

EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category I Review of Standards Subcategory I-A EPA Studies and Contractor Reports OFFICIAL Idez Hackot 88-38 (Moter poors for Herns FR through IF-J Come from OREPS version which is OREPS version is Incomplete betweends bettere

Document No.

#### Description

I-A-1

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I-A-3

Background information--proposed national emission standards standards for hazardous air pollutants: asbestos, beryllium, mercury, EPA:OAP, December 1971.

- Final report on development of an analytical method for chrysotile and amphibole asbestos in spraycoat and cementitious materials, Battelle Columbus Laboratories, EPA Contract No. 68-02-0230, April 30, 1974.
- Supplement No. 10 for compilation of air pollutant emission factors, 3rd edition (including supplements 1-7), AP-42, U.S. EPA, February 1980.
- I-A-4 Asbestos-containing materials in school buildings: guidance for asbestos analytical programs, EPA:OPTS, EPA-560/13-80-017, June 1980, 63 pp.

I-A-5

Interim method for the determination of asbestos in bulk insulation samples, Research Triangle Institute, prepared for EPA:OPTS, EPA contract no. 68-02-3431, October 1981, 52 pp.

I-A-6

Bulk sample analysis for asbestos content: evaluation of the tentative method, E. P. Brantly et. al., RTI, Contract No. 68-02-3222, October 1981.

EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category I Review of Standards Subcategory I-I Reference Material

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I-I-1

Transmission Electron Microscopical methods for the Determination of Asbestos, I. M. Stewart, Walter C. McCrone Associates, Proceedings of workshop on asbestos: definitions and measurement methods, National Bureau of Standards, United States Department of the interior, November 1978, pp. 271-280.

### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review . Category II Items Considered in Developing Proposal Subcategory II-A EPA Studies and Contractor Reports

Document No.

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II-A-1

Handbook of fabric filter technology. vol. I. fabric filter systems study, GCA Corporation, Prepared for National Air Pollution Control Administration, Contract No. CPA 22-69-38, December 1970, pp. 6-83 and 6-98.

II-A-2

Background information on development of national emission standards for hazardous air pollutants: asbestos, beryllium, and mercury, EPA:OAQPS, EPA publication no. APTD-1503, March 1973, 97 pp.

II-A-3

Assessment of particle control technology for enclosed asbestos sources: phase I, ITT Research Institute, Prepared for EPA Office of Research and Development, EPA contract no. 68-02-1353, EPA-650/2-74-088, October 1974, 126 pp.

II-A-4 Background information on national emission standards for hazardous air pollutants: proposed amendments to standards for asbestos and mercury, EPA:0AQPS, EPA-450/2-74-009a, October 1974, 140 pp.

II-A-5 Standards support document: promulgated amendments to the national emission standard for asbestos, EPA:OAQPS, EPA-450/2-77-030, June 1978, 20 pp.

II-A-6 Evaluation of asbestos removal technologies, PEDCo Environmental, Inc., Prepared for EPA:IERL, EPA contract no. 68-02-3173, November 1981, 119 pp.

- II-A-7 Guidance for controlling friable asbestos-containing materials in buildings, EPA:OPTS, EPA-560/5-83-002, March 1983, 75 pp.
- II-A-8 Compilation of air pollution emission factors. Section 11.2, Fugitive dust sources. EPA Publication No. AP-42, May 1983, 19 pp.
- II-A-9 Asbestos in buildings: a national survey of asbestoscontaining friable materials, EPA:OTS, EPA 560/5-84-006, October 1984, 235 pp.
- II-A-10 Asbestos waste management guidance, EPA:OSW, EPA/530-SW-85-007, May 1985, 32 pp.

II-A-1

EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-A EPA Studies and Contractor Reports

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II-A-11 Asbestos emission estimates for milling, manufacturing, fabricating, demolition, renovation, and waste disposal, EPA: Emission Standards Division, October 25, 1988, 45 pp.

II-A-12

Asbestos content in bulk insulation samples: visual estimates and weight composition, EPA:OPTS, EPA-560/5-88-011, September 1988, 20 pp.

### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-8 EPA Factual Memoranda

Document No.

#### Description

- II-B-1 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, February 3, 1981, Trip report: initial plant visit to Southern Textile Corporation, Charlotte, North Carolina.
- II-B-2 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, April 1, 1981, Trip report: visit to LCP Chemicals, Solvay, New York.
- II-B-3 L. Conrad, Research Triangle Institute, to J. Copeland, EPA:ISB, April 10, 1981, Trip report: visit to Calaveras Asbestos, Copperopolis, California.
- II-B-4 L. Conrad, Research Triangle Institute, to J. Copeland, EPA:ISB, April 16, 1981, Trip report: visit to Union Carbide Corporation, King City, California.
- II-B-5 L. Conrad, Research Triangle Institute, to J. Copeland, EPA:ISB, April 30, 1981, Johns-Manville Corporation, Denison, Texas.
- II-B-6 L. Conrad, Research Triangle Institute, to J. Copeland, EPA:ISB, May 6, 1981, Trip report: visit to GAF Corporation, Whitehall, Pennsylvania.
- II-B-7 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, June 1, 1981, Trip report: visit to Johns-Manville Corporation, Waukegaw, Illinois (see attached note to confidential file).
- II-B-8 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, October 14, 1981, Trip report: visit to Bendix Corporation, Cleveland, Tennessee.

II-B-9 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, July 30, 1982, Trip report: visit to W. W. Nash & Sons, Inc., Richmond, Virginia.

II-B-10 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, July 30, 1982, Trip report: visit to Wayne County Health Department, Detroit, Michigan.

### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-B EPA Factual Memoranda

Document No.

#### Description

II-B-11

M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, July 30, 1982, Trip report: visit to Little Creek Amphibious Base, Norfolk, Virginia.

II-B-12

M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, August 13, 1982, Trip report: visit to Fountain Avenue Landfill, New York City Department of Sanitation, New York City, New York.

- II-B-13 L. Conrad, Research Triangle Institute, to J. Copeland, EPA:ISB, August 23, 1982, Trip report: visit to Kent County Memorial Hospital, Windsor Locks, Rhode Island.
- II-B-14 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, September 20, 1982, Trip report: visit to Demolition Jobs in New York, New York.
- II-B-15 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, October 4, 1982, Trip report: visit to SCA Chemical Services, Inc., Pinewood, South Carolina.

II-B-16 L. Conrad, Research Triangle Institute, to Asbestos file, November 16, 1982, Trip report: visit to Broughton Hospital, Morganton, North Carolina.

- II-B-17 M. Laney, Research Triangle Institute, to J. Copeland, EPA:ISB, December 8, 1982, Trip report: visit to U.S. Marine Corps Air Station, Cherry Point, North Carolina.
- II-B-18 L. Conrad, Research Triangle Institute, to J. Copeland, EPA:ISB, January 17, 1983, Trip report: visit to Murdoch Center, Butner, North Carolina.
- II-B-19 L. Conrad, Research Triangle Institute, to Asbestos Files, March 29, 1983, Trip report: visit to Wichita Public Schools, Wichita, Kansas.

II-B-20 R. Shigehara, EPA:ESED, to G. Wood, EPA:ESED, August 7, 1985, The EPA test method for measuring asbestos in bulk sample.

### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-B EPA Factual Memoranda

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### **Description**

II-B-21	M. Laney, RTI, to J. Copeland, EPA:ISB, March 21, 1986, Baghouse operations and malfunction in the asbestos industry.
II-B-22	J. Turner, RTI, to J. Copeland, EPA:ISB, April 29, 1986, Baghouses with high inlet loadings.
II-B-23	M. Laney, RTI, to J. Copeland, EPA:ISB, and S. Roy, EPA:SDB, May 2, 1986, Density of segregated asbestos waste and mixed demolition waste.
II-B-24	F. Curtis, EPA:EMB, to J. Copeland, EPA:ISB, May 16, 1986, Drying of asbestos samples.
II-B-25	M. Laney, RTI, to Asbestos Docket, June 27, 1986, Visibility threshold for particulate emissions.
II-B-26	J. Turner, RTI, to M. Laney, RTI, September 8, 1986, Baghouse bag failures.
II-B-27 -	M. Laney, RTI to S. Roy, EPA:SDB, September 16, 1988, Determination of asbestos content of bulk samples: percent by weight v. percent by area.
II-B-28	M. Laney, RTI to S. Roy, EPA:SDB, December 14, 1988, Notifications receiveddemolition vs. renovation.

II-B-3

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. II-C-1 .

C. Riordan, EPA:ORD, to A. Natale, Duall, Incorporated, May 16, 1983, Discussing EPA methods and procedures for asbestos measurement.

II-C-2

G. Wood, EPA:ISB, to W. L. Baker, National Association of Demolition Contractors, June 20, 1983, Enclosing for review summary of EPA/NADC meeting to discuss asbestos removal during demolition (for enclosure, see II-E-2).

II-C-3

J. R. Farmer, EPA:ESED, to J. Myers, Union Carbide Corporation, April 5, 1985, Section 114 request for information on emissions and control equipment for milling operations (mailing list and enclosures attached).

<u>Document No.</u>

### **Description**

II-D-1

II-D-9

S. L. Bergh, Environ Control, Inc., to S. L. Roy, EPA:ISB, October 19, 1981, Concerning the development of a standard test for friability of asbestos-containing building materials.

- II-D-2 B. Holida, Rumpke Sanitary Landfill, to J. R. Farmer, EPA:ESED, October 6, 1983. Enclosing response to section 114 request.
- II-D-3 P. Christal, City of Amarillo, Texas, to J. R. Farmer, EPA:ESED, October 11, 1983, Enclosing response to Section 114 waste management site cost questionnaire (no cover letter attached).
- II-D-4 J. M. Jones, Chemical Waste Management, Inc., to J. R. Farmer, EPA:ESED, October 14, 1983, Enclosing response to Section 114 waste management site cost questionnaire.
- II-D-5 M. Massi, New York City Department of Sanitation, to J. R. Farmer, EPA:ESED, October 27, 1983, Enclosing response to Section 114 waste management site cost questionnaire (no cover letter attached).
- II-D-6 J. M. Johnson, Exxon Company, to J. R. Farmer, EPA:ESED, November 2, 1983, Enclosing response to Section 114 cost questionnaire for renovation.
- II-D-7 C. B. Carlan, Browning-Ferris Industries, to J. R. Farmer, EPA:ESED, November 11, 1983, Enclosing response to Section 114 waste management site cost questionnaire (note to confidential file attached).
- II-D-8 H. L. Herbert, Edgeboro Disposal, Inc., to J. R. Farmer, EPA:ESED, December 6, 1983, Enclosing response to Section 114 waste management site cost questionnaire (no cover letter attached).

R. A. Merther, Grace Company, to M. N. Laney, Research Triangle Institute, July 20, 1984, Discussing Monokote, a vermiculite-based product used for structural steel fireproofing.

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II-D-10	W. A. Azok, Armstrong, to J. O. Copeland, EPA:ISB, April 15, 1985, Response to section 114 requests.
II-D-11	T. A. Weber, Amatex Corporation to EPA, April 18, 1985, Response to Section 114 requests (no cover letter).
II-D-12	M. Homiak, International Building Products, Inc., to J. R. Farmer, EPA:ISED, April 22, 1985, Response to section 114 requests.
II-D-13	A. W. Bluemle, Plaslok Corporation, to EPA, April 22, 1985, Response to section 114 requests (no cover letter).
II-D-14	R. M. Tami, Motion Control, to J. R. Farmer, EPA:ESED, April 23, 1985, Response to section 114 requests.
II-D-15	A. E. Netter, Supradur, to J. R. Farmer, EPA:ESED, April 25, 1985, note to confidential file.
II-D-16	J. Gullesh, Raymark-Stratford, to J. R. Farmer, EPA:ISED, April 29, 1985, Response to section 114 requests.
II-D-17	C. S. Long, Manville, to J. Copeland, EPA:ISB, April 30, 1985, Response to section 114 requests, note to confidential file.
II-D-18	G. R. Houser, Raymark-Manheim, to J. R. Farmer, EPA:ESED, May 2, 1985, Response to section 114 requests.
II-D-19	D. E. Stone, Allied Automotive, to J. R. Farmer, EPA:ESED, May 10, 1985, Response to section 114 requests.
II-D-20	H. R. Grossman, Meridan Molded Plastics, Inc., to EPA, May 10, 1985, Response to section 114 requests (no cover letter).
II-D-21	L. McPheters, Standco Industries, Inc., to EPA, May 13, 1985, Response to section 114 requests (no cover letter).
II-D-22	M. Beureregard, Rogers Corporation, to EPA, May 20, 1985, Response to section 114 requests (no cover letter).

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II-D-23	C. Eads, Allied-Automotive, to EPA, May 22, 1985, Response to section 114 requests (no cover letter).
II-D-24	D. P. Johnson, Abex, to J. O. Copeland, EPA:ISB, May 28, . 1985, Response to section 114 requests.
II-D-25	A. Shaines, Essex Industries, Inc., to EPA, May 29, 1985, Response to section 114 requests (no cover letter).
II-D-26	J. L. Meyers, Calidra Corporation, to J. R. Farmer, EPA:ESED, June 6, 1985, Response to section 114 requests.
II-D-27	D. R. Hall, Certainteed Corporation, to J. R. Farmer, EPA:ESED, June 26, 1985, Response to section 114 requests.
II-D-28	R. M. Grisham, Nuturn corporation, to J. R. Farmer, EPA:ESED, July 30, 1985, Response to section 114 requests (note to confidential file).
II-D-29 -	D. E. Stone, Allied Automotive, to J. R. Farmer, EPA:ESED, September 4, 1985, Enclosing copies of blueprints not included in May 10, 1985 letter.
II-D-30	D. L. Kirby, Safe State, to J. R. Farmer, EPA:ESED, January 10, 1986, Enclosing comments on proposed revisions to national emission standard for hazardous air pollutants for asbestos.
II-D-31	A. S. Claveria, McCrone Environmental Services, Inc., to J. R. Farmer, EPA:ESED, January 14, 1986, Enclosing comments on proposed revisions to national emission standard for

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hazardous air pollutants for asbestos.

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II-D-32

II-D-41

- W. L. Baker, NADC, to J. R. Farmer, EPA:ESED, February 3, 1986, Responding to November 1985 letter and submitting comments and answers to EPA questionnaire.
- II-D-33 K. E. Nyquist, Asbestos Information Association, to J. R. Farmer, EPA:ESED, March 21, 1986, Enclosing asbestos industry response to EPA's November 27 questionnaire on revisions to emission standard for asbestos.
- II-D-34 T. M. Allen, New York State Department of Environmental Conservation, to J. R. Farmer, EPA:ESED, September 30, 1986, NESHAPS Comments.
- II-D-35 L. Daniel, State of N.C. Department of Natural Resources and Community Development, to J. R. Farmer, EPA:ESED, September 17, 1986, Regarding comments on draft proposed amendments to 40 CFR 61, Subpart M Asbestos NESHAP.
- II-D-36 C. M. Deese, Law Offices Webster, Chamberlain and Bean, to J. Copeland, EPA:OAQPS, October 20, 1986, Regarding Asbestos NESHAP.
- II-D-37 J. Durst, United Brotherhood of Carpenters, to Sims Roy, EPA:ESED, November 6, 1986, Regarding 40 CFR 61, Asbestos NESHAP draft revisions.
- II-D-38 J. N. Siegfried, Manville, to J. R. Farmer, EPA:ESED, November 11, 1986, Commenting on 40 CFR 61, Asbestos NESHAP draft revisions.
- II-D-39 K. E. Nyquist, Asbestos Information Association, to J. R. Farmer, EPA:ESED, December 15, 1986, Commenting on draft revisions to National Emission Standards for Hazardous Air Pollutants on Asbestos.
- II-D-40 W. L. Baker, NADC, to J. R. Farmer, EPA:ESED, January 6, 1987, Enclosing the NADC document "An Effective Asbestos Regulation for Demolition" for comment.
  - K. E. Nyquist, Asbestos Information Association, to J. R. Farmer, EPA:ESED, January 8, 1987, Enclosing "Attachment A of December 5, 1986 comment package.

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EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-E Memoranda of Meetings and Telephone Conversations With Outside Persons

Document No.

#### Description

II-E-1

II-E-2

M. Laney, Research Triangle Institute, to File, May 31, 1983, Record of meeting with American Petroleum Institute to discuss asbestos removal activities at refineries.

- M. Laney, Research Triangle Institute, to File, June 16, 1983, Record of meeting with National Association of Demolition Contractors to discuss asbestos removal and demolition.
- II-E-3
  - M. Laney and M. Wright, Research Triangle Institute, to Docket A-80-47, January 25, 1984, Record of meeting with the National Association of Demolition Contractors to discuss asbestos NESHAP review.
- II-E-4 M. Laney, Research Triangle Institute, to McCrone Associates, January 25, 1984, Telecon regarding cost of asbestos bulk sample analysis.
- II-E-5 M. Laney, Research Triangle Institute, to B. Merther, W. R. Grace, July 16, 1984, Telecon regarding asbestos content of sprayed materials.
- II-E-6 M. Laney, Research Triangle Institute, to D. Crane, OSHA, August 8, 1988, Telecon regarding analytical method to be used to determine asbestos content for compliance with OSHA labeling standard.
- II-E-7 M. Laney, Research Triangle Institute, to J. Yang, W. R. Grace and Co., August 11, 1988, Telecon regarding analysis of asbestos content of vermiculite products.
- II-E-8 M. Laney, Research Triangle Institute, to I. Wainless, Health Standards, OSHA, August 15, 1988, Telecon regarding OSHA's labeling requirements.

### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-I Reference Material

Document No. Description II-I-1 Research text, Elements of Physics, G. Shortley and D. Williams, Prentice Hall, Inc., 1953, p. 209. II-I-2 Research text, ASHRAE handbook of fundamentals, chapter 19: infiltration and natural ventilation, American Society of Heating, Refrigeration and air Conditioning Engineers, Inc., 1977, pp. 333-343. Article, Asbestos exposure in a Yale building, R. N. Sawyer, 11 - 1 - 3Environmental Research, vol. 13, 1977, pp. 146-69. II - I - 4Paper, Air sampling at 52 asbestos abatement projects, W. M. Ewing and G. J. Simpson, presented at the American Industrial Hygiene Conference, Philadelphia, Pennsylvania, May 24, 1983, 22 pp. II-I-5 Article, Worker Exposure to Asbestos During Removal of Sprayed Material and Renovation Activity in Buildings Containing Sprayed Material, N. W. Paik, R. J. Walcott, P.A. Brogan, Vol. 44, June 1983, pp. 428-432. II-I-6 Airborne Fiber Control in Buildings During Asbestos Material Removal by Amended Water Methodolgoy, R. N. Sawyer, A. N. Rohl, A. M. Langer, December 1983. II-I-7 Paper, Asbestos removal: procedures and practices, W. M. Ewing, Jr. and W. H. Spain, Georgia Institute of Technology, May 1984, 14 pp. **II-I-8** Report, Asbestos task order for construction alternatives. CONSAD Research Corporation and Clayton Environmental Consultants, prepared for U.S. Occupational Safety and Health Administration, Contract no. J-9-F-4-0024, May 25, 1984, 386 pp.

II-I-9 Report, Asbestos task order for construction alternatives: addendum, CONSAD Research Corporation and Clayton Environmental Consultants, prepared for U.S. Occupational Safety and Health Administration, contract no. J-9-F-4-0024, June 14, 1984, 108 pp.

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### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-I Reference Material

Document No.

#### Description

II-I-10

Report, Asbestos task order for construction alternatives: supplement, CONSAD Research Corporation and Clayton Environmental Consultants, prepared for U.S. Occupational Safety and Health Administration, contract no. J-9-F-4-0024, July 31, 1984, 29 pp.

II-I-11

Reference text, Standard specifications for construction of roads and bridges on Federal highway projects, FP-85, 1985.

·II-I-12

Article, Abatement equipment report--focus: regulations for glovebag procedures, E. M. Clay, W. M. Ewing, W. H. Spain, Asbestos Issues 1988, November 1988, pp. 56-59.

EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-J Miscellaneous <u>Federal Register</u> Notices Published During Proposal Development

Document No.

#### Description

- II-J-1 37 FR 466, January 12, 1972, Standard for exposure to asbestos dust; notice of proposed rule making.
- II-J-2 38 FR 27076, September 28, 1973, Asbestos particles in food and drugs; notice of proposed rule making.
- II-J-3 44 FR 17790, March 23, 1979, Asbestos-containing materials in school buildings: notice announcing school asbestos program.
- II-J-4 44 FR 47937, August 16, 1979, Transportation of asbestos; additional revisions of amendment no. 173-123.
- II-J-5 44 FR 54676, September 20, 1979, Asbestos-containing materials in school buildings: advance notice of proposed rulemaking.
- II-J-6 44 FR 60056, October 17, 1979, Commercial and industrial use of asbestos fibers and consumer products containing asbestos; joint EPA/CPSC statement on coordination of regulatory activities.
- II-J-7 40 CFR 262, February 26, 1980, EPA regulations for hazardous waste generators.
- II-J-8 40 CFR 265, May 19, 1980, EPA Interim status standards for owners and operators of hazardous waste facilities.
- II-J-9 45 FR 33084, May 19, 1980, Hazardous waste management system; identification and listing of hazardous waste.
- II-J-10 45 FR 61950, September 17, 1980, Asbestos detection and control: proposed rules for local and State educational agencies.
- II-J-11 45 FR 61966, September 17, 1980, Friable asbestos-containing materials in schools: proposed rules for identification and notification.

II-J-12 45 FR 82844, December 16, 1980, Chemical imports and exports; notification of export: final rules.

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### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category II Items Considered in Developing Proposal Subcategory II-J Miscellaneous <u>Federal Register</u> Notices Published During Proposal Development

<u>Document No.</u>

#### Description

- II-J-13
- 3 45 FR 84384, December 22, 1980, Consumer products containing asbestos; general order for submission of information.
- II-J-14 46 FR 8200, January 26, 1981, Asbestos reporting and recordkeeping requirements: proposed rules.
- II-J-15 46 FR 43081, August 26, 1981, Control techniques document for assessment and control of chrysotile asbestos emissions from unpaved roads: notice of document availability.
- II-J-16 47 FR 9336, March 4, 1982, Hazardous waste management system; notice of proposed rulemaking.
- II-J-17 47 FR 33198, July 30, 1982, Asbestos reporting requirements: final rules.
- II-J-18
- 48 FR 32126, July 13, 1983, National emissions standards for hazardous air pollutants: proposed amendments to asbestos standard.
- II-J-19 51 FR 3738, January 29, 1986, Asbestos; proposed mining and import restrictions and proposed manufacturing importation and processing prohibitions.
- II-J-20 40 CFR, Part 61, Subpart M--National Emission Standard for Asbestos, July 1, 1985.
- II-J-21 51 FR 22612, June 20, 1986, 29 CFR Parts 1910 and 1926, Occupational exposure to asbestos, tremolite, anthophylite, and actinolite; final rules.
- II-J-22 51 FR 42174, November 21, 1986, 49 CFR Parts 171 and 172, Hazardous substances; final rule.

- II-J-2

EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category III Proposal Subcategory III-A Notice of Proposed Rulemaking

Document No.

#### Description

III-A-1

54 FR 912, January 10, 1989, Asbestos NESHAP revision, including disposal of asbestos containing materials removed from schools; notice of proposed rule revision and opportunity for public hearing.

III-A-2

54 FR 4941, January 31, 1989, Corrections to asbestos NESHAP revision, including disposal of asbestos containing materials removed from schools.

#### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category III Proposal Subcategory III-A Notice of Proposed Rulemaking

Document No.

### Description

A

III-A-1 54 FR 912, January 10, 1989, Asbestos NESHAP revision, including disposal of asbestos containing materials removed from schools; notice of proposed rule revision and opportunity for public hearing.

III-A-2 54 FR 4941, January 31, 1989, Corrections to asbestos NESHAP revision, including disposal of asbestos containing materials removed from schools.

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EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-A EPA Studies and Contractor Reports

### Document No.

#### Description

- IV-A-1 Movement of selected metals, asbestos, and cyanide in soil: applications to waste disposal problems, EPA-600/2-77-020, NTIS PB-266 905, April 1977, 242 pp. (For a full copy, see Docket A-80-47, Docket Item I-A-13).
- IV-A-2 Assessment and control of chrysotile asbestos emissions from unpaved roads, EPA:OAQPS, EPA-450/3-81-006, May 1981, 105 pp. (For a full copy, see Docket A-80-47, Docket Item I-A-26).
- IV-A-3 Test method: interim method for the determination of asbestos in bulk insulation samples, EPA:EMSL, EPA-600/M4-82-020, December 1982, 12 pp.
- IV-A-4 Final report for continued evaluation and development of thin layer x-ray powder diffraction (xrd) methods for semiquantitative analysis of asbestos cement pipe industry emissions - analysis of emissions samples by xrd and electron microscopy, Research Triangle Institute and Energy Technology Consultants, prepared for EPA:EMSL, EPA contract no. 68-02-3767, August 1984, 201 pp.

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#### EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-B EPA Factual Memoranda

### Document No.

#### **Description**

- IV-B-1 M. Laney, Research Triangle Institute, to S. Roy, EPA:SDB, and B. Moore, EPA:ISB, June 5, 1989, Memorandum regarding fiber release potential of nonfriable asbestos material during demolition and renovation.
- IV-B-2 M. Laney, Research Triangle Institute, to S. Roy, EPA:SDB, and B. Moore, EPA:ISB, June 22, 1989, Memorandum regarding screening study for determination of adequate wetting.

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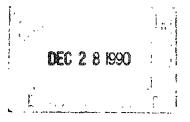
#### EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-8 EPA Factual Memoranda

#### Document No.

### **Description**

IV-B-3

M. Laney, Research Triangle Institute, to S. Roy, EPA:SDB, and B. Moore, EPA:ISB, November 28, 1990 (revised), Memorandum regarding fiber release potential of nonfriable material during demolition and renovation.



#### EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-C Correspondence from EPA to Persons Outside the Agency

#### Document No.

#### Description

- IV-C-1 R. Ajax, EPA:SDB, to addressees (mailing list attached), January 25, 1989, Transmitting copy of <u>Federal Register</u> notice of proposal for review and comment (For enclosure, see Item III-A-1).
- IV-C-2 R. Ajax, EPA:SDB, to C. Hoffstein, E. I. du Pont de Nemours and Company, Inc., March 7, 1989, Responding to request for extension of comment period for proposed rule.
- IV-C-3 G. Emision, EPA:OAQPS, to H. Schultz, Commissioner, City of New York, March 31, 1989, Acknowledging receipt of comments on proposed rule.
- IV-C-4 R. Ajax, EPA:SDB, to D. Jordan, City of Indianapolis Department of Public Works, April 20, 1989, Acknowledging receipt of comments on proposed rule (Identical letter sent to 86 additional commenters on April 20, 1989, May 4, 1989, May 9, 1989, and May 18, 1989: mailing list attached).

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CATEGORY: IV-D

# CATEGORY TITLE: Comments Received After Proposal

NUMBER	DATE REC'D IN CDS	COMMENTER OR ADDRESSEE, TITLE DESCRIPTION, ETC.	DATE OF DOCUMENT
IV-D-01	01-25-89	SBA Safe Building Alliance, John F. Welch	01-24-89
IV-D-02	02-07-89	Calaveras Asbestos, Ltd., Joey E. Toney	01-20-89
IV-D-03	02-07-89	University of Alabama, Hal Barrett	02-03-89
IV-D-04	02-10-89	NADC National Association of Demolition Contractors William L. Baker; Letter w/attachment addressed to Sims Roy (EPA)	02-06-89
IV-D-05	02-17-89	C.M. Towers, Inc., Dennis R. Moran	02-13-89
1V-D-06	02-23-89	Safe Buildings Alliance, John F. Welch Letter addressed to Ann Eleanor (EPA)	01-24-89
IV-D-07	02-23-89	Asbestos Information Association, Kenneth Nyquist Letter addressed to Ann Eleanor (EPA)	02-01-89
IV-D-08	02-23-89	NOA Associates Consultants, Robert Stockton; Letter addressed to Sims Roy (EPA)	02-07-89
IV-D-09	03-01-89	City of Colorado Springs Department of Utilities J. Martin Thrasher	02-27-89
IV-D-10	03-01-89	Calaveras Asbestos Ltd., Joey Toney Letter w/attachment	02-27-89
IV-D-11	03-01-89	Timmie D. McBride (private citizen) Pittssburgh	02-27-89
IV-D-12	03-01-89	Tennessee Department of Health and Environment Harold E. Hodges	02-23-89
IV-D-13	03-02-89	Wayne County air Pollution Control, John C. Baguzia	N/D
IV-D-14	03-03-89	Minnesota Pollution Control Agency, J. Michael Valentine	03-02-89
IV-D-15	03-03-89	Michigan Department of Natural Resources, Robert P. Miller	03-01-89
IV-D-16	03-03-89	North Carolina Department of Public Instruction Ralph Self	03-01-89

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NUMBER	DATE REC'D	COMMENTER OR ADDRESSEE, TITLE DESCRIPTION, ETC.	DATE OF DOCUMENT
IV-D-17	03-03-89	Regional Air Pollution Control Agency, John A. Paul; Letter w/attachment	03-01-89
IV-D-18	03-06-89	Tennessee Department of Health and Environment, Robert L. Foster	03-01-89
IV-D-19	03-06-89	Baltimore Country Department of Public Works Charles K. Weiss	03-03-89
IV-D-20	03-06-89	Hillsborough County Environmental Protection Commission, Darrel Graziani	03-02-89
IV-D-21	03-06-89	Kaselaan & D'Angelo Associates, Inc., Paul Heffernan	03-03-89
IV-D-22	03-06-89	Calidria Asbestos, John L. Myers	03-03-89
IV-D-23	03-06-89	Ad Hoc Coalition of Asbestos Abatement Contractors, Joanne Wright	03-03-89
IV-D-24	03-06-89	ARMCO Corporate Offices, B.A. Steiner	03-02-89
IV-D-25	03-06-89	Public Service Company of Colorado, Robert L. Pearson	03-03-89
IV-D-26	03-06-89	Wisconsin Department of Natural Resources, Joseph G. Brehm	03-03-89
IV-D-27	03-06-89	Westinghouse Electric Corp., Jack W. Fisch	03-03-89
IV28	03-06-89	Florida Department of Environmental Regulation Garry Kuberski; Letter w/attachment	03-03-89
IV-D-29	03-06-89	City of Indianapolis, Department of Public Works David R. Jordan	03-03-89
IV-D-30	03-06-89	Pinellas County (Fla) Board of Commissioners, Peter A. Hessling	02-20-89
IV-D-31	03-06-89	SASI Superior Abatement Services, Inc., Karen A. Baker	03-06-89

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NUMBER	DATE REC'D IN CDS	COMMENTER OR ADDRESSEE, TITLE DESCRIPTION, ETC.	DATE OF DOCUMENT
IV-D-32	03-07-89	Mississippi Department of Natural Resources, Dwight W. Wylie	03-07-89
IV-D-33	03-07-89	Gandee & Associates, Inc., Edward D. Makruski	03-06-89
1V-D-34	03-07-89	GRCDA, The Association of Solid Waste Management Professionals, H. Lanier Hickman, Jr.	N/D
IV-D-35	03-07-89	The Environmental Management Group Inc., Lloyd A. Fox	03-06-89
IV-D-36	03-07-89	SSIUS Specialty Steel Industry of the U.S., John L. Wittenborn and William M. Guerry (Collier Shannon Rill & Scott, Counsel for)	03-07-89
IV-D-37	03-07-89	SCA Shipbuilders Council of America, John L. Wittenborn and William M. Guerry (Collier Shannon Rill & Scott, Counsel for)	03-07-89
IV-D-38	03-07-89	Solid Tech Inc., Ron Rappard & Louis Knieper	03-06-89
IV-D-39	03-07-89	ARCO Oil and Gas Company, L.N. Bell	03-06-89
IV-D-40	03-07-89	Mobil Oil Corporation, J.W. Barbee	03-06-89
IV-D-41	03-07-89	DuPont Company, Carol P. Hoffstein; Letter w/attachment	03-06-89
IV-D-42	03-07-89	Florida Electric Power Coordinating Group Inc., Peter C. Cunningham (Hopping Boyd Green & Sams, Counsel for)	03-06-89
IV-D-43	03-07-89	The Light Company (Houston), J.R. Smith	03-06-89
IV-D-44	03-07-89	South Carolina Attorney General's Office, Kenneth P. Woodington	03-06-89
IV-D-45	03-07-89	ElPaso Natural Gas Company, Gregory J. Odegard	03-06-89
IV-D-46	03-07-89	Texas Utilities Electric Company, Richard L. White	03-06-89
IV-D-47	03-07-89	Resilient Floo Covering Institute, Walter D. Anderson; Letter w/attachment	03-07-89

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# CATEGORY TITLE: Comments Received After Proposal

NUMBER	DATE REC'D <u>IN CDS</u>	COMMENTER OR ADDRESSEE, TITLE DESCRIPTION, ETC.	DATE OF DOCUMENT
IV-D-48	03-07-89	GAF Corporation, Michael A. Wiegard (Paul, Hasting Janofsky & Walker, Counsel for)	s 03-07-89
IV-D-49	03-07-89	Utility Air Regulatory Group, F. William Brownell (Hunton & Williams, Counsel for)	03-07-89
IV-D-50	03-07-89	Safe Buildings Alliance (Kirkland & Ellis, Counsel for)	03-07-89
IV-D-51	03-08-89	Phillips Petroleum Company, G.A. Kilpatrick	03-06-89
IV-D-52	03-08-89	Exxon Company, H.T. Gibson	03-03-89
IV-D-53	03-08-89	Ohio Department of Health & Human Services, Richard W. Niemeier; Letter w/attachment	03-06-89
IV-D-54	03-08-89	South Coast Air Quality Management District (Ca.), Lee Lockie	03-07-89
IV-D-55	03-08-89	Montgomery County Government, Jack Houghton	03-02-89
IV-D-56	03-08-89	Dynamac Corporation, Robert C. Wyatt	03-08-89
IV-D-57	03-08-89	Workers' Institute for Safety and Health, Scott Schneider and Matthew Gillen; Letter w/attachment	03-07-89
IV-D-58	03-08-89	Dow Chemical Company, R.S. Rose; Letter w/ attachment	03-07-89
IV-D-59	03-08-89	Duke Power Company (NC), R.T. Simril Letter w/attachment	03-06-89
IV-D-60	03-08-89	Texas Instruments Inc., Victoria Farran	03-06-89
IV-D-61	03-08-89	General Notors Corporation, Rhonda L. Ross	03-03-89
IV-D-62	03~08-89	AEP American Electric Power, A.J. Ahern	03-06-89
IV-D-63	03-09-89	Public Service Indiana, Gerald L. Raley	03-03-89
IV-D-64	03-09-89	Kodak Company, V.M. McIntire	03-06-89
IV-D-65	03-09-89	Ford Motor Company, Jerome S. Amber	03-07-89

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# CATEGORY TITLE: Comments Received After Proposal

NUMBER	DATE REC'D <u>IN CDS</u>	COMMENTER OR ADDRESSEE, TITLE DESCRIPTION, ETC.	DATE OF DOCUMENT
IV-D-66	03-09-89	Air Pollution Control District (Victorville, CA), Walter R. Mook	03-08-89
IV-D-67	03-09-89	U.S. Department of the Air Force, Gary D. Vest	03-08-89
IV-D-68	03-09-89	Indiana Department of Environmental Management, Thomas W. Rarick	03-06-89
IV-D-69	03-10-89	Bethlehem Steel Corporation, David M. Anderson	03-09-89
IV-D-70	03-10-89	Okahoma Department of Health, D.G. Doughty	03-06-89
IV-D-71	03-10-89	Detroit Edison Company, Skiles W. Boyd	03-06-89
IV-D-72	03-10-89	Supradur Manufacturing Corp., Marilyn F. Mueller	03-03-89
IV-D-73	03-10-89	Monsanto Company, Charles D. Malloch	03-07-89
IV-D-74	03-13-89	U.S. Department of the Army, Joseph A. Fields	03-07-89
IV-D-75	03-13-89	Atlantic Electric, Deborah Turner-Fox	03-07-89
IV-D-76	03-13-89	MSU System Services Inc., J.D. Patterson; Letter w/attachment	03-07-89
IV-D-77	03-13-89	Commonwealth of Kentucky, Natural Resouces and Environmental Protection Cabinet, William C. Eddin	02-28-89 s
IV-D-78	03-13-89	Oregon Department of Environmental Quality, Nick Nikkila	03-07-89
IV-D-79	03-13-89	GPU Nuclear Corp., J.L. Sullivan, Jr.	03-03-89
IV-D-80	03-13-89	Waste Management Inc., Sue M. Briggum; Letter w/attachment	03-07-89
IV-D-81	03-14-89	Nebraska Department of Environmental Control, Joe Francis	03-09-89
IV-D-82	03-14-89	Judith A. Whelan (private citizen) Brookeville, MD Letter w/attachment	N/D
IV-D-83	03-14-89	South Carolina Department of Health and Environmental Control, Richard D. Sharpe	03-07-89

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# CATEGORY TITLE: Comments Received After Proposal

NUMBER	DATE REC'D	COMMENTER OR ADDRESSEE, TITLE DESCRIPTION, ETC.	DATE OF DOCUMENT
IV→D→84	03-14-89	Ohio Environmental Protection Agency, Thomas S. Hadden	03-06-89
IV⇒D≈85	03~13~89	Environmental Sciences, Inc., Paula J. Keyes	03-07-89
IV⇒D→86	03-15-89	Building Owners and Managers Association, Paul C. Fiduccia, Winston & Strawn (Counsel for)	03⇒10-89
IV→D→87	03→15→89	Department of Energy, Raymond Pelletier; Letter w/attachment	03→10→89
IV→D→88	03->16->89	The Chlorine Institute Inc., Robert G. Smerko	03~16~89
IV-D-89	03⇒20⊶89	California Department of Health Services, Alex R. Cunningham; Letter w/attachment	03~17-89
IV∸D∻9Ò	03-23-89	OPT Omega Phase Transformations Inc., James R. Frederick	03∻15∻89
IV→D→91	03∽22⇒89	Monsanto Company, Charles D. Malloch	03∸07∸89
IV~D~92	03-29-89	New York Department of Environmental Protection, Harvey W. Schultz	03~07~89
IV~D~93	03-29-89	Asbestos Information Association, Kenneth Nyquist; Letter w/attachment	03-28-89
IV⇒D⇒94	04-04-89	ADEM Alabama Department of Environmental Management Richard E. Grusnick	,03→31→89
IV≏D->95	04 <b>∞04</b> ∞89	Armstrong World Industries Inc., William B. King	03-06-89
IV∸D→96	04-04->89	Austin Rover Cars of North America, Dennis Johnston INADVERTENTLY PUT INTO WRONG DOCKET; FORWARDED TO DOCKET A-88-32, 5/8/89	03-29-89
IV⇒D→97	04-21-89	U.S. Department of the Interior, Michael McElwrath	04-17-89
IA→D>8	06-28 <b>-</b> 89	U.S. Dept. of Transportation, Alan I. Roberts Letter addressed to Gerald A. Emison	06-08-89
IV∸D∸99	06-28-89	Texas Air Control Board, Sabino Gomex; Letter addressed to Martin Brittain	05→16→89

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# CATEGORY TITLE: Comments Received After Proposal

NUMBER	DATE REC'D IN CDS	COMMENTER OR ADDRESSEE; TITLE DESCRIPTION, ETC. DOCUMENT
IV-D-100	09-15-89	Asbestos Information Association, Kenneth E. Nyquist 9-11-89
IV-D-101	01-08-90	Asbestos Information Association, Kenneth E. Nyquist 1-03-90 Letter w/attachment
IV-D-102	06-15-90	Asbestos Information Association, Kenneth E. Nyquist 6-13-90
IV-D-103	07-19-90	Asbestos Information Association, Kenneth E. Nyquist 7-11-90 Letter w/attachment
IV-D-104	10-29-90	Lederle Laboratories, Carlene Bassell 03-07-89

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EPA Docket No. A-88-28 EPA Project No. 80//41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-E Memoranda of Meetings and Telephone Conversations With Outside Persons

### Document No.

### Description

IV-E-1

M. Laney, Research Triangle Institute, to R. Froehlich, Helix Environmental, January 25, 1989, Telecon regarding fiber release from vinyl floor tile.

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### EPA Docket No. OAQPS A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-F Transcript of Hearings

### Document No.

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### Description

- IV-F-1 Public hearing transcript, Environmental Protection Agency, Research Triangle Park, North Carolina, asbestos NESHAP revision, including disposal of asbestos containing materials removed from schools, February 8, 1989.
- IV-F-2 Statements received at public hearing for asbetos NESHAP revision, including disposal of asbestos containing materials removed from schools, Research Triangle Park, North Carolina, February 8, 1989.

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#### EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, in Developing Final Rule Subcategory IV-H Interagency Review Materials

Document No.

#### <u>Description</u>

- IV-H-1 J. MacRae, Office of Management and Budget (OMB), to S. Farmer, EPA:OAR, March 1, 1989, Memorandum disapproving information collection request for proposed rule.
- IV-H-2 M. Branscome, Research Triangle Institute, to Docket A-88-28, October 8, 1990, Materials for OMB review under the Paperwork Reduction Act (SF-83 and supporting statement attached).
- IV-H-3 M. Branscome, Research Triangle Institute, to Docket A-88-28, October 8, 1990, Materials for OMB review under Executive Order 12291 (SF-83, preamble/regulation, and background information document attached).

IV-H-4

S. Roy, EPA:SDB, to Docket A-88-28, October 10, 1990, Memorandum regarding discussions with OMB on the asbestos NESHAP revision.

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#### EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, in Developing Final Rule Subcategory IV-I Miscellaneous <u>Federal Register</u> Notices Published After Proposal

#### Document No.

### Description

- IV-I-1 54 FR 52024, December 20, 1989, Occupational exposure to asbestos, tremolite, anthophyllite and actinolite: final rule; partial response to court remand.
- IV-I-2 55 FR 3724, February 5, 1990, Occupational exposure to asbestos: final rule rule; partial response to court remand.
- IV-I-3 55 FR 4938, February 12, 1990, Occupational exposure to asbestos, tremolite, anthophyllite, and actinolite: notice of proposed rulemaking.
- IV-I-4 55 FR 29712, July 20, 1990, Occupational exposure to asbestos, tremolite, anthophyllite, and actinolite: notice of proposed rulemaking and notice of hearing.

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### EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category IV Additional Items Considered After Proposal, In Developing Final Rule Subcategory IV-J Reference Materials

### Document No.

### Description

IV-J-1

Article, How surfactants improve efficiency in asbestos wet removal, R. Templeton and D. Powell, Proc. Asbestos Abatement World Congress, AWCI, Washington, D.C., 1987.

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EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category V Final Rule Subcategory V-A Notice of Rulemaking

Document No.

### <u>Description</u>

V-A-1

55 FR 48406, November 20, 1990, National emission standards for hazardous air pollutants; asbestos NESHAP revision: final rule.



# A-88-28

EPA Docket No. A-88-28 EPA Project No. 80/41 Asbestos NESHAP Review Category V Final Rule Subcategory V-B Final Support Document

Document No.

### **Description**

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V-B-1

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National emission standards for asbestos: background information for promulgated asbestos NESHAP revisions, EPA 450/3-90-017, October 1990.

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