

**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF:

PROPOSED NEW REGULATION

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

No. EIB 21-27(R)

**PRE-FILED TECHNICAL TESTIMONY OF MR. BRENDAN FILBY,
A WITNESS ON BEHALF OF THE GAS COMPRESSOR ASSOCIATION**

I. Introduction to My Testimony

My name is Brendan Filby. I am testifying as a technical witness on behalf of the Gas Compressor Association (The GCA) in this proceeding. My testimony supports The GCA's proposed changes to the New Mexico Environment Department's (Department) proposed regulation set out as 20.2.50.115.B(4) NMAC in the Department's proposed rule 20.2.50 NMAC (Proposed Rule). The GCA's proposed changes to the that particular part of the Proposed Rule are set forth in redline in GCA Exhibit 4, and relate to the control device inspection requirements established in the Proposed Rule.

This testimony begins with an overview of my credentials. I will then go on to discuss the Department's proposed control device inspection schedule, as set forth in the Department's Proposed Rule at 20.2.50.115.B(4) NMAC. I will then discuss The GCA's concerns with this proposed provision and describe The GCA's proposal that the Department change the regulation prior to adoption to clarify that a default monthly inspection schedule for all control devices should not apply in all circumstances, and that the rule should (1) allow for the use of tailored inspection plans for particular pieces of control equipment consistent with good air pollution control practices and (2) make it clear that, where a different inspection and maintenance schedule for a particular type of control equipment is established elsewhere in the rule, that specific inspection and

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1 maintenance schedule trumps the default inspection schedule of 20.2.50.115.B(4) NMAC. As set
2 forth fully herein, The GCA's proposed amendments to 20.2.50.115.B(4) and 20.2.50.113.C(2)
3 NMAC seek to clarify the Department's Proposed Rule and ensure that the requirements set forth
4 therein will not be interpreted to require unnecessary control device inspections that could harm
5 the performance of a particular control device and ultimately result in greater emissions.

6 **II. Statement of My Qualifications and Relevant Experience.**

7 My resume is attached as GCA Exhibit 24. I received a Bachelor of Science in
8 biochemistry from the University of Waterloo in 1999. I started work in the emissions control
9 field and the marketing of emissions control devices for engines in 2000. I have been working in
10 the emissions control industry, with a particular focus on emissions control devices used in the oil
11 and gas industry, for the past twenty-two years. From 2006 to 2008, I attended graduate business
12 school while continuing my career, and earned a Master of Business Administration degree from
13 the Beedie School of Business at Simon Fraser University in 2008. I have over twenty years of
14 experience related to emissions controls for the engines used in the oil and gas industry.

15 My current title is Chief Executive Officer at DCL America, Inc. My current
16 responsibilities include the overall operations for the DCL Technology Group operations in the
17 United States. Prior to serving as DCL America's CEO, I held a number of positions with the
18 company, including General Manager and Sales Manager.

19 DCL is a global leader in the design, manufacture, and implementation of advanced
20 emissions control systems for stationary and mobile internal combustion engines. DCL's product
21 offerings include catalytic converters, catalytic mufflers, engineered silencers, diesel particulate
22 filters, and replacement catalyst elements. DCL's emissions control systems are internationally
23 recognized as the industry standard for quality and reliability.

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DCL has been designing, building, and servicing emissions control systems for the types of engines that are used in the oil and gas industry, and that are regulated by the Proposed Rule, for over 25 years. DCL is a one-stop source for the development, design, testing, and validation of emissions control systems, including catalytic converters, and is ISO 9001:2015 certified for the design, development, and manufacture of emissions control systems for internal combustion engines and industrial equipment. DCL has also established recommended inspection and maintenance procedures that it recommends for its emissions control systems to help ensure that those systems operate properly in the field for the lifetime of the equipment.

As CEO of DCL America, and through my earlier roles with the company, I have gained significant expertise relating to the design and operation of the catalytic converters used as emissions control devices on engines that serve in various functions in the oil and gas industry. I have had the opportunity to assist customers with compliance assurance monitoring (CAM) plan development and witnessed the operational outcomes of those practices. Furthermore, our Houston facility has operated a catalyst cleaning/testing system since 2015, and I have personally supervised its operation. I am familiar with the kind of inspection and maintenance that is necessary to keep catalytic converters in good working order.

III. The New Mexico Environment Department's Proposed Rule

1. Introduction to the Department's Proposed Emissions Inspection Requirements for Control Devices

The Department's Proposed Rule includes a general requirement to inspect all control devices "at least monthly to ensure proper maintenance and operation." See Proposed Rule, 20.2.50.115.B(4) NMAC. Unlike the general inspection requirements for equipment other than control devices, see Proposed Rule, 20.2.50.112.B(1) NMAC, the Proposed Rule does not provide

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1 for different inspection schedules to be established in the section of the rule that is specifically
2 applicable to that specific type of control device. As explained in greater detail below, this “one
3 size fits all” monthly inspection schedule does not make sense for all control devices, and in the
4 case of catalytic converters, could risk damage of the catalyst. Steady-state engine operation is
5 better for the longevity and performance of the catalyst, and lowers the risk from adverse
6 combustion events (*i.e.*, backfiring) that could damage the catalyst. Engine starts and stops for
7 monthly inspections, when the engine would otherwise be in constant operation, will increase the
8 risk of damage to the catalyst. Moreover, increasing the number of engine starts and stops for
9 catalyst inspections will result in additional run-time at lower exhaust temperatures, when the
10 catalyst will not be operating at peak efficiency.

11 Similarly, the Proposed Rule fails to recognize the value of tailored inspection and
12 maintenance plans, based on the inspection and maintenance schedules recommended by a
13 manufacturer or supplier such as DCL, or those that have been developed by the owners or
14 operators of engines and other equipment. As set forth more fully below, the Department should
15 amend its Proposed Rule to clarify that a specific control device inspection schedule established
16 elsewhere in the rule trumps the generic monthly inspections required by Proposed Rule
17 20.2.50.115.B(4) NMAC, and also allow owners or operators to rely on tailored inspection and
18 maintenance schedules that they have developed to keep a particular piece of emissions control
19 equipment operating properly.

20 2. The GCA’s Concerns with the Department’s Proposed Inspection Schedule for Control
21 Devices and Proposed Amendments Thereto

22 The language the Department has proposed to include in the Proposed Rule at
23 20.2.50.115.B(4) NMAC should be amended because, as currently drafted, it establishes a “one

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size fits all” inspection schedule for emissions control equipment that is both unnecessary and, when applied to catalytic converters, may be counter-productive. Section 115 of the Proposed Rule applies to control devices. Subsection B of Section 115 establishes General Requirements for control devices. Proposed Rule 20.2.50.115.B(4) NMAC states:

The owner or operator shall inspect control devices used to comply with this Part at least monthly to ensure proper maintenance and operation. Prior to an inspection or monitoring event, the owner or operator shall scan the EMT and the required monitoring data shall be electronically captured in accordance with this Part.

Elsewhere in the rule, see Proposed Rule 20.2.113.C(2) NMAC, the proposed rule states that catalytic converters (and AFR controllers) “shall be maintained according to manufacturer or supplier recommended maintenance schedules.” However, there is nothing in the Proposed Rule that resolves the potential conflict between these two provisions – and as a manufacturer and supplier of catalytic converters, I can assure the Board that DCL’s recommended inspection and maintenance schedule conflicts with the “at least monthly” inspection schedule required by Proposed Rule 20.2.50.115.B(4) NMAC.

As stated above, I have decades of experience working for a company that designs and manufactures catalytic converters that are used to improve the emissions performance from engines used in the oil and gas industry. I have reviewed the Proposed Rule. After reviewing the Proposed Rule, it is my opinion – and the opinion of others at DCL – that the monthly control device inspection requirements in the proposed rule are onerous and unnecessary for catalytic converters. DCL’s maintenance and operations manuals recommend a quarterly (or every 2000 hours of operation) check of temperature and pressure differentials, and a further inspection only if those results deviate from the baseline by more than 25 percent. It is my experience, and DCL’s experience, that a typical high speed natural gas-fired engine in a continuous duty application such

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1 as gas compression would require visual inspection no more frequently than every 18-24 months,
2 unless otherwise indicated by the check of temperature and pressure differentials noted above.

3 Moreover, I am concerned that a requirement to conduct monthly inspections of catalytic
4 converters could result in long-term negative impacts on catalyst. Conducting catalytic converter
5 inspections at that frequency will require more starting and stopping of the engines. Starting and
6 stopping an engine can increase the risk of the engine backfiring, which can harm the catalyst.
7 DCL's catalytic converters are designed to operate with far less-frequent inspections than are
8 required by the Proposed Rule. Monthly inspections of catalytic converters would be onerous and
9 impose cost on the operator while providing no environmental or control device performance
10 benefit compared to a less-frequent inspection schedule that takes into account the manufacturer's
11 recommendations.

12 In order to address these concerns, The GCA proposes amending the language in the Proposed
13 Rule to clarify that the specific language relating to catalytic converter inspections in Proposed
14 Rule 20.2.113.C(2) NMAC trumps the default monthly inspection cycle established in Proposed
15 Rule 20.2.50.115.B(4) NMAC. In addition, The GCA suggests that the rule language regarding
16 control device inspections be amended to allow owners and operators to use tailored inspection
17 and maintenance schedules that have been created by owners and operators. Allowing the use of
18 tailored inspection and maintenance schedules will make the Department's Proposed Rule
19 consistent with the federal rule, 40 CFR Part 63, Subpart ZZZZ, that already establishes
20 requirements for the operations of these engines. Those tailored inspection schedules, which in
21 my experience are based on the inspection recommendations of manufacturers like DCL and also
22 take into account the owner or operator's experience in optimizing the operation of the control
23 equipment in a particular operation or installation, are preferable to a default "one size fits all"

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inspection schedule established by rule. In particular, when it comes to catalytic converters, a regulatory requirement to conduct monthly inspections will be unnecessarily expensive and provide no benefit with regard to the emissions control performance of the catalytic converters.

IV. Conclusion

In conclusion, the requirement to perform “at least monthly” inspections of all control devices under the Department’s Proposed Rule 20.2.50.115.B(4) NMAC is unnecessary and even counter-productive. For the reasons set forth above, The GCA proposes adding a provision to the general control device monitoring requirements in Proposed Rule 20.2.50.115.B(4) NMAC that will make it clear that the rule provisions specific to catalytic converters will override the default monthly inspection requirement. In addition, The GCA proposes an addition to Proposed Rule 20.2.113.C(2) NMAC to help make it clear that the requirements of paragraph 20.2.113.C(2) NMAC establish both maintenance and inspection requirements for catalytic converters. Finally, The GCA requests that the language of Proposed Rule 20.2.50.115.B(4) NMAC be changed to recognize the importance and efficacy of an owner or operator’s tailored control device inspection and maintenance plans.

This concludes my direct technical testimony in this matter.