**0.0 Revision Log**

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| Revision Log | | | | | |
| Revision Level | Revision Date | Section | Description | | Revised By |
| REL | 9/11/20 | ---- | Initial Release | | NT |
| A | 12/1/23 | Header | Replaced GHSP logo with newer version | | B. Balok |
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| Approval: | | CN: RS | | MX: JH | |
| US: JA | | Other (as req’d): DRW | |

1. **Purpose:** 
   1. To define the global standard for the In-Process Air Quality Management within GHSP manufacturing facilities.
2. **Scope:** 
   1. This global standard applies to all GHSP manufacturing facilities.
3. **Definitions:**
   1. STEL – Short-Term Exposure Limit
      1. Industry term used for the employee’s 15-minute, time-weighted average exposure that shall not be exceeded at any time during a workday, unless another time limit is specified in a parenthetical notation below the limit. Measured in Parts per Million (ppm) or Milligram per Cubic Meter (mg/m3).
   2. TWA – Time-Weighted Average
      1. Industry term used for the amount of average airborne exposure in any 8-hour workshift, of a 40-hour workweek, that the employee shall not exceed. Measured in Parts per Million (ppm) or Milligram per Cubic Meter (mg/m3).
   3. Ceiling
      1. Industry term used for the amount of exposure that an employee shall not exceed during any part of the workday. Measured in Parts per Million (ppm) or Milligram per Cubic Meter (mg/m3).
   4. SDS – Safety Data Sheet
      1. A document produced in alignment with the UN’s Globally Harmonized System of Classification and Labeling of Chemicals (GHS) that the manufacturer, importer, or distributer of a chemical product is required to provide to downstream users.
4. **References:**
   1. MIOSHA-STD-1224: General Industry Safety and Health Standard Part 301 – Air Contaminants for General Industry
   2. CP-WI-MFG-X301-Global Standard Production Equipment Safety, Ergonomic, and Delivery Checklist
   3. CP-WI-MFG-X309-Global Standard Laser Application and Setup
   4. CP-WI-MFG-X317-Global Standard Solder Process
   5. CP-WI-MFG-X325-Global Standard Plastic Joining and Setup
   6. CP-WI-MFG-X336-Global Standard In-process Cleaning
5. **Method:**
   1. When designing new assembly equipment, if there is a process that may create air contaminants (see section 5.6.2 below for a list of, but not limited to, processes that may create air contaminants), SDS sheets of the potential air contaminant material must be reviewed with the Plant EHS Engineer.
      1. SDS sheets can be obtained from the manufacturer of the product’s website and/or by emailing the manufacturer of the product.
   2. If any process in the Manufacturing process creates air contaminants, an Air Quality test must be performed.
   3. An employee’s exposure to any substance listed in table G-1-A of MIOSHA-STD-1224: Part 301, shall not exceed the TWA limit, STEL limit, and Ceiling limit specified for that substance.
   4. An employee shall not be exposed to air concentrations between the TWA and STEL limits more that 4 times in a workshift and such exposures shall be no less than 60 minutes apart.
   5. If an employee is exposed to air concentrations higher than the allowed limits, a Fume Extractor shall be used.
      1. Note: Fume Extractor can be used, even of the air concentrations are not above the limits.
   6. **Fume Extractor Selection**
      1. Preferred Brands

*Selection outside the preferred brand requires approval by the Advanced Process Engineer and Global Standards Team*

* BOFA
* Pace
* Purex
* MAXFLO
* Fumex
* Ruiwan
* Weller Smoke Absorber
  + Benchtop solder fumes
    1. **Requirements**
       - Selection of Fume Extractor to be based on application. Applications are, but not limited to:
         * Lasering Etching

Plastic

Metal

PCB

* + - * + Molding
        + Soldering
        + Plastic Joining

InfraStaking

Laser Welding

* + - * + In Process Cleaning

Plasma Treating/Blown Ion

CO2 Cleaning

* + - * + Manual Applications

Priming

Cleaning

* + - * Fume extractors should NEVER be used in place of an exhaust/vacuum system to collect dirt/debris.
      * When used in Molding, make sure extractor comes with charcoal filters to aid in removing the odor.

1. **Records:** N/A