

Archived: Thursday, February 5, 2026 1:22:05 PM
From: [Haley, William \(Bill\)](#)
Sent: Thu, 5 Feb 2026 00:12:01
To: [Lizabeth Gomez](#)
Cc: [Amanda Sanders](#)
Subject: RE: South Coast AQMD Questions from Monthly Reaction Committee meeting (1/21) & Condition 52 Bi-weekly call (1/30)
Importance: Normal
Sensitivity: None

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Lizabeth,

Please see below response to SCAQMD's questions. Let us know if you have any questions.

Thanks,

William C. Haley, PE.*
Project Director

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Subject: South Coast AQMD Questions from Monthly Reaction Committee meeting (1/21) & Condition 52 Bi-weekly call (1/30)

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Hello,

As discussed during our last Condition 52 Bi-weekly Call on 1/30/26, we are following up on the requested written responses to the questions that were raised during the Monthly Reaction Committee meeting on 1/21/26 regarding the event(s) that transpired and resulted in visible flames on Monday 1/19/26 at the top of the exhaust stack from what is believed to be the Zeeco Unit. During the Monthly Reaction Committee meeting, South Coast AQMD requested additional details on the cause of the visible flame, if there were operational concerns, and if there were any actions to mitigate/prevent such situation.

Also discussed during the bi-weekly call, South Coast AQMD requested responses for the following additional questions:

- Confirmation as to which combustion unit(s) had the visible flames external to the exhaust stack and what happened.
 - This is confirmed to be the Zeeco unit. A description of the event is below.
- What caused the issue, i.e., why did the unit have visible flames external to the exhaust?
 - The unit had visible flames due to either a change in gas composition, flow, or both. During this time, flows at the Zeeco unit increased by approximately 25% due to the shutdown of the main flare station. This temporary increase in flow resulted in a larger flame that extended to the top of the enclosed stack. The presence of visible flames at or near the stack tip occurred intermittently for a discrete period of time.
- Was the unit damaged?
 - No damage to the Zeeco unit was observed during an inspection and no damage was expected as the Zeeco unit is rated for significantly higher thermal output than experienced during this event. Flames reaching the top of a TOx/flare stack are common when there are abrupt changes to gas composition and/or flow.
 - How does CCL know, was there an inspection of the equipment and if so, when and what were the results?
 - When flames reached the top of the unit it was still operating well below the rated capacity of the unit, and the Tox unit is designed and constructed to encounter heat output greater than the heat output experienced when visible flames were observed at the top of the stack on an intermittent basis for a discrete period of time. Additionally no damage was observed in a visual inspection.
 - Did the unit require repairs? If so, what is the schedule for repairs?
 - No. Visual inspection confirmed no repairs were needed.
- What is the current status of the unit?
 - Online
- Where in the unit are the thermocouples located?
 - There are multiple thermocouples throughout the interior of the unit's stack.
 - Were the thermocouples damaged by the flames?
 - No. The thermocouples were designed to operate within the unit's stack and are continuously exposed to flame and combustion products during their operation. Temperatures within the unit's stack did not noticeably increase at the time of the event and the thermocouples remain functional. If the thermocouples had been damaged, a total failure or a continuous, large anomalous reading would be expected, rather than continuing to operate normally. The thermocouples continue to operate normally.
 - What temperature are the thermocouples rated to withstand?
 - The thermocouple operating range is normally -328 to 2282 degrees Fahrenheit with a maximum high limit temperature of 2500 degrees.
 - When were the thermocouples last inspected, calibrated, and replaced?
 - The thermocouples were initially inspected and replaced prior to the Zeeco unit's arrival on-site in late 2023. The thermocouples are visually inspected for damage during each unit cleaning which last occurred on January 7, 2026.
- What parameters are monitored for each control combustion unit?
 - Temperature at multiple points, flow, and flame presence are measured at each unit.
- What are the parameter set points for each control combustion unit?
 - Flame presence is measured in yes or no, and the lack of flame triggers a shutdown.
 - Temperature set points are as follows:

Unit	Operating Temperature	Hi Shutdown Temperature
▪ Flare 1	1550	2000
▪ Flare 2	1550	2000
▪ Flare 3	1500	2000
▪ Zeeco Tox	1475	2000
▪ Hero Tox	1600	in PLC locked by Mfg

■ Parnell Tox 1500 2000

- How are the set points determined? Are they set by the manufacturer? Can they be modified by the operator? If so, has CCL modified the set points of the control equipment thus far?
 - Flare 1 through 3 operating temperatures are based on source test results.
 - The controls for the Zeeco unit only include shutdown triggers in the event of certain equipment malfunction or loss of flame. As such, there is no “set point” to which controls modulate inputs. The speed setpoint on the blower feeding the Zeeco unit is only adjustable manually in the field and is rarely changed. It was set by Zeeco personnel during start up procedures when the unit was relocated to its current position.
- CCL has indicated that the destruction efficiency is not affected when operating with a visible flame external to the equipment.
 - Please provide data, documentation, and/or source test results, etc., that demonstrate whether there is or isn't an effect on destruction efficiency when operating with a visible flame external to the equipment.
 - The intermittent visible flames out the top of a unit cannot be source tested so it is impossible to provide the data requested. The actual combustion and peak temperatures are well within the stack when a flame is visible outside of the stack and any possible change in combustion efficiency could be the result of either rapid changes in gas composition and/or flow, which do not imply the unit is running improperly.
- What is the thermal oxidizer's designed residence time and at what minimum temperature is the residence time when operating at the flow rates that result with a visible flame external to the equipment?
 - Please provide data, documentation, and/or source test results, etc., that demonstrate or verify this information.
 - The flow rate that resulted in visible flames was well below the peak operating limits of the unit as rated by the manufacturer and as stated in the permit application and recent submittal to SCAQMD on October 24, 2025.
 - Source test results are not generally correlated to temperatures and residence times as the question poses. It is impossible to build data to that granular of a level.
- Is the exhaust stack part of the manufacturer's "chamber design" to ensure complete combustion?
 - No, the combustion chamber is a defined location within the unit; however, the exhaust stack does contain heat to assist in enhancing destruction efficiency.
 - Please provide data, documentation, and/or source test results, etc., that demonstrate or verify this information.
 - As discussed with several SCAQMD staff over the past year and in a recent submittal to SCAQMD on October 24, 2025 Zeeco made certain guarantees which were included in the recent permit application revision to SCAQMD.
- Do the rental thermal oxidizer/flares have South Coast AQMD various locations permits or other permits or registrations? If so, please provide a copy.
 - All rental TOxs at CCL have permit applications pending with SCAQMD. In the instance of this Zeeco unit, the permit was applied for in late 2023.

Please provide the detailed response requested during the Monthly Reaction Committee meeting on 1/21/26, as well as the information summarized above, by **February 4, 2026**.

Don't hesitate to reach out if you have any questions.

Thank you,
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