

ILLINOIS POLLUTION CONTROL BOARD  
July 26, 1983

IN THE MATTER OF: )  
 )  
PROPOSED AMENDMENT TO )  
35 ILL. ADM. CODE 602.113(c) ) R83-9  
TO ALLOW ALGICIDE PERMITS )  
GREATER DURATION )

PROPOSED RULE.            FIRST NOTICE.

PROPOSED OPINION AND ORDER OF THE BOARD (by W. J. Nega):

This matter comes before the Board on the proposal filed on April 6, 1983 by the Illinois Environmental Protection Agency (Agency) to amend 35 Ill. Adm. Code 602.113(c) to extend the maximum allowable duration of algicide permits from 1 year to 5 years. On May 18, 1983, the Board received a letter from Michael D. Curry, P.E. in support of the proposed regulatory change. The first hearing on the merits was held in Springfield, Illinois on May 27, 1983 and the second merit hearing was held in Chicago, Illinois on May 31, 1983. No members of the public were present at either hearing.

The Director of the Illinois Department of Energy and Natural Resources (DENR) has advised the Board that the DENR has made a finding that an economic impact study on the regulatory proposal in R83-9 is not necessary and has issued a "negative declaration" of economic impact. The Economic and Technical Advisory Committee (ETAC) has concurred in the DENR's finding. The public hearing requirements of Section 27 of the Illinois Environmental Protection Act (Act) being satisfied, the Board will adopt the proposed rule for first notice.

As justification for its initial proposal in R83-9, the Agency indicated that the change in permit duration would increase administrative efficiency by reducing the costs and paperwork of all parties and by eliminating the repetitive information found on each successive yearly application without loss to the information base needed to properly protect the environment.

Algae are aquatic nonvascular plants (such as seaweeds, pond scums, and stoneworts) with chlorophyll often masked by a brown or red pigment. Algicide permits are issued by the Agency for copper sulfate treatment of waters in specific streams and impoundments. According to the records of the Agency's Division of Public Water Supplies (DPWS), there are 81 facilities that apply for algicide permits. Most of the same facilities apply year after year; identical information is repeated on each yearly application; and the amounts and application rates of copper sulfate (which are determined by the volume, area, and depth of the reservoirs which have applied algicide, with some allowance for siltation) are practically the same over the years. (See: Attachments I, II, and III). Thus, if the maximum duration for algicide permits is extended from 1 year to 5 years, the permittees would not have to fill out redundant applications; DPWS would not have to devote its limited resources to processing such forms; and water quality would still be protected.

At the first merit hearing, Mr. Roger D. Selburg, P.E., Manager of the Permit Section of DPWS, testified that: (1) public water supplies which use surface water reservoirs as a source of raw water supply need to control algae, plankton, bacteria, and fungi to avoid the clogging of sand filters and the presence of objectionable tastes and odors in finished waters used for domestic purposes; (2) the use of copper sulfate for controlling algal growths in water supply reservoirs has been practiced in Illinois for over 80 years; (3) copper sulfate is applied by dragging a burlap sack containing crystals of copper sulfate behind a boat or using a saturated copper sulfate solution applied to the water (by either using a sprayer or a venturi mounted near the motor prop, with an escape path being left for any fish in the vicinity of the point of application); (4) the amount of copper sulfate required to control algae depends on the specific type of algae and the temperature, alkalinity, and CO<sub>2</sub> content of the water; (5) copper sulfate applied at 1.0 mg/l (0.26 mg/l as Cu) has been found generally effective in controlling most algae in Illinois surface waters; (6) once an effective copper sulfate dosage has been ascertained, the same dosage is used successfully in succeeding years; (7) the frequency of copper sulfate application will vary with each reservoir, but is ordinarily on a monthly basis from April to November; (8) the amount and frequency of copper sulfate application usually doesn't change with time; (9) there have been no fish kills reported due to copper sulfate treatments; and (10) the application of copper sulfate doesn't appear to contribute to violations of the water quality standards for copper in the river basins of Illinois (see: Attachment IV). (R. 4-15).

Mr. Selburg also stated that, prior to the adoption of the algicide permit program in R73-13 on January 3, 1975, it

was necessary for each public water supply that wanted to treat its reservoirs with copper sulfate to individually apply to the Board for a variance. Thus, the initial duration of 1 year in the algicide permit system was developed to parallel the common variance time period. (R. 10-11). In 1975, it was expected that algicide application would probably only be a year-to-year project and there would be no need to continue algicide application over a multi-year time frame, but subsequent experience in this developing program has demonstrated otherwise.

Once an effective copper sulfate dosage is determined, the amount and frequency of copper sulfate application usually doesn't change with time. If new types of problem algae develop, Agency laboratory personnel and water pollution biologists from various state agencies often have the requisite expertise and experience to help public water supply officials ascertain the appropriate copper sulfate dosages to properly protect the aquatic environment. If a public water supply needs to significantly modify its reservoir treatment, it must first apply to the Agency for a new permit. To handle the potential situation of a public water supply official inadvertently failing to properly renew an algicide permit after 5 years, the DPWS has now developed a "reminder" system in which a letter of notification and new application form will be sent well in advance of the permit expiration date to each public water supply holding an algicide permit.

At the first merit hearing, there was testimony indicating that public water supplies should seek permit modification if there is any major change, either in the operation of the public water supply or in algae growth, which affects the use of copper sulfate as outlined in the algicide permit. (R. 13; R. 22-23). The Board has noted that there is currently no rule which mandates such permit modification and thus has amended Section 602.110 to clarify this situation.

In evaluating this regulatory proposal, the Board notes that the identical level of environmental protection will be provided with the 5 year algicide permit as it is with the 1 year permit, while substantial savings of time, effort, costs, and reduced paperwork will be accorded both the permittees and the Agency.

Thus, the Board finds that the Agency's proposal to extend the maximum duration of algicide permits from 1 year to 5 years is an environmentally acceptable method to increase administrative efficiency by reducing the costs and paperwork burdens on all involved parties.

ORDER

Section 602.110 Algicide Permits Applications

- a) All applications for algicide permits shall contain:
  - a) 1) the name and certificate number of the certified operator supervising the application of the algicide,
  - b) 2) a statement describing the extent of the algae problem, history of any past algae problems, and algicide treatments, and a description of any fish kills which have resulted from treatments in the past; and
  - c) 3) adequate information to support exceeding the limits as stated in 35 Ill. Adm. Code 302: Water Quality Standards.
  
- b) After any algicide permit is issued, and before the permit expires by its stated terms, if there is any major change either in the operation of the public water supply, or in algae growth, which affects the use of copper sulfate as outlined in the permit, the public water supply shall submit an application for modification of its permit. This application shall contain all of the information required by this subsection (b) and subsection (a) above.

(Source: Amended at 6 Ill. Reg. 11497, effective September 14, 1982.)

Section 602.113 Duration

- a) Construction permits - Construction permits for supply facilities shall be valid for the start of construction within one year from the date of issuance and may be renewed for additional one year periods at the discretion of the Agency. Construction, once started, may continue for four years without permit renewal and may be renewed for periods specified by the Agency at its discretion for each permit renewal.
- b) Operation Permits - Operation Permits shall be valid until revoked unless otherwise stated in the permit.
- c) Algicide Permits - Algicide permits shall be valid for the period stated in the permit, but in no case longer than ~~one~~ five years.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 26 day of July, 1983 by a vote of 5-0.

  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board