



## **APPENDIX AVAILABLE ON REQUEST**

### **Research Report 143**

#### **Measurement and Modeling of Exposure to Selected Air Toxics for Health Effects Studies and Verification by Biomarkers**

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#### **Appendix 18. Model Development and Validation Outlier Cases**

Note: Appendices Available on the Web appear in a different order than in the original Investigators' Report. HEI has not changed these documents.

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### **TRAINING DATASET OUTLIERS**

The results excluded from the model development dataset considered as outliers are:

- ID 25, all days hexane. Samples were contaminated in the laboratory with hexane used in adjacent equipment. All the cases where hexane contamination occurred were identified through our QA-QC procedures.
- ID 26 - D3 for toluene. The subject refuelled his car and the sample was contaminated with toluene. Extremely high concentrations compared with the rest of the subjects who refuelled their cars during the sampling week.
- ID 65 - D3, all results. Results for that particular day were high for all the compounds. Subject received a visit from an overseas friend. No further information was provided to understand or model the high concentrations registered.
- ID 67 - PAH results. Subject was burning wood in an old furnace. The information provided was not sufficient to model the high concentrations measured for the PAHs.
- ID 80 - PAH results. Subject was burning wood in an open fireplace. The information provided was not sufficient to model the high results for the PAHs.
- ID 89, all results. The subject works in four different places and gave insufficient information to understand and model the high results recorded.
- ID 100 - D2, hexane. Subject was working in a laboratory and the briefcase was placed close to an open hexane bottle causing extremely high concentrations of hexane in the sample.

### **VALIDATION DATASET OUTLIERS**

The results excluded from the model validation dataset considered as outliers are:

- ID 42 - BTEX results. The subject was a smoker and the information provided does not allow reconstruction of the high concentrations.

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## APPENDIX 18: MODEL DEVELOPMENT AND VALIDATION OUTLIER CASES

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- ID 51 - BTEX and hexane. The subject was a smoker and the information provided does not allow reconstruction of the high concentrations measured.
- ID 67 - Benzene. The subject lives in a caravan and was doing DIY in a new home that was under construction and was burning wood in an old furnace. The information provided was not sufficient to model and validate the high results for benzene.