Sheboygan, WI, to Fargo, ND; *sugar*, over regular routes, from Duluth, MN, to Grand Forks, ND. Transferee presently holds temporary authority as a common carrier under No. MC 143659 and does not seek section 210a(b) temporary authority.

No. MC-F-C 77561, filed February 28, 1978. Transferee: DOUGLAS E. JACKSON, d.b.a. LARSEN TRANSFER CO., 284 Wellsian Way, Richland, WA 99362. Transferor: Larsen Transfer Co., a corporation, P.O. Box 368, Pendleton, OR 97801. Applicant's representative: George H. Hart, 1100 IBM Building, Seattle, WA 98101. Authority sought for purchase by transferee of the operating rights set forth in certificate No. MC 581 and No. MC 581 (Sub-No. 1 and 3), issued January 3, 1942; June 26, 1943; and April 12, 1973, respectively: *General commodities*, with the usual exceptions, between Pendleton, OR, and places within 3 miles thereof; *household goods*, between Pendleton, OR, on the one hand, and, on the other, places in WA; household goods between Kennewick, WA, and Richland, WA, serving the off-route point of Pasco, WA, and between Richland and Hanford, WA, over specified regular routes; household goods, between Kennewick and Pasco, WA, on the one hand, and on the other, points in specified parts of ID and OR; household goods and emigrant movables between points in Umatilla, Morrow, Gilliam, and Grant Counties, OR, on the one hand, and, on the other points in ID and that part of WA east of the Cascade Mountains and between Pendleton, OR, on the one hand, and, on the other points in the four counties specified above. Transferee presently holds no Commission authority and does not seek section 210a(b) authority.

H. G. HOMME, Jr.,
Acting Secretary.

[FR Doc. 78-6489 Filed 3-10-78; 8:45 am]

[7035-01]

[Notice No. 3]

MOTOR CARRIER TRANSFER PROCEEDINGS

MARCH 13, 1978.

Application filed for temporary authority under section 210a(b) in connection with transfer application under section 212(b) and transfer rules, 49 CFR Part 1132:

No. MC-F-C 77568. By application filed March 3, 1978, CARMIL, INC., Hershey, NE 69143, seeks temporary authority to transfer the operating rights of Fleecs Bros., Inc., Box 507, Sutherland, NE 69165, under section 210a(b). The transfer to Carmil, Inc., of the operating rights of Fleecs Bros., Inc., is presently pending.

By the Commission.

H. G. HOMME, Jr.,
Acting Secretary.

[FR Doc. 78-6490 Filed 3-10-78; 8:45 am]

[7035-01]

[ICC Order 52; Under Revised S.O. No. 1252]

NORFOLK & WESTERN RAILWAY CO.

Rerouting of Traffic

To all railroads: In the opinion of Joel E. Burns, Agent, the Norfolk & Western Railway Co. is unable to transport traffic over its line between Ottumwa, Iowa, and Moulton, Iowa, because of heavy snow.

It is ordered, That: (a) *Rerouting traffic.* The Norfolk & Western Railway Co. being unable to transport traffic over its line between Ottumwa, Iowa, and Moulton, Iowa, because of heavy snow, is authorized to divert or reroute such traffic over any available route to expedite the movement.

(b) *Concurrence of receiving road to be obtained.* The Norfolk & Western Railway Co., in rerouting cars in accordance with this order, shall receive the concurrence of other railroads to which such traffic is to be diverted or rerouted, before the rerouting or diversion is ordered.

(c) *Notification to shippers.* The Norfolk & Western Railway Co., when rerouting cars in accordance with this order, shall notify each shipper at the time each shipment is rerouted or diverted and shall furnish to such shipper the new routing provided under this order.

(d) Inasmuch as the diversion or rerouting of traffic is deemed to be due to carrier disability, the rates applicable to traffic diverted or rerouted by said Agent shall be the rates which were applicable at the time of shipment on the shipments as originally routed.

(e) In executing the directions of the Commission and of such Agent provided for in this order, the common carriers involved shall proceed even though no contracts, agreements, or arrangements now exist between them with reference to the divisions of the rates of transportation applicable to said traffic. Divisions shall be during the time this order remains in force, those voluntarily agreed upon by and between said carriers; or upon failure of the carriers to so agree, said divisions shall be those hereafter fixed by the Commission in accordance with pertinent authority conferred upon it by the Interstate Commerce Act.

(f) *Effective date.* This order shall become effective at 9 a.m., March 1, 1978.

(g) *Expiration date.* This order shall expire at 11:59 p.m., March 10, 1978, unless otherwise modified, changed, or suspended.

It is further ordered, That this order shall be served upon the Association of American Railroads, Car Service Division, as agent of all railroads subscribing to the car service and car hire agreement under the terms of that agreement, and upon the American Short Line Railroad Association; and that it be filed with the Director, Office of the Federal Register.

Issued at Washington, D.C., March 1, 1978.

INTERSTATE COMMERCE COMMISSION,
JOEL E. BURNS,
Agent.

[FR Doc. 78-6491 Filed 3-10-78; 8:45 am]

[7035-01]

[Docket No. AB-12 (Sub-No. 49)]

SOUTHERN PACIFIC TRANSPORTATION CO.

Abandonment Between Sacramento and Hood in Sacramento County, CA

Notice is hereby given pursuant to section 1a(6)(a) of the Interstate Commerce Act (49 U.S.C. 1a(6)(a)) that by an order entered on September 2, 1977, and the order of the Commission, Division 2, served February 6, 1978, adopted the report and order of the Commission, Review Board No. 5, which is administratively final, stating that, subject to the conditions for the protection of railway employees prescribed by the Commission in *Oregon Short Line R. Co.—Abandonment—Goshen*, 354 I.C.C. 76 (1977) and for public use as set forth in said order; the present and future public convenience and necessity permit the abandonment by the Southern Pacific Transportation Co. of the line of railroad extending from milepost 91.10 near Sacramento in a southerly direction to the end of the branch at milepost 104.96 near Hood, a distance of 13.86 miles, in Sacramento County, CA. A certificate of abandonment will be issued to the Southern Pacific Transportation Co. based on the above-described finding of abandonment, 30 days after publication of this notice, unless within 30 days from the date of publication, the Commission further finds that:

(1) A financially responsible person (including a government entity) has offered financial assistance (in the form of a rail service continuation payment) to enable the rail service involved to be continued; and

(2) It is likely that such proffered assistance would:

(a) Cover the difference between the revenues which are attributable to such line of railroad and the avoidable cost of providing rail freight service on such line, together with a reasonable return on the value of such line, or

(b) Cover the acquisition cost of all or any portion of such line of railroad.

If the Commission so finds, the issuance of a certificate of abandonment will be postponed for such reasonable time, not to exceed 6 months, as is necessary to enable such person or entity into a binding agreement, with the carrier seeking such abandonment, to provide such assistance or to purchase such line and to provide for the continued operation of rail services over such line. Upon notification to the Commission of the execution of such an assistance or acquisition and operating agreement, the Commission shall postpone the issuance of such a certificate for such period of time as such an agreement (including any extensions or modifications) is in effect. Information and procedures regarding the financial assistance for continued rail service or the acquisition of the involved rail line are contained in the Notice of the Commission entitled "Procedures for Pending Rail Abandonment Cases" published in the FEDERAL REGISTER on March 31, 1976, at 41 FR 13691. All interested persons are advised to follow the instructions contained therein as well as the instructions contained in the above-referenced order.

H. G. HOMME, Jr.
Acting Secretary.

[FR Doc. 78-6846 Filed 3-10-78; 8:45 am]

[Notice No. 11]

SPECIAL PROPERTY BROKERS

MARCH 8, 1978.

The following applicants seek to participate in the property broker special licensing procedure under 49 CFR 1045A authorizing operations as a broker at any location, in arranging for the transportation by motor vehicle, in interstate or foreign commerce, of property (except household goods), between all points in the United States including Alaska and Hawaii. Any interested person shall file an original and (1) copy of a verified statement in opposition limited in scope to matters regarding applicant's fitness within 30 days after this notice. Statements must be mailed to: Broker Entry Staff, Room 2379, Interstate Commerce Commission, Washington, D.C. 20423. Opposing parties shall serve (1) copy of the statement in opposition concurrently upon applicant's representative, or applicant if no representative is named.

If an applicant is not otherwise informed by the Commission, it may commence operation 45 days after this notice.

B-78-11, February 1, 1978.

Applicant: SHO-LEN, INC., d.b.a. PACIFIC DISTRIBUTION & ASSOCIATES, 1214 El Dorado, Placentia, CA 92670. Applicant's representative: Milton W. Flack, 4311 Wilshire Boulevard, Suite 300, Los Angeles, CA 90010.

By the Commission.

H. G. HOMME, Jr.,
Acting Secretary.

[FR Doc. 78-6487 Filed 3-10-78; 8:45 am]

sunshine act meetings

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409), 5 U.S.C. 552b(e)(3).

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[6320-01]

1

[M-104, Amdt. 2, March 8, 1978]

DELETION OF ITEMS FROM THE MARCH 9, 1978 AGENDA

CIVIL AERONAUTICS BOARD.

TIME AND DATE: 10 a.m., March 9, 1978.

PLACE: Room 1027, 1825 Connecticut Avenue, NW., Washington, D.C. 20428.

SUBJECT: 5. Docket 28655, Seattle/Portland-Japan Service Investigation (request for instructions) (Memo No. 7758, 7758-A, OGC). 20. Dockets 31821, 30223, 31583, 31116, 31762, 31757, 28366, 30971, 28273, 28475, 30267, 31699, Assignment of dockets for immediate hearing (Memo No. 7795, BLJ).

STATUS: Open.

PERSON TO CONTACT:

Phyllis T. Kaylor, the Secretary, 202-673-5068.

SUPPLEMENTARY INFORMATION: The calendar for the Board's meeting of March 9, 1978, inadvertently includes Item 5. It was not intended to be added to the agenda and the staff requested that it be deleted. The staff has requested that Item 20 be withdrawn from the Board's calendar now scheduled for March 9, 1978. The reason for this is that extensive discussion between BALJ, BPDA, OGC and the Managing Director has resulted in the preparation of a series of orders to be put to the Board next week accomplishing the same goal. Accordingly, the following Members have voted that agency business requires the deletion of these items from the March 9, 1978 agenda and that no earlier announcement of these deletions was possible:

Chairman, Alfred E. Kahn
Vice Chariman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

[S-543-78 Filed 3-9-78; 3:42 pm]

[6320-01]

2

[M-106, Amdt. 1, March 8, 1978]

ADDITION OF ITEM TO MARCH 7, 1978 CLOSED MEETING

CIVIL AERONAUTICS BOARD.

TIME AND DATE: 9:30 a.m., March 7, 1978.

PLACE: Room 1011, 1825 Connecticut Avenue NW., Washington, D.C. 20428.

SUBJECT: 1. Docket 32183, Fares and Services of Braniff Airways, Inc. and British Caledonian Airways between Texas and London. 2. Ongoing negotiations with the Netherlands.

STATUS: Closed.

PERSON TO CONTACT:

Phyllis T. Kaylor, the Secretary, 202-673-5068.

SUPPLEMENTARY INFORMATION: During the course of discussion, during the closed sunshine meeting on March 7, 1978 concerning the Board's response to the President's letter of March 6th, the question of negotiations with the Netherlands came up. So that the Board can properly meet and consider those negotiations, the following Members have voted that agency business requires that the Board meet on less than seven days notice, and that no earlier announcement of the meeting was possible:

Chairman, Alfred E. Kahn
Vice Chairman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

This meeting will concern what steps the Board will take in its negotiations with the Netherlands. The Board's discussion of this matter will be likely to involve the formulation of the United States negotiating position in the ongoing discussions with the Netherlands.

Premature public disclosure of the options, plans, and opinions of the Board could seriously compromise the United States ability to successfully deal with these negotiations in the best interest of the United States.

Accordingly, the following Members have voted that public observation of this meeting would involve matters the premature disclosure of which would be likely to significantly frustrate implementation of proposed agency action within the meaning of the exemption provided under 5 U.S.C. 552b(c)(9)(B) and 14 CFR section 310b.5(9)(B) and that the meeting should be closed:

Chairman, Alfred E. Kahn
Vice Chairman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

PERSONS EXPECTED TO ATTEND

Same people listed in M-106.

GENERAL COUNSEL CERTIFICATION

I certify that this meeting may be closed to the public under 5 U.S.C. 552b(c)(9)(B) and 14 CFR section 310b.5(9)(B).

PHILIP J. BAKES, Jr.,
General Counsel.

[S-544-78 Filed 3-9-78; 3:42 pm]

[6320-01]

3

[M-107, Amdt. 1, March 8, 1978]

ADDITION OF ITEM TO MARCH 8, 1978 CLOSED MEETING

CIVIL AERONAUTICS BOARD.

TIME AND DATE: 9:15 a.m., March 8, 1978.

PLACE: Room 1011, 1825 Connecticut Avenue NW., Washington, D.C. 20428.

SUBJECT: 1. Ongoing U.S.-U.K. Consultations about the Low Fare Dispute and Other Matters. 2. Ongoing negotiations with the Netherlands.

STATUS: Closed.

PERSON TO CONTACT:

Phyllis T. Kaylor, the Secretary, 202-673-5068.

SUPPLEMENTARY INFORMATION: During the course of discussion, during the closed sunshine meeting on March 8, 1978 concerning the ongoing consultations with the United Kingdom the question of negotiations with the Netherlands came up. So that the Board can properly meet and consider those negotiations, the following Members have voted that agency business requires that the Board meet on

less than seven days notice, and that no earlier announcement of the meeting was possible:

Chairman, Alfred E. Kahn
Vice Chairman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

This meeting will concern what steps that Board will take in its negotiations with the Netherlands. The Board's discussion of this matter will be likely to involve the formulation of the United States negotiating position in the ongoing discussions with the Netherlands.

Premature public disclosure of the options, plans, and opinions of the Board could seriously compromise the United States ability to successfully deal with these negotiations in the best interest of the United States.

Accordingly, the following Members have voted that public observation of this meeting would involve matters, the premature disclosure of which would be likely to significantly frustrate implementation of proposed agency action within the meaning of the exemption provided under 5 U.S.C. 552b(c)(9)(B) and 14 CFR section 310b.5(9)(B) and that the meeting should be closed:

Chairman, Alfred E. Kahn
Vice Chairman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

PERSONS EXPECTED TO ATTEND

Same people listed in M-107.

GENERAL COUNSEL CERTIFICATION

I certify that this meeting may be closed to the public under 5 U.S.C. 552b(c)(9)(B) and 14 CFR section 310b.5(9)(B).

PHILIP J. BAKES, Jr.,
General Counsel.

[S-545-78 Filed 3-9-78; 3:42 pm]

[6320-01]

4

[M-107, March 8, 1978]

CIVIL AERONAUTICS BOARD.

TIME AND DATE: 9:15 a.m., March 8, 1978.

PLACE: Room 1011, 1825 Connecticut Avenue NW., Washington, D.C. 20428.

SUBJECT: Ongoing U.S.-U.K. Consultations about the Low Fare Dispute and Other Matters.

STATUS: Closed.

PERSON TO CONTACT:

Phyllis T. Kaylor, the Secretary, 202-673-5068.

SUPPLEMENTARY INFORMATION: This meeting will concern what positions the Board will recommend in the current consultations with the United Kingdom. Premature public disclosure of the options, plans and opinions of the Board could seriously undermine the current consultations with the United Kingdom. Accordingly, the following Members have voted that public observation of this meeting would involve matters the premature disclosure of which would be likely to significantly frustrate implementation of proposed agency action within the meaning of the exemption provided under 5 U.S.C. 552(b)(c)(9)(B) and 14 CFR section 310b.5(9)(B) and that the meeting will be closed.

Chairman, Alfred E. Kahn
Vice Chairman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

So that the Board can consider this matter and promptly determine its positions during the ongoing consultations with the U.K., the following Members have voted that agency business requires that the Board meet on Wednesday, March 8, 1978, on less than seven days notice, and that no earlier announcement of the meeting was possible:

Chairman, Alfred E. Kahn
Vice Chairman, G. Joseph Minetti
Member, Lee R. West
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey

PERSONS EXPECTED TO ATTEND

Board Members.—Chairman, Alfred E. Kahn; Vice Chairman, G. Joseph Minetti; Member, Lee R. West; Member, Richard J. O'Melia; and Member, Elizabeth E. Bailey.
Assistants to Board Members.—Mr. Mike Roach, Mr. James Casey, Mr. John Golden, Mr. Elias Rodriguez, and Mr. Ford Cole.
Office of the Managing Director.—Mr. Dennis Rapp and Mr. John Hancock.
Bureau of International Aviation.—Mr. Donald Farmer, Mr. Donald Litton, Mr. Joseph Chesen, Mr. Tony Largay, and Ms. Mary Pett.
Bureau of Pricing and Domestic Aviation.—Mr. Michael Levine and Ms. Barbara Clark.
Bureau of Fares and Rates.—Mr. Herbert Aswall, Mr. James Deegan, and Mr. James Greene.
Office of the General Counsel.—Mr. Philip Bakes, Mr. Gary Edles, Mr. Peter Schwarzkopf, Ms. Melissa Osborne, and Mr. Mitchell Black.
Office of Economic Analysis.—Mr. Darius Gaskins.
Office of the Secretary.—Mrs. Phyllis T. Kaylor and Ms. Deborah A. Lee.
Reporter.—North American Reporting.

GENERAL COUNSEL CERTIFICATION

I certify that this meeting may be closed to the public under 5 U.S.C. 552b(c)(9)(B) and 14 CFR section 310b.5(9)(B).

PHILIP J. BAKES, Jr.,
General Counsel.

[S-546-78 Filed 3-9-78; 3:42 pm]

[6712-01]

5

FEDERAL COMMUNICATIONS COMMISSION.

TIME AND DATE: 9:30 a.m., Wednesday, March 8, 1978 (Open), followed by the closed meeting.

PLACE: Room 856, 1919 M Street NW., Washington, D.C.

STATUS: Open and closed meetings.

CHANGES IN THE MEETING: The following items will be considered on Thursday, March 9, 1978, starting at 9:30 a.m., in Room 856, at 1919 M Street NW., Washington, D.C., instead of the sequence and date indicated on the earlier notices.

The following items will be considered in open session:

Agenda, Item No., and Subject

Common Carrier—4—Western Union Tariff FCC No. 254 revising rates and rate structure for low-speed private line services.
Common Carrier—5—Western Union Tariff FCC Nos. 240 and 258 revising domestic telex and TWX.
Common Carrier—6—Notice of inquiry and proposed rulemaking to establish a policy on the offering of public message service by entities other than Western Union Telegraph Co.
Common Carrier—7—Reconsideration of authorization granted in Graphnet Systems et al., order.
Common Carrier—8—Reconsideration of tariff revisions filed by Graphnet Systems, Inc., under Transmittal No. 28.
Common Carrier—9—Graphnet Systems, Inc., Transmittal No. 38 revising Tariff FCC No. 1.
Assignment of License and Transfer of Control—2—Petition for stay and reconsideration of applications to exchange ownership of TV Stations in Washington, D.C. (WJLA) and Oklahoma City, Okla. (KOCO).

The closed meeting will follow these items.

This portion of the meeting is closed to the public:

Agenda, Item No., and Subject

Complaints and Compliance—1—Results of investigation concerning the broadcast by the CBS Television Network of the four "Heavyweight Championship of Tennis" matches.
Complaints and Compliance—2—Results of investigation concerning the broadcast by the ABC Television Network of the "United States Boxing Championships."
Hearing—1—Petition for leave to intervene and alternative motion for leave to file amicus brief in the Philadelphia, Pa., FM renewal proceeding (Docket No. 20677).

The prompt and orderly conduct of Commission business requires these

changes and no earlier announcement of the changes was possible.

This meeting may be continued the following workday to allow the Commission to complete appropriate action.

CONTACT PERSON FOR MORE INFORMATION:

Samuel M. Sharkey, FCC Public Information Office, telephone number 202-632-7260.

Issued: March 7, 1978.

[S-538-78 Filed 3-9-78; 3:42 pm]

[6712-01]

6

FEDERAL COMMUNICATIONS COMMISSION.

TIME AND DATE: 9:30 a.m., Wednesday, March 15, 1978.

PLACE: Room 856, 1919 M Street NW., Washington, D.C.

STATUS: Parts of this meeting will be open to the public. The rest of the meeting will be closed to the public.

MATTERS TO BE CONSIDERED:

Portions open to the public:

Agenda, Item No., and Subject

Common Carrier—1—Intergovernmental Maritime Consultative Organization: Preparation for the 1975 meeting of governments on the establishment of an international maritime satellite system.

Common Carrier—2—Unsolicited Telephone Calls ("Junk Phone Calls").

Safety and Special Radio Service—1—Redraft of the CB rules in "plain English" (Docket No. 21318).

Portion closed to the public:

Discussion of possible appeal of *Midwest Video Corp.* v. *FCC.*

CONTACT PERSON FOR MORE INFORMATION:

Samuel M. Sharkey, FCC Public Information Office, telephone number 202-632-7260.

Issued: March 8, 1978.

[S-539-78 Filed 3-9-78; 3:42 pm]

[6712-01]

7

FEDERAL COMMUNICATIONS COMMISSION.

TIME AND DATE: 9:30 a.m., Wednesday, March 8, 1978.

PLACE: Room 856, 1919 M Street NW., Washington, D.C.

STATUS: Open Commission meeting.

CHANGES IN THE MEETING: The following agenda items should be deleted.

Agenda, Item No., and Subject

Cable Television—3—Motion for declaratory ruling (CSR-1140), filed by Oceanic Cablevision, Inc., operator of cable television system in Hawaii.

Broadcast—1 and 2—Amendment of section 73.1206 of the Commission's rules regarding the broadcast of recorded telephone conversations (RM-2564 and RM-2571).

CONTACT PERSON FOR MORE INFORMATION:

Samuel M. Sharkey, FCC Public Information Office, telephone number 202-632-6410.

Issued: March 7, 1978.

[S-540-78 Filed 3-9-78; 3:42 pm]

[6712-01]

8

FEDERAL COMMUNICATIONS COMMISSION.

TIME AND DATE: 2 p.m., Wednesday, March 1, 1978.

PLACE: Room 847, 1919 M Street NW., Washington, D.C.

STATUS: Emergency closed meeting.

MATTERS TO BE CONSIDERED:

Agenda, Item No., and Subject

Complaints and Compliance—1—Results of investigation concerning the broadcast by the CBS Television Network of the four "Heavyweight Championship of Tennis" matches.

Complaints and Compliance—2—Results of investigation concerning the broadcast by the ABC Television Network of the "United States Boxing Championships".

The prompt and orderly conduct of Commission business did not permit announcement of this meeting prior to the meeting.

CONTACT PERSON FOR MORE INFORMATION:

Samuel M. Sharkey, FCC Public Information Office, telephone number 202-632-7260.

Issued: March 1, 1978.

[S-541-78 Filed 3-9-78; 3:42 pm]

[6740-02]

9

FEDERAL ENERGY REGULATORY COMMISSION.

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: To be published March 10, 1978.

PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING: 10 a.m., March 15, 1978.

CHANGE IN THE MEETING: The following items have been added:

Item No., Docket No., and Company

M-1.—RM77-14, The Initial Research and Development Program of Gas Research Institute, Payments by Interstate Pipeline Companies for the Funding thereof, and Corresponding Pipeline Rate Adjustments.

CI-2.—CI77-657, American Natural Gas Production Co., et al.

CI-3.—Form No. 40 Program.

CP-14.—RP77-102, Public Service Co. of North Carolina, Inc., Piedmont Natural Gas Co., Inc. and *North Carolina Natural Gas Corp.* v. *Transcontinental Gas Pipe Line Corp., RP78-26,* Transcontinental Gas Pipe Line Corp. (North Carolina Utilities Commission on Behalf of Farmers Chemical Association).

KENNETH F. PLUMB,
Secretary.

[S-537-78 Filed 3-9-78; 1:28 pm]

[6740-02]

10

FEDERAL ENERGY REGULATORY COMMISSION.

"FEDERAL REGISTER" CITATION OF PREVIOUS ANOUNCEMENT: To be published March 10, 1978.

PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING: 10 a.m., March 15, 1978.

CHANGE IN THE MEETING: The regular Commission meeting scheduled for Wednesday, March 15, 1978, at 10 a.m., has been changed to Tuesday, March 14, 1978, at 10 a.m.

KENNETH F. PLUMB,
Secretary.

[S-542-78 Filed 3-9-78; 3:42 pm]

[6210-01]

11

FEDERAL RESERVE SYSTEM.

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: 43 FR 9407, March 7, 1978.

PREVIOUSLY ANNOUNCED TIME AND DATE OF THE MEETING: 10 a.m., Monday, March 13, 1978.

CHANGES IN THE MEETING: Deletion of the following open item from the agenda:

Proposed supervisory letter or amendment to Regulation H (Membership of State Banking Institutions in the Federal Reserve System) with respect to the use of material nonpublic information by member bank personnel in the purchase or sale of securities.

This matter will be considered at an Open Meeting on Friday, March 17, 1978.

CONTACT PERSON FOR MORE INFORMATION:

Mr. Joseph R. Coyne, Assistant to the board, 202-452-3204.

Dated: March 8, 1978.

GRIFFITH L. GARWOOD,
Acting Secretary of the Board.

[S-534-78 Filed 3-9-78; 8:32 am]

[6210-01]

12

FEDERAL RESERVE SYSTEM.

TIME AND DATE: 10 a.m., Friday, March 17, 1978.

PLACE: 20th Street and Constitution Avenue, NW., Washington, D.C. 20551.

STATUS: Open.

MATTERS TO BE CONSIDERED:

1. Proposed statement to be presented to the subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs regarding the selection of Federal Reserve Bank directors.

2. Proposed supervisory letter or amendment to Regulation H (Membership of State Banking Institutions in the Federal Reserve System) with respect to the use of material non-public information by member bank personnel in the purchase or sale of securities.

3. Any agenda items carried forward from a previously announced meeting.

CONTACT PERSON FOR MORE INFORMATION:

Mr. Joseph R. Coyne, Assistant to the Board, 202-452-3204.

Dated: March 8, 1978.

GRIFFITH L. GARWOOD,
Deputy Secretary of the Board.

[S-535-78 Filed 3-9-78; 8:32 am]

[7035-01]

13

INTERSTATE COMMERCE COMMISSION.

MARCH 8, 1978.

TIME AND DATE: 9:30 a.m., Wednesday, March 15, 1978.

PLACE: Room 4225, Interstate Commerce Commission Building, 12th Street and Constitution Avenue NW., Washington, D.C.

STATUS: Open Special Conference.

MATTERS TO BE CONSIDERED: 1. Quarterly Briefing on Carriers and Transportation Industries Outlook (Bureau of Economics); 2. Review of Sunshine Act Regulations (General Counsel).

CONTACT PERSON FOR MORE INFORMATION:

Douglas Baldwin, Director, Office of Communications, telephone: 202-275-7252.

The Commission's professional staff will be available to brief news media representatives on conference issues at the conclusion of the meeting.

[S-533-78 Filed 3-8-78; 4:37 pm]

[7590-01]

14

NUCLEAR REGULATORY COMMISSION.

DATE: Week of March 13, 1978.

PLACE: Commissioners' Conference Room, 1717 H Street NW., Washington, D.C.

STATUS: Open and Closed.

MATTERS TO BE CONSIDERED:

WEDNESDAY, MARCH 15; 1:30 P.M.

1. Discussion of Statement on Standardization of Nuclear Power Plants. (Approximately 1½ hours—public meeting.)

2. Discussion of personnel matter. (Approximately 1½ hours.) (Closed—Exemption 6)—(tentative.)

3. Discussion of proposed licensing legislation (as necessary). (Approximately 2 hours—Closed—Exemption 9.)

THURSDAY, MARCH 16; 9:30 A.M.

1. Discussion of Draft Amendments to Atomic Energy Act on the Protection of Safeguards Information and related matters. (Approximately 1 hour—public meeting.)

2. Discussion of NRDC Petition re Tarapur Export License. (Approximately 1 hour—public meeting.)

3. Affirmation Items: (5 minutes—public meeting.) (a) Amendments to Parts 2 and 50 Concerning Antitrust Information; (b) Extension of Review Time in Midland—ALAB-458; (c) Personnel Matter—No Access Clearance for PDR Employee; and (d) Miscellaneous Amendments to Part 2.

THURSDAY, MARCH 16; 1:30 P.M.

1. Discussion of Proposed Licensing Legislation (if necessary). (Approximately 1½ hours—Closed—Exemption 9.)

FRIDAY, MARCH 17; 9:30 A.M.

1. Discussion of Proposed Licensing Legislation (if necessary). (Approximately 2½ hours—Closed—Exemption 9.)

CONTACT PERSON FOR MORE INFORMATION:

Walter Magee, 202-634-1410.

March 8, 1978.

WALTER MAGEE,
Office of the Secretary.

[S-536-78 Filed 3-9-79; 11:04 am]

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MONDAY, MARCH 13, 1978
PART II

ENVIRONMENTAL PROTECTION AGENCY

■

WATER PROGRAMS

Hazardous Substances

[6560-01]

Title 40—Protection of Environment

[FRL 829-2]

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER D—WATER PROGRAMS

PART 116—DESIGNATION OF HAZARDOUS SUBSTANCES

AGENCY: Environmental Protection Agency.

ACTION: Final rulemaking.

SUMMARY: The Administrator of the Environmental Protection Agency is issuing this regulation for the designation of an initial list of 271 substances as hazardous. This regulation designates hazardous substances, other than oil, under a provision of the Federal Water Pollution Control Act (the Act). This regulation is issued currently with three additional final rules on the discharge of hazardous substances in this same separate part of the FEDERAL REGISTER. The other three final rules determine their removability, harmful quantities when discharged to water and rates of penalty for the discharge of each of these hazardous substances. Concurrently with the issuance of the four final rules on the discharge of hazardous substances, the Agency also is issuing under the Act a proposed rule in this same separate part of the FEDERAL REGISTER which would add 28 substances to the designation list of hazardous substances.

EFFECTIVE DATE: June 12 1978, except for vessels. For vessels the effective date is September 11, 1978.

FOR FURTHER INFORMATION CONTACT:

Kenneth M. Mackenthun, Director, Criteria and Standards Division (WH-585), Office of Water Planning and Standards, U.S. Environmental Protection Agency, 401 M Street SW, Washington, D.C. 20460, 202-755-0100.

SUPPLEMENTARY INFORMATION: The Administrator of the Environmental Protection Agency proposed in the FEDERAL REGISTER of December 30, 1975 (40 FR 59960), to create a new Part 116 in Title 40 of the Code of Federal Regulations, designating hazardous substances other than oil under section 311(b)(2)(A) of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) (the Act). The discharge of oil is regulated under 40 CFR Part 110. At the same time, the removability, harmful quantities, and rates of penalty for those substances were also proposed as Parts 117, 118, and 119, respectively. Final promulgation of those regulations is concurrent with this rulemaking. Concurrent with this rulemaking, the Agency also is proposing by separate notice in this FEDERAL REGISTER the addition of substances to the designation list of hazardous substances.

Section 311(b)(2)(A) of the Act provides:

> The Administrator shall develop, * * * regulations designating as hazardous substances * * * such elements and compounds which, when discharged in any quantity into or upon the navigable waters of the United States or adjoining shorelines or the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976), present an imminent and substantial danger to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, shorelines, and beaches.

The substances designated as hazardous in this rulemaking are subject to a number of provisions of section 311 of the Act. Pursuant to section 311(b)(6), discharge of such a substance to the navigable waters, adjoining shorelines or the contiguous zone in excess of a harmful quantity (harmful quantities are set forth in Part 118 of this chapter) is cause for imposition by the U.S. Coast Guard of a civil penalty of up to $5,000. Under section 311(b)(2) a discharge of such a substance (if determined not removable in Part 117 of this chapter) can lead to a civil penalty assessed by EPA of up to $5,000,000 in the case of a vessel or $500,000 in the case of an onshore facility. Section 311(b)(5) requires that a discharge of a hazardous substance in a harmful quantity be reported to the proper U.S. Government authorities. Failure to report can lead to a fine of up to $10,000 or imprisonment of up to one year, or both. Reporting procedures are set forth in 33 CFR Part 153. Finally, sections 311(f) and (g) provide that one who discharges a hazardous substance is liable (subject to certain limited defenses) for the costs incurred by the United States Government in cleaning up or otherwise mitigating the effects of the discharge.

Relationship to Other Toxic Pollutant Control Programs: The promulgation of this regulation is a major component of the Environmental Protection Agency's strategy to regulate the discharge to the Nation's waters of toxic and hazardous substances. With the promulgation of hazardous substances regulations pursuant to section 311, a person is legally responsible for reporting a spill of any toxic or hazardous substance and the Nation has a national hazardous chemical spill control program. Further, the Environmental Protection Agency and the U.S. Coast Guard can use the section 311(k) "revolving fund" to take mitigating actions against a hazardous substance discharge in those cases where a responsible or liable person fails to do so. In addition, these regulations will activate the penalty system that should provide a meaningful economic incentive for industries to take greater precautions in the handling of hazardous materials. These regulations provide a vital link in the comprehensive program to control toxic and hazardous chemical discharges to water which includes reliance on technology-based effluent limitations as the principal abatement mechanism for such discharges, use of toxic effluent standards under Section 307(a) for the limited number of cases in which the effluent limitations will not provide environmental protection, development of best management practices to control toxic chemicals from nonpoint sources in conjunction with water quality management planning under Section 208, and use of water quality based limitations of Section 302 and water quality standards as supplements to technology-based effluent limitations in the remaining cases where effluent limitations are inadequate and Section 307(a) toxic effluent standards are inappropriate on a nationwide basis. Other laws involved in the Agency's strategy to control the discharge of toxic and hazardous materials include the Resource Conservation and Recovery Act, the Toxic Substances Control Act, and the Safe Drinking Water Act.

Designation of Hazardous Substances:

The substances included on the list of hazardous substances in § 116.4 of this Part: (1) Meet the toxicological selection criteria delineated herein and (2) have a reasonable potential for being discharged.

Selection Process: The Agency developed and proposed in December 1975 (40 FR 59961) a two part selection process for designating hazardous substances. The first step consisted of evaluating elements and compounds against toxicological selection criteria. The second step consisted of screening substances meeting those criteria against discharge potential to limit them to a practical number and establish a priority of designation. The criteria are set forth below:

Toxicological Selection Process: Any element or compound or structural isomer thereof which is lethal to:

(a) One-Half of a test population of aquatic animals in 96 hours or less at a concentration of 500 mg/l or less or similarly demonstrated acute toxicity; or

(b) One-half of a test population of mammals in 14 days when administered as a single oral dose equal to or less then 50 mg/kg of body weight; or

(c) One-half of a test population of mammals in 14 days when dermally exposed to an amount equal to or less than 200 mg/kg of body weight for 24 hours; or

(d) One-half of a test population of mammals in 14 days or less when exposed to a vapor concentration equal to or less than 20 cubic centimeters per cubic meter of air for 1 hour; or

(e) Aquatic flora as measured by a 50 percent decrease in cell count, biomass, or photosynthetic ability in 14 days or less at concentrations equal to or less than 100 mg/l (ppm); than it was a candidate for further consideration against discharge potential.

Toxicological data for individual substances primarily were derived from the compendium of information fact sheets entitled, "Hazardous Substances Facts Sheets, 1977," which may be obtained from the Environmental Protection Agency. In addition, other primary sources of data were: "Water Quality Criteria," Federal Pollution Control Administration, 1968, "Water Quality Criteria," 1972, EPA, March 1973, and "Quality Criteria for Water," EPA 440/9-76-023, July 1976.

Discharge Potential Screening Criteria: 1. If any substance met the toxicological selection criteria, (i.e., a "candidate substance"), and was determined to have a spill history it was designated a hazardous substance.

2. If a candidate substance was determined to have an annual production equal to or greater than 1 billion pounds, it was designated a hazardous substance.

3. If a candidate substance was determined to have an annual production of less than 1 billion pounds and:

a. If it is used primarily as a pesticide, it was designated a hazardous substance.

b. If use was unknown, it was not further considered for designation.

c. If use is limited to research, medicinals, food additives, or analytical reagents, it was not further considered for designation.

4. If a candidate substance was determined to have an annual production of less than one billion pounds and determined to have uses other than in "a," "b," or "c" above, then the selling price of the substance at the first commercial market level was examined. Available evidence appeared to indicate that substances with relatively high selling prices had a smaller discharge frequency, since more expensive chemicals are generally packaged and shipped in smaller quantities, and with greater precautions. If a candidate substance had a high selling price relative to the majority of substances, it was not further considered for testing. This was done to ensure that materials of relatively low market price and relatively high toxicity, i.e., meeting the toxicological selection criteria, were given the first priority.

Because the discharge potential screening criteria were used solely to permit the Agency to establish a priority system for designating substances as hazardous materials, such screening does not preclude the designation of a substance initially not designated, if toxicological data or other factors support its addition to the designation list.

The end result of this two-part selection process was the list of substances proposed on December 30, 1975. Only two substances in that proposed listing met one of the toxicological criteria other than that dealing with aquatic animal toxicity; they were acetone cyanohydrin and adiponitrile. Since that time, data supporting the aquatic animal toxicity of acetone cyanohydrin have been obtained.

The derivation of the harmful quantities for designated substances was proposed concurrently with the designation of proposed hazardous substances in December 1975, and is finalized concurrent with this promulgation. As proposed, the derivation of harmful quantities utilized a modification of an international categorization system. This system, discussed in detail in the proposal (40 FR 59986), proved to be cumbersome. In addition, the process required certain subjective judgments that could lead to alternative decisions. Due to those problems, a simplified system for establishing hazardous categories and harmful quantities has been adopted and is explained in Part 118. Basically, the new harmful quantity categorization process considers only the aquatic toxicity of the substances. The effect of this modification on the final designation is that toxicological effects other than aquatic are not considered in this initial priority list of hazardous substances. For this reason, adiponitrile is deleted from this final rulemaking. It should be clearly understood that this decision does not in any way affect the validity of all of the proposed toxicological selection criteria and they may be used in the future to expand upon this initial listing. Furthermore, additional selection criteria based on other acute or chronic toxicological effects on man or the environment will be developed and used to further expand upon this initial designation.

The applicability provisions of Parts 116, 117, 118, and 119 are written to conform to the amendments made in section 311 of the Federal Water Pollution Control Act by the Clean Water Act of 1977.

The Clean Water Act of 1977 extended the scope of section 311 to include discharges in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976). These regulations apply to the full extent of the scope of section 311 as amended. Since the regulations previously did not distinguish between discharges into different types of water bodies but instead applied uniformly wherever applicable, and because Congress gave no indication that it intended the regulations to differentiate between waters within or beyond the outer limits of the contiguous zone, the extension of the scope of the regulations requires no changes in the substance of the regulations themselves. Further discussion of this point may be found in the preamble to Part 118.

Comments. Interested persons were given until March 1, 1976, to submit written comments on all aspects of the proposed rules. One hundred and forty-eight (148) letters containing comments were received and reviewed prior to this rulemaking of which several substantive comments addressed the designation of hazardous substances.

Toxicological Selection Criteria: The concept of utilizing definitive criteria for the designation of hazardous substances was generally supported. However, many comments suggested certain changes to clarify the proposed criteria.

a. Several commenters suggested that the designation and determination of harmful quantities should be based on effects actually observed as a result of discharge. An example provided dealt with the expression of pH changes when a variety of substances are introduced to water. It was suggested that the discharge of any material which resulted in a pH change in the receiving water in excess of 3 pH units would consitute a harmful quantity discharge of a hazardous substance.

The suggested approach does not meet the requirements of the Act. Section 311(b)(2)(A) requires the designation of substances as hazardous rather than their circumstances of discharge. Moreover, section 311(b)(2)(A) requires that elements and compounds be designated and numerous elements, compounds or combinations thereof can produce a given pH change. Furthermore, the requirement for immediate notification under section 311(b)(5) and 40 CFR 118.7 in the event of a harmful quantity discharge appears to preclude the use of an effect resulting from a discharge as a basis for determining hazard. Persons responsible for giving notice frequently are not prepared to make a rapid determination of effects such as changes in pH or pollutant concentration. Because failure to notify the Federal government immediately of discharges in excess of the harmful quantity carries criminal penalties, adoption of the suggested approach was not considered feasible.

b. It was suggested that the persistence of substances be considered in the selection criteria. The comments expressed the opinion that substances which are either degraded or converted to innocuous materials by chemical or biological processes in relatively short periods of time should not be designated as hazardous for the purposes of section 311.

Chemical and biological degradation of pollutants are recognized phenomena. However, the selection criteria as adopted deal with acute effects. Most discharge events which are the primary concern of these rules are shock loadings resulting in elevated pollutant concentrations. In these cases, the degradability of the material has little immediate ameliorating effect. Lethal effects generally are exerted in the relatively short time period of high concentration before neutralization or degradation processes make significant contributions. The persistence of substances as characterized by their ability to bioaccumulate is expected to be incorporated into the derivation of selection criteria for proposing candidates for addition to the hazardous substances list.

c. Several comments dealt with the concentration limit proposed for the selection criterion utilizing aquatic toxicity data. Some of those commenters believed the proposed selection limit of 500 mg/l was excessive and should be lowered; it was suggested that the selection limitation should be 100 mg/l, which would result in the listing of fewer substances. On the other hand, other commenters believed the 500 mg/l level was too restrictive and suggested the selection limit of 1,000 mg/l.

The appropriateness of the selection limit of 500 mg/l for 96-hour aquatic LC50 bioassay values was discussed in the Preamble to the proposed rules (40 FR 59961) December 30, 1975. The basis for selecting 500 mg/l as the criterion for environmental damages was that fish kills have been observed for discharges of substances with 96-hour LC50 values consistently greater than 100 mg/l. On the other hand, substances with recorded 96-hour LC50 values consistently greater than 500 mg/l have no similar history of causing environmental damages in the form of fish kills resulting from spill type discharges. For some substances, bioassay data available from the existing literature show various toxicity values. These various bioassay values reflect differences in techniques, test species, and water conditions as used by the investigator. Data resulting from tests in which water conditions approximated "typical" receiving waters were favored. The general guidelines used by the Agency to select "preferred" data points are detailed in the document entitled: "Determination of Harmful Quantities and Rates of Penalty for Hazardous Substances" which may be obtained from the Superintendent of Documents, Washington, D.C. 20402 (Stock No. 055-001-01028-1).

d. Several commenters expressed the opinion that 96 hours was an unreasonably lengthy testing period. They argued that hazardous substance discharges are of substantially shorter duration and that the data utilized should reflect a more limited exposure time.

Although many of the discharges to be addressed by these regulations may not be of 96-hour duration, the use of 96 hours as the exposure period for testing the acute toxicity of chemicals to aquatic animals is now an accepted standard. It is important to note that these rules (40 CFR Parts 116-119) do not dictate or prescribe testing procedures which must be conducted for various chemicals. The intent in setting forth selection criteria is to clearly identify the kinds of data currently in existence which were used to derive the list of hazardous substances. Because the 96-hour testing period has long been accepted, the bulk of the more recent data in the scientific literature is in the form of 96-hour LC50 values.

e. Many comments dealt with the details of the bioassay toxicity selection criterion for aquatic animals. These comments expressed the opinion that conditions as well as species must be identified and that the species should be of median sensitivity, indigenous, or of direct commercial or recreational value. In general, it was the belief of those commenting in this area that test conditions should also relate to natural waters.

Bioassays conducted under laboratory conditions are related to mortalities within the environment because every organism has a certain tolerance to a concentration of a toxic substance and that tolerance or intolerance is defined in the bioassay test. The sensitivity demonstrated by organisms when tested against various concentrations of materials under controlled laboratory conditions will be reflected by those same species within the ambient environment. The bioassay data indicate those conditions and organism responses to be expected in the environment when the tested concentrations of a substance are encountered. The organisms selected for testing in bioassays generally are those found in a large number of our natural waters. In bioassays conducted in recent years natural waters are used as the dilutent for the toxic material in the test.

f. Several comments addressed the selection criterion for aquatic plant life. It was suggested that experimental variables should be specified in the criterion, that the 14-day exposure period should be shortened, or that the criterion should not be considered at all.

Although no substances in the current list were selected on the basis of toxicity to aquatic vegetation, the selection criterion is maintained in recognition of the important role of plant life in the maintenance of balanced aquatic ecosystems. Although few data are currently available on the toxicity of substances to aquatic flora, parameters generally viewed as those which constitute an appropriate bioassay determination of phytotoxicity may be found in Biological Field and Laboratory Methods Measuring the Quality of Surface Waters and Effluents, which may be obtained from the Environmental Protection Agency (EPA 670/4-73-001). According to that reference, 14 days has been selected as a standard testing period for the bioassay of periphyton. Therefore, no change has been made in the time period for acute toxicity for aquatic plants.

g. Many comments addressed various aspects of the criteria proposed for the evaluation of mammalian toxicological data. These comments included recommendations that the proposed observation time of 14 days be shortened, that all mammalian toxicological criteria be deleted, that inhalation or dermal exposure should be deleted because the data are inappropriate, or that the proposed LD50 limitation of 50 mg/kg for oral exposure was overly protective and should be lowered.

Section 311 clearly requires the protection of public health or welfare. Because the use of mammalian toxicological test data to evaluate a substance's potential for impairing human health has a substantial history of acceptance, a general deletion of the mammalian toxicological selection criteria is not acceptable. The discharge of chemicals which are toxic via skin absorbtion can threaten recreational water uses such as swimming and boating even though these substances may be diluted by the receiving waters. In the case of inhalation, wind and wave action may release dissolved chemicals to the atmosphere resulting in human exposure via inhalation. The toxic effects of chemicals to mammals from all exposure routes are deemed to be appropriate for the designation of hazardous substances and the mammalian toxicological criteria are maintained. The dosage levels proposed and adopted herein are generally accepted an indicative of highly toxic substances. Observation periods specified are those which are generally accepted as appropriate for toxicological testing.

h. Several comments expressed the opinion that the proposed selection criteria should be expanded to include additional considerations of toxicological effects, including carcinogenicity, mutagenicity, and teratogenicity as well as bioaccumulation.

The Agency recognizes the merits of these comments. However, in its initial efforts to promulgate section 311 regulations, the Agency has taken the position that those substances that are acutely toxic to aquatic life present an imminent hazard to the environment and should be controlled initially. This does not preclude the future expansion of the selection criteria, the list itself, or the sources and types of discharges to be regulated under section 311. Indeed, the Agency will seek to expand both the selection criteria and the list of designated hazardous substances in the months ahead. The Agency supports the general concept that episodic discharges of substances that bioaccumulate to cause subsequent damage to an organism or to its predator, or of substances that have been shown to be carcinogenic, mutagenic, or teratogenic are discharges of hazardous substances. The Agency will undertake efforts immediately to revise the selection criteria and to expand the list of hazardous substances to include such materials.

Requests for Substances to be Added: Several commenters requested that specific substances and categories of substances be added to the proposed list of hazardous substances. Suggested additions included suspended solids, Mirex, Kepone, polybrominated biphenyls, and an additional list of 126 specific compounds.

As stated above, this is the initial effort to promulgate hazardous substances regulations pursuant to section 311 of the Act. The Agency will continue to examine the appropriateness of substances to add to the hazardous substances list. Some of the substances suggested do not meet EPA toxicity selection criteria. No data were provided by the commenters in support of their suggestions, and the Agency has not yet found data to substantiate toxic effects of some of them. When supporting data become available, these substances will be evaluated against such data and the Agency's spill potential criteria as candidates for addition to future proposed lists of hazardous substances.

The Agency will examine the published selection criteria for hazardous substances and plans to modify such criteria in the future to permit the designation of additional hazardous substances. The Agency is appreciative of suggestions for the addition of substances to the list and will continue to examine their ability to meet the selection criteria that have been established or that may be proposed for comment in the future. The Agency anticipates that proposals for additions to the hazadous substances list will be a periodic and a continuing process.

Request for Deletion of Certain Substances: a. Two comment letters addressed ethylenediaminetetraacetic acid (EDTA), requesting that it be deleted because of limited discharge potential. It was argued that annual production is between 4 and 10 million pounds per year, there is no history of past spillage, the current value of the substance is $1.25-1.35/pound, and that shipment is exclusively in 50 to 100 pound containers (5 to 10 times lower than the proposed harmful quantity of 500 pounds).

The new data were carefully examined by the Agency. The history of past discharge is negative but the production and use and value considerations are borderline when compared with the judgment criteria. Because there is some potential for discharge, EDTA is retained on the designation list.

b. It was requested that ferric ammonium oxalate be deleted from the list because of low potential for discharge.

Re-examination of the date on ferric ammonium oxalate indicated an average selling price of $0.42/pound with a common shipment unit being a 250-pound drum. In addition, it cannot be categorized as a limited use compound. Therefore, ferric ammonium oxalate is maintained as a hazardous substance.

c. It was suggested that benzene, toluene, xylene, cyclohexane, ethylbenzene, and styrene all fall under the definition of oil as found in Section 311 and should be excluded from this rulemaking.

Although these substances share certain properties with oils, i.e., limited solubility and lower specific gravity than water, they are not defined as oils for the purpose of section 311 and are maintained on the list of designated substances. See the preamble to Part 117 for the rationale used by the Agency for chemically distinguishing between oils and oil-like hazardous substances.

d. It was requested that metallic sodium be removed from the designation list due to its generally safe transportation record.

Two accidents involving sodium tank cars are recorded. In one case, the integrity of the container was breached. Although neither of these resulted in a water pollution incident, the potential for discharge does exist, and sodium is maintained as a hazardous substance.

e. It was requested that calcium hydroxide and calcium oxide be deleted from the designation list, based on low discharge potential, low toxicity, and beneficial uses of these chemicals in wastewater and drinking water treatment processes. It was also requested by another commenter that because minor spills are typical of handling the substance in its normal fashion calcium hydroxide should be deleted from the designation list.

Both substances have a history of discharge from onshore facilities. In one case, a fish kill resulted from the discharge of calcium oxide. Toxicological data submitted with one comment letter support the selection based on lethal effects to three species of fish at 100 mg/l (ppm) in two to five hours. The beneficial usages of calcium hydroxide and oxide are not disputed or contradicted by the designation of these substances. It is not the intent to this rulemaking to restrict the proper usage, handling, and transport of any designated substance. Rather, the intent is to encourage the reduction of non-permitted discharges and the mitigation of environmental damages when discharges occur. Calcium hydroxide and calcium oxide are therefore maintained as hazardous substances.

f. One comment letter requested that ortho-xylene be deleted from the designation list because the material is not persistent and does not severely reduce amenities when discharged.

Ortho-xylene is toxic to a variety of aquatic life at concentrations of 21 to 30 mg/l (ppm) in 96 hours. The substance has a history of discharge and is, therefore, maintained as a designated hazardous substance.

g. It was suggested that all substances which have not been specifically tested for aquatic toxicity be deleted from the designation.

When inorganic salts are placed in water, and the well-known chemical phenomena of ionization and concomitant solubilization occur, the events result in the release, to the water, of the toxic ion in its biologically active form. Listing only those salts of toxic ions which have been specifically bioassayed would disregard the basic chemical process of ionization and solubilization. Therefore, when acute toxicity data on one ion of a soluble salt indicate that the salt meets the hazardous substances toxicity criteria, other salts of which that ion is a component are appropriately judged to be hazardous substances. Those proposed salts having at least one soluble ion which meets our toxicity criteria for aquatic animals are retained as hazardous substances.

h. One comment letter addressed the inclusion of lead sulfide on the proposed list of hazardous substances. It was argued that the limited solubility of lead sulfide did not qualify it as a hazardous substance.

The acute toxicity of lead was examined as well as its water solubility. An error in the water solubility data was detected and the actual solubility was determined to be 0.9 ppm. However, the Agency position with respect to solubility and toxicity is that if the 96-hr. LC50 bioassay data indicate that the substance is within the scope of our toxicity criteria, it will be designated a hazardous substance regardless of its water solubility. Lead sulfide is therefore maintained as a hazardous substance.

i. The same letter questioned the separate designation of zinc sulfate and zinc sulfate monohydrate.

The listing of the two forms of zinc sulfate is redundant since the designation applies to all forms of the listed compounds. For example, the listing of copper sulfate is inclusive of both the common mono- and pentahydrate as well as solutions of copper sulfate. This same general designation, including all forms of the substances, is true for all listed elements and compounds. Because a separate listing for the monohydrate of zinc sulfate is redundant with the general zinc sulfate entry, zinc sulfate monohydrate is deleted. However, the designation still applies to it as one of the hydrates of that compound. Parenthetically it is noted that, for the purpose of computing the harmful quantity under part 118, the most commonly hydrated form of the salt was used.

j. One comment appealed the designation of salts of dodecyclbenzene sulfonic acid. However, no data were submitted in support of that appeal.

A review of the toxicity data reveals lethal effects of the sodium salt of dodecylbenzene sulfonic acid to a variety of aquatic species within the limits used as selection criteria. Industrial and domestic use and distribution of these materials contribute to an assessment of reasonable potential for discharge. Therefore, these substances are maintained as hazardous substances.

k. Additional supporting data and requests for deletion of substances included: aluminum fluoride—based on aquatic toxicity; aluminum sulfate—based on beneficial use; ammonium bicarbonate—based on discharge potential; and antimony pentafluoride—based on discharge potential.

Static bioassay data submitted for aluminum fluoride indicate a 96-hour LC50 value in excess of 10,000 mg/l to the fathead minnow. On the basis of these new data, aluminum fluoride is deleted from the final designation list.

Like calcium hydroxide and oxide, aluminum sulfate has recognized beneficial uses in both wastewater and drinking water treatment. These beneficial usages do not alter the fact that it falls within the scope of the toxicological selection criteria and that improper use and spill type discharges can result in environmental damage. Therefore aluminum sulfate is maintained as a designated hazardous substance.

Although ammonium bicarbonate is extensively used in the food industry, the substance is also used in the manufacture of dyes and as a degreasing agent in the textile industry. Annual production is estimated to be sixteen million (16,000,000) pounds with a low selling price of $0.10 to $0.12 per pound. Relatively large production, low selling price, and diverse industrial use indicate that the substance has a reasonable discharge potential and ammonium bicarbonate is maintained as a designated hazardous substance.

Data submitted in support of deleting antimony pentafluoride included annual production quantities of less than 5,000 pounds and a selling price of $15 per pound. Use data indicate only limited application as a catalyst in organic synthesis. In light of this new information, it is agreed that antimony pentafluoride has a low potential for discharge and is therefore deleted from the designation list.

1. Several commenters pointed out that although chlorine is toxic, used in many industrial processes, and produced in large quantities, its shipment in pressurized containers as a liquid has an enviable record of safety. These commenters believe that the safety record is indicative of a low discharge potential and they requested that consideration be given to deletion of chlorine.

Agency data support the fact that liquefied chlorine transportation has a laudable safety record. Nevertheless, discharges of chlorine in aqueous solution have occurred with resulting environmental damages. Therefore, a reasonable potential for discharge does exist and chlorine is maintained as a designated hazardous substance.

m. One comment letter pointed out that the pesticides chloropyrifos and mexacarbate were listed by their trademark rather than common name.

This oversight is corrected and these materials are listed by their appropriate common names in this final rulemaking.

Potential for Discharge: Although most comment letters supported the use of discharge potential evaluations in the designation of hazardous substances, several disagreed, indicating that such considerations were inappropriate.

In order to address the many chemical substances produced and shipped in this country, it is appropriate to restrict this initial designation to those elements and compounds which are in commercial use and transported, stored, or used in quantities or processes which make it possible that a harmful quantity discharge will occur. The present assessment of discharge potential is a qualitative consideration of factors which may influence a chemical's propensity for discharge. These include production quantities, past history of discharge, use and distribution patterns, and cost of the substance and are set forth under Supplementary Information in this Part. It is anticipated that the mandatory reporting of discharges in violation of 40 CFR Part 118 will provide considerable additional data. Discharge potential screening is a necessary tool to make designation a manageable process. But it is not a mandatory requirement under the Act and is subject to reevaluation by the Agency.

Financial Responsibility: Although not directly related to the process of designating hazardous substances or the specific substances listed, a number of comment letters requested that the effective date of the designation and accompanying rules be at least six months after date of final publication to permit owners or operators of vessels to obtain the necessary evidence of financial responsibility.

Under section 311(p)(1) vessels over 300 gross tons using the waters of the United States must maintain evidence of financial responsibility to meet the liability to the United States which the vessel could be subjected under section 311. Under section 311(p)(2), the effective date for such evidence of financial responsibility for hazardous substances was October 18, 1973. Because a designation of hazardous substances was not promulgated prior to that date, the implementing regulations (46 CFR Part 542) promulgated under section 311(p)(1) are effective for hazardous substances as soon as any designation regulation becomes effective. According to 46 CFR Part 542, evidence of financial responsibility may consist of an insurance certificate, security bond, or other proof of reserve capital. Acceptance by the Federal Maritime Commission of submitted evidence will result in the issuance of a certificate to be carried on board. Failure to have the certificate on board may result in penalties and restrictions imposed by the Federal Maritime Commission, the Secretary of the Treasury and the Coast Guard under sections 311(p)(4), (5) and (6).

Insurance underwriters have refused to write coverage for hazardous substances on the basis of the proposed rules, maintaining that until the list is final, the risk and premiums cannot be evaluated. Without sufficient lead time to obtain insurance, present evidence to the Federal Maritime Commission and receive the certificate, virtually every vessel in excess of 300 gross tons will be in violation of section 311(p). The shipping industry estimates that six months will be required to obtain insurance and certification. Because of the problem faced by the shipping community a delay in effective date of 180 days is granted for vessels. However, due to the importance of these regulations no further delays in their implementation will be considered. Insurers and shippers are urged to proceed immediately with the required procedures for complying with section 311(p).

Deletions Resulting from Commenters' Recommendations: Three substances proposed as hazardous substances have been deleted for reasons specified in the comments. Those substances are:

Aluminum Fluoride
Antimony Pentafluoride
Zinc Sulfate Monohydrate

Deletions Resulting from Agency Reevaluation: As explained above, substances with usages limited to research, medicinals, food additives or analytical reagents are not further considered for designation at this time. On this basis, the list of proposed hazardous substances has been examined further since December 30, 1975, and the following 21 substances deleted on the basis of limited usage:

Limited Use

Ammonium Hypophosphite
Arsenic Acid
Chromyl Chloride
Cobaltous Fluoride
Cupric Formate
Cupric Glycinate
Cupric Lactate
Cupric Subacetate
Cuprous Bromide
Hydroxylamine
Lead Tetraacetate
Lead Thiosulfate
Lead Tungstate
Lithium Bichromate
Mercuric Acetate
Nickel Formate
Stannous Fluoride
Uranium Peroxide
Uranyl Sulfate
Zinc Bichromate
Zinc Potassium Chromate

Further review of the proposed list on the basis of the toxicity criteria has in addition resulted in the deletion of the following 11 substances as not sufficiently toxic to meet the criteria:

Not Suffficiently Toxic

Adiponitrile
Ammonium Bromide
Ammonium Iodide
Ammonium Nitrate
Ammonium Pentaborate
Ammonium Persulfate
Propyl Alcohol
Sodium Phosphate, Monobasic
Sodium Sulfide
Zirconium Acetate
Zirconium Oxychloride

Adiponitrile is deleted for reasons stated previously.

Total Alphabetical List of All Deletions:

Adiponitrile
Aluminum Fluoride
Ammonium Bromide
Ammonium Hypophosphate
Ammonium Iodide
Ammonium Nitrate
Ammonium Pentaborate
Ammonium Persulfate
Antimony Pentafluoride
Arsenic Acid
Chromyl Chloride
Cobaltous Fluoride
Cupric Formate
Cupric Glycinate
Cupric Lactate
Cupric Subacetate
Cuprous Bromide
Hydroxylamine
Lead Tetraacetate
Lead Thiosulfate
Lead Tungstate
Lithium Bichromate
Mercuric Acetate
Nickel Formate
Propyl Alcohol
Sodium Phosphate, Monobasic
Sodium Sulfide
Stannous Fluoride
Uranium Peroxide
Uranyl Sulfate
Zinc Bichromate
Zinc Potassium Chromate
Zinc Sulfate, Monohydrate
Zirconium Acetate
Zirconium Oxychloride

Economic Impact Assessment: When the December 30, 1975, proposed regulations were published, it was determined that the economic impact of the designation of hazardous substances could not be separated from a consideration of removability, harmful quantities and rates of penalty. Therefore, an assessment, which was conducted in accordance with Executive Order 11821, of the combined impact of all four actions accompanied the December 30 proposal. The economic impact of the proposed regulations was not considered major.

The 1975 proposed regulations (Parts 116, 117, 118 and 119) used the concept of "gross negligence" in deciding which one of the two civil penalty alternatives (subsection (aa) or subsection (bb)) would be used. Based on an estimated 700 spills per year and the probability of spills requiring the use of either the (aa) or (bb) option, the total penalty costs were estimated to be $2.5 million per year ($1.9 million from (aa) penalties and $0.6 million from (bb) penalties). Clean-up costs were estimated to be $8.3 million per year.

These final regulations have abandoned the "gross negligence" concept and have substituted the "gravity-of-the-offense" approach with a list of factors to be considered in deciding which penalty option to use. Moreover, the Clean Water Act of 1977 has extended the scope of the applicability of the regulations.

The prior economic assessment has been evaluated and no substantial changes in its conclusions have been made.

Dated: March 3, 1978.

DOUGLAS M. COSTLE,
Administrator.

Part 116 is added as follows:

Sec.
116.1 Applicability.
116.2 Abbreviations.
116.3 Definitions.
116.4 Designation of hazardous substances.

AUTHORITY: Secs. 31(b)(2)(A) and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

§ 116.1 Applicability.

This regulation designates hazardous substances under section 311(b)(2)(A) of the Federal Water Pollution Control Act (the Act). The regulation applies to discharges of substances designated in Table 116.4.

§ 116.2 Abbreviations.

ppm=parts per million
mg=milligram(s)
kg=kilogram(s)
mg/l=milligrams(s) per liter=(approx.) ppm
mg/kg=milligram(s) per kilogram=(approx.) ppm

§ 116.3 Definitions.

As used in this part, all terms shall have the meaning defined in the Act and as given below:

"The Act" means the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500), and as further amended by the clean Water Act of 1977, (Pub. L. 95-217), 33 U.S.C. 1251 et seq.;

"Discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping;

"Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

"Public vessel" means a vessel owned or bareboat-chartered and operated by the United States, or a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

"Onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

"Offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

"Navigable waters" is defined in section 502(7) of the Act to mean "waters of the United States, including the territorial seas," and includes, but is not limited to: (1) all waters which are presently used, or were used in the past, or may be susceptible to use as a means to transport interstate or foreign commerce, including all waters which are subject to the ebb and flow

of the tide, and including adjacent wetlands; the term "wetlands" as used in this regulation shall include those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevelance of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas; the term "adjacent" means bordering, contiguous or neighboring; (2) tributaries of navigable waters of the United States, including adjacent wetlands; (3) interstate waters, including wetlands; and (4) all other waters of the United States such as intrastate lakes, rivers, streams, mudflats, sandflats and wetlands, the use, degradation or destruction of which affect interstate commerce including, but not limited to:

(i) Intrastate lakes, rivers, streams, and wetlands which are utilized by interstate travelers for recreational or other purposes; and

(ii) Intrastate lakes, rivers, streams, and wetlands from which fish or shellfish are or could be taken and sold in interstate commerce; and

(iii) Intrastate lakes, rivers, streams, and wetlands which are utilized for industrial purposes by industries in interstate commerce.

"Contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone;

"Territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles; A discharge "in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976)," means: (1) A discharge into any waters beyond the contiguous zone from any vessel or onshore or offshore facility, which vessel or facility is subject to or is engaged in activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, and (2) any discharge into any waters beyond the contiguous zone which contain, cover, or support any natural resource belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

"Aquatic animals" means appropriately sensitive wholly aquatic animals which carry out respiration by means of a gill structure permitting gaseous exchange between the water and the circulatory system;

"Animals" means appropriately sensitive animals which carry out respiration by means of a lung structure permitting gaseous exchange between air and the circulatory system;

"Aquatic flora" means plant life associated with the aquatic eco-system including, but not limited to, algae and higher plants;

"Mixture" means any combination of two or more elements and/or compounds in solid, liquid, or gaseous form except where such substances have undergone a chemical reaction so as to become inseparable by physical means.

"LC50" means that concentration of material which is lethal to one- half of the test population of aquatic animals upon continuous exposure for 96 hours or less.

§ 116.4 Designation of hazardous substances.

The elements and compounds appearing in Tables 116.4 A and B are designated as hazardous substances in accordance with section 311(b)(2)(A) of the Act. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing these substances. Synonyms and Chemical Abstract System (CAS) numbers have been added for convenience of the user only. In case of any disparity the common names shall be considered the designated substance.

TABLE 116.4A.—*List of hazardous substances*

Common name	CAS No.	Synonyms	Isomers	CAS No.
Acetaldehyde	75070	Ethanal, ethyl aldehyde, acetic aldehyde.		
Acetic acid	64197	Glacial acetic acid, vinegar acid		
Acetic anhydride	108247	Acetic oxide, acetyl oxide		
Acetone cyanohydrin	75865	2-methyllactonitrile, alpha-hydroxyisobutyronitrile.		
Acetyl bromide	506967			
Acetyl chloride	79367			
Acrolein	107028	2-propenal, acrylic aldehyde, acrylaldehyde, acraldehyde.		
Acrylonitrile	107131	Cyanoethylene, Fumigrain, Ventox, propeneitrile, vinyl cyanide.		
Aldrin	309002	Octalene, HHDN		
Allyl alcohol	107186	2-propen-1-ol, 1-propenol-3, vinyl carbinol.		
Allyl chloride	107051	3-chloropropene, 3-chloropropylene, Chlorallylene.		
Aluminum sulfate	10043013	Alum		
Ammonia	7664417			
Ammonium acetate	631618	Acetic acid ammonium, salt		
Ammonium benzoate	1863634			
Ammonium bicarbonate	1066337	Acid ammonium carbonate, ammonium hydrogen carbonate.		
Ammonium bichromate	7789095			
Ammonium bifluoride	1341497	Acid ammonium fluoride, ammonium hydrogen fluoride.		
Ammonium bisulfite	10192300			
Ammonium carbamate	1111780	Ammonium aminoformate		
Ammonium carbonate	506876			
Ammonium chloride	12125029	Ammonium muriate, sal ammoniac, salmiac, Amchlor.		
Ammonium chromate	7788989			
Ammonium citrate dibasic	3012655	Diammonium citrate, citric acid diammonium salt.		
Ammonium fluoborate	13826830	Ammonium fluoroborate, ammonium borofluoride.		
Ammonium fluoride	12125018	Neutral ammonium fluoride		
Ammonium hydroxide	1336216			
Ammonium oxalate	6009707			
	5972736			
	14258492			
Ammonium silicofluoride	16919190	Ammonium fluosilicate		
Ammonium sulfamate	7773060	Ammate, AMS, ammonium amidosulfate.		
Ammonium sulfide	12135761			
Ammonium sulfite	10196040			
	10192300			
Ammonium tartrate	3164292	Tartaric acid ammonium salt		
	14307438			
Ammonium thiocyanate	1762954	Ammonium rhodanide, ammonium sulfocyanate, ammonium sulfocyanide.		
Ammonium thiosulfate	7783188	Ammonium hyposulfite		
Amly acetate	628637	Amylacetic ester	iso-	123922
		Pear oil	sec-	626380
		Banana oil	tert-	625161
Aniline	62533	aniline oil, phenylamine, aminobenzene, aminophen, kyanol.		
Antimony pentachloride	7647189			

TABLE 116.4A.—*List of hazardous substances*—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Antimony potassium tartrate.	28300745	Tartar emetic, tartrated antimony, tartarized antimony, potassium antimonyltartrate.		
Antimony tribromide	7789619			
Antimony trichloride	10025919	Butter of antimony		
Antimony trifluoride	7783564	Antimony fluoride		
Antimony trioxide	1309644	Diantimony trioxide, flowers of antimony.		
Arsenic disulfide	1303328	Red arsenic sulfide		
Arsenic pentoxide	1303282	Arsenic acid anhydride, arsenic oxide.		
Arsenic trichloride	7784341	Arsenic chloride, arsenious chloride, arsenous chloride, butter of arsenic.		
Arsenic trioxide	1327533	Arsenious acid, arsenious oxide, white arsenic.		
Arsenic trisulfide	1303339	Arsenious sulfide, yellow arsenic sulfide.		
Barium cyanide	542621			
Benzen	71432	Cyclohexatriene, benzol		
Benzoic acid	65850	Benzenecarboxylic acid, phenylformic acid, dracylic acid.		
Benzonitrile	100470	Phenyl cyanide, cyanobenzene		
Benzoyl chloride	98884	Benzenecarbonyl chloride		
Benzyl chloride	100447			
Beryllium chloride	7787475			
Beryllium fluoride	7787497			
Beryllium nitrate	7787555			
	13597994			
Butyl acetate	123864	acetic acid butyl ester	iso-	110190
			sec-	105464
			tert-	540885
Butylamine	109739	1-aminobutane	iso-	78819
			sec-	513495
			sec-	13952846
			tert-	75649
Butyric acid	107926	Butanoic acid, ethylacetic acid	iso-	79312
Cadmium acetate	543908			
Cadmium bromide	7789426			
Cadmium chloride	10108642			
Calcium arsenate	7778441	Tricalcium orthoarsenate		
Calcium arsenite	52740166			
Calcium carbide	75207	Carbide, acetylenogen		
Calcium chromate	13765190	Calcium chrome yellow, geblin, yellow untramarine.		
Calcium cyanide	592018			
Calcium dodecylbenzenesulfonate.	26264062			
Calcium hydroxide	1305620	Lime, hydrated, slaked lime, calcium hydrate.		
Calcium hypochlorite	7778543			
Calcium oxide	1305788	Lime, quicklime		
Captan	133062	Orthocide-406, SR-406, Vancide-89		
Carbaryl	63252	Sevin		
Carbon disulfide	75150	Carbon bisulfide, dithiocarbonic anhydride.		
Chlordane	57749	Toxichlor, chlordan		
Chlorine	75003			
Chlorobenzene	108907	Monochlorobenzen, benzen chloride.		
Chloroform	67663	trichloromethane		
Chlorpyrifos	2921882	Dursban		
Chlorosulfonic acid	7790945	Sulfuric chlorohydrin		
Chromic acetate	1066304			
Chromic acid	11115745	chromic anhydride, chromium trioxide.		
Chromic sulfate	10101538			
Chromous chloride	10049055			
Cobaltous bromide	7789437	Cobalt bromide		
Coabaltous formate	544183	Cobalt formate		
Cobaltous sulfamate	14017415	Cobalt sulfamate		
Coumaphos	56724	Co-Ral		

TABLE 116.4A.—*List of hazardous substances*—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Cresol	1319773	Cresylic acid	m-	108394
		Hydroxytoluene	o-	95487
			p-	106445
Cupric acetate	142712	Copper acetate, crystalized verdigris.		
Cupric acetoarsenite	12002038	Copper acetoarsenite, copper acetate arsenite, Paris green.		
Cupric chloride	7447394	Copper chloride		
Cupric nitrate	3251238	Copper nitrate		
Cupric oxalate	5893663	Copper oxalate		
Cupric sulfate	7758987	Copper sulfate		
Cupric sulfate, ammoniated	10380297	Ammoniated copper sulfate		
Cupric tartrate	815827	Copper tartrate		
Cyanogen chloride	506774			
Cyclohexane	110827	Hexahydrobenzene, hexamethylene, hexanaphthene.		
2,4-D acid	94757	2,4-dichlorophenoxyacetic acid		
2,4-D ester	94111	2,4-dichlorophenoxyacetic acid ester		
	94791			
	94804			
	1320189			
	1928387			
	1928616			
	1929733			
	2971382			
	25168267			
	53467111			
DDT	50293	p,p'-DDT		
Diazinon	333415	Dipofene, Diazitol, Basudin, Spectracide.		
Dicamba	1918009	2-methoxy-3,6-dichlorobenzoic acid		
Dichlobenil	1194656	2,6-dichlorobenzonitrile, 2,6-DBN		
Dichlone	117806	Phygon, dichloronaphthoquinone		
2,2-Dichloropropionic acid	75990	Dalapon		
Dichlorvos	62737	2,2-dichlorovinyl dimethyl phosphate, Vapona.		
Dieldrin	60571	Alvit		
Diethylamine	109897			
Dimethylamine	124403			
Dinitrobenzene (mixed)	25154545	Dinitrobenzol	m-	99650
			o-	528290
			p-	100254
Dinitrophenol	51285 (2,4-)	Aldifen	(2,5-)	329715
			(2,6-)	573568
Diquat	85007	Aquacide		
	2764729	Dextrone, Reglone, Diquat dibromide.		
Disulfoton	298044	DI-syston		
Diuron	330541	DCMU, DMU		
Dodecylbenzenesulfonic acid.	27176870			
Endosulfan	115297	Thiodan		
Endrin	72208	Mendrin, Compound 269		
Ethion	563122	Nialate, ethyl methylene, phosphorodithioate.		
Ethylbenzene	100414	Phenylethane		
Ethylenediamine	107153	1,2-diaminoethane		
Ethylenediamine-tetraacetic acid (EDTA).	60004	Edetic acid, Havidote, (ethylenedinitrilo)-tetraacetic acid.		
Ferric ammonium citrate	1185575	Ammonium ferric citrate		
Ferric ammonium oxalate	2944674	Ammonium ferric oxalate		
	55488874			
Ferric chloride	7705080	Flores martis, iron trichloride		
Ferric fluoride	7783508			
Ferric nitrate	10421484	Iron nitrate		
Ferric sulfate	10028225	Ferric persulfate, ferric sesquisulfate, ferric tersulfate.		
Ferrous ammonium sulfate	10045893	Mohr's salt, iron ammonium sulfate		
Ferrous chloride	7758943	Iron chloride, iron dichloride, iron protochloride.		

TABLE 116.4A.—*List of hazardous substances*—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Ferrous sulfate	7720787	Green vitrol		
	7782630	Iron vitrol, iron sulfate, iron protosulfate.		
Formaldehyde	50000	Methyl aldehyde, methanol, formalin.		
Formic acid	64186	Methanoic acid		
Fumaric acid	110178	Trans-butenedioic acid, trans-1,2-ethylenedicarboxylic acid, boletic acid, allomaleic acid.		
Furfural	98011	2-furaldehyde, pyromucic aldehyde		
Guthion	86500	Gusathion, azinphos-methyl		
Heptachlor	76448	Velsicol-104, Drinox, Heptagran		
Hydrochloric acid	7647010	Hydrogen chloride, muriatic acid		
Hydrofluoric acid	7664393	Fluohydric acid		
Hydrogen cyanide	74908	Hydrocyanic acid		
Isoprene	78795	2-methyl-1,3-butadiene		
Isopropanolamine dodecylbenzenesulfonate.	42504461			
Kelthane	115322	Di(p-chlorophenyl)-trichloromethylcarbinol, DTMC, dicofol.		
Lead acetate	301042	Sugar of lead		
Lead arsenate	7784409			
	7645252			
	10102484			
Lead chloride	7758954			
Lead fluoborate	13814965	Lead fluoroborate		
Lead fluoride	7783462	Lead difluoride, plumbous fluoride		
Lead iodide	10101630			
Lead nitrate	10099748			
Lead stearate	7428480	Stearic acid lead salt		
	1072351			
	52652592			
Lead sulfate	7446142			
Lead sulfide	1314870	Galena		
Lead thiocyanate	592870	Lead sulfocyanate		
Lindane	58899	Gamma-BHC, gamma-benzene hexachloride.		
Lithium chromate	14307358			
Malathion	121755	Phospothion		
Maleic acid	110167	Cis-butenedioic acid, cis-1,2-ethylenedicarboxylic acid, toxilic acid.		
Maleic anhydride	108316	2,5-furandione, cis/butenedioic anhydride, toxilic anhydride.		
Mercuric cyanide	592041	Mercury cyanide		
Mercuric nitrate	10045940	Mercury nitrate, mercury pernitrate		
Mercuric sulfate	7783359	Mercury sulfate, mercury persulfate		
Mercuric thiocyanate	592858	Mercury thiocyanate, mercuric sulfocyanate, mercuric sulfocyanide.		
Mercurous nitrate	7782867			
	10415755			
		Mercury protonitrate		
Methoxychlor	72435	DMDT, methoxy-DDT		
Methyl mercaptan	74931	Methanethiol, mercaptomethane, methyl sulfhydrate, thiomethyl alcohol.		
Methyl methacrylate	80626	Methacrylic acid methyl ester, methyl-2-methyl-2-propenoate.		
Methyl parathion	298000	Nitrox-80		
Mevinphos	7786347	Phosdrin		
Mexacarbate	315184	Zectran		
Monoethylamine	75047	Ethylamine, aminoethane		
Monomethylamine	74895	Methylamine, aminomethane		
Naled	300765	Dibrom		
Naphthalene	91203	White tar, tar camphor, naphthalin		
Naphthenic acid	1338245	Cyclohexanecarboxylic acid, hexahydrobenzoic acid.		
Nickel ammonium sulfate	15699180	Ammonium nickel sulfate		
Nickel chloride	37211055	Nickelous chloride		
	7718549			

TABLE 116.4A.—*List of hazardous substances*—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Nickel hydroxide	12054487	Nickelous hydroxide		
Nickel nitrate	14216752			
Nickel sulfate	7786814	Nickelous sulfate		
Nitric acid	7697372	Aqua fortis		
Nitrobenzene	98953	Nitrobenzol, oil of mirbane		
Nitrogen dioxide	10102440	Nitrogen tetraoxide		
Nitrophenol (mixed)	25154556	Mononitrophenol	m-	554847
			o-	88755
			p-	100027
Paraformaldehyde	30525894	Paraform, Formagene, Triformol, polymerized formaldehyde, polyoxymethylene.		
Parathion	56382	DNTP, Niran		
Pentachlorophenol	87865	PCP, Penta		
Phenol	108952	Carbolic acid, phenyl hydroxide, hydroxybenzene, oxybenzene.		
Phosgene	75445	Diphosgene, carbonyl chloride, chloroformyl chloride.		
Phosphoric acid	7664382	Orthophosphoric acid		
Phosphorus	7723140	Black phosphorus, red phosphorus, white phosphorus, yellow phosphorus.		
Phosphorus oxychloride	10025873	Phosphoryl chloride, phosphorus chloride.		
Phosphorus pentasulfide	1314803	Phosphoric sulfide, thiophosphoric anhydride, phosphorus persulfide.		
Phosphorus trichloride	7719122	Phosphorous chloride		
Polychorinated biphenyls	1336363	PCB, Aroclor, polychlorinated diphenyls.		
Potassium arsenate	7784410			
Potassium arsenite	10124502	Potassium metaarsenite		
Potassium bichromate	7778509	Potassium dichromate		
Potassium chromate	7789006			
Potassium cyanide	151508			
Potassium hydroxide	1310583	Potassium hydrate, caustic potash, potassa.		
Potassium permanganate	7722647	Chameleon mineral		
Propionic acid	79094	Propanoic acid, methylacetic acid, ethylformic acid.		
Propionic anhydride	123626	Propanoic anhydride, methylacetic anhydride.		
Pyrethrins	121299	Pyrethrin I		
	121211	Pyrethrin II		
Quinoline	91225	1-benzazine, benzo(b)pyridine, leuocoline, chinoleine, leucol.		
Resorcinol	108463	Resorcin, 1,3-benzenediol, meta-dihydroxybenzene.		
Selenium oxide	7446084	Selenium dioxide		
Sodium	7440235	Natrium		
Sodium arsenate	7631892	Disodium arsenate		
Sodium arsenite	7784465	Sodium metaarsenite		
Sodium bichromate	10588019	Sodium dichromate		
Sodium bifluoride	1333831			
Sodium bisulfite	7631905	Sodium acid sulfite, sodium hydrogen sulfite.		
Sodium chromate	7775113			
Sodium cyanide	143339			
Sodium dodecylbenzenesulfonate.	25155300			
Sodium fluoride	7681494	Villiaumite		
Sodium hydrosulfide	16721805	Sodium hydrogen sulfide		
Sodium hydroxide	1310732	Caustic soda, soda lye, sodium hydrate.		
Sodium hypochlorite	7681529	Bleach		
	10022705			
Sodium methylate	124414	Sodium methoxide		
Sodium nitrite	7632000			
Sodium phosphate, dibasic	7558794			
	10039324			

TABLE 116.4A.—*List of hazardous substances*—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
10028247				
	10140655			
Sodium phosphate, tribasic.	7785844			
	7601549			
	10101890			
	10361894			
	7758294			
	10124568			
Sodium selenite	10102188			
	7782823			
Strontium chromate	7789062			
Strychnine	57249			
Styrene	100425	Vinylbenzene, phenylethylene, styrol, styrolene, cinnamene, cinnamol.		
Sulfuric acid	7664939	Oil of vitriol, oleum		
Sulfur monochloride	12771083	Sulfur chloride		
2,4,5-T acid	93765	2,4,5-trichlorophenoxy-acetic acid		
2,4,5-T ester	2545597	2,4,5-trichlorophenoxy/acetic esters		
	93798			
	61792072			
	1928478			
	25168154			
TDE	72548	DDD		
Tetraethyl lead	78002	Lead tetraethyl, TEL		
Tetraethyl pyrophosphate	107493	TEPP		
Toluene	108883	Toluol, methylbenzene, phenylmethane, Methacide.		
Toxaphene	8001352	Camphechlor		
Trichlorfon	52686	Dipterex		
		Dylox		
Trichlorophenol	25167822	Collunosol, Dowicide 2 or 2S, Omal, Phenachlor.		
Triethanolamine dodecylbenzenesulfonate.	27323417			
Triethylamine	121448			
Trimethylamine	75503	TMA		
Uranyl acetate	541093			
Uranyl nitrate	10102064			
	36478769			
Vanadium pentoxide	1314621	Vanadic anhydride, vanadic acid anhydride.		
Vanadyl sulfate	27774136	Vanadic sulfate, vanadium sulfate		61
Vinyl acetate	108054	Acetic acid ethylene ether		
Xylene (mixed)	1330207	Dimethylbenzene	m-	108383
		Xylol	o-	95476
			p-	106423
Xyleneol	1300716	Dimethylphenol, hydroxydimethylbenzene.		
Zinc acetate	557346			
Zinc ammonium chloride	14639975			
	14639986			
	52628258			
Zinc borate	1332076			
Zinc bromide	7699458			
Zinc carbonate	3486359			
Zinc chloride	7646857	Butter of zinc		
Zinc cyanide	557211			
Zinc fluoride	7783495			
Zinc formate	557415			
Zinc hydrosulfite	7779864			
Zinc nitrate	7779886			
Zinc phenosulfonate	127822	Zinc sulfocarbolate		
Zinc phosphide	1314847			
Zinc silicofluoride	16871719	Zinc fluorsilicate		
Zinc sulfate	7733020	White vitriol, zinc vitriol, white copperas.		
Zirconium nitrate	13746899			
Zirconium potassium fluoride.	16923958			
Zirconium sulfate	14644612	Disulfatozirconic acid		
Zirconium tetra-chloride	10026116			

TABLE 116.4B.—*List of Hazardous Substances By CAS Number*

CAS No. and common name

50000 Formaldehyde
50293 DDT
51285 2,4-Dinitrophenol
52686 Trichlorfon
56382 Parathion
56724 Coumaphos
57249 Strychnine
57749 Chlordane
58899 Lindane
60004 Ethylenediaminetetraacetic acid (EDTA)
60571 Dieldrin
62533 Aniline
62737 Dichlorvos
63252 Carbaryl
64186 Formic acid
64197 Acetic acid
65850 Benzoic acid
67663 Chloroform
71432 Benzene
72208 Endrin
72435 Methoxychlor
72548 TDE
74895 Monomethylamine
74908 Hydrogen cyanide
74931 Methyl mercaptan
75047 Monoethylamine
75070 Acetaldehyde
75150 Carbon disulfide
75207 Calcium carbide
75445 Phosgene
75503 Trimethylamine
75649 tert-Butylamine
75865 Acetone cyanohydrin
75990 2,2-Dichloropropionic acid
76448 Heptachlor
78002 Tetraethyl lead
78795 Isoprene
78819 iso-Butylamine
79094 Propionic acid
79312 iso-Butyric acid
79367 Acetyl chloride
80626 Methyl methacrylate
85007 Diquat
86500 Guthion
87865 Pentachlorophenol
88755 o-Nitrophenol
91203 Naphthalene
91225 Quinoline
93765 2,4,5-T acid
93798 2,4,5-T ester
94111 2,4-D ester
94757 2,4-D acid
94791 2,4-D ester

94804 2,4-D Butyl ester
95476 o-Xylene
95487 o-Cresol
98011 Furfural
98884 Benzoyl chloride
98953 Nitrobenzene
99650 m-Dinitrobenzene
100027 p-Nitrophenol
100254 p-Dinitrobenzene
100414 Ethylbenzene
100425 Styrene
100447 Benzyl chloride
100470 Benzonitrile
105464 sec-Butyl acetate
106423 p-Xylene
106445 p-Cresol
107028 Acrolein
107051 Allyl chloride
107131 Acrylonitrile
107153 Ethylenediamine
107186 Allyl alcohol
107493 Tetraethyl pyrophosphate
107926 n-Butyric acid
108054 Vinyl acetate
108247 Acetic anhydride
108316 Maleic anhydride
108383 m-Xylene
108394 m-Cresol
108463 Resorcinol
108883 Toluene
108907 Chlorobenzene
108952 Phenol
109739 n-Butylamine
109897 Diethylamine
110167 Maleic acid
110178 Fumaric acid
110190 iso-Butyl acetate
110827 Cyclohexane
115297 Endosulfan
115322 Kelthane
117806 Dichlone
121211 Pyrethrin
121299 Pyrethrin
121448 Triethylamine
121755 Malathion
123626 Propionic anhydride
123864 n-Butyl acetate
123922 iso-Amyl acetate
124403 Dimethylamine
124414 Sodium methylate
127822 Zinc phenolsulfonate
133062 Captan
142712 Cupric acetate
143339 Sodium cyanide
151508 Potassium cyanide
298000 Methyl parathion
298044 Disulfoton
300765 Naled
301042 Lead acetate
309002 Aldrin
315184 Mexacarbate
329715 2,5-Dinitrophenol
330541 Diuron
333415 Diazinon
506774 Cyanogen chloride
506876 Ammonium carbonate
506967 Acetyl bromide
513495 sec-Butylamine
528290 o-Dinitrobenzene
540885 tert-Butyl acetate
541093 Uranyl acetate
542621 Barium cyanide
543908 Cadmium acetate
544183 Cobaltous formate
554847 m-Nitrophenol
557211 Zinc cyanide
557346 Zinc acetate
557415 Zinc formate
563122 Ethion
573568 2,6-Dinitrophenol
592018 Calcium cyanide
592041 Mercuric cyanide
592858 Mercuric thiocyanate
592870 Lead thiocyanate
625161 tert-Amyl acetate
626380 sec-Amyl acetate
628637 n-Amyl acetate
631618 Ammonium acetate
815827 Cupric tartrate
1066304 Chromic acetate
1066337 Ammonium bicarbonate
1072351 Lead stearate
1111780 Ammonium carbamate
1185575 Ferric ammonium citrate
1194656 Dichlobenil
1300716 Xylenol
1303282 Arsenic pentoxide
1303328 Arsenic disulfide
1303339 Arsenic trisulfide
1305620 Calcium hydroxide
1305788 Calcium oxide
1309644 Antimony trioxide
1310583 Potassium hydroxide
1310732 Sodium hydroxide
1314621 Vanadium pentoxide
1314803 Phosphorus pentasulfide
1314847 Zinc phosphide
1314870 Lead sulfide
1319773 Cresol (mixed)
1320189 2,4-D ester
1327533 Arsenic trioxide
1330207 Xylene
1332076 Zinc borate
1333831 Sodium bifluoride
1336216 Ammonium hydroxide
1336363 Polychlorinated biphenyls
1338245 Naphthenic acid
1341497 Ammonium bifluoride
1762954 Ammonium thiocyanate
1863634 Ammonium benzoate
1918009 Dicamba
1928387 2,4-D esters
1928478 2,4,5-T ester
1928616 2,4-D ester
1929733 2,4-D ester
2545597 2,4,5-T ester
2764729 Diquat
2921882 Chlorpyrifos
2944674 Ferric ammonium oxalate
2971382 2,4-D ester
3012655 Ammonium citrate, dibasic
3164292 Ammonium tartrate
3251238 Cupric nitrate
3486359 Zinc carbonate
5893663 Cupric oxalate
5972736 Ammonium oxalate
6009707 Ammonium oxalate
6369966 2,4,5-T ester
7428480 Lead stearate
7440235 Sodium
7446084 Selenium oxide
7446142 Lead sulfate
7447394 Cupric chloride
7558794 Sodium phosphate, dibasic
7601549 Sodium phosphate, tribasic
7631892 Sodium arsenate
7631905 Sodium bisulfite
7632000 Sodium nitrite
7645252 Lead arsenate
7646857 Zinc chloride
7647010 Hydrochloric acid
7647189 Antimony pentachloride
7664382 Phosphoric acid
7664393 Hydrofluoric acid
7664417 Ammonia
7664939 Sulfuric acid
7681494 Sodium fluoride
7681529 Sodium hypochlorite
7697372 Nitric acid
7699458 Zinc bromide
7705080 Ferric chloride
7718549 Nickel chloride
7719122 Phosphorus trichloride
7720787 Ferrous sulfate
7722647 Potassium permanganate
7723140 Phosphorus
7733020 Zinc sulfate
7758294 Sodium phosphate, tribasic
7758943 Ferrous chloride
7758954 Lead chloride
7758987 Cupric sulfate
7773060 Ammonium sulfamate
7775113 Sodium chromate
7778441 Calcium arsenate
7778509 Potassium bichromate
7778543 Calcium hypochlorite
7779864 Zinc hydrosulfite
7779886 Zinc nitrate
7782505 Chlorine
7782630 Ferrous sulfate
7782823 Sodium selenite
7782867 Mercurous nitrate
7783188 Ammonium thiosulfate
7783359 Mercuric sulfate
7783462 Lead fluoride
7783495 Zinc fluoride
7783508 Ferric fluoride
7783564 Antimony trifluoride
7784341 Arsenic trichloride
7784409 Lead arsenate
7784410 Potassium arsenate
7784465 Sodium arsenite
7785844 Sodium phosphate, tribasic
7786347 Mevinphos
7786814 Nickel sulfate
7787475 Beryllium chloride
7787497 Beryllium fluoride
7787555 Beryllium nitrate
7788989 Ammonium chromate
7789006 Potassium chromate
7789062 Strontium chromate
7789095 Ammonium bichromate
7789426 Cadmium bromide
7789437 Cobaltous bromide
7789619 Antimony tribromide
7790945 Chlorosulfonic acid
8001352 Toxaphene
10022705 Sodium hypochlorite
10025873 Phosphorus oxychloride
10025919 Antimony trichloride
10026116 Zirconium tetrachloride
10028225 Ferric sulfate
10028247 Sodium phosphate, dibasic
10039324 Sodium phosphate, dibasic
10043013 Aluminum sulfate
10045893 Ferrous ammonium sulfate
10045940 Mercuric nitrate
10049055 Chromous chloride
10099748 Lead nitrate
10101538 Chromic sulfate
10101630 Lead iodide
10101890 Sodium phosphate, tribasic
10102064 Uranyl nitrate
10102188 Sodium selenite
10102440 Nitrogen dioxide
10102484 Lead arsenate
10108642 Cadmium chloride
10124502 Potassium arsenite
10124568 Sodium phosphate, tribasic
10140655 Sodium phosphate, dibasic
10192300 Ammonium bisulfite
10196040 Ammonium sulfite
10361894 Sodium phosphate, tribasic
10380297 Cupric sulfate, ammoniated
10415755 Mercurous nitrate
10421484 Ferric nitrate
10588019 Sodium bichromate
11115745 Chromic acid
12002038 Cupric acetoarsenite
12054487 Nickel hydroxide
12125018 Ammonium fluoride
12125029 Ammonium chloride
12135761 Ammonium sulfide
12771083 Sulfur chloride
13597994 Beryllium nitrate
13746899 Zirconium nitrate
13765190 Calcium chromate
13814965 Lead fluoborate
13826830 Ammonium fluoborate

13952846 sec-Butylamine
14017415 Cobaltous sulfamate
14216752 Nickel nitrate
14258492 Ammonium oxalate
14307358 Lithium chromate
14307438 Ammonium tartrate
14639975 Zinc ammonium chloride
14639986 Zinc ammonium chloride
14644612 Zirconium sulfate
15699180 Nickel ammonium sulfate
16721805 Sodium hydrosulfide
16871719 Zinc silicofluoride
16919190 Ammonium silicofluoride
16923958 Zirconium potassium fluoride
25154545 Dinitrobenzene
25154556 Nitrophenol
25155300 Sodium dodecylbenzenesulfonate
25167822 Trichlorophenol
25168154 2,4,5-T ester
25168267 2,4-D ester
26264062 Calcium dodecylbenzenesulfonate
27176870 Dodecylbenzenesulfonic acid
27323417 Triethanolamine dodecylbenzenesulfonate
27774136 Vanadyl sulfate
28300745 Antimony potassium tartrate
30525894 Paraformaldehyde
36478769 Uranyl nitrate
37211055 Nickel chloride
42504461 Dodecylbenzenesulfonate isopropanolamine
52628258 Zinc ammonium chloride
52740166 Calcium arsenite
53467111 2,4-D ester
55488874 Ferric ammonium oxalate
61792072 2,4,5-T ester

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[6560-01]

[FRL 829-3]

PART 117—DETERMINATION OF REMOVABILITY OF HAZARDOUS SUBSTANCES

AGENCY: Environmental Protection Agency.

ACTION: Final rulemaking.

SUMMARY: This regulation establishes new rules for the determinination of the removability of hazardous substances as required under a provision of the Federal Water Pollution Control Act. This regulation should be read in conjunction with other new regulations for hazardous substances which are also being promulgated today in this same separate part of the FEDERAL REGISTER, and which designate hazardous substances, harmful quantities, and rates of penalty.

EFFECTIVE DATE: June 12, 1978, except for vessels. For vessels the effective date is September 11, 1978.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: On December 30, 1975, a document was published in the FEDERAL REGISTER (40 FR 59977) proposing to create a new part 117 in Title 40 of the Code of Federal Regulations. it was a proposed determination of actual removability under section 311(b)(2)(B)(i) of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) (the Act) for substances proposed as hazardous substances under Section 311(b)(2)(A) of the Act (40 FR 59960). At the same time, the designation of hazardous substances, determination of harmful quantities and determination of penalty rates were proposed as Parts 116, 118 and 119 respectively. Final promulgation of those regulations is concurrent with this rulemaking.

Interested persons were given until March 1, 1976 to submit written comments on all aspects of the proposed rules. Each of the comments received has been carefully considered in adopting the final rules which are promulgated at this time.

1. *Removability of oil-like substances.* A number of commenters expressed the opinion that certain of the proposed hazardous substances could actually be removed from the water after discharge. After reviewing the comments, physical-chemical data, and existing oil removal technology, it is agreed that some designated substances can actually be removed under most conditions of discharge. It is noted that these substances have limited water solubility, a relatively cohesive mass and are less dense than water. Thus, they resemble petroleum oils in their behavior when discharged to water. The substances can be described as those with specific gravities less than 1.0 and water solubility less than 1,000 mg/l. Accordingly, the final rule makes the determination that amyl acetate, ethylbenzene, xylene, allyl chloride, benzene, cyclohexane, isoprene, methyl methacrylate, styrene, and toluene can actually be removed.

2. *Definition of removability.* Many comments dealing with the question of removability expressed alternative interpretations from that proposed by the Agency. The basic issue is that section 311(a)(8) defines the term remove or removal as follows. "(8) 'remove or removal' refers to removal of the oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches."

It was recognized that for every substance it may be possible to take some action to minimize or mitigate damages to public health or welfare depending on the circumstances of the discharge. Thus, commenters argued that under this part of the definition of remove or removal, all substances should be determined to be removable.

However, section 311(b)(2)(B)(i) requires a determination whether any designated substance can *actually* be *removed* (emphasis added). The Agency's proposal stated that this determination of actual removability was separable from the definition of remove or removal found in Section 311(a)(8) and referred only to the actual physical, chemical, or biological separation of the substance from the water.

With regard to the question of actual removability, the chemical, physical, or biological separation of a pollutant from the water or shorelines depends upon the hydrological characteristics of the receiving water at least as much as upon the properties of the substances. In general a substance when discharged to a contained water body of limited size often can actually be removed to some degree from that water body or shoreline. On the other hand, such substances when discharged to a large free flowing water body cannot, in general, be effectively separated from the water. Often it is the water body and other circumstances surrounding the discharge that dictate the success of attempts to actually remove the substance. However section 311 requires that the determination of actual removability be made with respect to designated substances rather than receiving water bodies. In addition, section 311 also applies to discharges to the shorelines of the navigable waters. Discharges of designated substances which result in contaminated shorelines can nearly always be physically or chemically removed to some degree from the shoreline. Thus, for substances other than those identified as actually removable, there is no clear *a priori* determination of removability which will satisfy *all* potential discharge situations. In effect, many substances are only partially removable and therefore also partially nonremovable. As stated in the proposed rulemaking, the intent of section 311 and the implementing regulations is the prevention of discharges of hazardous substances. A determination that all substances are actually removable would negate the incentives for cleaner operation and more careful handling provided by the civil penalties in those circumstances where discharges, while subject to mitigation, cannot be actually removed. Therefore, the Agency has determined that the most satisfactory definition, and the one which best satisfies the congressional intent, is to define oil-like hazardous substances as actually removable, and to define other, less generally removable hazardous substances, as not actually removable. Such non-oil-like hazardous substances can on occasion be partially removed from the water or adjoin-