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2.0 BACKGROUND

Southern Iowa Mechanical (SIM) operates an industrial maintenance contracting business on the subject property located at 3043 Pawnee Drive in Ottumwa, Iowa. The SIM property is approximately 2.6 acres in size and is located in an industrial park area where the surrounding land use is predominantly industrial. A Site Location Plan depicting the location of the property and a Site Plan depicting the general configuration of the property are included as **Figures 1 and 2, respectively in Appendix 1.**

On May 16, 2008, EPA conducted a site assessment at the property. EPA alleged that it found PCB contamination present in the location of adhesion areas of old insulation on identified areas of the structural steel beams stockpiled on the property at concentrations exceeding the cleanup standards: (1) applicable to non-liquid PCB contamination on surfaces in high occupancy areas* per 40 CFR 761.61(a)(4)(ii) of $10 \mu\text{g}/100 \text{ cm}^2$ (instead of the low occupancy area standard** of $100 \mu\text{g}/100\text{cm}^2$); and (2) EPA also reported that one sample of site soils under the metal beam stockpile areas, tested in excess of 1.0 mg/Kg designated for high occupancy areas per 40 CFR 761.61(a)(4)(i)(A) (instead of the low occupancy area standard of 25 mg/Kg).

*** High Occupancy Area** - is defined as any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation wastes. Examples could include a residence, school, day care center, sleeping quarters, a single or multiple occupancy 40 hours per week work station, a control room, and a work station at an assembly line.

**** Low Occupancy Area** - is defined as any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: less than 840 hours (an average of 16.8 hours per week) for non-porous surfaces and less than 335 hours (an average of 6.7 hours per week) for bulk PCB remediation waste. Examples could include an electrical substation or a location in an industrial facility where a worker spends small amounts of time per week (such as an unoccupied area outside a building, an electrical equipment vault, or in the non-office space in a warehouse where occupancy is transitory).

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3.0 SITE ACTIVITIES PRIOR TO SAMPLING

Once the segregation and decontamination staging areas had been identified, GES constructed containment areas on the ground in the identified staging areas. GES personnel utilized construction forklifts to transport metal beams from the stockpiles to the segregation area for visual inspection. At the segregation area, each metal beam was numbered consecutively to create an identification system for site tracking and documentation purposes. When visual inspection revealed no indication of residual insulation or adhesive, the metal beams were segregated for wipe sampling as identified in the Work Plan/QAPP to verify PCB concentrations do not exceed 10 ug/100 cm². Metal beams containing visible residual insulation or adhesive, were relocated to the decontamination staging area for removal of the visible insulation and adhesive residues and decontamination of the portions of the metal beam that contained the visible insulation and adhesive.

All wastes generated during decontamination activities were containerized, labeled and sampled for offsite disposal, depending on their original PCB concentration, at a licensed, EPA approved facility.

According to information provided to us by GES, as of August 14, 2009, a total of 2,281 metal beams had been segregated from the site stockpiles and visually inspected. It was determined that 726 (32%) of the metal beams contained no residual insulation or adhesives (relocated for sampling) and 1,555 (68%) of the metal beams contained visible residual insulation or adhesive and were relocated to the decontamination staging area for subsequent removal of the visible insulation and adhesive residues and decontamination of the portions of the metal beam that contain the visible insulation and adhesive.

Metal beam decontamination activities to remove the visible insulation and adhesive residues and decontaminate the portions of the metal beams that contained the visible insulation and adhesive commenced on July 9, 2009. Completion of decontamination of the 1,555 (100%) of the metal beams which were visually identified to contain residual insulation or adhesives was completed by August 14, 2009.

Out of the 726 of the metal beams that contained no residual insulation or adhesives, 81 metal beams (~ 11%) were selected for wipe sampling and verification, this exceeded the 10% required percentage stipulated in the GES, EPA approved work plan and QAAP.

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4.0 SAMPLING ACTIVITIES

Prior to initiation of site sampling activities, advance notification was provided, by GES, to the US-EPA authorized representative, Mr. DeAndre' Singletary (Remedial Project Manager - Superfund/IANE) in accordance with GES's approved work plan. Site sampling consisted of the following elements as presented in GES's QAPP and conducted in accordance with the sampling bulk PCB remediation waste procedures in 40 CFR 761.265(a).

4.1 Metal Surface Sampling

As indicated earlier, if visual inspection revealed no indication of residual insulation or adhesive, the metal beam was relocated for sampling to verify that PCB concentrations do not exceed the 10 ug/100 cm² in accordance with 40 CFR 761.123. According to the approved QAPP, EPA's recommended wipe sampling method was to be utilized, where an indiscriminate "grab" sample is collected from ten (10%) percent of the metal beams visually identified not to contain residual insulation or adhesives to verify PCB concentration do not exceed 10 µg/100 cm². Please note that, all the wipe sampling events were conducted on a biased-scheme basis directed by the on-site USEPA representatives during the sampling events. It is worthwhile mentioning that specifically at the July 21st, 2009 event, over 85% of the samples were biased and not indiscriminate grab samples as indicated in the USEPA-approved work plan and QAAP.

Metal beams relocated to the sampling area each received consecutive numeric identification followed by an alphabet to indicate the top (T), bottom (B), right (R) and left (L) sides of each beam. Also, since the width and height of the beams is approximately 10 cm, the total length of each beam was equally divided into 10 cm sections to create individual 100 cm² sample areas (10 cm x 10 cm grids).

Once the exact location where the 100 square centimeters (cm²) wipe sample was selected by the EPA on-site coordinator, new double pairs of disposable gloves were donned and a dedicated (disposable) pre-measured 10 cm x 10 cm template was placed on the selected wipe sampling location. A sterile wrapped gauze pad was removed from its sterile wrapping and placed into a laboratory supplied 4 oz. glass container with a lined lid (PTFE cap) containing hexane (solvent). Once the pad was soaked, the surface of the beam within the framed area was wiped, with as much uniform pressure as possible, to thoroughly wipe materials off the surface. Wiping proceeded from left to right in rows from the top to the bottom of the framed sampling area. The sampling area was wiped again with the same uniform pressure in columns from the top to the bottom from the left side to the right side of the entire framed area. The objective is to systematically, thoroughly, and consistently wipe the entire framed area twice, each time from a different direction and orientation. Once the area has been wiped, the sampling gauze was allowed to air dry and was replaced in the sample container. The sample container was then labeled with sample identification and sampling time, affixed with a yellow TSCA PCB label and the sampling log filled. Each wipe sample was identified as follows: if a PCB wipe sample taken from beam number 1 on the top side, 5' (grid # 15 in centimeters) from the labeled end would have the distinct sample identification of "1T15." The container is then wiped clean and placed into a sealable bubble bag and placed into a cooler with ice (to keep sample at about 4° C). Once sampling was completed, the chain of custody was filled out, and the samples prepared/stored for shipping.

To minimize the need for sample equipment decontamination, samples were collected with dedicated, disposable sampling equipment. The used template and the sampling gloves were discarded into plastic bags used for disposal of PCB contaminated material after each sample. New template and gloves were used at each sampling location.