



APPENDIX AVAILABLE ON THE HEI WEB SITE

Research Report 178

National Particle Component Toxicity (NPACT) Initiative Report on Cardiovascular Effects

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Section 2: NPACT Animal Toxicologic Study of Cardiovascular Effects of Mixed Vehicle Emissions Combined with Non-vehicular Particulate Matter

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Appendix S. Statistical Results for NPACT Animal Toxicologic Exposure Atmosphere Composition

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Although this document was produced with partial funding by the United States Environmental Protection Agency under Assistance Award CR-83234701 to the Health Effects Institute, it has not been subjected to the Agency's peer and administrative review and therefore may not necessarily reflect the views of the Agency, and no official endorsement by it should be inferred. For the research funded under the National Particle Component Toxicity initiative, HEI received additional funds from the American Forest & Paper Association, American Iron and Steel Institute, American Petroleum Institute, ExxonMobil, and Public Service Electric and Gas. The contents of this document also have not been reviewed by private party institutions, including those that support the Health Effects Institute; therefore, it may not reflect the views or policies of these parties, and no endorsement by them should be inferred.

This document was reviewed by the NPACT Review Panel but did not undergo the HEI scientific editing and production process.

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Appendix S. Statistical Results Tables.

ENDPOINT	GROUP	NORMALIZED MEAN	NORMALIZED SEM	SIGNIFICANCE *P<0.05, **P<0.01
MMP2/9 activity	Filtered Air	0	0.802	
	MVE low	16.936	0.305	**
	MVE high	10.326	1.327	**
	MVEG low	-0.574	3.03	
	MVEG high	8.909	1.812	**
	Sulfate PM	8.456	1.663	*
	Sulfate + MVEG	9.845	1.255	**
	Sulfate + MVE	9.144	2.125	**
	Nitrate PM	14.187	2.665	**
	Nitrate + MVEG	19.473	1.198	**
	Nitrate + MVE	0.307	3.069	
	Road Dust PM	0.77	1.448	
	Road Dust + MVEG	5.79	2.954	
	Road Dust + MVE	1.22	2.168	
TBARS	Filtered Air	1	0.044	
	MVE low	2.267	0.135	**
	MVE high	4.29	0.761	**
	MVEG low	1.615	0.1	*
	MVEG high	1.667	0.108	**
	Sulfate PM	1.071	0.085	
	Sulfate + MVEG	3.199	0.443	**
	Sulfate + MVE	1.822	0.12	**
	Nitrate PM	1.261	0.103	
	Nitrate + MVEG	1.911	0.266	**
	Nitrate + MVE	1.981	0.156	**
	Road Dust PM	1.296	0.09	
	Road Dust + MVEG	1.596	0.176	*
	Road Dust + MVE	1.393	0.074	

ENDPOINT	GROUP	NORMALIZED MEAN	NORMALIZED SEM	SIGNIFICANCE *P<0.05, **P<0.01
MMP9 mRNA	Filtered Air	1	0.096	
	MVE low	0.919	0.347	
	MVE high	1.569	0.262	
	MVEG low	1.583	0.286	
	MVEG high	1.094	0.184	
	Sulfate PM	1.582	0.227	
	Sulfate + MVEG	2.061	0.394	*
	Sulfate + MVE	1.526	0.366	
	Nitrate PM	0.695	0.164	
	Nitrate + MVEG	0.788	0.112	
	Nitrate + MVE	1.167	0.318	
	Road Dust PM	0.878	0.08	
	Road Dust + MVEG	1.312	0.192	
	Road Dust + MVE	1.745	0.566	
Plaque Area	Filtered Air	0	0.01	
	MVE low	0.061	0.003	
	MVE high	0.02	0.019	
	MVEG low	0.017	0.01	
	MVEG high	0.064	0.007	
	Sulfate PM	0.072	0.021	
	Sulfate + MVEG	-0.015	0.009	
	Sulfate + MVE	0.012	0.023	
	Nitrate PM	0.085	0.038	*
	Nitrate + MVEG	0.121	0.031	**
	Nitrate + MVE	0.028	0.044	
	Road Dust PM	-0.041	0.003	
	Road Dust + MVEG	-0.017	0.034	
	Road Dust + MVE	0.051	0.029	

ENDPOINT	GROUP	NORMALIZED MEAN	NORMALIZED SEM	SIGNIFICANCE *P<0.05, **P<0.01
MOMA-2 Staining	Filtered Air	0	0.101	
	MVE low	1.667	0.333	**
	MVE high	1.667	0.192	**
	MVEG low	0.667	0.333	
	MVEG high	0.833	0.307	
	Sulfate PM	1	0.333	
	Sulfate + MVEG	1.333	0.333	**
	Sulfate + MVE	1	0.333	
	Nitrate PM	1	0.577	
	Nitrate + MVEG	1.667	0.333	**
	Nitrate + MVE	1	0.333	
	Road Dust PM	0.25	0.25	
	Road Dust + MVEG	0.333	0.333	
	Road Dust + MVE	0.333	0.333	
GTPCH mRNA	Filtered Air	1	0.118	
	MVE low	1.358	0.267	
	MVE high	1.281	0.249	
	MVEG low	1.953	0.468	
	MVEG high	0.829	0.096	
	Sulfate PM	1.477	0.47	
	Sulfate + MVEG	1.317	0.327	
	Sulfate + MVE	0.949	0.202	
	Nitrate PM	1.359	0.239	
	Nitrate + MVEG	1.842	0.452	
	Nitrate + MVE	0.885	0.152	
	Road Dust PM	0.82	0.156	
	Road Dust + MVEG	0.65	0.147	
	Road Dust + MVE	0.796	0.134	

ENDPOINT	GROUP	NORMALIZED MEAN	NORMALIZED SEM	SIGNIFICANCE *P<0.05, **P<0.01
iNOS mRNA	Filtered Air	1	0.068	
	MVE low	1.017	0.242	
	MVE high	1.098	0.144	
	MVEG low	0.821	0.047	
	MVEG high	0.806	0.062	
	Sulfate PM	1.089	0.179	
	Sulfate + MVEG	1.087	0.11	
	Sulfate + MVE	0.804	0.145	
	Nitrate PM	0.864	0.169	
	Nitrate + MVEG	1.298	0.272	
	Nitrate + MVE	0.71	0.056	
	Road Dust PM	0.931	0.08	
	Road Dust + MVEG	0.641	0.067	
	Road Dust + MVE	0.842	0.089	
HO-1 mRNA	Filtered Air	1	0.106	
	MVE low	1.557	0.239	
	MVE high	1.11	0.13	
	MVEG low	1.684	0.262	*
	MVEG high	1.148	0.089	
	Sulfate PM	1.463	0.229	
	Sulfate + MVEG	1.508	0.268	
	Sulfate + MVE	0.738	0.153	
	Nitrate PM	1.051	0.143	
	Nitrate + MVEG	1.293	0.191	
	Nitrate + MVE	0.448	0.058	**
	Road Dust PM	0.752	0.058	
	Road Dust + MVEG	1.149	0.141	
	Road Dust + MVE	0.473	0.112	**

ENDPOINT	GROUP	NORMALIZED MEAN	NORMALIZED SEM	SIGNIFICANCE *P<0.05, **P<0.01
TIMP2	Filtered Air	1	0.071	
	MVE low	1.026	0.223	
	MVE high	1.515	0.275	
	MVEG low	1.895	0.355	*
	MVEG high	1.098	0.138	
	Sulfate PM	1.083	0.319	
	Sulfate + MVEG	1.267	0.255	
	Sulfate + MVE	1.059	0.101	
	Nitrate PM	1.502	0.242	
	Nitrate + MVEG	1.775	0.476	
	Nitrate + MVE	1.017	0.17	
	Road Dust PM	0.993	0.13	
	Road Dust + MVEG	0.663	0.063	
	Road Dust + MVE	0.737	0.098	