

Erratum for the June 2002 Final NAF Atsugi, Japan Human Health Risk Assessment

The erratum table below provides editorial comments and clarifications that have been identified for the Final NAF Atsugi, Japan Human Health Risk Assessment (Navy Environmental Health Center, June 2002).

	Section and Page No.	Current Text	Comment
1	Global	PIONEER Technologies Corporation Final NAF Atsugi, Japan Human Health Risk Assessment is referenced throughout the document as (PIONEER, 2000).	The PIONEER document was completed in May, 2001 and should be referenced as (PIONEER, 2001).
2	Section 2.2, Page 33	The second sentence in the last paragraph under VOCs reads, "The VOCs were 1,2,4-trimethylbenzene, benzene, chloromethane, methylene chloride, 1,2,4-trimethylbenzene, toluene, trichloroethylene, carbon tetrachloride, 1,3-butadiene, chloroform, and acetonitrile."	The sentence should read, "The VOCs were 1,2,4-trimethylbenzene, benzene, chloromethane, methylene chloride, tetrachloroethylene , toluene, trichloroethylene, carbon tetrachloride, 1,3-butadiene, chloroform, and acetonitrile."
3	Section 2.2, Page 33	The third sentence in the last paragraph under VOCs reads, "In addition, nine other compounds with frequency of detection ranging from 0.3% to 36% had maximum concentrations in excess of the RBC."	The sentence should read, "In addition, 12 other compounds with frequency of detection ranging from 0.002% to 36% had maximum concentrations in excess of the RBC."
4	Section 2.2, Page 34	The second sentence in the first paragraph reads, "Only six of the SVOCs were detected in more than 90% of the samples."	The sentence should read, "Only three of the SVOCs were detected, and only one was detected in more than 90% of the samples."
5	Section 2.2, Page 34	The first sentence in the second paragraph under SVOCs reads, "Table 2-4 summarizes the 14-month air monitoring results, by providing summary statistics for 45 chemicals ordered by frequency of detection...."	The sentence should read, "Table 2-4 summarizes the 14-month air monitoring results, by providing summary statistics for 47 chemicals ordered by frequency of detection...."
6	Section 2.2, Page 38	The second to last sentence of the last paragraph on this page reads, "In addition, nine other VOCs had a frequency of detection ranging from 0.3% to 36% with maximum concentrations in excess of their RBC."	The sentence should read, "In addition, twelve other VOCs had a frequency of detection ranging from 0.002% to 36% with maximum concentrations in excess of their RBC."
7	Section 2.6, Page 58	The first sentence in the second paragraph from the bottom of the page reads, "As presented in Table 2-7, base wide average chemical concentrations found at all locations indicated that about 23 chemicals detected in greater than 50% of the indoor air samples were above the USEPA RBCs."	The sentence should read, "As presented in Table 2-7, base wide average chemical concentrations found at all locations indicated that 22 chemicals detected in greater than 50% of the indoor air samples were above the USEPA RBCs."
8	Section 2.7, Page 69	The second sentence of the first paragraph under Surface reads, "A comparison of surface soil results with the RBCs indicated that the total dioxin and furans (2,3,7,8 TEQs) exceeded the RBC of 0.0000043 mg/kg for the average and RME concentrations."	The sentence should read, "A comparison of surface soil results with the RBCs indicated that the total dioxin and furans (2,3,7,8 TEQs) exceeded the RBC of 0.0000004 mg/kg for the average and RME concentrations."
9	Section 2.7, Page 69	The second sentence of the first paragraph in the Areas of Concern section reads, " Eight surface soil and four subsurface soil samples were collected from each of these AOCs."	The sentence should read, " Nine surface soil, including a field-duplicate sample, and four subsurface soil samples were collected from each of these AOCs."
10	Section 2.7, Page 69	The first sentence of the second paragraph under Surface Soil reads, "Among several metals that were detected only average and RME concentrations for arsenic exceeded the RBC of 0.43 mg/kg."	The sentence should read "Among several metals that were detected only average and RME concentrations for aluminum, arsenic, manganese , and vanadium exceeded their RBC."

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11	Section 2.7, Page 69	The last sentence of the second sentence under Surface Soils reads, "Lead was detected in all locations at levels below 100 mg/kg, which was well below the RBC (400 mg/kg)."	The sentence should read, "Lead was detected in all locations at levels below 100 mg/kg, which was well below the EPA draft screening level of 400 mg/kg."
12	Table 2-9, Page 71	Need to clarify in the Table which columns represent "Average" and "RME," which are referred to in the text.	The following three bullets should be added to the notes at the bottom of the table that read: <ul style="list-style-type: none"> • "Mean = Average concentration" • "Upper 95% Confidence Limit = RME" • "RME = Reasonable Maximum Exposure"
13	Table 2-10, Page 83	The "Measurement Source" column for Benzene lists "nscrubbed Cell."	The measurement should be, "Unscrubbed Cell."
14	Section 2.8, Page 87	In the first bullet, the sentence reads, "Nine pollutants out of the list of 21 target pollutants included in the FTIR analytical method were detected during the project."	The sentence should read, "Nine pollutants out of the list of 26 target pollutants included in the FTIR analytical method were detected during the project."
15	Section 3.3, Page 101	The equation under the Quantifying Exposures section currently reads, "DI = C*HIF*M, where,...."	The equation should read, DI = "C*HIF*MF, where,...."
16	Table 3-2, Page 102	The denominator in the Integrated Ingestion Daily Intake equation is shown as "AT _c and AT _a ."	This portion of the equation should read, "AT" and be given a "k" qualifier. The following note should be added to the table: "(k) For integrated non-carcinogenic exposures, the AT _{nc} for adults and children were added to calculate the AT. For carcinogenic exposures, AT _c was used for AT."
17	Table 3-3, Page 104	The denominator in the Integrated Ingestion Daily Intake equation is shown as "AT _c and AT _a ."	This portion of the equation should read, "AT" and be given a "j" qualifier. The following note should be added to the table: "(j) For integrated non-carcinogenic exposures, the AT _{nc} for adults and children were added to calculate the AT. For carcinogenic exposures, AT _c was used for AT."
18	Table 3-4, Page 106	The denominator in the Integrated Adult and Child Daily Intake equation is shown as "AT _{child} and AT _{adult} ."	This portion of the equation should read, "AT" and be given a "i" qualifier. The following note should be added to the table: "(i) For integrated non-carcinogenic exposures, the AT _{nc} for adults and children were added to calculate the AT. For carcinogenic exposures, AT _c was used for AT."
19	Table 3-5, Page 108	The denominator in the Integrated Child and Adult Inhalation Daily Intake equation is shown as "AT _{child} and AT _{adult} ."	This portion of the equation should read, "AT" and be given a "l" qualifier. The following note should be added to the table: "(l) For integrated non-carcinogenic exposures, the AT _{nc} for adults and children were added to calculate the AT. For carcinogenic exposures, AT _c was used for AT."
20	Table 3-6, Page 110	The denominator in the Integrated Child and Adult Inhalation Daily Intake equation is shown as "AT _{child} and AT _{adult} ."	This portion of the equation should read, "AT" and be given a "f" qualifier. The following note should be added to the table: "(f) For integrated non-carcinogenic exposures, the AT _{nc} for adults and children were added to calculate the AT. For carcinogenic exposures, AT _c was used for AT."

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21	Table 3-7, Page 120	In the Notes section, there is a number 5 bullet with no text.	The table does not contain a 5 qualifier and the 5 should have been removed from the notes.
22	Section 3.6, Page 133	The third sentence in the first paragraph in the <i>Uncertainties in the Toxicity Assessment</i> reads, "In this HRA, since initially oral RfDs were only available for 95 of the 246 COCs and inhalation RfDs were only available for 48 of the 246 chemicals of concern..."	The sentence should read, "In this HRA, since initially oral RfDs were only available for 95 of the 246 COCs and inhalation RfDs were only available for 58 of the 246 chemicals of concern..."
23	Table 3-12, Page 131	In the first row under the Toxicity Assessment, in the comment column the sentence reads, "May have resulted in an underestimation of the risks. Oral RfDs were available for 95 of the 246 COCs and Inhalation RfDs were available for 48 of the 246 COCs."	The sentence should read, "May have resulted in an underestimation of the risks. Oral RfDs were available for 95 of the 246 COCs and Inhalation RfDs were available for 58 of the 246 COCs."
24	Table 3-13, Page 136	The Potential Incremental Hazard Indices Attributable to Emissions from the SIC concentrations are calculated by subtracting the Upwind from the Downwind Hazard Indices. The Potential Incremental Hazard Indices Attributable to Emissions from the SIC concentrations read as follows: Child (0-6) 3-year Resident Exposure: Average = 50 RME = 137 Child (0-6) 6-year Resident Exposure Average = 50 RME = 137 Adult – 3-year Resident Exposure Average = 18 RME = 49 Adult – 6-year Resident Exposure Average = 24 RME = 59 Integrated Child and Adult – 30-year Resident Exposure Average = 24 RME = 67	The Potential Incremental Hazard Indices Attributable to Emissions from the SIC concentrations are calculated by subtracting the Upwind from the Downwind Hazard Indices. Therefore the Potential Incremental Hazard Indices should read as follows: Child (0-6) 3-year Resident Exposure: Average = 68 RME = 165 Child (0-6) 6-year Resident Exposure Average = 68 RME = 165 Adult – 3-year Resident Exposure Average = 24 RME = 59 Adult – 6-year Resident Exposure Average = 24 RME = 59 Integrated Child and Adult – 30-year Resident Exposure Average = 33 RME = 80
25	Section 4.1, Page 138	The fourth sentence in the second paragraph in the <i>Adult Cancer Risk</i> section reads, "At the Residential Towers, hexachlorobutadiene contributed the highest percentage of cancer risk (27.2%), followed by 1,3-butadiene (14.1%) and acetaldehyde (9.5%)."	The sentence should read, "At the Residential Towers, hexachlorobutadiene contributed the highest percentage of cancer risk (27.2%), followed by 1,3-butadiene (14.1%) and 2,3,7,8-TCDD TEQ (11.9%)."
26	Table 4-1, Page 139	The Elementary School, Building 993 percentage for "All Other Constituents" is incorrect at 6.7.	The Elementary School, Building 993 percentage for "All Other Constituents" should be 5.1.
27	Table 4-2, Page 140	The Total Percentage is noted as 100% for all locations, however each percentage adds up to slightly higher than 100%.	A note should be added to the Table that reads, "Actual Total Percentages may be slightly higher than 100% due to rounding."
28	Table 4-3, Page 142	The percentage contributions at the child development center for acetaldehyde, acetonitrile and all other constituents read 13.96, 1.5, 3.6, respectively.	They should read 11.8, 1.3 and 6.0 for acetaldehyde, acetonitrile and all other constituents, respectively.

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29	Section 4.4, Page 148	Two thirds of the way down the first paragraph on the page, some constituents were omitted in the sentence that reads, "Only butanol, 1,2 dibromoethane, 1,4 dioxane, styrene, di-n-butylphthalate and bis(2-ethyl hexyl)phthalate means were higher at NAF Atsugi than the California study."	The sentence should read, "Only butanol, 1,2 dibromoethane, 1,4 dioxane, styrene, arsenic, cadmium, copper, lead, silver, mercury, di-n-butylphthalate and bis(2-ethyl hexyl)phthalate means were higher at NAF Atsugi than the California study."
30	Section 4.4, Page 148	In the last sentence in the last paragraph on the page, the sentence reads, "PM ₁₀ levels at NAF Atsugi were 66 mg/m ³ and were slightly elevated in comparison with 45 mg/m ³ in Los Angeles, the highest level in the U.S. cities used as a comparison."	The sentence should read, "PM ₁₀ levels at NAF Atsugi were 66 ug/ m ³ and were slightly elevated in comparison with 45 ug/m ³ in Los Angeles, the highest level in the U.S. cities used as a comparison."
31	Table 4-5, Pages 149 & 150	The Reference column reads a reference as EPA 1992 .	The reference should be EPA 1992a.
32	Table 4-5, Pages 149 & 150	The CalEPA 1998 reference in the Reference column is not included in the Reference section.	The reference should be included in the Reference section as California Air Resources Board, 1998.
33	Section 4.5, Page 156	The second to last sentence in the last paragraph on the page reads, "This was performed for the air pathway only since the inhalation pathway is responsible for the majority of risk at each location (e.g., ≥ 85%)."	The sentence should read, "This was performed for the air pathway only since the inhalation pathway is responsible for the majority of risk at each location (e.g., ≥ 80%)."
34	Section 4.4, Page 157	Halfway down the first paragraph the sentence reads, "It further indicates that the risks for children and adults routinely spending 24 hours each day on base will be similar to the cancer (1.1E-05 for child and the 3.7E-05 for adults) and non-cancer risks (67 for child and 24 for adults) for an RME exposure of 3 years presented for the Residential Towers (see Table 3-8).	The sentence should read, "It further indicates that the risks for children and adults routinely spending 24 hours each day on base will be similar to the cancer (1.1E04 for child and the 3.7-E05 for adults) and non-cancer risks (67 for child and 24 for adults) for an RME exposure of 3 years presented for the Residential Towers (see Table 3-8)."
35	Section 4.6, Page 158	The third sentence of the second paragraph on this page reads, "Acetaldehyde, acetonitrile, acrolein, and PM10 contributed the majority of the HI for each location."	This sentence should read, "Acetaldehyde, acrolein, and PM ₁₀ contributed the majority of the HI for each location."
36	Section 4.8, Pages 168 & 169	The last sentence on Page 168 reads, "The no observed effect level (NOEL) using these lung function criteria is about 0.05 ppm, which is more than two times greater than 0.02 ppm (0.0162 mg/m ³), the maximum 24-hour concentration of formaldehyde at any one sample site at NAF Atsugi."	This sentence should read, "The no observed effect level (NOEL) using these lung function criteria is about 0.05 ppm, which is more than two times greater than 0.0162 ppm (0.02 mg/m³) , the maximum 24-hour concentration of formaldehyde at any one sample site at NAF Atsugi."
37	Section 4.8, Page 169	The third sentence in the first paragraph reads, "However, 0.02 ppm does not exceed the chronic Maximum Risk Level (MRL) set at 0.008 ppm by ATSDR."	This sentence should read, " The maximum 24-hour concentration of 0.0162 ppm does exceed the chronic Maximum Risk Level (MRL) set at 0.008 ppm by ATSDR."
38	Section 4.8, Page 169	The first sentence on this page reads, "...the maximum 24-hour concentration of formadehye at any one sampling site at NAF Atsugi."	The sentence should read, "...the maximum 24-hour concentration of formaldehyde at any one sampling site at NAF Atsugi."

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39	Section 4-8, Page 176	The last sentence in the second paragraph reads, "The background excess lifetime cancer risk in the U.S., attributable to dioxin exposure via all pathways, as shown in Table 4-7, is 1.0×10^{-4} or about 1 per 10,000, which is consistent with the earlier draft of this reassessment."	The sentence should read, "The background excess lifetime cancer risk in the U.S., attributable to dioxin exposure via all pathways, as shown in Table 4-13, is 1.0×10^{-4} or about 1 per 10,000, which is consistent with the earlier draft of this reassessment."
40	Section 4.9, Page 185	The first sentence in the first paragraph in the <i>1,2,4-Trimethylbenzene</i> section reads, "1,2,4-Trimethylbenzene contributed 1 to 2% of the non-carcinogenic risk at NAT Atsugi by inhalation."	The sentence should read, "1,2,4-Trimethylbenzene contributed 1 to 2% of the non-carcinogenic risk at NAF Atsugi by inhalation."
41	Section 5.3, Page 193	The second sentence of the last paragraph on this page reads, "Acetaldehyde, acetonitrile, acrolein, and PM ₁₀ contributed the majority of the hazard index for each location."	The sentence should read, "Acetaldehyde, acrolein, and PM ₁₀ contributed the majority of the hazard index for each location."
42	References, Page 208	An EPA reference is missing from the References section.	The following reference should be added to page 208 of the References section, before EPA, 2000a: " EPA, 2000. Exposure and Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds. U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment. EPA/600/P-00/001Ab-Ae. March/May 2000."
43	Appendix F	The first note reads, "...Int. = intermediate exposure duration (14 – 365 days);..."	The note should read, "...Int. = intermediate exposure duration (15 – 364 days);..."