SAMPLE REPORT

This is an excerpt of a report, SCS IH results reports will include greater detail and a summary with recommendations.

Weld Fume Employee Exposure Analysis

ABC Co Inc.

Collection: MM/DD/YYYY Report: MM/DD/YYYY

Air sampling and analysis was conducted at ABC Co Inc. to evaluate employee exposure to metal fume resulting from three different welding tasks: (1) task 1, (2) task 2, and (3) task 3. Sampling was conducted to determine employee exposure to common metals found in weld fume including: aluminum, antimony, beryllium, cadmium, chromium, cobalt, copper, iron oxide, lead, manganese, molybdenum, nickel, vanadium, and zinc oxide. Additionally, welding on stainless is performed intermittently; therefore samples were collected to determine exposure to hexavalent chromium.

A summary of sampling and analysis results are provided below. Details are provided for each sample in the following pages of this report. A summary of results that must be provided to employees within 15 days of receiving this report is provided as *Attachment 1*.

Sample ID	Type	Substance	Location	OSHA PEL (above or below)
P1	Personal	Weld Fume (Aluminum and Copper)	Plant#3	Below
P2	Personal	Weld Fume (Aluminum and Copper)	Plant#3	Below
P3	Personal	Weld Fume	Plant#2	Below
P4	Personal	Weld Fume	Plant#2	Below
P5	Personal	Hexavalent Chromium	Plant#2	Below
P6	Personal	Hexavalent Chromium	Plant#2	Below
A1	Area	Hexavalent Chromium	Plant#2	Below
A2	Area	Hexavalent Chromium	Plant#2	Below

*Employee was wearing adequate respiratory protection.

Samples collected by Name of Steel City Safety, 500 South Center Avenue, New Stanton, PA 15672. Air samples for weld fume were collected and analyzed according to the OSHA Method ID-125G *Metal and Metalloid Particulates in Workplace Atmospheres* and air samples for hexavalent chromium were collected and analyzed according to OSHA Method ID-215 (version 2) *Hexavalent Chromium*.

The sampling was conducted during first shift operations (HH:MM to HH:MM) on Monday, MM/DD/YYYY (approximately 35 - 64^{o}F). 8 samples were taken during the exposure analysis including 2 personal samples in Plant 3, 4 personal samples in Plant #2, and 2 area samples in Plant #2. Eight SKC Aircheck 52 sampling pumps calibrated to approximately 2.0 LPM. Pre, and post, monitoring air flow calibrations were completed using a field rotameter to determine total air volume. Average air flow rates were additionally corrected using the field rotameter correction formula Y = 1.070X - 0.001 to ensure sample accuracy. Filter media included 25mm UW MCE, 3-piece filters for weld fume metal profile and 25mm UW PVC 2-piece filters for hexavalent chromium. The …

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STEEL CITY SAFETY

Table 1: Personal Sample – P1

Compound	LCP-P1A Lab Result[1] [mg/M^3]	LCP-P1A Sample Time	LCP-P1A Lab Result[1] [mg/M^3]	LCP-P1A Sample Time	Combined Exposure Value[2] [mg/M^3]	OSHA PEL[3] [mg/M^3]	Accuracy Correction % (+ / -)	Result with Correction (Upper)	Result with Correction (Lower)	Above or Below OSHA PEL
Aluminum	0.16	235	0.088	221	0.125	5.0	6.9	0.134	0.116	Below
Antimony	<	235	<	221	<	0.5	9.3	<	<	<
Beryllium	<	235	<	221	<	0.002	9.4	<	<	<
Cadmium	<	235	<	221	<	0.005	8.1	<	<	<
Chromium	<	235	<	221	<	0.5	10.5	<	<	<
Cobalt	<	235	<	221	<	0.1	8	<	<	<
Copper	0.056	235	0.081	221	0.068	0.1	8.6	0.074	0.062	Below
Iron Oxide	<	235	<	221	<	10.0	10.9	<	<	<
Lead	<	235	<	221	<	0.05	7.6	<	<	<
Manganese	0.00065	235	0.00073	221	0.001	5.0	7.3	0.001	0.001	Below
Molybdenum	<	235	<	221	<	5.0	7.6	<	<	<
Nickel	<	235	<	221	<	1.0	8.3	<	<	<
Vanadium	<	235	<	221	<	0.1	8.2	<	<	<
Zinc Oxide	<	235	<	221	<	5.0	11.1	<	<	<

(1) All values are equated to an 8hr time weighted average value. "<" represents levels below detectable limits.

(2) Combined Exposure is determined using the following formula: $Y = [(C1*T1)+(Cn*Tn)]/(T1+Tn)$. "<" represents levels below detectable limits.

(3) OSHA PEL = Permissible Exposure Limit –is a legal limit in the United States for exposure of an employee to a substance or physical agent. For substances it is usually expressed in parts per million (ppm) or milligrams per cubic meter (mg/M3).

Table 2: Personal Sample – P2

Compound	LCP-P2A Lab Result[1] [mg/M^3]	LCP-P2A Sample Time	LCP-P2B Lab Result[1] [mg/M^3]	LCP-P2B Sample Time	Combined Exposure Value[2] [mg/M^3]	OSHA PEL[3] [mg/M^3]	Accuracy Correction % (+ / -)	Result with Correction (Upper)	Result with Correction (Lower)	Above or Below OSHA PEL
Aluminum	0.095	235	0.077	221	0.086	5.0	6.9	0.092	0.080	Below
Antimony	<	235	<	221	<	0.5	9.3	<	<	<
Beryllium	<	235	<	221	<	0.002	9.4	<	<	<
Cadmium	<	235	<	221	<	0.005	8.1	<	<	<
Chromium	<	235	<	221	<	0.5	10.5	<	<	<
Cobalt	<	235	<	221	<	0.1	8	<	<	<
Copper	**0.064**	**235**	**0.14**	**221**	**0.101**	**0.1**	**8.6**	**0.110**	**0.092**	**Possible**
Iron Oxide	<	235	<	221	<	10.0	10.9	<	<	<
Lead	<	235	<	221	<	0.05	7.6	<	<	<
Manganese	0.00065	235	0.00073	221	0.00069	5.0	7.3	0.00074	0.00064	Below
Molybdenum	<	235	<	221	<	5.0	7.6	<	<	<
Nickel	<	235	<	221	<	1.0	8.3	<	<	<
Vanadium	<	235	<	221	<	0.1	8.2	<	<	<
Zinc Oxide	<	235	<	221	<	5.0	11.1	<	<	<

(1) All values are equated to an 8hr time weighted average value. "<" represents levels below detectable limits.

(2) Combined Exposure is determined using the following formula: $Y = [(C1*T1)+(Cn*Tn)]/(T1+Tn)$. "<" represents levels below detectable limits.

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