

MASTER INDEX: DOCKET A-96-55

**STATEMENTS OF PRINCIPLES FOR NONROAD
PHASE 2 SMALL SPARK-IGNITED ENGINES**

Subject Matter

- I. Notice of Intent or ANPRM, if any
- II. Items Considered in Developing Proposal
- III. Proposal
- IV. Additional Items Considered After Proposal in Developing Final Rule
- V. Final Action

Updated March 4, 1999

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Category II-B: EPA Factual Memoranda

<u>Document Number</u>	<u>Date Rcvd in Docket</u>	<u>Commentor, Addressee, Title or Description, etc.</u>	<u>Date of Document</u>
II-B-01	8-28-97	B. Charmley, EPA, to Air Docket, re Incorporation by Reference of Department of Health & Human Services Alert Publication "Preventing Carbon Monoxide Poisoning from Small Gasoline-Powered Engines & Tools"	6-30-97
II-B-02	8-28-97	B. Charmley & S. Srivastava, EPA, to Air Docket re Summary of EPA Analysis of Nonhand-held Engine Hydrocarbon & Oxides of Nitrogen Exhaust Emission Deterioration Data for 500 Hour Useful Life Class 2 OHV Engines	8-4-97
II-B-03	12-2-97	Memorandum of Understanding Concerning Small Spark-Ignited Nonroad Engines Employing Clean Technologies - Briggs & Stratton	11-22-96 12-30-96
II-B-04	12-2-97	Memorandum of Understanding Concerning Small Spark-Ignited Nonroad Engines Employing Clean Technologies - Tecumseh Products Company	12-2-96 12-30-96
II-B-05	1-5-98	B. Charmley, EPA, to Air Docket re Summary of EPA Analysis Regarding Upper Limits for Phase 2 Averaging, Banking & Trading Program for Nonhandheld Engines	12-8-97

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**Category II-C: EPA Correspondence to Persons
Outside the Agency**

<u>Document Number</u>	<u>Date Rcvd in Docket</u>	<u>Commentor, Addressee, Title or Description, etc.</u>	<u>Date of Document</u>
II-C-01	7/16/97	EPA to Colleagues re Small Nonhandheld Spark-Ignited Nonroad Engine Statement of Principles	1-9-97
II-C-02	10-16-97	B. Larson, EPA, to J. Mandel, Engine Manufacturers Association, re Engine NPRM Issues	9-11-97
II-C-03	12-2-97	Letter to Small Engine Manufacturers re Trial Selective Enforcement Audit, Streamlined Nonroad Spark Ignition Engine Application Format, Small Engine Guidance Document & Announcement of Streamlined Application Workshop	2-19-97
II-C-04	2-11-98	B. Larson, EPA, to Small Engine Manufacturers of Equipment Utilizing Small Gasoline or Alternative-Fueled Engines	8-29-97
II-C-05	2-11-98	B. McCabe, EPA, to W. Balek, International Sanitary Supply Association	2-13-97

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**Category II-D: Correspondence Received from Persons
Outside the Agency**

<u>Document Number</u>	<u>Date Rcvd in Docket</u>	<u>Commentor, Addressee, Title or Description, etc.</u>	<u>Date of Document</u>
II-D-01	4-28-97	C. Brown, City of Chicago Department of Environment, to Air Docket	4-25-97
II-D-02	4-28-97	W. Balek, International Sanitary Supply Association, to Air Docket	4-28-97
II-D-03	4-28-97	Portable Power Equipment Manufacturers Association to Air Docket	4-28-97
II-D-04	4-28-97	H. Roemer, Finger, Parker, Avram & Heintselmann, to Air Docket	4-28-97
II-D-05	5-2-97	J. Mandel, Neal Gerber & Eisenberg, on behalf of Engine Manufacturers Assn., to Air Docket	5-1-97
II-D-06	5-7-97	N. Beck, North American Equipment Dealers Assn., to B. McCabe, EPA	4-1-97
II-D-07	5-13-97	B. Gill, Honda, to Air Docket	5-6-97
II-D-08	5-13-97	E. Parks, Flex Systems, to Air Docket	5-9-97
II-D-09	8-11-97	M. Kenny, Air Resources Board, to M. Oge, EPA	6-11-97
II-D-10	5-22-97	Collier, Shannon, Rill & Scott, on behalf of Outdoor Power Equipment Institute, to Air Docket	5-21-97
II-D-11	7-16-97	Air Improvement Resource Report "Tier 1 Deterioration Factors for Small Nonroad Engines," to EPA Air Docket	6-23-97

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II-D-12	8-11-97	M. Bortfield, Stihl, to EPA Air Docket	6-12-97
II-D-13	10-16-97	Outdoor Power Equipment Institute (OPEI), to G. MacGregor, EPA, re useful life/annual usage/in-use emissions	6-12-95
II-D-14	10-16-97	Report "1989 California Baseline Emissions Inventory for Total Hydrocarbon & Carbon Monoxide Emissions from Portable 2-stroke Power Equipment," prepared for PPEMA by Heiden Associates	7-24-90
II-D-15	11-12-97	P. Maurer, Maurdyne Industries, Inc., to R. Larson, EPA, re SOP for Nonroad Phase 2 Small SI Engines Emission Reduction System for Single-Cylinder Four-Cycle Utility Engines	10-8-97
II-D-16	12-1-97	Final Report "Price Elasticity Estimates for 3 Major Categories of Portable 2-Stroke Power Equipment," prepared for PPEMA by Heiden Associates	6-26-95
II-D-17	12-1-97	Report to RegNeg Committee for Small Spark Ignited Engines <19kW Phase II Rulemaking	9-25-95

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II-D-18	12-1-97	Report "Hand Held Composite Duty Cycle"	2-95
II-D-19	1-5-98	W. Balek, International Sanitary Supply Assn., to B. McCabe, EPA, re list of floor machine, burnisher & motor manufacturers	3-31-97
II-D-20	1-5-98	Report "Procedure for Adjustment of Emissions Results for Bench Aged Small Engines" from M. Kaiser, Iowa State University	11-97
II-D-21	1-5-98	W. Guerry, Collier, Shannon, Rill & Scott, PLLC, on behalf of Outdoor Power Equipment Institute (OPEI), to B. McCabe, EPA, re OPEI Small Equipment Manufacturers	3-5-97
II-D-22	1-5-98	W. Balek, International Sanitary Supply Assn., to B. McCabe, EPA	3-7-97
II-D-23	1-5-98	J. Kowalczyk, Envirocan, to R. Larson, EPA, re Fuel Spillage Reduction Program	8-6-97
II-D-24	1-5-98	W. Balek, International Sanitary Supply Assn., to B. McCabe, EPA, re letters to membership	4-1-97
II-D-25	1-5-98	D. McLean, ISSA/Propane Powered Floor Maintenance Machines, to B. McCabe, EPA, re Phase 2 safety issues	Undated

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II-D-26	1-5-98	A. Fraser, Pioneer Eclipse, to B. McCabe, EPA, re visit	5-12-97
II-D-27	1-5-98	D. McLean, Pioneer Eclipse, to B. McCabe, EPA, re certification & SEA	3-19-97
II-D-28	1-5-98	B. Bertelsen, MECA, to C. France, EPA, re letter to M. Carter, CARB, with "Report of Agreed-Upon Procedures" (Hypothetical Catalyst Scenarios Survey)	1-9-97
II-D-29	1-5-98	M. Block, EMA, to B. McCabe/M. Thrift, EPA, re EMA/OPEI Manufacturer Determined Deterioration Factor Proposal	4-7-97
II-D-30	1-5-98	M. Hall, Dunaway & Cross, to B. McCabe, EPA, re California ARB Tier II Regulations	6-30-97
II-D-31	1-5-98	C. Feldmann, Feldmann Engineering & Manufacturing, to B. McCabe, EPA, re APEMA members responses	3-1-96
II-D-32	1-5-98	C. Feldmann, Feldmann Engineering & Manufacturing, to B. McCabe, EPA, re SOP comments/Tecumseh Products	4-5-96
II-D-33	1-5-98	C. Feldmann, Feldmann Engineering & Manufacturing, to J. Guy, EPA, re fallback to Phase 1 rule/Ardisam	4-12-96

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II-D-34	1-5-98	N. Beck, North American Equipment Dealers Assn. (NAEDA), to B. McCabe, EPA, re Handheld (HH) SI Engines Statement of Principles (SOP)	3-30-96
II-D-35	1-5-98	N. Beck, NAEDA, to B. McCabe, EPA, re "Dealer Responsibilities" for Nonhandheld (NHH) SOP	1-14-97
II-D-36	1-5-98	N. Beck, NAEDA, to B. McCabe, EPA, re Need for "Dealer Responsibilities" in NHH SOP	10-27-96
II-D-37	1-5-98	N. Beck, NAEDA, to B. McCabe, EPA, re HH Phase 2 NPRM Issues	2-12-97
II-D-38	1-5-98	N. Beck, NAEDA, to B. McCabe, EPA, re PPEMA's Proposal/SOP	4-17-96
II-D-39	1-5-98	D. McLean, Pioneer/Eclipse, to B. McCabe, EPA, re proposals for standards	4-23-97
II-D-40	1-5-98	D. McLean, Pioneer/Eclipse, to B. McCabe, EPA, re CARB meeting	Undated

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**Category II-E: EPA Memoranda of Meetings/Telephone
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II-E-01	8-11-97	S. Srivastava, EPA, to Air Docket re meeting with AIR Representative D. Kahlbaum	7-23-97
II-E-02	8-28-97	B. Charmley, EPA, to Air Docket re 2-18-97 Meeting with Engine Manufacturers Association (EMA)/Outdoor Power Equipment Institute (OPEI)	8-4-97
II-E-03	8-28-97	B. Charmley, EPA, to Air Docket re 2-19-97 meeting with Portable Power Equipment Manufacturers Association (PPEMA)/Wisconsin Department of Natural Resources (WI DNR)	8-4-97
II-E-04	8-28-97	B. Charmley, EPA, to Air Docket re 3-19-97 meeting with Briggs & Stratton	8-18-97
II-E-05	8-28-97	B. Charmley, EPA, to Air Docket re 4-8-97 meeting with EMA/OPEI	8-18-97
II-E-06	8-28-97	B. Charmley, EPA, to Air Docket re 5-8-97 meeting with PPEMA/WI DNR/Auger & Power Equipment Manufacturers Assn./North American Equipment Dealers Assn.	8-18-97
II-E-07	8-28-97	B. Charmley, EPA, to Air Docket re 5-13-97 conference call with Kohler Company	8-18-97

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II-E-08	8-28-97	B. Charmley, EPA, to Air Docket re 6-4-97 meeting with Honda	8-18-97
II-E-09	8-28-97	B. Charmley, EPA, to Air Docket re 6-16-97 meeting with Komatsu Zenoah	8-18-97
II-E-10	9-9-97	O. Sandler, EPA, to Air Docket, re meeting with J. Kowalczyk, Envirocan	8-27-97
II-E-11	11-12-97	B. Charmley, EPA, to Air Docket, re 10-3-97 meeting with EMA	10-30-97
II-E-12	11-12-97	B. Charmley, EPA, to Air Docket, re 10-10-97 telephone call with McCulloch re noise levels/2-stroke engines	11-5-97
II-E-13	12-2-97	J. Guy, EPA, to Air Docket, re telephone call/correspondence with Pioneer/Eclipse	11-17-97
II-E-14	1-5-98	C. Caffrey, EPA, to Air Docket re 7-2-97 meeting with EMA/OPEI	12-8-97
II-E-15	1-5-98	B. McCabe, EPA, to Air Docket re 7-1-97 conference call with CARB	12-4-97
II-E-16	1-5-98	B. McCabe, EPA, to Air Docket re 5-5-97 conference call with WI DNR/Northeast States for Coordinated Air Use Management (NESCAUM)	12-3-97

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IV-B-01		B. McCabe, EPA, re "Placement of Ice Bath in Relation to NOx Converter for Small Spark-Ignition Engine Testing"	2-24-99
IV-B-02		Office of Enforcement & General Counsel Mobile Source Enforcement Memorandum #1A "Interim Tampering Enforcement Policy"	6-25-74
IV-B-03		Addendum to Mobile Source Enforcement Memorandum #1A "Tampering Enforcement Policy for Alternative Fuel Aftermarket Conversions"	9-4-97
IV-B-04		Revision to Addendum to Mobile Source Enforcement Memorandum #1A "Revised Tampering Enforcement Policy for Alternative Fuel Conversions?"	6-1-98

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IV-C-01	10-9-98	R. Larson, EPA, to R. Gault, Tecumseh Products/P. Hotz, Briggs & Stratton, re outline of FRM program	9-16-98
IV-C-02	10-9-98	R. Larson, EPA, to R. Gault, Tecumseh Products/P. Hotz, Briggs & Stratton, re clarifications to written reply	9-21-98
IV-C-03	10-9-98	R. Larson, EPA, to R. Harms, McCulloch, re summary of points	9-18-98
IV-C-04	10-19-98	R. Perciasepe, EPA, to F. Lucas, House of Representatives, re inquiry from D. Roberts, Machinery & Electrical Products/C. Feldmann/Feldmann Engineering & Manufacturing	9-22-98
IV-C-05	10-19-98	R. Perciasepe, EPA, to H. Kohl, U.S. Senate, re inquiry from C. Feldmann, Feldmann Engineering & Manufacturing	8-25-98
IV-C-06	10-19-98	R. Perciasepe, EPA, to J. Emerson/co-signers Dingell, Whitfield & Sensenbrenner, House of Representatives	9-14-98
IV-C-07	10-27-98	B. McCabe, EPA, to colleagues re small SI engine phase 2 NPRM	12-24-97
IV-C-08	1-25-99	R. Larson, EPA, to S. Arey, PYROTEK	12-17-98

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IV-D-01	2-4-98	N. Beck, North American Equipment Dealers Association (NAEDA), Peoria, AZ	2-1-98
IV-D-02	3-5-98	E. Carmichael, Autonnic Research, Hayward, CA	3-3-98
IV-D-03	3-3-98	R. Ruppel, Ardisam, Cumberland, WI	2-25-98
IV-D-04	3-6-98	P. Maurer, Maudyne Industries, Parker, CO	3-5-98
IV-D-05	3-11-98	S. Mullins, Charles Machine Works, Perry, OH	3-10-98
IV-D-06	3-9-98	D. Roberts, MEPCO Machinery & Electric Products, Enid, OK	3-6-98
IV-D-07	3-10-98	D. Manvell, Academy of Model Aeronautics/International Miniature Aircraft Association, Northeast, PA	3-5-98
IV-D-08	3-12-98	R. Gault, Tecumseh Products, New Holstein, WI	3-10-98
IV-D-09	3-13-98	C. Feldmann, Auger & Power Equipment Manufacturers Association (APEMA)	3-11-98
IV-D-10	3-13-98	J. Ng, Westerbeke, Avon, MA	3-11-98
IV-D-11	3-13-98	D. DeMaster, Kohler Company	3-12-98
IV-D-12	3-13-98	J. Mandel, Neal Gerber & Eisenberg, on behalf of EMA/OPEI, Chicago, IL	3-12-98

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IV-D-13	3-13-98	B. Bertelsen, MECA, Washington, DC	3-13-98
IV-D-14	3-13-98	J. Pace, P.E., private citizen, Wilmington, DE	3-10-98
IV-D-15	3-13-98	J. Elston, State & Territorial Air Pollution Program Administrators (STAPPA)/R. Baldwin, Association of Local Air Pollution Control Officials (ALAPCO), Washington, DC	3-13-98
IV-D-16	3-13-98	D. Raney, American Honda Motor Company, Torrance, CA	3-13-98
IV-D-17	3-13-98	R. Alsip, American Suzuki Motor, Brea, CA	3-13-98
IV-D-18	3-13-98	F. Coats, Ryobi North America, Anderson, SC	3-13-98
IV-D-19	3-13-98	J. Cherry, Hunton & Williams, on behalf of Pioneer Eclipse, Sparta, NC	3-13-98
IV-D-20	3-13-98	P. Hanz, Briggs & Stratton, Milwaukee, WI	3-13-98
IV-D-21	3-13-98	M. Hall, Dunaway & Cross, on behalf of PPEMA, Washington, DC	3-13-98
IV-D-22	3-13-98	D. Chamberlain, Pennsylvania Department of Environmental Protection, Harrisburg, PA	3-3-98
IV-D-23	4-16-98	D. Purcell, Portable Power Equipment Manufacturers Association (PPEMA), to R. Larson, EPA	3-9-98

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IV-D-24	6-16-98	C. Caffrey, EPA, replacing confidential information from Boswell Energy Systems, with non-confidential information	5-20-98
IV-D-25	9-24-98	C. Caffrey, EPA, submitting 6-26-98 letter from P. Hotz, Briggs & Stratton	9-17-98
IV-D-26	10-9-98	R. Gault, Tecumseh Products, P. Hotz, Briggs & Stratton, & B. Wyman, Latham & Watkins, to C. France/R. Larson, EPA, re clarification of 9-16-98 memo	9-16-98
IV-D-27	10-19-98	B. McCabe, EPA, submitting documents re CARB's 3-26-98 public hearing on small off-road engine regulation amendments	10-8-98
IV-D-28	10-27-98	B. McCabe, EPA, submitting documents re 2-11-98 public hearing	10-8-98
IV-D-29		L. Will, Echo, Inc., to R. Larson, EPA	2-10-99
IV-D-30		W. Guerry, Collier, Shannon, Rill & Scott, on behalf of Outdoor Power Equipment Institute, to T. Kelly, Office of Regulatory Management & Information, re small gasoline engine regulations/draft letter to M. Oge, EPA	12-3-98

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IV-E-01	3-13-98	C. Caffrey, EPA, re 2-5-98 phone call with Stihl, Inc.	2-9-98

IV-E-02	3-13-98	C. Caffrey, EPA, re phone call with various test laboratories, Summer 1997	2-12-98
IV-E-03	3-13-98	J. Guy, EPA, re phone call with Kohler Company	3-4-98
IV-E-04	4-16-98	W. Charmley, EPA, re phone call/e-mail with T. Carpenter, Tecumseh Products Company	4-6-98
IV-E-05	5-19-98	C. Caffrey, EPA, re 3-5-98 meeting with Honda	4-28-98
IV-E-06	6-16-98	W. Charmley, EPA, re 4-24-98 meeting with Wisconsin-Robin	5-20-98
IV-E-07	9-24-98	C. Caffrey, EPA, re 9-3-98 meeting with Boswell Energy Systems	9-14-98
IV-E-08	9-24-98	Attendees list from Boswell Energy Systems meeting	9-3-98
IV-E-09	9-24-98	C. Caffrey, EPA, re 7-16-98 conference call with Poulan/Weed Eater	9-15-98
IV-E-10		Removed per C. Caffrey, EPA	
IV-E-11	9-24-98	C. Caffrey, EPA, re 7-16-98 conference call with John Deere	9-15-98
IV-E-12	9-24-98	C. Caffrey, EPA, re 8-3-98 conference call with McCulloch	9-15-98

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IV-E-13	10-19-98	R. Larson, EPA, re 9-17-98 telephone call with R. Harms, McCulloch	10-8-98
IV-E-14 revised	10-19-98	R. Larson, EPA, re 7-10-98 telephone call with J. White/R. Harms, McCullough	10-8-98

IV-E-15	10-19-98	R. Larson, EPA, re 5-26-98 meeting with EMA	9-30-98
IV-E-16	10-19-98	R. Larson, EPA, re 6-11-98 telephone call with R. Gault, Tecumseh Products	10-8-98
IV-E-17	10-19-98	R. Larson, EPA, re 6-15-98 telephone call with T. Giswold, John Deere Corporation	10-8-98
IV-E-18	10-19-98	R. Larson, EPA, re 6-15-98 telephone call with M. Dunaway, Portable Power Equipment Manufacturers Association (PPEMA)	10-8-98
IV-E-19	10-19-98	R. Larson, EPA, re 6-22-98 meeting with T. Bingham, Honda	10-8-98
IV-E-20 revised	10-19-98	R. Larson, EPA, re 7-9-98 meeting with John Deere, Poulan & PPEMA	10-8-98
IV-E-21 revised	10-19-98	R. Larson, EPA, re 7-16-98 telephone call with K. Liechty, Poulon	10-8-98
IV-E-22	10-19-98	R. Larson, EPA, re 9-17-98 telephone call with J. Grumet, NESCAUM	10-8-98

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IV-E-23 revised	10-27-98	R. Larson, EPA, re 6-11-98 meeting with PPEMA	10-8-98
IV-E-24 revised	10-27-98	C. Caffrey, EPA, re talk with Honda, American Suzuki Motor & Tecumseh Products, on CC cutoff for additional NHH class	10-19-98
IV-E-25	10-27-98	C. Caffrey, EPA, re talk with Kohler on technology to reduce emissions on their OHV engines	10-19-98
IV-E-26	10-27-98	C. Caffrey, EPA, re talk with John Deere on technology for HH 2-stroke engines	09-21-98
IV-E-27	10-27-98	R. Johnson, EPA, re telephone call with B. Obert, Broyhill	10-21-98
IV-E-28	10-27-98	R. Johnson, EPA, re telephone call with R. Hlaves, Tru-Cut	10-21-98
IV-E-29	10-27-98	R. Johnson, EPA, re telephone call with D. Lodge, Stone Construction Equipment	10-21-98
IV-E-30	10-27-98	R. Johnson, EPA, re telephone call with A. Sarlo, Sarlo Power Mowers	10-21-98
IV-E-31	10-27-98	R. Johnson, EPA, re telephone call with J. Greeson, Palmor Products	10-21-98
IV-E-32	10-27-98	R. Johnson, EPA, re telephone call with S. Groban, Groban Supply Company	10-21-98
IV-E-33	10-27-98	R. Johnson, EPA, re telephone call with R. Hitchcock, PECO	10-21-98

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IV-E-34	10-27-98	R. Johnson, EPA, re telephone call with T. Hastings, Yard Marvel Manufacturing Company	10-21-98
IV-E-35	10-27-98	R. Johnson, EPA, re telephone call with R. Lloyd, Suzuki	10-21-98
IV-E-36	10-27-98	R. Johnson, EPA, re telephone call with B. Guerry, OPEI/J. Nelson, Garden Way	10-21-98
IV-E-37	10-27-98	R. Johnson, EPA, re telephone call with J. Nelson, Garden Way	10-21-98
IV-E-38	10-27-98	R. Johnson, EPA, re telephone call with G. Head, Southland Mower Company	10-21-98
IV-E-39	10-27-98	R. Johnson, EPA, re telephone call with J. Bracken, Simplicity Manufacturing	10-21-98
IV-E-40	10-27-98	C. Caffrey, EPA, re talk with M. Bortfeld, Stihl	10-20-98
IV-E-41	10-27-98	C. Caffrey, EPA, re talks with G. Brereton, Michigan State University, & S. Arey, Pyrotek	10-20-98
IV-E-42	10-27-98	C. Caffrey, EPA, re 6-16-98 meeting with Pyrotek	10-20-98
IV-E-43	11-12-98	R. Larson, EPA, re 7-23-98 talk with M. Dunaway, PPEMA	10-30-98
IV-E-44	11-12-98	R. Larson, EPA, re 7-27-98 talk with P. Hotz, Briggs & Stratton	10-30-98
IV-E-45	11-12-98	R. Larson, EPA, re 8-3-98 talk with R. Gault, Tecumseh Products	10-30-98

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**Category IV-E: EPA Memoranda of Meetings/Telephone
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IV-E-46	11-12-98	R. Larson, EPA, re 8-4-98 talk with R. Gault, Tecumseh Products	10-30-98

IV-E-47	11-12-98	R. Larson, EPA, re 8-4-98 talk with M. Dunaway, PPEMA	10-30-98
IV-E-48	11-12-98	R. Larson, EPA, re 8-5-98 talk with R. Gault, Tecumseh Products	10-30-98
IV-E-49	11-12-98	R. Larson, EPA, re 8-6-98 talk with P. Hotz, Briggs & Stratton	10-30-98
IV-E-50	11-12-98	R. Larson, EPA, re 8-5-98 talk with M. Bortfeld, Stihl	10-30-98
IV-E-51	11-12-98	R. Larson, EPA, re 8-13-98 talk with T. Griswold, John Deere	10-30-98
IV-E-52	11-12-98	R. Larson, EPA, re 8-18-98 talk with T. Bingham, Honda	10-30-98
IV-E-53	11-12-98	R. Larson, EPA, re 8-31-98 talk with P. Hotz, Briggs & Stratton	10-30-98
IV-E-54	11-12-98	R. Larson, EPA, re 8-31-98 talk with R. Gault, Tecumseh Products	10-30-98
IV-E-55	11-12-98	R. Larson, EPA, re 9-1-98 talk with B. Guerry, OPEI	10-30-98
IV-E-56	11-12-98	R. Larson, EPA, re 9-4-98 talk with M. Dunaway, PPEMA	10-30-98
IV-E-57	11-12-98	R. Larson, EPA, re 8-13-98 talk with P. Hotz, Briggs & Stratton	10-30-98
IV-E-58	11-12-98	R. Larson, EPA, re 9-4-98 talk with B. Guerry, OPEI	11-3-98
IV-E-59	11-12-98	R. Larson, EPA, re 9-8-98 talk with R. Gault, Tecumseh Products	11-3-98

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IV-E-60	11-12-98	R. Larson, EPA, re 9-14&15-98 talk with R. Gault, Tecumseh Products	11-3-98
IV-E-61	11-12-98	R. Larson, EPA, re 9-16-98 talk with T. Cackette, California Air Resources Board	11-3-98

IV-E-62	11-12-98	R. Larson, EPA, re 9-16-98 talk with M. Bortfeld, Stihl	11-3-98
IV-E-63	11-12-98	R. Larson, EPA, re 9-18-98 talk with R. Gault, Tecumseh Products	11-3-98
IV-E-64	11-12-98	R. Larson, EPA, re 9-21-98 talk with R. Gault, Tecumseh Products	11-3-98
IV-E-65	11-12-98	R. Larson, EPA, re 9-21-98 talk with M. Dunaway, PPEMA	11-3-98
IV-E-66	11-12-98	R. Larson, EPA, re 9-30-98 talk with M. Bortfeld, Stihl	11-3-98
IV-E-67	11-12-98	C. Caffrey, EPA, re talks with others between 7-98 & 9-98 re phase 2 auger applications	10-27-98
IV-E-68	1-25-99	R. Larson, EPA, re 9-22-98 meeting with Tecumseh Products, Briggs & Stratton, Latham & Watkins	12-23-98
IV-E-69	1-25-99	C. Caffrey, EPA, re 12-15-98 call with D. Wahl, Wahl Brothers Racing re Boswell Energy System	12-21-98
IV-E-70	1-25-99	C. Caffrey, EPA, re 12-98 & 1-11-99 calls with R. Alsip, Suzuki American	1-11-99

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IV-E-71		R. Larson, EPA, re talks in Nov/Dec 1998 & Jan 1999 with W. Guerry, Collier, Shannon, Rill & Scott (CSRS), on behalf of Outdoor Power Equipment Institute (OPEI)	3-3-99
IV-E-72		M. Thrift, OGC/EPA, re talk on 11-16-98 with W. Guerry, CSRS on behalf of OPEI	3-1-99
IV-E-73		M. Thrift, OGC/EPA, re talk on 2-24 & 2-26-99 with B. Wyman, representing Briggs & Stratton	3-1-99
IV-E-74		R. Larson, EPA, re talks from 2-25 thru 3-2-99 with R. Wyman, Latham & Watkins	3-3-99

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Category IV-F: Transcript of Hearings

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**Category IV-G: Additional Comments Received
After the Comment Period**

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IV-G-01	3-19-98	J. Kowalczyk, Envirocan, Inc., Portland, OR	3-13-98
IV-G-02	3-30-98	M. Strauch, private citizen, Livermore, CA	3-24-98
IV-G-03	5-5-98	B.I. Bertelsen, Manufacturers of Emissions Controls (MECA)	4-30-98
IV-G-04	9-9-98	Dr. H. Mayer, Euromot	12-23-97
IV-G-05	9-24-98	California Air Resources Board (CARB) presentation "Revisions to Small Off-Road Engine Requirements"	3-26-98
IV-G-06	9-24-98	CARB Mail-Out #MSC 98-02	1-27-98
IV-G-07	9-24-98	CARB Suggested Modifications to Mail-Out #MSC 98-02 - California Regulations for 1995 & Later Small Off-Road Engines	3-26-98
IV-G-08	10-9-98	V. Smith, National Miniature Pylon Racing Association, to EPA	2-26-98
IV-G-09	10-9-98	S. Wahl, private citizen, to EPA	2-25-98
IV-G-10	10-9-98	J. Hager, Academy of Model Aeronautics, to J. Guy, EPA	4-7-98
IV-G-11	10-9-98	H. Harber, Delaware Valley Radio Control Club, to EPA	4-25-98
IV-G-12	10-9-98	R. Combs, Jr., private citizen, to EPA	5-14-98
IV-G-13	10-9-98	K. Kramer, Autonnlic Research, Inc., to R. Larson, EPA	6-22-98

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<u>Document Number</u>	<u>Date Rcvd in Docket</u>	<u>Commentor, Addressee, Title or Description, etc.</u>	<u>Date of Document</u>
IV-G-14	10-9-98	S. Angelico, private citizen, to EPA	5-29-98
IV-G-15	10-9-98	H. Mohr, Prop Floppers R.C. Club, to EPA	6-6-98
IV-G-16	10-9-98	J. Althoff, Propkickers Model Airplane Club, to EPA	6-1-98
IV-G-17	10-9-98	C. Glover, Jr., private citizen, to EPA	6-3-98
IV-G-18	10-9-98	K. Spady, private citizen, to EPA	6-17-98
IV-G-19	10-9-98	R. Brogan, High Sierra Radio Control Club, to EPA	7-8-98
IV-G-20	10-9-98	C. Feldmann, Feldmann Engineering & Manufacturing Company, Inc., to R. Larson, EPA	7-21-98
IV-G-21	10-9-98	Hutch Bunch RC Club to EPA	7-7-98
IV-G-22	10-9-98	T. Griswold, Worldwide Commercial & Consumer Equipment Division, to R. Larson, EPA	9-14-98
IV-G-23	10-9-98	H. Casey, private citizen, to EPA	5-8-98
IV-G-24	10-9-98	R. Kramar, Roger Kramar Automotive, to EPA	Undated
IV-G-25	10-27-98	B. Bertelsen, MECA, to R. Larson, EPA, re catalyts	10-19-98
IV-G-26	11-12-98	J. Mandel, Neal Gerber & Eisenberg, on behalf of Engine Manufacturers Association, to M. Oge, EPA	9-18-98

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IV-G-27	11-12-98	R. Haslam, Tanaka, to R. Larson, EPA	10-15-98
IV-G-28	11-12-98	J. Jakoby/M. Neltner, DOLMAN GmbH, to R. Larson, EPA	6-22-98
IV-G-29	12-21-98	"Technical Summary & Report Spark Ignition Device Research," by Pyroteck, Inc.	11-13-98
IV-G-30	2-1-99	D. Reilly, Worldwide Commercial & Consumer Equipment Division, Deere & Company, to R. Larson, EPA	12-2-98
IV-G-31	2-1-99	R. Bergfeld/J. Jakoby, DOLMAN GmbH, to R. Larson, EPA	1-12-99

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Category V-B: Final Support Document

<u>Document Number</u>	<u>Date Rcvd in Docket</u>	<u>Commentor, Addressee, Title or Description, etc.</u>	<u>Date of Document</u>
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