



May 7, 2025

JENK0000

George Locke, CBO
Borough Manager/Zoning Officer
Borough of Jenkintown
700 Summit Ave
Jenkintown, PA 19046

**RE: ENVIRONMENTAL CONSULTING SERVICES
FIRE INCIDENT EVALUATION
SPS TECHNOLOGIES
301 HIGHLAND AVENUE
ABINGTON, MONTGOMERY COUNTY, PA 19046
PARCEL ID: 300035584008**

Dear Mr. Locke,

Pennoni Associates, Inc. (Pennoni) was retained by the **Borough of Jenkintown (Client)** to evaluate the ongoing monitoring associated with the February 17, 2025 fire, that occurred at SPS Technologies (SPS), a manufacturing company that produces fasteners and other materials for the aviation industry. The facility is located at 301 Highland Avenue in the Glenside section of Abington Township, Montgomery County. An overview of SPS's manufacturing processes and the chemicals utilized onsite is included in Appendix A of this report.

Incident Overview

On February 17, 2025, an explosion and subsequent fire was reported at SPS. The cause of the fire is unknown at the time of this report, however, per SPS, an investigation into the cause of the incident is in process. The fire was located near the shared border of the Township of Abington and the Borough of Jenkintown. A total of sixty-eight (68) fire companies responded to the fire along with employed emergency contractors, including Center for Toxicology and Environmental Health (CTEH) and WSP, to engage in environmental sampling and monitoring in and around the SPS facility. The fire was officially announced as extinguished on February 22, 2025, at 4:00 pm, per the Township of Abington's Press Release dated the same day.

Pursuant to the provisions of Section 7501 of the *Pennsylvania Emergency Management Services Code, 35 Pa. C.S.A, Section 7101 et seq.*, a *Declaration of Disaster Emergency (DDE)* was issued on February 18, 2025, by the Commissioners of Abington Township. Furthermore, on February 18, 2025, the United States Environmental Protection Agency's (USEPAs) Superfund Technical Assessment and Response Team (START) mobilized to the site to help monitor air and water quality and to assist the county and municipality as needed. Subsequent to the conclusion of emergency response activities on February 22, 2025, TRC Environmental Corporation (TRC) was retained by SPS to review the available air/dust monitoring data and asbestos containing material (ACM) testing results and evaluate the potential for human health risks based

on the results of data that has been collected to date. Copies of supporting documentation are included in Appendix A of this report.

Water Monitoring

The Pennsylvania Department of Environmental Protection (PADEP) and Philadelphia Water Department (PWD) conducted two (2) initial sampling events on February 18th and 19th of the nearby Tookany Creek, which runs along the SPS facility's eastern and southern borders which was located downwind at the time of the fire. One sample location was selected upstream to establish a baseline value from unaffected surface water. The result from this location would be compared to the results from potentially impacted waters located downstream at the following locations: below SPS, the Greenwood Ave Bridge, and the Confluence with Delaware River. The collected samples would be analyzed for Total and Weak Acid Dissociable Cyanides. These results of each sampling event would be used to establish if there was an immediate risk to surface water. Levels below 0.01 mg/l cannot be detected.

On Tuesday, February 18, immediately after the fire event, four (4) samples were collected, one sample per each sample location mentioned above. The results of the sampling indicated non-detect levels for Total and Weak Acid Dissociable (WAD) Cyanides at the Upstream (control) and at the downstream Confluence with Delaware River sample locations. The Downstream below SPS sample measured 0.4156 mg/L for Total Cyanide and 0.2678 mg/L for WAD Cyanide; the Greenwood Ave Bridge sample measured Total Cyanide at 0.4818 mg/L and WAD Cyanide at 0.2316 mg/L. On Wednesday, February 19, a second round of samples were collected. The results of the sampling indicated non-detect levels for Total and Weak Acid Dissociable (WAD) Cyanides at the Upstream (control) and Confluence with Delaware River sample locations. The Downstream below SPS sample measured Total Cyanide at 0.0119 mg/L and WAD Cyanide at 0.0106 mg/L; the Greenwood Ave Bridge sample measured Total Cyanide at 0.0112 mg/L and WAD Cyanide at non-detect levels. A comparison of the results indicates a significant downward trend in the reported values of the contaminants of concern (COCs). Based on the results of the sampling, PADEP determined that there is **no risk to drinking water**. Furthermore, Aqua Pennsylvania, the main water supplier to both Abington Township and the Borough of Jenkintown, has confirmed that the water is safe for consumption at the time of this report.

Subsequently, in accordance with SPS's Sampling Plan, submitted to the PWD, PADEP, and the USEPA, SPS retained the services of WSP USA Inc. (WSP) to collect daily surface water and outfall samples from February 22nd through March 4th. In accordance with the Sampling Plan, the surface water samples were analyzed for pH, Oil & Grease (O&G), Free/Total Cyanide, Total/Dissolved Nickel, Total/Dissolved Chromium, Hexavalent Chromium (speciated), Methyl ethyl ketone (MEK), Toluene, and Total Hardness and the outfall samples were analyzed for pH (in-field measurement), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Nitrate-Nitrite as N, Total aluminum, Total copper, Total iron, Total lead, Toluene, Methyl ethyl ketone (MEK), Hexavalent chromium (speciated), Total/Free cyanide, O&G, Total chromium, Total nickel, Total zinc, Dissolved chromium, Dissolved nickel, and Hardness.

A review of the sample results collected on February 22nd, 2025, detected the COCs Free Cyanide (0.005 mg/L) and Total Nickel (0.00726 mg/L) in surface water above PADEP's Drinking Water Standards. Subsequent daily sampling events revealed a downward trend in all originally detected COCs, and as of the March 3rd sampling event, none of the contaminant concentrations have exceeded the USEPA's drinking water standard or PADEP's water quality criteria.

Water monitoring reports, figures, and results are included in Appendix B of this report.

Air Monitoring

On Tuesday, February 18, 2025, at approximately 1:00 PM, under emergency response (ER) instructions issued by the USEPA, the START deployed the air monitoring instruments listed below at two monitoring locations identified as Station 1 and Station 2. The air monitoring instruments were connected to EPA's telemetry system, Viper for real-time monitoring of the target COCs. The locations of the air monitoring stations were as follows:

Station 1 was originally located southeast of SPS Technologies adjacent to west side of the Southeast Pennsylvania Transit Authority (SEPTA) tracks north of the Jenkintown-Wyncote station; however, on February 20, 2025, Station 1 was moved to the coordinates 40.09787332353415, -75.1364029370481 on Runnymede Avenue at 17:05 on February 20, 2025. The reason for the Station movement was not provided in the EPA and/or TRC's reporting.

Station 2 was located along the fence in front of Jenkintown Middle/High School located at 250 West Ave., Jenkintown, PA 19046. The air monitoring instruments were brought online at 8:15 PM on February 18, 2025.

Air monitoring concluded on February 23rd, 2025.

Per the USEPA's *Air Monitoring Report – SPS Technologies Emergency Response*, dated February 25th, 2025, the EPA concluded that "air monitoring has not detected respirable dust or any chemical at levels of concern to date in the air outside of the facility". A copy of the EPA report is included in Appendix C of this report.

On February 20, 2025, SPS deployed seven stationary air monitors (AR01 to AR07) along the perimeter of SPS's facility to monitor for COCs potentially associated with fire emissions including but not limited to Carbon Monoxide (CO), Hydrogen Cyanide (HCN), Hydrogen Sulfide (H₂S), Particulate Matter less than 2.5 microns in diameter (PM_{2.5}), and Airborne Volatile Organic Compounds (AVOCs). AR01, AR03, AR04, AR05, AR06, and AR07 were located along the perimeter of SPS and AR02 was located near Jenkintown Middle/High School to monitor potential offsite impacts. In addition to stationary air monitors, SPS used air handheld monitors at various locations near SPS and throughout the Abington and Jenkintown communities.

Per the available monitoring data, the COCs PM_{2.5} and AVOCs were the only parameters detected at measurable concentrations between February 20 and February 23, 2025. A review of the monitoring results are as follows:

- **PM_{2.5}**
 - the 24-hour average concentrations at AR02 were as follows:
 - 0.029 mg/m³ from February 20-21
 - 0.007 mg/m³ from February 21-22
 - 0.029 mg/m³ from February 22- 23
- **AVOCs**
 - All the following detections were recorded at concentrations of 0.2 ppm or less at AR02:
 - 103 measurable concentrations out of 4,543 readings on February 20- 21,
 - 271 measurable concentrations out of 6,975 readings from February 21-22, and;
 - 546 measurable concentrations out of 4,920 readings from February 22-23.

The alarm limits set for AR02 were based on either the Short-Term Exposure Limit (STEL) or Recommended Exposure Limits (RELS) set for that specific chemical by the Occupational Health and Safety Administration (OSHA). Of the 920 measurable concentrations of AVOCs at AR02 between February 20th and 23rd, none exceeded the lower alarm limit of 5 ppm.

The EPA 24-hour average National Ambient Air Quality Standard (NAAQS) for PM_{2.5} is 0.035 mg/m³. Average concentrations at seven stations located around the perimeter of SPS and at AR02 were all below this 24-hr standard. Additional stationary community air monitoring locations were added on February 22, 2025 (AR08, AR09, AR10, and AR11), February 23, 2025 (AR12, AR13) and February 24, 2025 (AR14, AR15).

Based on available meteorological data, SPS's initial air sampling was appropriately focused downwind (following prevailing wind direction), which was established to be from the east and east southeast. Upwind concentrations (those without impact from the fire) which was established to be from to the north, west and south would be considered "background" during the fire.

Per the available monitoring data, the COCs CO, PM_{2.5}, and AVOCs were the only parameters detected at measurable concentrations between February 26 and March 3, 2025. A review of the monitoring results are as follows:

- **CO**
 - Per TRC's report, a total of 8 detections out of over 45,000 readings for CO took place in the community (approximately 0.02% detection rate).
 - In the report drafted on March 4, 2025, 62 detections out of approximately 45,000 CO readings (approximately 0.1% detection rate) indicated measurable concentrations.
 - None of the CO detections in the community from February 25 – March 4, 2025, exceeded the peak 1-hour exposure limit established by National Ambient Air Quality Standards (NAAQS).
- **PM_{2.5}**
 - Based on a review of the available reports, the average PM_{2.5} concentrations in the community between February 26 – March 4, 2024, were consistently below the EPA's 24-hour average NAAQS of 0.035 mg/m³.
- **AVOCs**
 - Total AVOCs were detected in several readings from February 26 – March 4, 2025.
 - The maximum concentration reported in any of these detections was 0.4 ppm.

Based on a review of the available data, no human health risks associated with CO, PM_{2.5}, or Total AVOCs were evident as a result of the fire for the persons living in surrounding neighborhoods downwind of the fire.

Available daily reports, data, figures, and assessments are included in Appendix C of this report.

Dust Sampling

On February 27, 2025, wipe samples were collected to determine if particulate matter including dusts and soot from the SPS fire were present in measurable amounts on surfaces. TRC collected wipe samples as follows:

- WS01, WS02, WS04, and WS06 closest to the evacuation zone.
- WS03 was collected but held for analysis as it was determined to be outside of the sampling area
- WS05 was a field blank for quality assurance purposes.

- WS02, WS04, and WS06 were collected on outdoor surfaces in the neighborhoods surrounding SPS downwind of the fire.

The samples were analyzed for Cyanide, Polycyclic Aromatic Hydrocarbons (PAHs), and Arsenic & other, undefined metals. A review of the sampling results are as follows:

- **Cyanide**

- The results for sample points WS01, WS02, WS04, and WS06 indicated cyanide levels below the detection limit of $<0.23 \mu\text{g}/100 \text{ cm}^2$.

- **PAHs**

- Sample point WS01 had a PAH concentration of $1.3 \mu\text{g}/100 \text{ cm}$.
- Sample point WS02 had a PAH concentration of $0.5 \mu\text{g}/100 \text{ cm}$.
- Sample point WS04 had a PAH concentration of $0.3 \mu\text{g}/100 \text{ cm}$.
- Sample point WS06 had a PAH concentration of $0.3 \mu\text{g}/100 \text{ cm}$.

These concentrations are well below the indoor surface screening level for PAH's established by EPA's Contaminants of Potential Concern Committee (COPC) as part of the World Trade Center Indoor Air Task Force Working Group. Interestingly, the second highest identified off-site concentration was in the opposite direction that the winds transported the fire plume, suggesting these concentrations in the community were likely no different from pre-fire concentrations

- **Arsenic & Other Metals**

- The results for sample points WS02, WS04, and WS06 indicated arsenic levels below the detection limit of $<0.216 \mu\text{g}/100 \text{ cm}^2$.

These concentrations are well below the indoor surface screening level for Arsenic and other Metals established by EPA's Contaminants of Potential Concern Committee (COPC) as part of the World Trade Center Indoor Air Task Force Working Group (which would be stricter than any outdoor guideline).

The analytical results indicated no further investigation is warranted for these parameters. The CTEH Wipe Sampling Report is included in Appendix D of this report.

Asbestos Testing

In the immediate aftermath of the fire, SPS received reports of apparent fire-related debris in residential yards surrounding the community. To address community concerns, on March 3, 2025, SPS dispatched its emergency response contractors to survey neighboring properties and to collect for temporary storage at a secure location at the SPS facility. Figure 4, prepared by the CTEH emergency response team and included in their Wipe Sampling Report present in Appendix D, identifies the locations where debris was collected. A review of the figure indicates a debris pattern consistent with the prevailing east and east-southeast wind direction reported during and in the immediate aftermath of the fire.

The collected debris consisted mainly of roofing material. On February 20 and 23, 2025, 15 representative samples of the debris were collected for testing to determine if the material was asbestos containing material (ACM). The samples were transported to EMSL Analytical, Inc. of Cinnaminson, New Jersey under chain of custody procedures for analysis. The results of the analysis indicated no samples contained more

than 1% asbestos by weight, which is the EPA and Occupational Safety and Health Administration (OSHA) definition of ACM. Furthermore, of the 15 samples collected, 14 samples had no detectable asbestos fibers.

Based on the available data, exposure to asbestos as a result of the fire is not expected to pose a health hazard to the community. EMSL Analytical Summaries are included in Appendix D of this report.

Conclusions & Recommendations

Based on the review of the analytical data, no immediate human health risks associated with the SPS fire incident are expected via air, water, and/or settled dust/debris. Continued monitoring of the aforementioned parameters by SPS, Aqua Pennsylvania, and local/state/federal authorities is expected to continue indefinitely. Pennoni recommends continued review of air and monitoring data as it is made available to ensure no human health risks arise from the SPS incident.

A copy of TRC's Impact Assessment is included in Appendix E of this report.

If you have any questions, please feel free to contact us.

Sincerely,

PENNONI ASSOCIATES INC.



Riley Boag
Graduate Environmental Specialist



Alan Lloyd, CIH, CSP, ENV SP, WELL AP
Regional Vice President

Appendix A – Press Releases, Public Statements, & Notifications

Appendix B – Water Monitoring

Appendix C – Air Monitoring

Appendix D – Additional Monitoring

Appendix E – Impact Assessments