



Corrigendum

Corrigendum to: “Persistent organic pollutants including polychlorinated and polybrominated dibenzo-p-dioxins and dibenzofurans in firefighters from Northern California”



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In this study, we reported the presence of octabromodibenzofuran (OBDF) in the serum of firefighters. We reported that 50% of the firefighter serum samples contained, on average, 2987 (range: 1350–5640) pg/g lipid wt, OBDF. Our previous analysis for this congener (only for OBDF) was based on gas chromatography with electron capture detection (ECD) and this method of detection was found inadequate to accurately isolate and determine OBDF in serum. There was an unknown interference that elutes at the same retention time with OBDF for certain samples. We reanalyzed the samples with high resolution mass spectrometric techniques and did not find quantifiable levels of this congener in serum samples. Thus, we would like to correct our OBDF levels in the serum samples as “below the limit of quantitation (1 pg/g lw) in all of the samples analyzed in the study”. The corresponding toxic equivalents (TEQs) of PBDD/Fs are only slightly lower than what was reported (mean TEQ 104 pg/g lw) because OBDF has a low toxic equivalency factor (TEF) value. The levels of higher-TEF PBDD/F congeners that we report in samples from two firefighters (mean TEQ 103.4 pg/g lw) are significantly elevated compared with general population levels.

Table 1 reporting concentrations and OBDF, sum PBDD/F, and TEQ_{PBDD/F} is corrected as below (for the corresponding 3 rows). We regret this oversight. The concentrations of all other PCDD/F and PBDD/F congeners were determined using high resolution mass spectrometry (HRGC-HRMS) and the reported values for the other congeners are correct and remain the same.

Congener or analyte	% Detect	Mean	Median	SD	Range (min–max)
Octabromodibenzofuran (OBDF)	0	<1	nd	nd	<1
Sum PBDD/Fs	^a	352	0	870	0–2778
TEQ _{PBDD/F}	^b	103.4	0	246	0–732

Units for dioxins and furans are pg/g lipid weight.

^{a,b} Two of 12 serum samples had detection values for three or more PBDD/F congeners including 2,3,7,8-TBDD, 2,3,7,8-TBDF, 1,2,3,7,8-PeBDF, and 2,3,4,7,8-PeBDF.

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