Docket No. A-92-60 Primary Aluminum NESHAP Category II Items Considered in Developing Proposal Subcategory II-A EPA Studies or Contractor Reports

<u>Document No.</u> <u>Description</u>

	
II-A-1	Air pollution control in the primary aluminum industry, EPA-450/3-73-004a, vol. I, Singmaster & Breyer, sections 1-10, July 23, 1973.
II-A-2	Background Information for Standards of Performance: Primary Aluminum Industry, vol. I, Proposed Standards, EPA:OAQPS, EPA 450/2-74-020a, October 1974.
II-A-3	Background Information for Standards of Performance: Primary Aluminum Industry, vol. II, Test Data Summary, EPA:OAQPS, EPA 450/2-74-020b, October 1974.
II-A-4	Background Information for Standards of Performance: Primary Aluminum Industry, vol. III, Supplemental Information, EPA:OAQPS, EPA 450/2-74-020c, January 1976.
II-A-5	Primary Aluminum: Background Information for Proposed Amendments, EPA:OAQPS, EPA 450/2-78-025a, August 1978.
II-A-6	Guidelines for Control of Fluoride Emissions from Existing Primary Aluminum Plants, EPA:OAQPS, EPA-450/2-78-049b, December 1979.
II-A-7	Primary Aluminum: Background Information for Promulgated Amendments, EPA:OAQPS, EPA 450/3-79-026, March 1980.
II-A-8	Review of New Source Performance Standards for Primary Aluminum Reduction Plants, EPA:OAQPS, EPA-450/3-86-010, September 1986.
II-A-9	Handbook: Control Technologies for Hazardous Air Pollutants, EPA:ORD, EPA-625/6-86-014, September 1986, pp. 80-87.
II-A-10	Primary Aluminum: Statistical Analysis of Potline Fluoride Emissions and Alternate Sampling Frequency, EPA:OAQPS, EPA-450/3-86-012, October 1986.

Docket No. A-92-60 Primary Aluminum NESHAP Category II Items Considered in Developing Proposal Subcategory II-A EPA Studies or Contractor Reports

Document No.	<u>Description</u>
II-A-11	Summary Review of Health Effects Associated with Hydrogen Fluoride and Related Compounds: Health Issue Assessment, EPA:ECAO, EPA 600/8-89-002F, December 1988.
II-A-12	OAQPS Control Costs Manual, EPA:OAQPS, EPA 450/3-90-006, January 1990, pp. 5-1 - 5-54
II-A-13	Documentation for Developing the Initial Source Category List, EPA:OAQPS, EPA-450/3-91-030, July 1992, pp. 3-4 and A-6.
II-A-14	Hydrogen Fluoride Study: Report to Congress under Section 112(n)(6) of the Clean Air Act as amended, EPA:CEPPO, EPA 550-R-93-001, September 1993.
II-A-15	Industry Profile for the Primary Aluminum MACT (Revised Draft), prepared by E.H. Pechan & Associates, Inc., EPA contract no. 68-D1-0144, September 24, 1993.
II-A-16	Emissions Measurement Test Report: Methylene Chloride Extractable Organic Sampling, Northwest Aluminum Company, The Dalles, Oregon, prepared by Entropy, Inc. for EPA:EMB, March 1994.
II-A-17	Deposition of Air Pollutants to the Great Waters: First Report to Congress. EPA:OAQPS. EPA-453/R-93-055. May 1994.
II-A-18	Guidelines for MACT Determinations under Section 112(j). EPA:OAQPS. EPA 453/R-94-026. May 1994. p. 50.
II-A-19	Primary Aluminum Industry - Draft Technical Support Document for Proposed MACT Standard (Preliminary Review Draft). EPA:OAQPS. February 1995.
II-A-20	Economic Impact Analysis for the Primary Aluminum MACT, EPA:OAQPS, April 1996. 77 pp.

Items Considered in Developing Proposal Subcategory II-B EPA Factual Memoranda

Document No. **Description** II-B-1 J. Cole, Research Triangle Institute, to S. Fruh, EPA:ISB, January 30, 1992, Site visit report for Alumax of South Carolina. II-B-2 C. Matthiessen, EPA:CEPP, to J. Cole, February 14, 1992, Transmitting information on HF detectors. II-B-3 P. Lowen, Research Triangle Institute, to S. Fruh, EPA:ISB, June 10, 1992, Summary of literature search (references attached). II-B-4 K. Ours, Research Triangle Institute, to docket, September 30, 1993, Summary of information for information collection request (ICR)-1 and ICR-2. P. Lowen, Research Triangle Institute, to S. Fruh, EPA:ISB, August 11, 1992, II-B-5 Summary of state and local regulations applicable to primary aluminum facilities. II-B-6 P. Lowen, Research Triangle Institute, to S. Fruh, EPA:ISB, November 20, 1992, site visit report - Vanalco, Inc., Vancouver, Washington. II-B-7 K. Ours, Research Triangle Institute, to S. Fruh, EPA:ISB, October 15, 1993, Model processes for the primary aluminum production industry. II-B-8 T. Harrison, EPA:EMB, to S. Fruh, EPA:ISB, July 13, 1994, Evaluation of side work prebake roof monitor scrubber outlet emission sampling and analysis procedures at Eastalco and Intalco. II-B-9 S. Fruh, EPA:PPSG, to Docket, July 22, 1996, Memorandum regarding industry cost estimates for primary aluminum MACT standards.

Docket No. A-92-60
Primary Aluminum NESHAP
Category II
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EPA Factual Memoranda

Document No.

Description

Category II Items Considered in Developing Proposal Subcategory II-C

EPA Correspondence to Outside Persons

Description

Document No.

	
II-C-1	R. Russell, EPA:Region X, to F. Rufner, Columbia Aluminum Corporation, August 12, 1988, Approval of application for a revised PSD permit for primary aluminum reduction facility in Goldendale, Washington.
II-C-2	J. Crowder, EPA:ISB, to E. Massad, Alumax of South Carolina, January 1992, Requesting site visit.
II-C-3	K. Durkee, EPA:ISB, to R. Carwile, The Aluminum Association, January 17, 1992, Confirming upcoming meeting (agenda attached).
II-C-4	J. Cole, Research Triangle Institute, to E. Keul, ABB Environmental - Norway, February 6, 1992, Requesting information on control system emissions and costs.
II-C-5	J. Cole, Research Triangle Institute, to G. Wedde, ABB Environmental - Norway, February 26, 1992, Requesting control device removal efficiency data.
II-C-6	J. Crowder, EPA:ISB, to G. Scott, Intalco Aluminum Corporation (mailing list for addressees attached), March 18, 1992, Requesting site visit.
II-C-7	S. Fruh, EPA:ISB, to R. Carwile, The Aluminum Association, May 15, 1992, Requesting review of generic information collection request.
II-C-8	B. Jordan, EPA:ESD, to G. Crouth, Aluminum Company of America (mailing list attached), June 19, 1992, Transmitting Section 114 generic information collection request for primary aluminum manufacturing (questionnaire and enclosures attached).
II-C-9	J. Crowder, EPA:ISB, to G. Crouth, Aluminum Company of America (mailing list for addressees attached), July 6, 1992, Requesting site visit.

Category II Items Considered in Developing Proposal Subcategory II-C

<u>Document No.</u>	<u>Description</u>
II-C-10	J. Crowder, EPA:ISB, to F. Rufner, Columbia Aluminum Corporation (mailing list for addressees attached), August 13, 1992, Requesting site visit.
II-C-11	J. Crowder, EPA:ISB, to The Aluminum Association, November 1992 (no cover letter attached), Voluntary followup information collection request for primary aluminum manufacturing for transmittal to industry representatives (questionnaire and mailing list attached).

Items Considered in Developing Proposal

Subcategory II-D EPA Correspondence from Outside Persons

Document N	<u>Description</u>
II-D-1	R. Carwile, The Aluminum Association, to J. Weigold, EPA:ESD, July 12, 1991, Discussing framework for categorization of industry operations.
II-D-2	C. Kirkland, Alumax of South Carolina, to J. Cole, Research Triangle Institute, January 22, 1992, Providing costs information for Lauralco primary control equipment.
II-D-3	D. Doyle, Wheelabrator Air Pollution Control, to J. Cole, Research Triangle Institute, February 5, 1992, Enclosing vendor literature on monitoring and control technology for potlines and bake furnaces.
II-D-4	R. Carwile, The Aluminum Association, to J. Cole, Research Triangle Institute, February 13, 1992, Transmitting information on plant processes.
II-D-5	J. Johnson, Intalco Aluminum Corporation, to J. Cole, Research Triangle Institute, February 18, 1992, Clarifying use of dry scrubber for anode forming.
II-D-6	R. Hall, Maryland Department of the Environment, to D. Chester, Research Triangle Institute, February 21, 1992, Transmitting 1991 study, "Interim Report on the Fluoride Surveillance Program at Buckeystown, Maryland."
II-D-7	R. Keltz, Montana Air Quality Branch, to D. Chester, Research Triangle Institute, received 1992, Transmitting third-quarter 1991 fluoride emissions report for Columbia Falls Aluminum Company.
II-D-8	G. Wedde, ABB Environmental-Norway, to J. Cole, Research Triangle Institute, February 25, 1992, Transmitting emissions and cost data per request.

Category II Items Considered in Developing Proposal Subcategory II-D

Document N	o. <u>Description</u>
II-D-9	B. Fanska, Missouri Department of Natural Resources, to D. Chester, Research Triangle Institute, February 26, 1992, Enclosing information from 1986 Missouri air toxics survey.
II-D-10	G. Wedde, ABB Environmental-Norway, to J. Cole, Research Triangle Institute, February 28, 1992, Providing followup information on control efficiency and proposed emission guarantees.
II-D-11	G. Scott, Intalco aluminum Corporation, to J. Cole, Research Triangle Institute, March 31, 1992, Enclosing additional information on process, work procedures, costs, controls, and emissions.
II-D-12	T. Dickey, Reynolds Aluminum, to D. Chester, Research Triangle Institute, April 21, 1992, Enclosing data on Longview plant regarding work practices, emission test results, capital and annual costs, employee monitoring, control equipment, and owner's manual for wet electrostatic precipitators (see note to docket for engineering drawings).
II-D-13	C. Taylor, Reynolds Metals Company, to D. Chester, Research Triangle Institute, May 22, 1992, Enclosing additional information on Longview plant including emission test results for PAH and other pollutants, control equipment, and work practices.
II-D-14	J. Steward, Eastalco Aluminum Company, to B. Jordan, EPA:ESD, August 5, 1992, Transmitting response to generic Section 114 information collection request.
II-D-15	K. Sands, NSA - a division of Southwire Company, to B. Jordan, EPA:ESD, August 6, 1992, Transmitting response to generic Section 114 information collection request.

Category II Items Considered in Developing Proposal Subcategory II-D

<u>Document No.</u>	<u>Description</u>
II-D-16	S. DuBois, Alcan Rolled Products Company, to B. Jordan, EPA:ESD, August 7, 1992, Transmitting response to generic Section 114 information collection request.
II-D-17	G. Crouth, Aluminum Company of America, to S. Fruh, EPA:ISB, August 7, 1992, Transmitting responses to generic Section 114 information collection request for Massena Operations, Tennessee Operations, Wenatchee Works, Badin Works, and Rockdale Works (note to confidential file attached).
II-D-18	G. Scott, Intalco Aluminum Corporation, to B. Jordan, EPA:ESD, August 7, 1992, Transmitting response to generic Section 114 information collection request.
II-D-19	R. Pulley, Alumax of South Carolina, to B. Jordan, EPA:ESD, August 10, 1992, Transmitting response to generic Section 114 information collection request.
II-D-20	D. Ryan, Columbia Falls Aluminum Company, to S. Fruh, EPA:ISB, August 11, 1992, Transmitting response to generic Section 114 information collection request.
II-D-21	G. Graban, Ravenswood Aluminum Corporation, to B. Jordan, EPA:ESD, August 12, 1992, Transmitting response to generic Section 114 information collection request.
II-D-22	D. Hart, Noranda Aluminum, Inc., to B. Jordan, EPA:ESD, August 20, 1992, Transmitting response to generic Section 114 information collection request.
II-D-23	K. Nadermann, Reynolds Metals Company, to B. Jordan, EPA:ESD, August 24, 1992, Transmitting response to generic Section 114 information collection request for Longview plant.

Category II Items Considered in Developing Proposal Subcategory II-D

<u>Document No.</u>	<u>Description</u>
II-D-24	Reynolds Metals Company, to EPA (no cover letter attached), August 31, 1992, Responses to generic Section 114 information collection request for Messena and Troutdale plants.
II-D-25	T. Adamowicz, Ormet Corporation, to B. Jordan, EPA:ISB, August 31, 1992, Transmitting response to generic Section 114 information collection request.
II-D-26	G. Crouth, Aluminum Company of America, to S. Fruh, EPA:ISB, August 31, 1992, Transmitting response to generic Section 114 information collection request for Warrick plant (note to confidential file attached).
II-D-27	J. Flaherty, Kaiser Aluminum, to S. Fruh, EPA:ISB, August 31, 1992, Transmitting responses to generic Section 114 information collection requests for Mead and Tacoma plants (2 volumes attached).
II-D-28	F. Rufner, Columbia Aluminum Corporation, to B. Jordan, EPA:ESD, September 18, 1992, Transmitting response to generic Section 114 information collection request.
II-D-29	G. May, Northwest Aluminum Company, to S. Fruh, EPA:ISB, September 22, 1992, Transmitting response to generic Section 114 information collection request.
II-D-30	L. McLellan, Vanalco, to S. Fruh, EPA:ISB, October 15, 1992, Transmitting response to generic Section 114 information collection request.

Category II Items Considered in Developing Proposal Subcategory II-D

Document No.	<u>Description</u>
II-D-31	Aluminum Company of America, to EPA (no cover letter attached), January 23, 1993, Responses to followup information collection requests for Tennessee Operations (including separate test report attachments for carbon plant and ingot furnace), Warrick Operations, Messena Ingot Plant, Wenatchee Plant, Badin Works, and Rockdale Plant (note to confidential file attached).
II-D-32	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ISB, January 28, 1993, Commenting on Mead and Tacoma data sets in December 1992 draft NESHAP document and enclosing gaseous fluoride potline data for the period January 1988-November 1992.
II-D-33	J. Flaherty, Kaiser Aluminum, to S. Fruh, EPA:ISB, January 29, 1993, Enclosing responses to followup information collection request for Mead and Tacoma plants.
II-D-34	M. Tanchuk, Reynolds Metals Company, to S. Fruh, EPA:ISB, January 29, 1993, Commenting on emissions data contained in draft primary aluminum document for Longview, Troutdale, and Massena plants.
II-D-35	R. Pulley, Alumax of South Carolina, to S. Fruh, EPA:ISB, February 1, 1993, Enclosing response to followup information collection request.
II-D-36	J. Michaelson, Intalco Aluminum Corporation, to S. Fruh, EPA:ISB, February 1, 1993, Enclosing response to followup information collection request.
II-D-37	D. Hart, Noranda Aluminum, Inc., to S. Fruh, EPA:ISB, February 2, 1993, Enclosing response to followup information collection request.
II-D-38	S. DuBois, Alcan Rolled Products Company, to S. Fruh, EPA:ISB, February 3, 1993, Enclosing response to followup information collection request.

Category II Items Considered in Developing Proposal Subcategory II-D

<u>Document No.</u>	<u>Description</u>
II-D-39	S. Ojala, Vanalco, Inc., to S. Fruh, EPA:ISB, February 4, 1993, Enclosing response to followup information collection request.
II-D-40	D. Backfisch, Noranda Aluminum Inc., to S. Fruh, EPA:ISB, February 5, 1993, Enclosing corrected fluoride emission results for generic Section 114 information collection request.
II-D-41	K. Sands, NSA-A Division of Southwire Company, to S. Fruh, EPA:ISB, February 9, 1993, Enclosing response to followup information collection request.
II-D-42	P. Bronchetti, Reynolds Metals Company, to S. Fruh, EPA:ISB, February 23, 1993, Enclosing response to followup information collection request for Massena plant (note to confidential file attached).
II-D-43	K. Nadermann, Reynolds Metals Company, to S. Fruh, EPA:ISB, February 25, 1993, Enclosing response to followup information collection request for Longview plant (note to confidential file attached).
II-D-44	R. Winnes, Reynolds Metals Company, to S. Fruh, March 1, 1993, Enclosing response to followup information collection request for Troutdale plant (note to confidential file attached).
II-D-45	D. Ryan, Columbia Falls Aluminum Company, to EPA (no cover letter attached), received March 17, 1993, Response to followup information collection request.
II-D-46	M. Tanchuk, Reynolds Metals Company, to S. Fruh, EPA:ISB, March 30, 1993, Stating that total direct and indirect operating cost figures contained in response to followup information collection request are not confidential business information.

Document No.	<u>Description</u>
II-D-47	R. Carwile, The Aluminum Association, to S. Fruh, EPA:ISB, April 16, 1993, Alerting EPA of approval of Alcan roof sampling method for primary potline roofs as alternative to Method 14.
II-D-48	G. May, Northwest Aluminum Company, to S. Fruh, EPA:ISB, May 4, 1993, Enclosing response to followup information collection request.
II-D-49	J. Steward, Eastalco Aluminum Company, to S. Fruh, May 6, 1993, Enclosing response to followup information collection request.
II-D-50	G. Graban, Ravenswood Aluminum Corporation, to S. Fruh, EPA:ISB, May 7, 1993, Enclosing response to followup information collection request (note to confidential file attached).
II-D-51	F. Rufner, Columbia Aluminum Corporation, to S. Fruh, EPA:ISB, May 12, 1993, Enclosing response to followup information collection request.
II-D-52	M. Tanchuk, Reynolds Metals Company, to S. Fruh, EPA:ISB, May 19, 1993, Transmitting PAH data for soderberg and prebake plants.
II-D-53	J. Reggi, Ormet Corporation, to S. Fruh, EPA:ISB, June 16, 1993, Enclosing response to followup information collection request (note to confidential file attached).
II-D-54	D. Ryan, Columbia Falls Aluminum Company, to S. Fruh, EPA:ISB, September 9, 1993, Discussing subcategorization and emission sampling and analyses.
II-D-55	D. Ryan, Columbia Falls Aluminum Company, to S. Fruh, EPA:ISB, September 15, 1993, Transmitting information on total fluoride emissions by potline for period of January 1989 - December 1992.

<u>Document No.</u>	<u>Description</u>
II-D-56	D. Ryan, Columbia Falls Aluminum Company, to S. Fruh, EPA:ISB, October 4, 1993, Transmitting roof monitor cost information.
II-D-57	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ISB, October 20, 1993, Discussing sampling methods at Mead and Tacoma plants.
II-D-58	M. Palazzolo, Aluminum Company of America, to R. Segall, EPA:EMB, June 3, 1994, Requesting review of test plan for evaluation of an eight-point sampling manifold and IMS system at Newburgh, Indiana facility.
II-D-59	M. Tanchuck, Reynolds Metals Company, to S. Fruh, EPA:ESD, June 6, 1994, Providing information on cost of emission reduction at St. Lawrence plant with a new dry/wet scrubbing system.
II-D-60	D. Ryan, Columbia Falls Aluminum Company, to K. Durkee, EPA:ESD, June 8, 1994, Providing information on work practices and capital improvements affecting emissions.
II-D-61	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ISB, June 15, 1994, Providing information on secondary or roof emissions from smelters and control costs.
II-D-62	W. Wooster, Columbia Aluminum Corporation, to K. Durkee, EPA:ISB, June 21, 1994, Response to MACT work practices questionnaire as solicited through the Aluminum Association.
II-D-63	H. Givens, Alcan Ingot, to K. Durkee, EPA:ISB, June 21, 1994, Response to MACT work practices questionnaire for Sebree plant as solicited through the Aluminum Association.

Document No.	<u>Description</u>
II-D-64	T. Russell, Entropy, Inc., to L. Williams, The Aluminum Association, July 1, 1994, Enclosing final emission test report for Northwest Aluminum Company and discussion of POM method with summary tables (POM enclosure attached; for final test report, see II-I-25 and II-I-26).
II-D-65	R. Logan, Ravenswood Aluminum Corporation, to S. Fruh, EPA:ESD, July 26, 1994, Response to EPA request for information on cost of achieving emission reductions.
II-D-66	Kaiser Aluminum, Ravenswood Aluminum, and Reynolds Metals Company, to EPA:OAQPS (no cover letter attached), July 27, 1994, Enclosing "Development of Clean Air Act Amendments 112(d) Hazardous Air Pollutant Standards for the Primary Aluminum Industry: Proposal for Setting Standards for Horizontal Stud Soderberg and Centerwork Prebake - 2 Subcategories."
II-D-67	H. Hays, Reynolds Metals Company, to S. Fruh, EPA:ISB, July 29, 1994, Providing information in response to issues and questions from June 6th meeting and to request for cost estimates.
II-D-68	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ISB, August 25, 1994, Enclosing analysis indicating no correlation between POM and TF at Tacoma plant.
II-D-69	W. Wooster, Columbia Aluminum Corporation, to T. Mix, Washington Department of Ecology, and S. Fruh, EPA:ISB, August 26, 1994, Enclosing fluoride emission data for each potline.
II-D-70	B. Leber, Kaiser Aluminum, to M. Branscome, Research Triangle Institute, September 14, 1994, Enclosing gaseous fluoride data corresponding to total fluoride data previously submitted.

<u>Document No.</u>	<u>Description</u>
II-D-71	T. Mix, Washington Department of Ecology, to S. Fruh, EPA:ISB, September 16, 1994, Enclosing individual potline fluoride emissions data for Reynolds, Intalco, and Alcoa-Wenatchee.
II-D-72	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ISB, September 22, 1994, Enclosing final report for sampling at Tacoma Works and a report on plant operations during testing (for final reports, see II-I-29 and II-I-30).
II-D-73	B. Leder, Kaiser Aluminum, to S. Fruh, EPA:ISB, October 28, 1994, Enclosing materials on total fluoride as the basis for potroom standards and the implications for gaseous fluoride monitoring to be discussed at November meeting with EPA.
II-D-74	D. Hart, Noranda Aluminum, Inc., to S. Fruh, EPA:ISB, November 8, 1994, Attaching TF and GF data for West potroom group roof for 1993 and 1994 along with historical TF and GF data for anode bake furnace.
II-D-75	B. Leber, Kaiser Aluminum and Chemical Corporation, to S. Fruh, EPA:ESD, November 11, 1994, Transmitting final emission test report for Mead Works and report on plant operations during testing (for final test reports, see II-I-33 and II-I-34).
II-D-76	L. Williams, The Aluminum Association, to S. Fruh, EPA:ISB, November 22, 1994, Enclosing issue paper on use of wet roof scrubbers.
II-D-77	J. S. Loran, et al., St. Regis Mohawk Tribe, to Administrator Browner, December 8, 1994, Expressing concern at EPA failure to invite Tribe to participate in Share-A-Mact meetings.

Items Considered in Developing Proposal Subcategory II-D

Document No.	<u>Description</u>
II-D-78	W. Wooster, Columbia Aluminum Corporation, to S. Fruh, EPA:ESD, January 3, 1995, Discussing paste plant emissions (for report enclosure, see II-I-32).
II-D-79	D. Hart, Noranda Aluminum, to S. Fruh, EPA:ESD, January 13, 1995, Enclosing final emission test report and discussing results.
II-D-80	J. Griffin, Norsk Hydro, to S. Fruh, EPA:ESD, January 17, 1995, HF monitoring system.
II-D-81	R. Pulley, Alumax, to M. Branscome, Research Triangle Institute, February 13, 1995, Transmitting bake oven scrubber emission sampling results.
II-D-82	H. Givens, Alcan Ingot, to M. Branscome, Research Triangle, February 14, 1995, Enclosing petition submitted to EPA to establish equivalency between Alcan Cassette Method and EPA Method 14.
II-D-83	G. Scott, Intalco Aluminum Corporation, to M. Branscome, Research Triangle Institute, February 16, 1995, Enclosing computer run of all data from potline dry system and potline wet scrubber system for 1990-1993.

Document No.	<u>Description</u>
II-D-84	R. Strieter, The Aluminum Association, to S. Fruh, EPA: ESD, March 14, 1995, Commenting on draft meeting summary and emission averaging provisions.
II-D-85	W. Hill, Southwire Company, to M. McKeever, EPA:ESD, May 23, 1995, Discussing request for subcategory for producers of high purity/conductivity aluminum.

Category II Items Considered in Developing Proposal Subcategory II-D

<u>Document No.</u>	<u>Description</u>
II-D-86	R. Strieter, The Aluminum Association, to S. Fruh, EPA:ESD, January 23, 1995, Enclosing paper on monitoring options for review ("Enhanced Monitoring Proposal for Potroom Sources" attached.)
II-D-87	R. Strieter, The Aluminum Association, to S. Fruh, EPA:ESD, April 7, 1995, Enclosing issue papers for review ("Generic MACT Issues" and "MACT Structure" for subcategories attached).
II-D-88	J. Privitera, McNamee, Lochner, Titus & Williams, to S. Fruh, EPA:ESD, April 21, 1995, Comments on draft technical support document for proposed MACT standards with attached letter from L. Benedict, St. Regis Mohawk Tribe, commenting on standards.
II-D-89	D. Hart, Noranda Aluminum, to S. Fruh, EPA:ESD, April 28, 1995, Transmitting data on 3, 6, and 12 month average for compliance with longterm average for potline number 3 roof (attached).
II-D-90	R. Strieter, The Aluminum Association, to S. Fruh, EPA:ESD, May 1, 1995, Commenting on draft technical support document for proposed MACT standards.
II-D-91	C. Kucera, Alumax Inc., to S. Fruh, EPA:ESD, May 24, 1995, Commenting on Mt. Holly data and statistical distribution, reduced monitoring frequency, liquid pitch tank control, wet scrubber sampling, automatic analyzers for fluoride, and wet scrubber freeze-up (attachments include: (1) Potline roof monitor fluoride data, 1992-1994; (2) correspondence on reduced monitoring dry scrubbers from EPA Region IV and the South Carolina Department of Health and Environmental Control with enclosures, including "Characterization of Fluoride Emissions from a Primary Aluminum Plant and Justification of a Reduced Performance Test Frequency" by Radian Corporation; (3) Federal Register notice of approval for alternative

Category II Items Considered in Developing Proposal Subcategory II-D

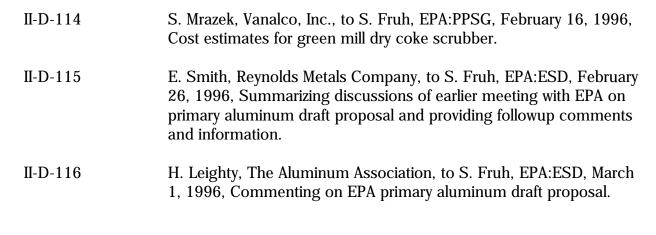
Document No.	<u>Description</u>
	method; (4) ASTM D 3270-80, Standard Method of Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method); and (5) "Measurement of Emissions from Pitch Storage Tanks", by General Engineering Laboratories, Inc.)
II-D-92	K. Sands, NSA, to S. Fruh, EPA:ESD, May 30, 1995, Discussing liquid pitch handling.
II-D-93	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ESD, May 30, 1995, Discussing transfer and storage of heated liquid pitch.
II-D-94	D. Hart, Noranda Aluminum, to S. Fruh, EPA:ESD, May 31, 1995, Discussing liquid pitch transfer operations.
II-D-95	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ESD, May 31, 1995, Enclosing updated total fluoride emissions data from Mead and Tacoma by Methods 13 and 14 (attached).
II-D-96	D. Ryan, Columbia Falls Aluminum Company, to S. Fruh, EPA:ESD, June 5, 1995, Discussing liquid pitch transfer and storage.
II-D-97	Washington Department of Ecology, to S. Fruh, EPA:ESD, June 5, 1995, Comments on EPA's draft technical support document for the development of MACT standards for the primary aluminum industry.
II-D-98	R. Strieter, The Aluminum Association, to S. Fruh, EPA:ESD, June 23, 1995, Enclosing potroom emissions paper, "Estimation of Primary Collection Efficiency of New or Retrofit Hooding for Primary Aluminum Cells".
II-D-99	R. Strieter, The Aluminum Association, to S. Fruh, EPA:ESD, August 16, 1995, Enclosing comments on draft proposed rule for emissions from primary aluminum reduction plants (attachments include: (1)

Recommended language revisions to draft preamble; (2) Paper, "Analysis of the $\,$

Document No.	<u>Description</u>
	Characteristics of Total Fluoride Emissions from U.S. Aluminum Plants" by C. James Sample, Ph.D; (3) Statistical Basis for Potline Emission Standard.
II-D-100	S. Clark, Texas Natural Resource Conservation Commission, to S. Fruh, EPA:OAQPS, September 13, 1995, Enclosing comments on issues for draft primary aluminum MACT standard (attached).
II-D-101	G. Green, Oregon Department of Environmental Quality, to S. Fruh, EPA:ESD, November 21, 1995, Commenting on draft primary aluminum MACT standard.
II-D-102	Washington Department of Ecology (no cover letter attached), to S. Fruh, EPA:ESD, September 22, 1995, Comments on draft primary aluminum MACT rule package.
II-D-103	Washington Department of Ecology (no cover letter attached), to S. Fruh, EPA:ESD, September 22, 1995 (received), Preliminary review of health effects associated with aluminum smelter emissions.
II-D-104	NSA (no cover letter atttached), to S. Fruh, EPA:ESD, September 26, 1995, Comments on basis and purpose document for the development of proposed standards for the primary aluminum industry.
II-D-105	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ESD, November 6, 1995, Discussing data analysis for HSS and CWPB2 subcategories (data and analyses attached).

II-D-106	W. Wooster, Columbia Aluminum Corporation, to S. Fruh, EPA:ESD, November 7, 1995, Primary and secondary TF results in lb/tap, and projected MACT compliance values.
II-D-107	D. Hart, Noranda Aluminum, Inc., to S. Fruh, EPA:ESD, November 8, 1994, Transmitting TF and GF data for west potroom group roof for 1993-1994
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Document No.	<u>Description</u>
	with historical TF and GF data for anode bake furnace no. 3 (attached).
II-D-108	W. Wooster, Columbia Aluminum Corporation, to S. Fruh, EPA:ESD, November 29, 1995, Enclosing position paper on VSS1 standard (attached).
II-D-109	E. Smith, Reynolds Metals Company, to S. Fruh, EPA:ESD, December 5, 1995, Attaching press release summarizing agreement with St. Regis Mohawk Tribe to resolve environmental dispute.
II-D-110	Inahare, Oregon Department of Environmental Quality, to S. Fruh, EPA:ESD, December 5, 1995, Transmitting Reynold's method, "Potroom Roof Vent Monitoring at Troutdale Plant" (attached).
II-D-111	B. Leber, Kaiser Aluminum, to S. Fruh, January 4, 1996, Discussing use of "t" statistic rather than "z" statistic for data analyses.
II-D-112	D. Ryan, Columbia Falls Aluminum Company, to T. Harrison, EPA:EMC, January 17, 1996, Enclosing POM potroom data from room 9 roof vent.
II-D-113	E. Smith, Reynolds Metals Company, to S. Fruh, EPA:ESD, February

12, 1996, Commenting on primary aluminum MACT draft proposal.



Document No.	<u>Description</u>
II-D-117	B. Leber, Kaiser Aluminum, to S. Fruh, EPA:ESD, March 1, 1996, Enclosing total fluoride data for HSS potline at Tacoma.
II-D-118	G. Prescott, Longview Federated Aluminum Council, to S. Fruh, EPA:ESD, March 1, 1996, Commenting on EPA primary aluminum draft proposal.
II-D-119	R. Strieter, The Aluminum Association, to S. Fruh, EPA:ESD, April 4, 1996, Enclosing primary aluminum cost analysis prepared by C.J. Sample entitled, "Findings from a Survey of Aluminum Companies of the Projected Costs of Compliance with the Proposed EPA Primary Aluminum MACT Rulemaking".

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Subcategory II-E EPA Memoranda and Telephone Conversations with Outside Persons

Document N	o. <u>Description</u>
II-E-1	J. Cole, Research Triangle Institute, to S. Fruh, EPA:ISB, January 31, 1992, Meeting of EPA/RTI and Aluminum Association representatives.
II-E-2	P. Lowen, Research Triangle Institute, to S. Fruh, EPA:ISB, January 27, 1993, Meeting with Aluminum Association representatives.
II-E-3	P. Lowen, Research Triangle Institute, to S. Fruh, EPA:ISB, February 24, 1993, Meeting with Aluminum Association representatives.
II-E-4	P. Lowen, Research Triangle Institute, to S. Fruh, EPA:ISB, March 26, 1993, Meeting with Aluminum Association representatives.
II-E-5	D. Johnston, Research Triangle Institute, to docket, May 19, 1993, Summary of telephone conversation with Ron Logan, Ravenswood Aluminum Corporation, regarding potline current efficiency and data sources.
II-E-6	K. Ours, Research Triangle Institute, to S. Fruh, EPA:ISB, April 29, 1994, Summary of meeting with Hydro Aluminum representatives (vendor brochure attached).
II-E-7	K. Ours, Research Triangle Institute, to S. Fruh, EPA:ISB, May 20, 1994, Summary of meeting with aluminum industry representatives.
II-E-8	K. Ours, Research Triangle Institute, to S. Fruh, EPA:ISB, July 6, 1994, Summary of meeting with Columbia Falls Aluminum Company representatives.
II-E-9	K. Ours, Research Triangle Institute, to S. Fruh, EPA:ISB, July 15, 1994, Summary of meeting with aluminum industry representatives.
II-E-10	K. Ours, Research Triangle Institute, to S. Fruh, EPA:ISB, August 10, 1994, Summary of meeting with aluminum industry representatives.

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Document No.	<u>Description</u>
II-E-11	K. Ours and M. Branscome, Research Triangle Institute, to S. Fruh, EPA:OAQPS, November 7, 1994, Summary of meeting with aluminum industry representatives.
II-E-12	K. Ours and M. Branscome, Research Triangle Institute, to S. Fruh, EPA:OAQPS, November 21, 1994, Summary of meetings with Columbia Falls Aluminum Company.
II-E-13	K. Ours and M. Branscome, Research Triangle Institute, to S. Fruh, EPA:OAQPS, November 21, 1994, Summary of meeting with aluminum company representatives.
II-E-14	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, February 3, 1995, Meeting summary Alcoa, Hydro, Entropy, and EPA to discuss continuous emission monitoring tests.
II-E-15	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, March 22, 1995, Meeting summary aluminum company representatives and EPA to discuss the MACT test program results.
II-E-16	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PSSG, March 30, 1995, Meeting summary Aluminum Association, State Partners, and EPA to discuss options for enhanced monitoring.
II-E-17	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PSSG, May 11, 1995, Meeting summary Aluminum Association, State Partners, and EPA to discuss primary aluminum MACT.
II-E-18	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PSSG, June 14, 1995, Meeting summary Aluminum Association, State Partners, and EPA to discuss primary aluminum MACT.

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with Outside Persons

<u>Document No.</u>	<u>Description</u>
II-E-19	J. King, EPA:OAQPS, to files, September 27, 1995, Summary of telephone conversation with R. Coley, Bureau of the Census.
II-E-20	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, January 16, 1996, Meeting summary Aluminum Association, State Partners, and EPA to discuss data for small center-worked prebake potlines (CWPB2).
II-E-21	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, January 16, 1996, Meeting summary Aluminum Association, State Partners, and EPA to discuss primary aluminum MACT.
II-E-22	S. Fruh, EPA:ESD, to Attendees, September 30, 1994, Summary of Presumptive MACT meeting for primary aluminum Share-A-MACT.
II-E-23	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, May 13, 1996, Summary of EPA/The Aluminum Association meeting to discuss primary aluminum MACT.
II-E-24	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, May 13, 1996, Summary of EPA/The Aluminum Association meeting to discuss primary aluminum MACT.

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Document No.

Description

- II-H-1 M. Nichols, EPA:OAQPS, to D. Gardiner, EPA:OPPE, March 29, 1996, Materials for submittal to U.S. Office of Management and Budget (draft preamble, rule, Basis and Purpose Document, SF-83/supporting statement, and E.O. 12866 and E.O 12612 certifications attached).
- II-H-2 Proposed preamble, rule, and Basis and Purpose Document, signed August 22, 1996

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Document No.

Description

II-H-2 Proposed preamble, rule, and Basis and Purpose Document, signed August 22, 1996.

Docket No. A-92-60 Primary Aluminum NESHAP Category II Items Considered in Developing Proposal Subcategory II-I Reference Materials

Document No. **Description** II-I-1 State air rules and permit data for Washington, Maryland, Oregon, Tennessee, West Virginia, New York, Texas, Ohio, North Carolina, and South Carolina, undated. II-I-2 Evolution of Fluoride Recovery Processes Alcoa Smelters, C. Cook and G. Swany, Light Metals, vol. 2, 1971, pp. 465-477. II-I-3 Operating Experience with the Alcoa 398 Process for Fluoride Recovery, C. Cook et al., Aluminum Company of America, Journal of the Air Pollution Control Association, vol. 21, no. 8, August 1971, pp. 479-483. II-I-4 Air Pollution Abatement on Primary Aluminum Potlines: Effectiveness and Cost, D. Rush et al., Journal of the Air Pollution Control Association, vol. 23, no. 2, 1973, pp. 98-104. II-I-5 Recovery of Hydrogen Fluoride Fumes on Alumina in Aluminum Smelting, C.N. Cochran, Alcoa Laboratories, Environmental Science and Technology, vol. 8, no. 1, January 1974, pp. 63-66. II-I-6 Fluoride Emissions Control: Updated Costs for New Aluminum Reduction Plants, International Primary Aluminum Institute Environmental Committee Report, February 1985, Chapters 8-10, 6 pp. II-I-7 Capital and Operating Cost Estimating System Handbook for Aluminum Smelter Facilities, U.S. Department of the Interior, Bureau of Mines, August 1985. 196 pp.

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Document No.

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II-I-8 An Overview of the Guidelines Section I: Potential Environmental Impacts by Fluorides and Other Major Pollutants, Y. Lallement, Aluminum Pechiney, In: United Nations Environment Programme/ International Primary Aluminum Institute Multi-Regional Training Workshop on Environmental Management of Aluminum Smelters in Cooperation with The Dubai Aluminum Company Limited (Dubal), Dubal City, United Arab Emirates, December 8-9, 1986, pp. 68-88. II-I-9 External Problems and Measures for their Control: Fluorides, Coal Tar Pitch Volatiles, SO_v, NO_v, Dust, etc., P. Atkins, Aluminum Company of America, In: United Nations Environment Programme/ International Primary Aluminum Institute Multi-Regional Training Workshop on Environmental Management of Aluminum Smelters in Cooperation with The Dubai Aluminum Company Limited (Dubal), Dubal City, United Arab Emirates, December 8-9, 1986, pp. 89-116. II-I-10 Emission Control Technologies: ABB Flakt Systems for the Primary Aluminum Industry, G. Wedde, ABB Environmental, 1990, 16 pp. II-I-11 Toxicological Profile for Polycyclic Aromatic Hydrocarbons, U.S. Department of Health & Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, TP-90-20. December 1990. II-I-12 Annual Report: Aluminum, Bauxite, and Alumina, P. Plunkert and E. Sehnke, U.S Department of the Interior, Bureau of Mines, 1991.

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II-I-13	Printout of Toxic Release Inventory System for primary aluminum plants for reporting year 1990, EPA, February 6, 1992.
II-I-14	Letter, R. Schultz, Kaiser Aluminum, to M. McCall, Washington Department of Ecology, Cell hooding efficiency evaluation, August 28, 1992.
II-I-15	Total Fluoride Emission Assessment submitted by the aluminum industry, 1993.
II-I-16	Retrofit of a Wet Scrubber to Reduce PAH Emissions from HSS Soderberg Potlines, R. Gariepy, Alcan Smelters & Chemicals Limited, In: Light Metals, S. Das, ed., The Minerals, Metals & Materials Society, 1993, pp. 425-430.
II-I-17	Toxicological profile for fluorides, hydrogen fluoride, and fluorine (F), U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, TP-91/17, April 1993.
II-I-18	Letter, R. Schultz, Kaiser Aluminum, to T. Mix, Washington Department of Ecology, Quarterly report for notice of violation and order No. DE 90-I084, October 12, 1993.
II-I-19	Cost Evaluation of Possible MACT for the Primary Aluminum Industry, ABB Environmental Services, Inc., prepared for National Southwire Aluminum Company, November 1993, 12 pp.
II-I-20	Potroom survey and scrubber inspection summaries, G. Greenland, Kaiser Aluminum Company, Mead Works, November 1993.
II-I-21	Letter, M. Sawatzky, Kaiser Aluminum, to T. Mix, Washington Department of Ecology, Final report on cell hooding efficiency evaluation, November 3, 1993.

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Document N	<u>Description</u>
II-I-22	Letter, D. Sage, Columbia Aluminum Corporation, to D. Reif, Washington Department of Ecology, Monitoring report for October 1993 NPDES permit no. WA000054-0 and air discharge permit no. PSD-X 88-0, November 15, 1993.
II-I-23	Letter, W. Wooster, Columbia Aluminum Corporation, to T. Mix, Washington Department of Ecology, PSD permit cell line compliance monitoring and work practices, March 2, 1994.
II-I-24	Emission test report, Northwest Aluminum Company, The Dalles, Oregon, prepared by Entropy, Inc. for Northwest Aluminum Company and The Aluminum Association, June 1994.
II-I-25	Emission test report, Northwest Aluminum Company, The Dalles, Oregon, prepared by Entropy, Inc. for Northwest Aluminum Company and The Aluminum Association, Appendix G, Additional Information, June 1994.
II-I-26	Emission test report, Northwest Aluminum Company, The Dalles, Oregon, prepared by Entropy, Inc. for Northwest Aluminum Company and The Aluminum Association, Appendix H, Additional Statistics and Air Tests from NWA, June 1994.
II-I-27	Measurements of $\mathrm{CF_4}$ and $\mathrm{C_2F_6}$ in the Emissions from Aluminum Smelters, H. Schiff et al., Unisearch Associates, Inc, no. 94-TA37.02, 87th annual meeting and exhibition, Air & Waste Management Association, Cincinnati, Ohio, June 19-24, 1994.
II-I-28	Letter, W. Wooster, Columbia Aluminum, to T. Mix, Washington Department of Ecology, August 26, 1994, Enclosing data for each potline.
II-I-29	Emission test report, Method 5/POM and 13B Testing, vol. I, Kaiser Aluminum and Chemical Corporation, Tacoma, Washington, March 1-8, 1994, prepared by AmTest Air Quality, Inc. for Kaiser Aluminum, September 14, 1994.

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Document No. Description II-I-30 Emission test report, Method 5/POM and 13B Testing, vol. II, Kaiser Aluminum and Chemical Corporation, Tacoma, Washington, March 1-8, 1994, prepared by AmTest Air Quality, Inc. for Kaiser Aluminum, September 14, 1994. II-I-31 The Norwegian Aluminum Industry and the Local Environment, Hydro Aluminum, Elkem Aluminum, Sor-Norge Aluminum, and the Norwegian Research Council. November 1994. II-I-32 Emission test report, Multiple Metals and Semi-Volatile Organic Compounds Testing - Paste Plant HEAF Unit Stack, Columbia Aluminum Corporation, Goldendale, Washington, September 1, 1994, prepared by AmTest Air Quality, Inc., November 3, 1994. II-I-33 Emission test report, Method 5/POM and 13B Testing, Kaiser Aluminum and Chemical Corporation, Mead, Washington, March 15-24, 1994, vol. I, prepared by AmTest Air Quality, Inc., November 9, 1994. II-I-34 Emission test report, Method 5/POM and 13B Testing, Kaiser Aluminum and Chemical Corporation, Mead, Washington, March 15-24, 1994, vol. II, prepared by AmTest Air Quality, Inc., November 9, 1994. II-I-35 Emission test report, Method 5/POM and 13B Testing of Anode Bake Furnace, Kaiser Aluminum and Chemical Corporation, Mead, Washington, May 2-5, 1994, prepared by AmTest Air Quality, Inc. for Washington Department of Ecology, December 12, 1994. II-I-36 Brochure, Fluoride Emissions Reductions and High Purity History, NSA - A Division of Southwire Company, January 1995.

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<u>Document N</u>	o. <u>Description</u>
II-I-37	Emission test report, Method 5/POM and 13B Testing, Noranda Aluminum, Inc., New Madrid, Missouri, September 14-20, 1994, vol. I, prepared by Amtest Air Quality, Inc., January 10, 1995.
II-I-38	Emission test report, Method 5/POM and 13B Testing, Noranda Aluminum, Inc., New Madrid, Missouri, September 14-20, 1994, vol. II, prepared by Amtest Air Quality, Inc., January 10, 1995.
II-I-39	Emission test report, Method 5/POM and 13B Testing, Noranda Aluminum, Inc., New Madrid, Missouri, September 14-20, 1994, vol. III, prepared by Amtest Air Quality, Inc., January 10, 1995.
II-I-40	Printout, Integrated Risk Information System, Hydrogen fluoride. U.S. Environmental Protection Agency, March 8, 1995.
II-I-41	Printout, Integrated Risk Information System, Polycyclic organic matter. U.S. Environmental Protection Agency, March 10, 1995.
II-I-42	Text, Industrial Ventilation: A Manual of Recommended Practice, Chapters 3 and 5. American Conference of Governmental Industrial Hygienists, 22nd ed., 1995.

Items Considered in Developing Proposal Subcategory II-I

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Document No. Description II-I-43 Scarcity, Energy, and Economic Progress, F. Banks, Lexington Books, D.C. Heath and Company, Lexington, Massachusetts, Toronto, Ontario, Canada, 1977, pp. 157, 178. II-I-44 Bauxite and Aluminum: An Introduction to the Economics of Nonfuel Minerals, F. Banks, Lexington Books, D.C. Heath and Company, Lexington, Massachusetts, Toronto, Canada, 1979, p. 90. II-I-45 Annual Review of the World Aluminum Industry, Shearson Lehman/American Express, London, England, 1985, pp. 1-4, 29-31, 33-37, 39-41, 43-47, 49-53, 80-81. II-I-46 Aluminum, F. McCawley and L. Baumgardner, Mineral Facts and Problems, U.S. Department of Interior, Bureau of Mines, bulletin no. 675, 1985, pp. 1-31. II-I-47 Prices, L. Baumgardner and R. Hough, 1986 Minerals Yearbook, vol. I, U.S. Department of Interior, Bureau of Mines, 1987, 1 pg. II-I-48 Prices, L. Baumgardner and R. Hough, 1987 Minerals Yearbook, vol. I, U.S. Department of Interior, Bureau of Mines, 1988, 1 pg. II-I-49 Typical Electric Bills, U.S. Department of Energy, Energy Information Administration, DOE/EIA-0040(88), 1988, p. 296. II-I-50 Prices, L. Baumgardner and R. Hough, 1988 Minerals Yearbook, vol. I, U.S. Department of Interior, Bureau of Mines, 1989, 1 pg. II-I-51 Prices, P. Plunkert and R. Hough, Bauxite and Alumina Minerals Yearbook-1988, U.S. Department of Interior, Bureau of Mines, 1990, p. 157. II-I-52 Price Prospects for Major Primary Commodities: 1990-2005, vol. I, The World Bank, 1990, p. 162-173.

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Document N	To. <u>Description</u>
II-I-53	Technical Study to Compare and Evaluate Aluminum Production Cost Data, Resource Strategies, Inc., prepared for Bonneville Power Administration, July 1990, 85 pp.
II-I-54	Metals - Nonferrous, Industry Surveys, Standard & Poor's, August 30, 1990, p. M78.
II-I-55	Prices, E. Sehnke and P. Plunkert, Bauxite, Alumina, and Aluminum Minerals Yearbook-1989, U.S. Department of Interior, Bureau of Mines, 1991, p. 151.
II-I-56	Aluminum Statistical Review-1991, The Aluminum Association, 1992, pp. 2, 12, 26.
II-I-57	Primary Aluminum, Ward's Business Directory, Gale Research Inc., Arsen J. Darnay (ed.), 1992, p. 355.
II-I-58	Aluminum, Bauxite, and Alumina, P. Plunkert and E. Sehnke, U.S. Department of Interior, Bureau of Mines, 1992, pp. 183-222.
II-I-59	U.S. Aluminum Industry Plant Directory, The Aluminum Association, 3rd ed., March 1992, pp. i-iii, 1-12.
II-I-60	The U.S. Pacific Northwest Aluminum Industry: An Economic and Financial Analysis, 1960-1990, S. Kusaka, U.S. Department of Energy, Bonneville Power Administration, paper presented to Mineral Economics and Management Society Annual Conference, Washington, D.C., March 19-21, 1992, 29 pp.
II-I-61	Aluminum, Bauxite, and Alumina, P. Plunkert and E. Sehnke, U.S. Department of the Interior, Bureau of Mines, 1993, 24 pp.
II-I-62	Aluminum Statistical Review-1992, The Aluminum Association, 1993, pp. 4-6, 11-14, 21-27, 30-38, 40-46, 61-63.

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II-I-64	Primary aluminum company profiles: Aluminum Company of America, Kaiser Aluminum and Chemical Corporation, and Reynolds Metals Company, UMI/Data Courier, New York, New York, 1993, 3 pp.
II-I-65	Aluminum, Bauxite, and Alumina, 1991 Annual Report, P. Plunkert and E. Sehnke, U.S. Department of the Interior, Bureau of Mines, January 1993, 48 pp.
II-I-66	Aluminum: More of the Same, J. Moberly, Engineering and Mining Journal, vol. 194, no. 3, March 1993, pp. 39-40.
II-I-67	Aluminum Minimills, P. Taft, Nonferrous Metals Industry Report, InfoTrac General Business File, March 23, 1993, pp. 1-9, 17-19, 23, 25.
II-I-68	The Primary Aluminum Industry in the Commonwealth of Independent StatesPart III, S. Manaktala, Journal of Minerals, Metals, and Materials Society, May 1993, pp. 22-24.
II-I-69	Midyear Outlook: Recovery May Take Nearly Two Years, R. Holder, American Metal Market, July 1993, 1 pg.
II-I-70	Aluminum, Industry Surveys, Standard & Poor's, December 9, 1993, pp. 75-80.
II-I-71	Aluminum, U.S. Industrial Outlook, U.S. Department of Commerce, January 1994, pp. 13-4 - 13-6.
II-I-72	The Russian Primary Aluminum Industry at the Beginning of 1994, G. Ferard, Light Metal Age, February 1994, pp. 16-19.

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II-I-74	Smelting and Refining of Nonferrous Metals and Alloys, 1992 Census of Manufactures, MC92-I-33C(P), U.S Department of Commerce, Bureau of the Census, May 1994, pp. ii-iii, 33C-1, 33C-2, 33C-4, 33C-5, A-1 - A-3, 1-20, 1-21, 1-33, 1-42, 1-51, 1-60.
II-I-75	Metals-Nonferrous, Standard & Poor's Industry Surveys, vol. 162, no. 31, August 4, 1994, pp. M61-M64, M68.
II-I-76	The Aluminum Situation, The Aluminum Association, January 1995, 4 pp.
II-I-77	The Variable Industrial Power Rate in the Pacific Northwest Aluminum Industry, S. Kusaka, paper presented to Association of Major Power Consumers of Ontario and Ontario Hydro, Toronto, Ontario, Canada, February 3, 1995, 21 pp.
II-I-78	Aluminum: Price Instability to Stay, J. Moberly, Engineering and Mining Journal (from Business Index, Fuqua School of Business), vol. 196, no. 3, March 1995, p. 58.
II-I-79	Aluminum, Standard & Poor's Industry Reports, May 1995, p. 9
II-I-80	Table, Model plant capacities, M. Branscome, Research Triangle Institute, July 13, 1995, 1 pg.
II-I-81	Emission test report, Method 5/POM and 13B Testing: Wet Room Scrubber Fans 9 and 12, Columbia Aluminum Corporation, Goldendale, Washington, November 29 - December 2, 1994, vol. I, prepared by AmTest Air Quality, Inc., October 5, 1995.

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II-I-83	Test method, Standard practice for evaluation of air assay media by the monodisperse DOP (dioctyl phthalate) smoke test, American Society for Testing and Materials, D 2986-95, March 1995.

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Document No	o. <u>Description</u>
II-J-1	39 FR 37730, October 23, 1974, Standards of performance for new stationary sources: primary aluminum plants; proposed rule.
II-J-2	41 FR 3826, January 26, 1976, Standards of performance for new stationary sources: primary aluminum plants; final rule.
II-J-3	43 FR 42186, September 19, 1978, Standards of performance for new stationary sources: primary aluminum industry; proposed rule.
II-J-4	45 FR 44202, June 30, 1980, Standards of performance for new stationary sources: primary aluminum industry; final rule.
II-J-5	34 FR 7032, February 17, 1983, Nonferrous metals manufacturing point source category: effluent limitations guidelines, pretreatment standards, and new source performance standards; proposed rule.
II-J-6	49 FR 6458, February 21, 1984, Standards of performance for new stationary sources: metallic mineral processing plants; final rule.
II-J-7	47 FR 8742, March 8, 1984, Nonferrous metals manufacturing point source category: effluent limitations guidelines, pretreatment standards, and new source performance standards; final rule.
II-J-8	51 FR 44643, December 11, 1986, Standards of performance for new stationary sources: primary aluminum industry; review of standards.
II-J-9	53 FR 35412, September 13, 1988, Hazardous waste management system; identification and listing of hazardous waste; and designation, reportable quantities, and notification: final rule.

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Document No.	<u>Description</u>
II-J-10	57 FR 31576, July 16, 1992, U.S. Environmental Protection Agency; initial list of categories of sources under section 112(c) of the Clean Air Act Amendments of 1990.
II-J-11	57 FR 44147, September 24, 1992, U.S. Environmental Protection Agency; availability of draft schedule for the promulgation of emission standards.
II-J-12	58 FR 35338, June 30, 1993, Occupational Safety and Health Administration; final rule for exposure limits.
II-J-13	58 FR 63941, December 3, 1993, U.S. Environmental Protection Agency; notice of the source category schedule for standards.
II-J-14	59 FR 21126, April 25, 1994, Unified Agenda of Federal Regulations; NESHAP for primary aluminum plants.
II-J-15	60 FR 11722, March 2, 1995, U.S. Environmental Protection Agency; Phase III land disposal restrictions - decharacterized wastewaters, carbamate and organobromine wastes, and spent potliners.

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Notice of Proposed Rulemaking

Document No.

Description

III-A-1 61 FR 50586, September 26, 1996, National emission standards for hazardous air pollutants for source categories; national emission standards for hazardous air pollutants for primary aluminum reduction plants: proposed rule and notice of public hearing.

Docket No. A-92-60
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Support Document

Document No.

Description

III-B-1 Primary Aluminum Industry: Technical Support Document for Proposed MACT Standards, EPA:OAQPS, July 1996.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-A Additional EPA Studies or Contractor Reports

Document No.

Description

IV-A-1 Field Evaluation of Hydrogen Fluoride Continuous Monitoring Systems for Fugitive Emissions from Primary Aluminum Potrooms: Final Report, prepared by Midwest Research Institute, prepared for EPA:EMC, EPA Contract No. 68-D2-0165, September 30, 1996, 300 pp.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-B Additional EPA Factual Memoranda

Document No.

Description

- IV-B-1 M.R. Branscome, Research Triangle Institute, to Docket A-92-60, August 15, 1997, Analysis of POM emission data for the VSS2 subcategory.
- IV-B-2 G. Wood, EPA:EMB, to J. Harper, EPA:Region IV, June 22, 1990, June 22, 1990, Proposed fluoride test method by Alcan Ingot and Recycling near Sebree, Kentucky.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-B Additional EPA Factual Memoranda

Document No.

Description

IV-B-2 G. Wood, EPA:EMB, to J. Harper, EPA:Region IV, June 22, 1990, June 22, 1990, Proposed fluoride test method by Alcan Ingot and Recycling near Sebree, Kentucky.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-C EPA Correspondence to Outside Persons

Document No. IV-C-1 S. Fruh, EPA:PPSG, to Docket A-92-60, April 17, 1997, Draft materials sent to States with primary aluminum plants and Aluminum Association (attached). IV-C-2 S. Fruh, EPA:PPSG, to Docket A-92-60, May 12, 1997, Draft preamble and rule sent to States with primary aluminum plants and Aluminum Association (attached). IV-C-3 W. Lamason, EPA:EMC, to R. Streiter, The Aluminum Association, March 7, 1996, Discussing report by Aluminum Association Task Force subgroup on Alcan Cassette Method.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-C EPA Correspondence to Outside Persons

Document No.

Description

IV-C-3 W. Lamason, EPA:EMC, to R. Streiter, The Aluminum Association, March 7, 1996, Discussing report by Aluminum Association Task Force subgroup on Alcan Cassette Method.

Docket: A-92-60 Category: IV-D

Additional comments received (including any correspondence from persons outside EPA whether or not labeled as public comments

		public comments	
<u>Document</u>	Date Rcvd in	Commentor, Addressee, Title or	Date of
<u>Number</u>	<u>Docket</u>	<u>Description, etc.</u>	<u>Document</u>
IV-D-01	11-26-96	A.E. Boomhower, Regulatory Services Coordinator, Amoco Corporation, Chicago, IL	11-22-96
IV-D-02	11-22-96	C. Kucera, Director, Environmental Affairs, Alumax Inc., Norcross, GA	11-18-96
IV-D-03	11-25-96	E.C. Smith, Manager, Air Quality, Reynolds Metals Company, Richmond, VA	11-22-96
IV-D-04	11-25-96	G.M. Graban, Manager, Environmental Affairs, Ravenswood Aluminum Corporation, Ravenswood, WV	11-19-96
IV-D-05	11-25-96	S. Wright, Environmental Manager, Columbia Falls Aluminum Company, Columbia Falls, MT	11-21-96
IV-D-06	11-25-96	M.J. Wax, Ph.D., Deputy Director, Institute of Clean Air Companies, Washington, DC	11-22-96
IV-D-07	11-22-96	S.J. Mrazek, Air Program Coordinator, Vanalco Inc., Vancouver, WA	11-21-96
IV-D-08	11-25-96	R.P. Strieter, Director, Environmental Affairs, The Aluminum Association, Washington, DC	11-25-96
IV-D-09	11-27-96	R.H. Colby, Chair, ALAPCO Air Toxics Committee and B.M. Higgins, Chair, STAPPA Air Toxics Committee Washington, DC	11-27-96
IV-D-10	11-29-96	R.H. Carwile, Manager, Air Programs, Aluminum Company of America, Pittsburgh, PA	11-27-96
IV-D-11	11-29-96	K. Fugiel, AmTest, Inc., Redmond, WA	11-14-96

Document Number	Date Rcvd in Docket	Commentor, Addressee, Title or Description, etc.	Date of Document
IV-D-12	12-02-96	J.R. Williams, Program Manager, Air Quality Program, State of Washington, Department of Ecology, Olympia, WA	11-25-96
IV-D-13	12-03-96	W.E. Wooster, Environmental Manager, Goldendale Aluminum Company, Goldendale, WA	11-22-96
IV-D-14	11-27-96	D.M. Flannery, Law Offices Robinson & McElwee, Charleston, WV	11-21-96
IV-D-15	12-04-96	C. Campbell, Technical Director, Cement Kiln Recycling Coalition, Washington, DC	11-25-96
IV-D-16	12-18-96	B.M. Higgins, Air Toxics Coordinator, Department of Environmental Quality, State Of Louisiana, Baton Rouge, LA	12-05-96

Docket No. A-92-60 Primary Aluminum NESHAP

Category IV

Additional Items Considered After Proposal Subcategory IV-E

EPA Memoranda of Meetings and Telephone Conversations

Document N	<u>Description</u>
IV-E-1	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, November 26, 1996, Summary of EPA/Aluminum Association meeting to discuss primary aluminum MACT.
IV-E-2	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, February 17, 1997, Summary of EPA/Aluminum Association conference call meeting.
IV-E-3	M. Branscome, Research Triangle Institute, to S. Fruh, EPA:PPSG, April 14, 1997, Summary of EPA/State Agency conference call meeting (draft briefing and issues paper on consolidation and streamlining of environmental regulations attached).

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-G Late Comments Received

<u>Document No.</u>	<u>Description</u>
IV-G-1	S. Wright, Columbia Falls Aluminum Company, to S. Fruh, EPA:PPSG, August 11, 1997, Attaching analysis of POM emission test data for primary system in lb/ton of aluminum.
IV-G-2	S. Wright, Columbia Falls Aluminum Company, to S. Fruh, EPA:PPSG, August 12, 1997, Attaching POM results for July 1997.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-H Interagency Review Materials

Document No.

Description

IV-H-1

National emission standards for hazardous air pollutants for primary aluminum reduction plants: final rule, background information for promulgated standards: summary of public comments and responses, and OMB 83-I/supporting statement, signed September 19, 1997.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-I Reference Materials

Document No. Description IV-I-1 Method, Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test, D 2986-95a, American Society for Testing and Materials, 1995. IV-I-2 Test report, Columbia Falls Aluminum Company, Columbia Falls, Montana, prepared by Am Test-Air Quality, December 9, 1996, pp. 1-43. IV-I-3 Test report, Columbia Falls Aluminum Company, Columbia Falls, Montana, prepared by Am Test-Air Quality, May 8, 1997, pp. 1-53. IV-I-4 Test report, Columbia Falls Aluminum Company, Columbia Falls, Montana, prepared by Am Test-Air Quality, January 24, 1997, pp. 1-51. IV-I-5 Report, Potroom roof equivalency testing: Alcan Cassette versus EPA Methods 13/14, H. Givens, Alcan Ingot and Recycling Sebree Plant, March 8, 1990, 21 pp. IV-I-6 Letter, H. Givens, Alcan Ingot and Recycling, to G. Slucher, Kentucky Natural Resources and Environmental Protection Cabinet. Division for Air Quality, May 25, 1990, Enclosing series of modified calculations and the adjusted values for the Alcan Cassette test method. IV-I-7 Letter, J. Saaid, Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality, to H. Givens, Alcan Ingot and Recycling, July 12, 1990, Acknowledging approval of Alcan Fluoride Cassette test method for use in place of Method 14. IV-I-8 Article, Aluminum smelter roof vent monitoring the Alcan Cassette Method a long-term comparative evaluation with EPA's Method 14, H. Givens, Alcan Ingot, Air & Waste, vol. 44, July 1994, pp. 861-62.

Docket No. A-92-60 Primary Aluminum NESHAP Category IV Additional Items Considered After Proposal Subcategory IV-I Reference Materials

Description

Document No.

IV-I-5 Report, Potroom roof equivalency testing: Alcan Cassette versus EPA Methods 13/14, H. Givens, Alcan Ingot and Recycling Sebree Plant, March 8, 1990, 21 pp. IV-I-6 Letter, H. Givens, Alcan Ingot and Recycling, to G. Slucher, Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality, May 25, 1990, Enclosing series of modified calculations and the adjusted values for the Alcan Cassette test method. IV-I-7 Letter, J. Saaid, Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality, to H. Givens, Alcan Ingot and Recycling, July 12, 1990, Acknowledging approval of Alcan Fluoride Cassette test method for use in place of Method 14. IV-I-8 Article, Aluminum smelter roof vent monitoring the Alcan Cassette Method a

Ingot, Air & Waste, vol. 44, July 1994, pp. 861-62.

long-term comparative evaluation with EPA's Method 14, H. Givens, Alcan

Docket No. A-92-60
Primary Aluminum NESHAP
Category V
Final Action
Subcategory V-A
Notice of Rulemaking

Document No.

Description

V-A-1 62 FR 52384, October 7, 1997, National emission standards for hazardous air pollutants; national emission standards for hazardous air polluants for primary aluminum reduction plants: final rule.

Docket No. A-92-60
Primary Aluminum NESHAP
Category V
Final Action
Subcategory V-B
Final Support Document

Document No.

Description

V-B-1 National emission standards for hazardous air pollutants (NESHAP) for primary aluminum reduction plants-background information for promulgated standards, summary of public comments and responses, August 1997, 55 pp. (See Docket Item IV-H-1 for a copy of this document.)

Docket No. A-92-60
Primary Aluminum NESHAP
Category VI
Reconsideration
Subcategory VI-B
New Factual Materials

<u>Docket No.</u>	<u>Description</u>
VI-B-1	Letter, R. Strieter, The Aluminum Association, to S. Fruh, EPA:OAQPS:ESD:PPSG, November 26, 1997, Proposing technical amendments to the Primary Aluminum NESHAP.
VI-B-2	Letter, R. Strieter, The Aluminum Association, to S. Fruh, EPA:OAQPS:ESD:PPSG, December 17, 1998, Proposing technical amendments to the Primary Aluminum Production NESHAP.