduced growth rate and disease resistance;
  - d. Prevention of successful development of fish eggs and

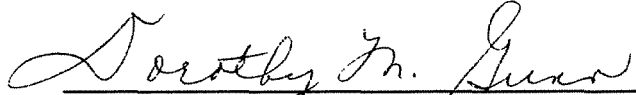
larvae, due to blanketing of the stream bottom with sediment;

- e. Modification of the natural movement and migrations of fish;
  - f. Reduction of the available food supply for fish (e.g., plankton); and
  - g. Reduced efficiency in catching fish.
9. A discussion, with supporting documents, of whether the conditions in 8(a)-(g), above, might be expected if the adjusted standard for TSS is granted.

Failure to file an amended petition on or before May 31, 1993, providing additional information, this matter may be subject to dismissal.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the 25<sup>th</sup> day of March, 1993, by a vote of 6-0.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board