



# South Coast Air Quality Management District

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Via Email and CERTIFIED RETURN RECEIPT to addressee

September 7, 2022

Kevin Wagner  
VP Environmental Health & Safety  
Sterigenics US, LLC  
687 Wanamaker Avenue  
Ontario, CA 91761

**Subject:** Notice that Sterigenics US, LLC (South Coast AQMD ID 126060) May Be Designated as a Potentially High Risk Level Facility

Dear Mr. Wagner:

Pursuant to South Coast AQMD Rule 1402 (g), South Coast AQMD is notifying you that Sterigenics US, LLC (Sterigenics Ontario) may be designated as a Potentially High Risk Level Facility.<sup>1</sup> As discussed below, South Coast AQMD has monitored elevated levels of ethylene oxide, a highly toxic chemical, in the vicinity of where Sterigenics Ontario is located. If these levels have persisted over a long-term period and are due to emissions from Sterigenics Ontario, the estimated cancer risk level would exceed South Coast AQMD significance thresholds.

South Coast AQMD needs to determine whether Sterigenics Ontario contributes to this high level of risk. Based on further information gathered independently and from the facility, South Coast AQMD may designate Sterigenics Ontario as a Potentially High Risk Level Facility. If Sterigenics Ontario is designated as a Potentially High Risk Level Facility, you will be required to expeditiously reduce risks and provide reports on toxic emissions and potential health risks to the surrounding community. Details on the evidence regarding this designation and possible next steps are described below.

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<sup>1</sup> Pursuant to Rule 1402 (c)(14), a Potentially High Risk Level Facility is a facility for which the Executive Officer has determined that emissions data, ambient data, or data from a previously approved Health Risk Assessment indicate that the facility has a likely potential to either exceed or has exceeded a Significant Risk Level. Pursuant to Rule 1402 (c)(19), a Significant Risk Level for purposes of this letter is a cancer risk where the Maximum Individual Cancer Risk is greater than 100 in-a-million.

<http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1402.pdf>

## Summary of Available Information Regarding Air Quality Impacts from Sterigenics Ontario

### Ambient Air Quality Monitoring Data

South Coast AQMD staff collected 24-hour air monitoring samples near the Sterigenics Ontario facility and detected elevated levels of ethylene oxide at the Ontario Gateway Business Center location (Site #1 and Site #1B). Figure 1 below shows the sampling locations and Table 1 lists the measured concentrations at those locations.

**Figure 1 – Sampling Locations near Sterigenics Ontario**



**Table 1 – Measured Concentrations (ppbv) near Sterigenics Ontario**

Sample Date	Site #1 Concentration (ppbv)	Site #1B Concentration (ppbv)
6/16/2022	29.0	
6/18/2022	139	
6/20/2022	39.2	
6/22/2022	84.0	
6/24/2022	26.9	
6/26/2022	58.4	
6/28/2022	132	
7/28/2022*		25.9
7/31/2022		36.1
8/3/2022		44.8
8/6/2022		50.5
8/9/2022		10.0
8/12/2022		103

Sample Date	Site #1 Concentration (ppbv)	Site #1B Concentration (ppbv)
8/15/2022		87.8
8/18/2022		37.2
8/21/2022		104
8/24/2022		73.7
8/27/2022		98.4
Average	65.6	

\*Site #1 was replaced by Site #1B due to parking lot where Site #1 was located being resurfaced. Measurements on Site #1B began on 07/28/2022.

The 2021 annual average ethylene oxide concentration from the South Coast AQMD Rubidoux regional monitoring station is 0.06 ppbv (with a max value of 0.14 ppbv).<sup>2</sup> As seen in Table 1, the average concentration of ethylene oxide near Sterigenics Ontario (Site #1 and Site #1B, combined) is 65.6 ppbv. This value is substantially higher than a concentration of 3.18 ppbv which represents a cancer risk of 100 chances in a million to offsite workers using the Office of Environmental Health Hazard Assessment (OEHHA) cancer potency and risk methodology and is also above the Rule 1402(c)(19) Significant Risk Threshold of 100 chances in a million. In addition to known process emissions from permitted equipment, recent sampling inside Sterigenics found that there are multiple rooms with high levels of ethylene oxide that are not vented to air pollution control equipment and would likely result in fugitive emissions to ambient air. As seen in Figure 2, grab samples were also taken upwind and downwind of your facility, indicating that Sterigenics Ontario is the likely source of ethylene oxide found in these areas. Preliminary information shows that estimated health risks at worker sites near Sterigenics Ontario are of greatest concern.

**Figure 2 – Grab Sample Locations and Measured Concentrations (ppbv) near Sterigenics Ontario**



<sup>2</sup> See the average 2021 ethylene oxide concentration readings from the Rubidoux monitoring station: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report-hazardous-air-pollutants>

Facility Visit by South Coast AQMD Staff

As you are aware, South Coast AQMD staff have visited Sterigenics Ontario, and have had subsequent discussions with facility staff since that time. South Coast AQMD staff have observed potential sources of ethylene oxide fugitive emissions from the chambers, transport, post-aeration, warehouse, and other parts of the facility. Additionally, data provided by the facility of ethylene oxide concentrations from the facility's gas chromatographs located inside the buildings indicate that these sources are potentially contributing to elevated concentrations found in monitors off-site.

**Designation as a Potentially High Risk Level Facility**

Based on the evidence presented above, your facility may be designated as a Potentially High Risk Level Facility pursuant to Rule 1402 (g). Prior to making this designation, it is necessary to confer with us so that you can present any additional relevant information as the South Coast AQMD considers this designation. Please contact me at (909) 396-3244 no later than 5 business days from the date of this letter to schedule a conference.

Rule 1402 Requirements for Potentially High Risk Level Facilities

If designated as a Potentially High Risk Level Facility, Sterigenics Ontario will be required to submit an Early Action Reduction Plan, an Air Toxics Emission Inventory Report (ATIR), a Health Risk Assessment (HRA), and a Risk Reduction Plan. The timeline for each submittal is outlined below. Each of the due dates below would be determined based on the date of notification by the South Coast AQMD that your facility is a Potentially High Risk Level Facility.

<b>Deliverable</b>	<b>Due Date</b>	<b>Rule Reference</b>
Initial Information for ATIR	30 days	1402 (d)(1)
Early Action Reduction Plan	90 days	1402 (g)(2)
Air Toxics Inventory Report	150 days	1402 (d)(2)
Health Risk Assessment	180 days	1402 (g)(3)
Risk Reduction Plan	180 days	1402 (g)(4)

Further, Sterigenics Ontario will be required to conduct public notification within 30 days after the HRA is approved and will need to implement the Early Action Reduction Plan according to the schedule approved by South Coast AQMD. The final Risk Reduction Plan will also need to be implemented as soon as feasible, but no later than two years after the Risk Reduction Plan is approved. Sterigenics Ontario is strongly encouraged to aggressively reduce emissions of ethylene oxide to protect public health as quickly as possible and faster than the timeline provided above.

**Guidelines for Preparing Rule 1402 Deliverables**

Guidance for preparing each of the previously mentioned documents can be found online in the South Coast AQMD AB 2588 Supplemental Guidelines available here:

<http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf>

The California Air Resources Board (CARB) has developed the “Hot Spots” Analysis and Reporting Program (HARP), which includes the emissions inventory and risk assessment requirements of the “Hot Spots” Program in a set of program modules. ATIRs must be prepared with the Emission Inventory Module (EIM) module of HARP, and HRAs must be prepared using the Air Dispersion and Risk Management Tool (ADMRT) module of HARP. A free copy of the HARP software is available here:

<https://ww2.arb.ca.gov/our-work/programs/hot-spots-analysis-reporting-program>

Additional guidance for preparing ATIRs is available in CARB’s Emission Inventory Criteria and Guidelines here:

<https://ww3.arb.ca.gov/ab2588/2588guid.htm>

Guidance for preparing HRAs is available from the OEHHA here:

<https://oehha.ca.gov/air/crn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

If you have any questions, please feel free to contact me at (909) 396-3244 or Victoria Moaveni, Program Supervisor at (909) 396-2455.

Sincerely,



Ian MacMillan  
Assistant Deputy Executive Officer  
Planning, Rule Development &  
Implementation

cc:

- Wayne Nastri
- Susan Nakamura
- Sarah Rees
- Jason Aspell
- Terrance Mann
- Jason Low
- Victor Yip
- Jillian Wong
- Barbara Baird
- Eugene Kang
- Victoria Moaveni
- (All with South Coast AQMD)

IM:EK:VM:FC:VT