

## The OSHA Rules:

OSHA regulations require facilities to closely monitor worker exposure to ethylene oxide (EO). These regulations restrict permissible time weighted average (TWA) EO exposure of workers to 1 part per million (ppm) for an 8 hour workday and 5 ppm for any 15 minute period. In facilities where worker exposure may exceed these levels, employers must institute numerous measures to meet OSHA regulations. A facility is excused from these measures if it can document that worker exposure levels do not exceed those mentioned below under Initial Monitoring Results.

## Permissible Exposure Limits & Monitoring Strategy:

Permissible exposure limit (PEL)	1.0 ppm	8hr	TWA
Action level	0.5 ppm	8hr	TWA
Short-term exposure limit (STEL)	5.0 ppm	15min	STEL

Initial Monitoring Results (PPM)		Periodic Monitoring Frequency (per year)	
8hr	15min	8hr	15min
<0.5	<5.0	---- none required ----	
<0.5	5.0	0	0
0.5-1.0	<5.0	2	0
0.5-1.0	>5.1	2	4
>1.0	<5.0	4	0
>1.0	>5.1	4	4

## Monitoring Strategy And Methods:

The OSHA law pertains to exposure of individual workers. Requirements can be met by monitoring representative employees (when jobs entail similar duties) on the basis of 15 minute and 8 hour breathing zone samples associated with operations most likely to produce exposures above permissible limits. Accurate determinations of EO levels require careful attention to both collection and analysis. The least expensive monitoring devices currently available are "badge" type monitors, such as the AN94 Vapor-Trak Monitor available from Andersen.

## Andersen Sterilizer's Policy:

Andersen Sterilizers manufactures sterilization systems which are capable of meeting both the "action level" and the "short-term exposure limit" requirements. Our company supports OSHA guidelines, and we encourage all of our customers to follow these regulations.

## OSHA Requirements If "Action Level" Or "Excursion Limits" Are Exceeded:

- **Monitoring Program:** The facility must establish a monitoring program to ensure that worker exposure levels do not exceed the (PEL and STEL) limits.
- **Training Program:** The facility must institute a documented training program. Each worker who may be exposed to EO above the (PEL) and (STEL) levels must learn the hazards of EO exposure and how to use the chemical properly.  
NOTE: Andersen provides FREE virtual training and certification for the life of your sterilizer.
- **Medical Surveillance Program:** Each worker who may be exposed more than 30 days per year to EO levels above the acceptable limits must undergo an annual comprehensive health examination.
- **Restricted Areas:** If the 15 minute (STEL) or the 8 hour (PEL) levels are exceeded, OSHA regulations require the establishment of restricted area with limited employee access. Signs warning of cancer and reproductive hazards from exposure must identify these areas.