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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

MAR 15 1989

MEMORANDUM

SUBJECT: Final Guidance on Section 304(l) Listing and Permitting of Pulp and Paper Mills

FROM: Martha G. Prothro, Director
Office of Water Regulations and Standards (WH-551)

James R. Elder, Director
Office of Water Enforcement and Permits (EN-335)

TO: Water Management Division Directors
Regions I - X

At last October's Water Quality Branch Chiefs meeting in Orlando, OWRS and OWEP were asked to prepare a national policy on Section 304(l) listing of chlorine bleaching pulp and paper mills. Dioxins and/or furans have been detected in fish near all 81 mills tested to date; 2,3,7,8-TCDD (a Section 307(a) pollutant) has been detected at 74 of these mills. Additional data is now being collected for all 104 mills which use chlorine to bleach pulp, and based on test results so far we would expect to find dioxins or furans at all 104 mills.

On January 31, 1989, we circulated a draft policy on Section 304(l) listing and control of pulp and paper mills. This draft policy called for listing the receiving waters for all 104 mills on the Section 304(l)(1)(A)(ii) "long" list. With regard to the Section 304(l)(1)(B) "short" list, the draft policy called for listing only the receiving waters for those mills where 2,3,7,8-TCDD has been detected in fish. Additional facilities would be listed in the near future if 2,3,7,8-TCDD is detected in fish or effluents.

We received written comments from Regions II, IV, V, and IX and verbal comments from staff members in other Regions as well. All basically endorsed the draft policy and raised no major issues. All Regions suggested specific clarifications and improvements which we have incorporated to the extent possible.

We are pleased to transmit final guidance for Section 304(l) listing and permitting of pulp and paper mills. This guidance is effective immediately. We ask you to share it with your States as quickly as possible. Where appropriate, States may supplement their Section 304(l) submissions with additional waters and ICSs as indicated by the policy prior to the June 4, 1989, statutory deadline for EPA approvals and disapprovals.

Please feel free to call either of us with any questions you may have.

Attachment

cc: Environmental Services Division Directors, Regions I - X
Water Quality Branch Chiefs, Regions I - X
Permits Branch Chiefs, Regions I - X
Rebecca W. Hanmer, Acting AA for OW
William A. Whittington, Acting Deputy AA for OW
Susan Lepow, Associate General Counsel for Water

2,3,7,8-TCDD is detected in fish (whole or fillet), unless the State has adopted an explicit State policy or formally proposed or adopted a numeric water quality criterion for the pollutant which establishes a risk level less stringent than 10^{-6} and the State's criterion is not violated. In addition, if 2,3,7,8-TCDD data for the effluent indicate, after use of appropriate procedures specified by the State regarding mixing zones and risk levels, that there will be a violation of water quality standards, then the receiving water for the mill or associated POTW should be listed on the subsection (B) list.

For those mills where 2,3,7,8-TCDD was not detected in fish flesh or has not been found in effluents or where fish contamination data are not yet available, 2,3,7,8-TCDD should be considered as a suspected, but not confirmed, toxic pollutant for the purposes of the subsection (B) "short" list. Additional studies are now underway to help resolve these concerns, including fish tissue sampling at the remaining 23 mills and detailed data collection on 2,3,7,8-TCDD as part of the ongoing 104-mill EPA and paper industry cooperative study. All of these additional data are expected to be available within the next four months. If these investigations yield data which show 2,3,7,8-TCDD to be present in fish tissue near any additional chlorine bleaching pulp and paper mills or in the effluents from the mills at levels that violate standards, then receiving waters for these mills or associated POTWs should be added to the subsection (B) list at that time, provided that the list has not been finalized.

The (C) list of Section 304(l)(1) must include all point source discharges of the Section 307(a) pollutants believed to be preventing or impairing water quality standards in waters identified on the subsection (B) "short" list. Chlorine bleaching pulp and paper mill point source discharges or associated sediment deposits are the likely sources of dioxins in all cases examined so far; nonpoint sources have not been implicated to date. Thus, the chlorine bleaching pulp and paper mill or associated POTW should be identified on the subsection (C) list for each water identified on the (B) list.

Water Quality Standards

A major element in the Interim Strategy for the Regulation of Pulp and Paper Mill Discharges to the Waters of the United States issued on August 9, 1988, was establishment of water quality standards for dioxin. It is crucial that the Regions urge and assist the States where these discharges are occurring to adopt a numerical procedure for interpreting their narrative criterion or establish a numerical water quality

standard. We are encouraged that a number of States have begun this process. EPA Headquarters will track progress closely and will assist Regions and States as necessary.

Individual Control Strategies

Section 304(l)(2) requires States to develop an individual control strategy (i.e., an NPDES permit) for each facility listed on the "short list." Thus, an individual control strategy will be required for each pulp and paper mill listed due to 2,3,7,8-TCDD discharges or fish contamination. This requirement is consistent with the long-term goal to eliminate the presence of dioxin discharges from pulp and paper mills to the waters of the United States articulated by Rebecca Hanmer in the Interim Strategy.

Where the facility is listed due to 2,3,7,8-TCDD, it will likely be necessary to set effluent limitations more stringent than the current permit to meet State water quality standards. In most cases, this will require an interpretation of the State's narrative standard. There is flexibility in the State's interpretation of its narrative standard and in development of appropriate water quality-based effluent limitations for the discharges. If the State determines it is most appropriate to develop a numerical limitation based upon its narrative standard and the EPA criterion is used, the State has the responsibility to determine the appropriate level of risk. The State may also choose to develop a State numeric criterion which is demonstrated to be protective of aquatic life and human health, as indicated above. Consistent with the national policy for listing, in the absence of an explicit State policy or formally proposed or final State criterion to the contrary, the 10^{-6} risk level should be used as the basis for establishing effluent limitations for 2,3,7,8-TCDD in individual control strategies.

A State-issued permit must require compliance with the final water quality-based effluent limitation as soon as possible, but no later than June 4, 1992. Where EPA disapproves a State ICS and subsequently issues the ICS (in cooperation with the State), the compliance date is June 4, 1993. In most cases, the final calculated limitation will be below the current level of detection. In these cases, the permit should contain:

1. The calculated water quality-based permit limitation for 2,3,7,8-TCDD.

2. A statement in the permit that the detection level is the threshold for compliance/non-compliance determinations.

3. A statement in the permit citing the analytical protocol set out in Appendix C of USEPA/Paper Industry Cooperative Dioxin Screening Study (EPA 440/1-88-025, March 1988) as the method to use when analyzing the effluent for 2,3,7,8-TCDD.

The permit must also contain a compliance schedule that achieves compliance no later than the appropriate statutory deadline.

In addition, permits should contain interim best professional judgment BAT effluent limitations for dioxin for each facility, establishing as stringent an interim limitation as possible before the 1992 (or 1993) compliance date for compliance with the water quality-based limit. These interim limits will be the controls which are currently imposed on the mills and move the mills towards compliance with the more stringent water quality-based limit. These interim BPJ/BAT limitations can include both a numerical technology-based limitation as well as interim control measures including chlorine reduction and suspended solids minimization plans. These are discussed in more detail in the Interim Strategy and the October 1988 treatability guidance.

The other permitting provisions of the Interim Strategy involving monitoring, e.g., testing and a reopener clause, should also be incorporated into ICSs for these facilities. Staff from the Permits Division are available to work with your staff in the development of appropriate permit language. The Industrial Technology Division in OWRS is also available to work with you and/or the State to address technology and treatability issues.

Approvals and Disapprovals of State Section 304(l) Submissions

National consistency is especially critical in listing and ICS decisions related to dioxin discharges for pulp and paper mills due to extraordinary public interest and a high likelihood of litigation. EPA will use this guidance as the basis for approving or disapproving State Section 304(l) submittals with respect to dioxin discharges and contamination from pulp and paer mills, in addition to other applicable guidance and requirements for the Section 304(l) program.

Additional Information

If you need additional copies of the fish tissue data collected so far, please contact Stephen Kroner of OWRS at (FTS) 382-7046. Copies of the Cooperative Dioxin Study may obtained by calling Jennie Helms of OWRS at (FTS) 382-7120.

Jennie may also be contacted for status and schedule information on the ongoing EPA and paper industry 104-mill cooperative study.

If you have any questions or need any further information, please feel free to call us or Geoff Grubbs or Cynthia Dougherty of our staffs.

Attachment

cc: Environmental Services Division Directors, Regions I - X
Water Quality Branch Chiefs, Regions I - X
Permits Branch Chiefs, Regions I - X
Rebecca Hanmer, Acting AA for Water
William A. Whittington, Acting Deputy AA for OW
Cynthia Dougherty, Director, PD
Susan Lepow, Associate General Counsel for Water

ATTACHMENT

PULP AND PAPER MILLS USING CHLORINE-BASED BLEACHING

	COMPANY	LOCATION
I	* Boise Cascade Corp.	Rumford, ME
	Lincoln Pulp/Paper	Lincoln, ME
	S.D. Warren (Scott Paper)	Hinckley, ME
	* James River Corp.	Old Town, ME
	Georgia-Pacific	Woodland, ME
	S.D. Warren (Scott Paper)	Westbrook, ME
	* International Paper Co.	Jay, ME
	* James River Corp.	Berlin, NH
II	* International Paper Co.	Ticonderoga, NY
	* Finch Pruyn & Co., Inc.	Glens Falls, NY
III	* Westvaco Corp.	Luke, MD
	nternational Paper Co.	Erie, PA
	* Appleton Papers, Inc.	Roaring Springs, PA
	Proctor & Gamble Co.	Mehoopany, PA
	* Penntech Papers, Inc.	Johnsonburg, PA
	* P.H. Glatfelter Co.	Spring Grove, PA
	* Westvaco Corp.	Covington, VA
	* Union Camp Corp.	Franklin, VA
	* Chesapeake Corp.	West Point, VA
V	International Paper Co.	Selma, AL
	* Kimberly-Clark Corp.	Coosa Pines, AL
	* Jefferson Smurfit	Brewton, AL
	* Alabama RIver Pulp	Claiborne, AL
	Gulf States Paper Corp.	Demopolis, AL
	Champion International	Courtland, AL
	James River Corp.	Butler, AL
	International Paper Co.	Mobile, AL
	Scott Paper Co.	Mobile, AL
	Boise Cascade Corp.	Jackson, AL

* Sites which had detectable levels of 2,3,7,8-TCDD in fish tissue from samples collected as part of the National Bioaccumulation Study.

COMPANY	LOCATION
Champion International	Cantonment, FL
* ITT-Rayonier, Inc.	Fernandina Beach, FL
* Buckeye Cellulose (P&G)	Perry, FL
* St. Joe Paper Co.	Port St. Joe, FL
* Stone Container Corp.	Panama City, FL
Georgia-Pacific Corp.	Palatka, FL
Gilman Paper Co.	St. Marys, GA
* ITT-Rayonier, Inc.	Jesup, GA
* Buckeye Cellulose (P&G)	Oglethorpe, GA
* Federal Paper Board Co.	Augusta, GA
* Brunswick Pulp/Paper	Brunswick, GA
* Westvaco Corp.	Wickliffe, KY
* Wilamette Industries	Hawesville, KY
* International Paper Co.	Moss Point, MS
* Great Northern Nekoosa Corp.	New Augusta, MS
* International Paper Co.	Natchez, MS
* Weyerhauser Co.	Plymouth, NC
* Champion International	Canton, NC
* Weyerhauser Co.	New Bern, NC
* Federal Paper Board Co.	Riegelwood, NC
* International Paper Co.	Georgetown, SC
* Bowater Carolina Corp.	Catawba, SC
* Union Camp Corp.	Eastover, SC
Mead Corp.	Kingsport, TN
* Bowater Southern Corp.	Calhoun, TN
* S.D. Warren (Scott Paper)	Muskegon, MI
* Mead Corp.	Escanaba, MI
* Champion International	Quinnesec, MI
* Boise Cascade Corp.	International Falls, MN
Potlatch Corp.	Cloquet, MN
* Mead Corp.	Chillicothe, OH
* Weyerhauser Co.	Rothchild, WI
* Badger Paper Mills, Inc.	Peshtigo, WI
* James River Corp.	Green Bay, WI
* Great Northern Nekoosa Corp.	Port Edwards, WI
* Great Northern Nekoosa Corp.	Nekoosa, WI
Pentair, Inc.	Park Falls, WI
* Consolidated Papers, Inc.	Wisconsin Rapids, WI
Wausau Paper Mills Co.	Brokaw, WI

	COMPANY	LOCATION
I	Potlatch Corp.	McGhee, AR
	International Paper Co.	Pine Bluff, AR
	Great Northern Nekoosa Corp.	Ashdown, AR
	Georgia-Pacific Corp.	Crossett, AR
	International Paper Co.	Bastrop, LA
	Boise Cascade Corp.	DeRidder, LA
	James River Corp.	St. Francesville, LA
	Georgia-Pacific Corp.	Zachary, LA
	Champion International	Houston, TX
	Champion International	Lufkin, TX
	Simpson Paper Co.	Pasadena, TX
	Temple-Eastex, Inc.	Evadale, TX
	International Paper Co.	Texarkana, TX
III	Stone Container Corp.	Missoula, MT
X	Stone Container Corp.	Snowflake, AZ
	impson Paper Co.	Fairhaven, CA
	ouisiana Pacific Corp.	Samoa, CA
	Simpson Paper Co.	Anderson, CA
	Gaylord Container Corp.	Antioch, CA
	Ketchikan Pulp & Paper	Ketchikan, AK
	Alaska Pulp Corp.	Sitka, AK
	Potlatch Corp.	Lewiston, ID
	James River Corp.	Clatskanie, OR
	Boise Cascade Corp.	St. Helens, OR
	Pope & Talbot, Inc.	Halsey, OR
	Georgia-Pacific Corp.	Bellingham, WA
	Boise Cascade Corp.	Wallula, WA
	Weyerhauser Co.	Everett, WA
	James River Corp.	Camas, WA
	Weyerhauser Co.	Cosmopolis, WA
	Weyerhauser Co.	Longview, WA
	ITT-Rayonier, Inc.	Port Angeles, WA
	Simpson Tacoma Kraft Co.	Tacoma, WA
	Longview Fibre Co.	Longview, WA
	Scott Paper Co.	Everett, WA
	ITT-Rayonier, Inc.	Hoquiam, WA