



Carbon Monoxide Control Levels

REFERENCES: National Ambient Air Quality Standards. OSHA permissible exposure limits (PEL) and Threshold Limit Value (TLV). NIOSH(National institute of Occupation Safety and Health). WHO(World Health Organization).

FORMS: [CO Monitoring Record](#)
[CO Monitoring Checklist](#)

PURPOSE: To provide direction for controlling CO exposure and minimizing risk of exposure from construction activities. Also provide a safe environment for Construction workers, Co-workers, Patients and visitors to Mercy facilities.

RESPONSIBILITY: The General Contractor will be responsible to provide a safe construction site and assure that this policy is being followed to provide a safe environment for Mercy Co-workers, visitors and patients. The Mercy PD&C Project Manager will follow up and assure contractor is implementing policy and completing the forms properly.

PROCESS: Carbon Monoxide monitors should be placed in areas that are controlled and are between 60 degrees to 80 degrees. If the areas identified to install monitors are outside this range then the Contractor must get approval from the Mercy PD&C Project Manger to install the monitors. Under no circumstances will the monitors be used in areas that are below 32 Degrees F or above 100 Degrees F.

The Contractor will need to fill out a risk assessment and implementation record of the work to be done to determine if risks of CO or CO₂ are present and work with the Mercy project manager to locate areas to be monitored and the corrective action to be taken if the CO limits are exceeded. Below is the acceptable limits and action for all Mercy Projects.

PATIENT CARE AREAS:

Patient care areas are defined as any area a patient may be in to receive care i.e. Radiology, emergency department, surgery, admitting, testing, cath labs, patient bed floors and etc. The contractor should first cover, filter or protect the intakes in these areas to prevent the passage of CO into the facility. This includes scrubbers on equipment and vehicles.

- a) 0 – 9 PPM is Normal. At this level co-workers should be notified that work is being done and the limits of CO are within the normal operating range and there is no risk.
- b) 10 – 35 PPM is Marginal. The low alarm should be set for 50 PPM. At 50 PPM the contractor should notify the Mercy project manager and start to ventilate the area affected immediately to get readings back below 35 PPM. Under no circumstances will the CO limit be allowed to exceed 35 PPM. The contractor will be required to shut down any work causing limits to reach 35 PPM or if fumes



- become unacceptable to owner or if lower readings of CO are causing problems for high risk patients or areas.
- c) 36 PPM or above is unacceptable. Contractor will be required to take any preventive measures to assure that under no circumstance does our CO reading ever exceed 35 PPM.

SUPPORT/NON-PATIENT AREAS:

These areas are defined as areas that support patient care but do not have patients in them i.e. information technology, storage, plant operations, dock area, storage, housekeeping and other areas typically not used for patient care. The contractor should first cover, filter or protect intakes in these areas to prevent the passage of CO into the facility. This includes scrubbers on equipment and vehicles as needed.

- a) 0 – 9 PPM is Normal. At this level co-workers should be notified that work is being done and the limits of CO are within normal operating range and there is no risk.
- b) 10 – 35 PPM is Marginal. The low alarm limit should be set at 50 PPM. At 35 PPM the contractor should notify the Mercy project manager and start to ventilate the area affected immediately to control CO. Under no circumstance should the CO levels in these areas exceed 35 PPM. The contractor should shut down any work causing readings to reach 35 PPM or if fumes become unacceptable to owner or if lower readings cause problems for high risk co-workers.
- c) 36 PPM or above is unacceptable. Contractor will be required to take any preventative measures to assure that under no circumstance does our CO reading exceed 35 PPM.