

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of)

MARK CORTRIGHT AND KEITH NEWCOMER)

ORDER NO. WQ 89-2

For Review of Orders Nos. 87-82 (NPDES)
Permit No. CA0005282) and 87-84 (NPDES)
Permit No. CA0005894) of the California)
Regional Water Quality Control Board,)
North Coast Region. Our File No. A-493.)

BY THE BOARD:

Simpson Paper Company and Louisiana-Pacific Corporation operate two pulp mills on the Samoa Peninsula across Humboldt Bay from the City of Eureka in Humboldt County. Both mills use the bleached kraft process to create white paper pulp from darker wood waste and they discharge effluent containing a variety of materials through pipelines to submerged diffusers in about 40 feet of water, 3,000 feet offshore. While most pulp mills must use a secondary process for treating their effluent, these two plants received a special exemption under federal law (Section 301(m) of the Clean Water Act) which permits them to continue to discharge in excess of established limits for biochemical oxygen demand and pH provided they devote considerable resources to research and study and that both the State and the Environmental Protection Agency (EPA) concur in certain findings.

I. BACKGROUND

On June 24, 1987, the California Regional Water Quality Control Board, North Coast Region (Regional Board) issued waste

discharge requirements to both plants and concurred in the findings necessary for continued operation under Section 301(m). The issue of concurrence in the Section 301(m) findings was addressed by us in November of 1987. EPA had conditioned its approval of the 301(m) waiver on compliance with state standards for the ocean. The question for the State Board at that time was whether continued operation of the pulp mills was consistent with the Water Quality Control Plan for Ocean Waters of California (Ocean Plan). In Resolution No. 87-103, we found that the Ocean Plan standard for suspended solids was not violated and an exception was granted for that discharge. In the same resolution, the State Board found that no exception to the light transmittance standard in the Ocean Plan should be granted, ordered further study of the various technologies available to correct the problem and directed the Regional Board to issue an order setting a time schedule for completion and implementation of the studies.

In the meanwhile, petitioners had filed a timely petition on July 22, 1987 challenging several aspects of the two waste discharge requirements.¹

¹ Time for consideration of the petition has passed. However, the State Board is considering this petition on its own motion. (Water Code Section 13320(a). Any contentions not discussed herein are denied for failure to raise substantial issues appropriate for review. Title 23, California Code of Regulations, Section 2052(a)(1). People v. Barry, 194 Cal.App.3d 158, 239 Cal.Rptr. 349 (1987).

II. CONTENTIONS AND FINDINGS

1. Contention: The discharge from the pulp mills is in violation of the Ocean Plan in that it contains too many suspended solids.

Finding: We have already dealt with this contention in conjunction with the 301(m) waiver process. In Resolution No. 87-103, we found that the discharge of suspended solids from the pulp mills does not have a significant impact on the beneficial uses of the ocean or on the marine habitat and was consistent with the Ocean Plan. The findings of that resolution have disposed of this issue and there is no reason to reconsider it.

2. Contention: The discharge from the pulp mills is in violation of the Ocean Plan in that it inhibits the transmittance of light beyond the limits set in the Plan.

Finding: This point is clearly well taken and has been addressed by the Regional Board and this Board. We considered this problem in our adoption of Resolution No. 87-103 wherein we were unable to grant the exception to the Ocean Plan that the mills sought. However, the Board did grant some additional time for the mills to solve the problem. Specifically, we have deferred a decision on whether the Ocean Plan exception should be granted, required the dischargers to do considerable additional study of the alternatives available, set up a schedule for progress reports, and directed the Regional Board to issue an order pursuant to Section 13301 of the Water Code establishing a

time schedule for implementation of the study. In fact, the Regional Board adopted those orders in January 1988. The time schedules require compliance with the Ocean Plan before the waste discharge requirements must be renewed in 1992.

While we cannot say that the problem has been resolved, we believe that what has been done so far constitutes satisfactory progress and that there is no reason to revisit the issue at this time.

3. Contention: The waste discharge requirements do not adequately protect recreational uses in the ocean waters.

Finding: This concern has been raised several times by both divers and surfers in public hearings before the State and Regional Boards. Because the ill effects described in the testimony are anecdotal and no statistical basis has been offered, the Regional Board ordered the dischargers to conduct a study to assess recreational impacts. The Recreational Activities Impact Assessment Program (RAIAP) brought together recreationists with health professionals and representatives of the dischargers to determine the extent and severity of any recreation impacts from the discharges and to identify control options to reduce or eliminate the adverse effects. A report from the RAIAP was submitted late last year.

The results of the study are inconclusive for a variety of reasons. The statistical base was small and the skin patch study was abandoned when dioxins were found to be present in the water. As a consequence, the record does not contain any

compelling evidence that the existing discharge requirements fail to protect recreational uses of the ocean. The anecdotal evidence, even if it were more complete and well-documented, does not point the Regional Board to a solution. It indicates the presence of several symptoms in individuals but offers no means of determining what aspect of the discharges, if any, causes the problems. If the health effects are real and are attributable to the discharges, we assume the Regional Board will take the necessary action. In this regard, we note that efforts are continuing at the Regional Board to address this issue.

4. Contention: The Regional Board did not address the concerns of the Department of Fish and Game about either bioassay monitoring or elevated temperature discharges.

Finding: Discussion between Regional Board staff and the Department of Fish and Game (DFG) before the Board meeting resolved all of DFG's concerns except for bioassay monitoring and thermal pollution. The bioassay monitoring concerned a disagreement between the two staffs on whether flow-through or static monitoring was more appropriate and over which test species should be used.

Pursuant to Section 13170.2 of the Water Code, DFG and the State Board are developing marine bioassay protocols which will address, among other things, these issues of monitoring and species selection. The Regional Board staff is continuing to work with staff at DFG to resolve this dispute and, if no resolution is forthcoming, the state protocols will be

incorporated into the 1992 revision of the waste discharge requirements. Based on these discussions, the fact that we do not have enough information in the record to resolve this dispute and the fact that DFG did not petition for review, we will not disturb the conditions in the two orders regarding bioassay monitoring.

The issue of elevated temperatures is a different matter. The State Board has adopted a "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan). As an existing discharge at the time the Thermal Plan was adopted, the pulp mills are exempt from any thermal limits so long as the elevated temperatures comply "with limitations necessary to assure protection of the beneficial uses and areas of special biological significance". The Regional Board has not provided us with findings that the dischargers complied with the standard quoted above and should do so on remand. The Regional Board has taken the position that the discharge should be considered "elevated temperature waste" as defined in the Thermal Plan. In that event, no findings would be required. However, we do not find in the record enough information to support the Regional Board's position. On remand, justification of that position should also be considered an option.

5. Contention: The Regional Board should further examine the threat posed by dioxin in the pulp mill effluent.

Finding: When the Regional Board adopted the waste discharge requirements, 2,3,7,8-TCDD (dioxin) had not been detected in the effluent from the two pulp mills. A national dioxin study done by EPA demonstrated that dioxin may be present in the process used in these mills and, in fact, monitoring done at the plants in late 1987 showed the presence of dioxin in levels high enough to be of concern. Also, the compound 2,3,7,8-TCDF (furan), which is chemically related to dioxin, was detected in the effluent of both dischargers.

EPA has developed a dioxin screening study which the mills have begun to implement. The study is designed primarily to address the sources of the dioxin and focuses on the pulping and bleaching processes as the sources of the dioxin. It is believed that the furans come from the same source as the dioxin and that the study will result in the isolation of those sources along with those of the dioxin. The Regional Board is continuing to assess the effectiveness of toxic control programs. Meanwhile, the pulp mills are taking steps to reduce the amount of chlorine used in the bleaching process. It is hoped this will reduce the dioxin and furan concentrations, but it is not known how much of an effect it will have.

The Regional Board may wish to amend its waste discharge requirements to address the dioxin problem pending completion of the EPA study. However, the Regional Board should amend its monitoring requirements to require at least quarterly reports on the presence of furans in addition to dioxins in the effluent. This will be especially important in assessing the effects of the

chlorine reduction on the production of dioxin and furans. If the modifications in the bleaching process do not result in the reduction of dioxin and furans, further investigation of the problem ought to be required by the Regional Board pursuant to Water Code Section 13267. Of course, the Regional Board should continue to work closely with EPA in developing strict standards relative to the discharge of dioxin and furans. The standards would then be implemented with a time schedule issued under Water Code Section 13301. As in the case of the light transmittance standard, the date for compliance should be before the expiration of the current waste discharge requirements.

III. SUMMARY AND CONCLUSIONS

1. The State Board has already addressed the issue of suspended solids in the pulp mill effluent in conjunction with the 301(m) waiver process. In Resolution No. 87-103, we found that no significant environmental impact would result from the discharge of suspended solids as proposed in the waste discharge requirements and we will not revisit that issue at this time.

2. In Resolution No. 87-103, we also considered the issue of light transmission and instructed the Regional Board to issue a time schedule for compliance with the Ocean Plan standards. The Regional Board has issued the order.

3. Recreational uses of the ocean may or may not be adequately protected by the waste discharge requirements. The record does not reflect any substantial medical evidence of a problem although there is a body of anecdotal evidence available.

Without more information, we will not order any amendments to the waste discharge requirements. When further evidence is available, the Regional Board should take any necessary action to address the conclusions of the study.

4. Concerns raised by the Department of Fish and Game should be addressed. DFG's position that the bioassay monitoring is inappropriately designed will be part of the process of protocol development which the State Board staff will undertake along with the DFG staff. Their concerns about the thermal discharges to the ocean should be addressed by the Regional Board in one of two ways. Either the Regional Board should make the proper findings which exempt the pulp mills from the Thermal Plan or they should impose the standards of the Thermal Plan.

5. The presence of dioxin and furans in the effluent is of great concern. The Regional Board should continue to work with EPA in implementing the study and in setting up strict discharge standards for the area. Monitoring for the presence of furans as well as dioxins should be required on at least a quarterly basis to assess any results of the reduction of chlorine use in the bleaching process. If the problem does not improve, further studies pursuant to the Water Code, as well as time schedules, should be used.

IV. ORDER

The order is remanded to the Regional Board for action consistent with the Thermal Plan. The Regional Board is directed

to continue to work with and to implement the EPA study on dioxin, to implement monitoring for furans consistent with this order, and to use other measures including, but not limited to, further studies and time schedules to eliminate the threat posed by dioxin and furans in the effluent. The Regional Board is further directed to implement necessary measures to address adverse impacts to recreational use of the ocean which may be documented. In all other respects, the petition is denied.

CERTIFICATION

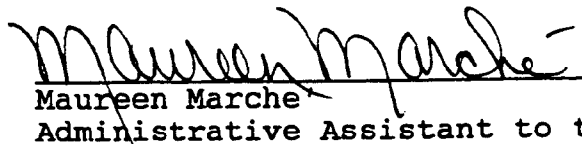
The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on February 16, 1989.

AYE: W. Don Maughan
Darlene E. Ruiz
Edwin H. Finster
Eliseo M. Samaniego
Danny Walsh

NO: None

ABSENT: None

ABSTAIN: None



Maureen Marche
Administrative Assistant to the Board