

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

IN THE MATTER OF:

PROPOSED NEW REGULATION

No. EIB 21-27 (R)

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

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

I. Introduction to My Testimony

My name is Mark Copeland. I am testifying as an expert witness with respect to certain aspects of the New Mexico Environment Department’s (“NMED”) proposed regulation, 20.2.50 NMAC (“Proposed Rule”), as summarized in The Gas Compressor Association’s (“The GCA”) Notice of Intent to Present Technical Testimony filed in this proceeding. This testimony begins with an overview of my credentials. I will then go on to discuss certain provisions of the Proposed Rule that The GCA respectfully requests be reconsidered by the NMED and/or modified by the Environmental Improvement Board (“EIB”).

I fully understand the importance of sound and appropriate processes and procedures geared toward minimizing to the extent feasible the release of ozone precursor pollutants. However, I also know from my multiple decades in the natural gas compression industry—including my responsibilities associated with my employers’ compliance with federal and state air emission standards—that certain aspects of the proposed regulations are simply too onerous to be practically implemented and, even if future implementation is viable at some point, will not achieve any recognizable reduction in those emissions. I believe that The GCA’s suggested changes to the Proposed Rule will retain the environmental and air quality benefits of the rule while eliminating limited aspects of the Proposed Rule that appear unduly burdensome with no corresponding benefit

1 to the environment.

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

3 My resume is attached as GCA Exhibit 16. I received a Bachelor of Science degree in
4 mechanical engineering from Southern Methodist University in 1983. I have over thirty-two years
5 of experience working in the energy industry, in particular, the natural gas contract compression
6 space, a niche that sells, services and owns and operates equipment that aids our customers'
7 production of oil and gas (e.g., gas lift) and makes the post-production transportation of their natural
8 gas to market possible by increasing the pressure of that gas as it moves from wellhead to market.
9 Outsourced natural gas compression services represent approximately 30% of the total natural gas
10 compression space, with the remaining estimated 70% being provided by our customers utilizing
11 their owned natural gas compression equipment. Natural gas compression is a must-run function
12 and, as a result, we operate and maintain our compression equipment so that it is as capable as
13 possible of operating at optimal efficiency, with material longevity (measured in decades) and in
14 compliance with laws 24 hours a day, 7 days a week and 365 days a year.

15 My career has been spent with three companies, all involved in the natural gas compression
16 industry, two of which are members of The GCA. Over twenty-one years of my career were spent
17 with my current employer, Archrock, including three years as a Regional Manager in New Mexico.
18 For the past fifteen years, my focus has included:

- 19 • overseeing company-wide development of operations and maintenance processes
20 and improvements to, among other things, ensure efficient operations; maintain our
21 must-run availability for our customers; and ensure compliance with applicable law,
22 including state and federal emission regulations;
- 23 • overseeing the operation of our Operations Support Center through which our

customers can reach us regarding operational issues 24/7/365; and

- monitoring our compliance with relevant emissions regulations, including NESHAP Subpart ZZZZ and NSPS Subpart OOOO. As an industry and a group of organizations, we have worked closely with regulatory authorities—notably including the Environmental Protection Agency (“EPA”) during the NESHAP Subpart ZZZZ rulemaking in 2013 and 2014—to ensure our mutual goal of minimizing emissions to the extent practicable based on proven technology while satisfying the market need and demand for clean-burning natural gas by helping transport it to market.

III. Technical Issues Posed by Specific Provisions of Proposed Rule 20.2.50 NMAC

A. The Proposed Rule’s Engine Maintenance Requirements: Requirement to Follow Manufacturer’s Recommended Maintenance Schedule

i. Proposed Rule 20.2.50.113.C(1) NMAC

Proposed Rule 20.2.50.113.C(1) NMAC calls for the maintenance and repair of spark-ignition engines (such as those contained in our natural gas compression packages), among others, and requires the owner or operator to “meet the minimum manufacturer recommended maintenance schedule.” As set forth below, there are a number of reasons that render this constraint on the maintenance flexibility of experts in the operation of these engines in a contract compression services application impractical, overly burdensome, unnecessarily expensive and counterproductive.

ii. Manufacturers’ Maintenance Recommendations are Generic Attempts to Make One-Size Fit All, And Frequently They Require Prudent Adjustments to Fit Various Conditions

Whereas manufacturers’ maintenance recommendations are generally the same across

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1 engine uses without taking into account specific operating and fuel conditions—each of which has
2 a material impact on the most efficient and successful means of operating and maintaining the
3 subject compression package—contract compression service providers and compression package
4 operators tailor their maintenance plans to serve a wide variety of customer sites and are specifically
5 tailored for the provision of compression services. Impactful operating variables include, without
6 limitation and in no particular order:

- 7 • Altitude
- 8 • Ambient Temperature
- 9 • Weather Conditions
- 10 • Fuel Gas Conditions (e.g., wet versus dry, H₂S content, CO₂ content)
- 11 • Process Gas Conditions (similar variables as fuel gas)

12 Manufacturers' recommended maintenance practices cannot and do not aptly address the
13 entire spectrum of engine uses, gas conditions and operating conditions. Some uses are on-road
14 whereas ours is off-road. Some uses are periodic and intermittent, with frequent wear-increasing
15 idling, starting and stopping, whereas ours use ideally involves continuous, consistent uptime.

16 Engine operators in industrial applications—like contract compression services—have
17 well-established operations and maintenance programs that include “condition-based”
18 maintenance, which allows for experiential maintenance decisions based on the aforementioned
19 operating conditions and real-time diagnostic information.

20 There are no circumstances under which I can envision a generic, application-wide
21 manufacturer-recommended maintenance plan could have better operational and/or emissions-
22 related results relative to the expert operator-tailored, time-tested and “conditions-based”
23 maintenance plans under which we operate.

iii. Compression Package Operators are Highly Incentivized to Properly Maintain Their Expensive, Revenue-Generating Equipment and Should Not be Hindered in Those Efforts by the Imposition of Inflexible, Generic Requirements

Compression package operators are financially incentivized to ensure their compression packages, especially the engines that power those compression packages, are extremely well-maintained and properly and promptly repaired, as any failure to do so can be extremely costly to them and their customers.

Contract compression service providers' revenues can be significantly reduced through lost business and "downtime credits" if their provision of contract compression services is interrupted through equipment malfunction or excessive downtime for avoidable repairs. Preventive maintenance must be conducted expeditiously and successfully.

Additionally, a poorly maintained and operated compression package, including its engine, can suffer catastrophic failure requiring significant capital outlays if the equipment is not subject to a robust and time-tested preventive maintenance program.

Similarly, the life expectancy of the compressor package can be materially reduced from in excess of thirty years to significantly less, absent highly focused maintenance and repair efforts. Those additional capital outlays for replacement equipment are otherwise avoided by the development and application of expert-driven preventive maintenance plans, which is the domain of the operators, not the manufacturers and sellers.

iv. Expertise in the Operation, Maintenance and Repair of Engines Placed in Service Resides with the Operators, Not Manufacturers

Compression package operators are the experts in the operation, maintenance and repair of these engines, not manufacturers. My employer for the last twenty-one years, Archrock, has been doing this work for in excess of sixty-six years and owns the largest contract compression fleet in

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1 the United States. In addition to owning and operating the largest fleet of natural gas compressor
2 packages in the United States, we also have an “aftermarket services” business segment that is
3 engaged by third parties to maintain, repair and sometimes even operate the engines they own.

4 Manufacturers manufacture the engines and their operational experience comes in the form
5 of (i) laboratory or other controlled testing environments involving controlled operating conditions
6 and the use of pipeline-quality natural gas and (ii) the indirect experiences of the full spectrum of
7 engines owners and operators, of which contract compressions providers are a part.

8 ***v. Air Regulators, Engine Manufacturers and Involved Stakeholders Agreed to***
9 ***Workable Framework***
10

11 Operators and manufacturers of these engines, including The GCA members on whose
12 behalf I am testifying, worked very closely with the EPA during the NESHAP Subpart ZZZZ
13 comment period and collectively devised an approach that they concluded best serves all interested
14 constituents. I continue to believe it is the right approach, and I rely on NESHAP Subpart ZZZZ
15 §63.6625 as I continue to oversee the development, assessment, refinement and improvement of
16 Archrock’s operations and maintenance program.

17 That section reads in relevant part:

18 **“§63.6625 What are my monitoring, installation, collection,**
19 **operation, and maintenance requirements?**

20 (e) If you own or operate any of the following stationary RICE, you
21 must operate and maintain the stationary RICE and after-treatment
22 control device (if any) *according to the manufacturer's emission-*
23 *related written instructions or develop your own maintenance plan*
24 *which must provide to the extent practicable for the maintenance*

1 ***and operation of the engine in a manner consistent with good air***
2 ***pollution control practice for minimizing emissions. . . .”***

3 (emphasis added)

4 The GCA supports the adoption of the NESHAP Subpart ZZZZ approach to operation and
5 maintenance plans and note that deviating from this federal standard in this regard would create
6 inconsistencies that are overly difficult to track, complicated to follow and challenging to apply
7 with respect to contract compression service providers’ compression packages, which move
8 interstate from time to time between various customers’ various jobsites. Most importantly, a
9 requirement to meet the manufacturer’s minimum recommended maintenance schedule will
10 provide no environmental benefit over alternative language that allows for a tailored plan consistent
11 with good air pollution control practices.

12 ***vi. Examples of Differences between Manufacturers’ Maintenance Schedules***
13 ***and Compressor Package Operators’ Maintenance Schedules and Absence of***
14 ***Emissions Reduction Impact***

15
16 There is no change that we would make to meet manufacturers’ recommended maintenance
17 practices that would result in reduced emissions. To the contrary, an inability to apply our time-
18 tested maintenance practices would actually increase ozone precursor emissions, including through
19 increased travel to and from our customers mostly remote sites, through otherwise unnecessary
20 starts and stops of the compression package and through the premature replacement of still
21 functional components (i.e., new ones need to be manufactured and shipped and old ones need to
22 be transported away).

23 Using the G3516J Caterpillar engine as an example, we typically perform these preventive
24 maintenance visits approximately every 112 days (but with an inspection every 56 days), whereas
25 manufacturer recommendations might call for the maintenance to be performed every 30 days.

Mandating the latter results in a three-fold increase in vehicle emissions as well as compression package emissions associated with the required starts and stops, and without any evidence of improved engine operations or offsetting emissions reductions as a result of the tripled workload.

vii. Conclusion

Based on my experience and in light of the foregoing testimony, I strongly recommend Proposed Rule 20.2.50.113.C(1) NMAC be revised to allow owners or operators of natural gas compressor packages to operate, maintain and repair that equipment, including its engine, according to its own time-tested, contract compression application-specific, experience-based and expertized plan, as long as that plan is consistent with good air pollution control practices for minimizing emissions, as provided under existing NESHAP Subpart ZZZZ.

Specifically, I propose the following addition be made to the Proposed Rule 20.2.50.113.C(1) NMAC, as set forth in GCA Exhibit 2:

20.2.50.113 ENGINES AND TURBINES:

C. Monitoring requirements:

(1) Maintenance and repair for a spark-ignition engine, compression-ignition engine, and stationary combustion turbine shall ~~meet~~be consistent with the minimum manufacturer recommended maintenance schedule or a schedule developed by the owner or operator that must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The following maintenance, adjustment, replacement, or repair events for engines and turbines shall be documented as they occur:

(a) routine maintenance that takes a unit out of service for more than two hours during any 24-hour period; and

(b) unscheduled repairs that require a unit to be taken out of service for more than two hours during any 24-hour period.

B. The Proposed Rule's Equipment Monitoring Tags and Compliance Database Regulations

i. Proposed Rule 20.2.50.112.A(3)-(10) NMAC

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1 Proposed Rule 20.2.50.112.A(3)-(10) NMAC contains requirements for “owners and
2 operators of a source” to attach Equipment Monitoring Tags (“EMT”) to each source requiring such
3 physical tags and for the creation, population with source data and maintenance of that data related
4 to those sources in a Compliance Database Report (“CDR”).

5 For the reasons outlined below, it is my opinion, based on significant experience and
6 responsibility for environmental compliance as part of the regulated community, that such
7 requirements are too unclear to follow; too onerous to implement and abide by; highly impractical;
8 create an unnecessary potential for controversy between equipment suppliers and operators; and
9 result in significant costs for source owners and operators without any apparent environmental
10 benefit. Moreover, they simply add an unnecessary administrative layer of burden on top of more
11 substantive compliance requirements in the Proposed Rule that already fundamentally assure
12 protections.

13 ***ii. Lack of Clarity***

14 Industry participants, including contract compression service providers, cannot assess, plan
15 for, address, and measure compliance with regulatory requirements that are drafted in a way that
16 create uncertainty through their lack of clarity and specificity. For example, what is a “unit” for
17 purposes of physically tagging with an EMT? Each of our compressor packages is defined by our
18 customers and our industry as a “unit,” but, as further detailed below, each such unit consists of a
19 significant number of components, some of which might be considered “sources.”

20 The non-exclusive list of examples of “type of source[s]” found in Proposed Rule
21 20.2.50.112.A(3)(c) NMAC begins broadly on what might be referred to in the industry as a “unit
22 of equipment” or the like (e.g., tanks, VRU and dehydrators), but, the list then quickly jumps to a
23 small component, one or more of which is embedded on some units of equipment (i.e., pneumatic

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1 controllers), and ends with an indeterminate and undeterminable “etc.”

2 The combined lack of clarity around the meaning of a “unit” and a “source” subjects the
3 core requirements of this Proposed Rule to varying interpretations and, therefore, later
4 disagreements between industry participants and the NMED, as well as among industry
5 participants, likely including disagreements between contract compression service providers and
6 our customers.

7 The Proposed Rule 20.2.50.112.A(3) NMAC goes on to impose these requirements on the
8 “owners and operators of a *source*” whereas Proposed Rule 20.2.50.112.A(4) NMAC requires that
9 the EMT be installed and maintained by the “owner or operator of the *facility*.” Since not all sources,
10 such as contracted compression equipment, are owned or operated by the facility owner or operator,
11 this unreconciled disparity creates yet another source of potential dispute between contract service
12 providers like those represented here by The GCA and our customers, as to applicability and
13 associated responsibilities.

14 Proposed Rule 20.2.50.112.A(3) NMAC also provides that the EMT shall provide, “at
15 minimum,” a list of seven different types of information. The “at minimum” qualifier leaves the
16 Proposed Rule open to interpretation and later unilateral expansion of the information requirements
17 by the NMED, all while imposing on owners and operators the burden of setting up systems,
18 including a database, into which they must input and must store and maintain this data. The absence
19 of clarity around the full scope of what might be required creates confusion and uncertainty, impairs
20 database design (likely increasing burdens and costs associated with designing and maintaining
21 undefined data entry slots for this yet to be defined information), and complicates compliance.

22 ***iii. Extremely Onerous and Impractical***

23 Acknowledging the lack of clarity of this Proposed Rule, which could result in varying

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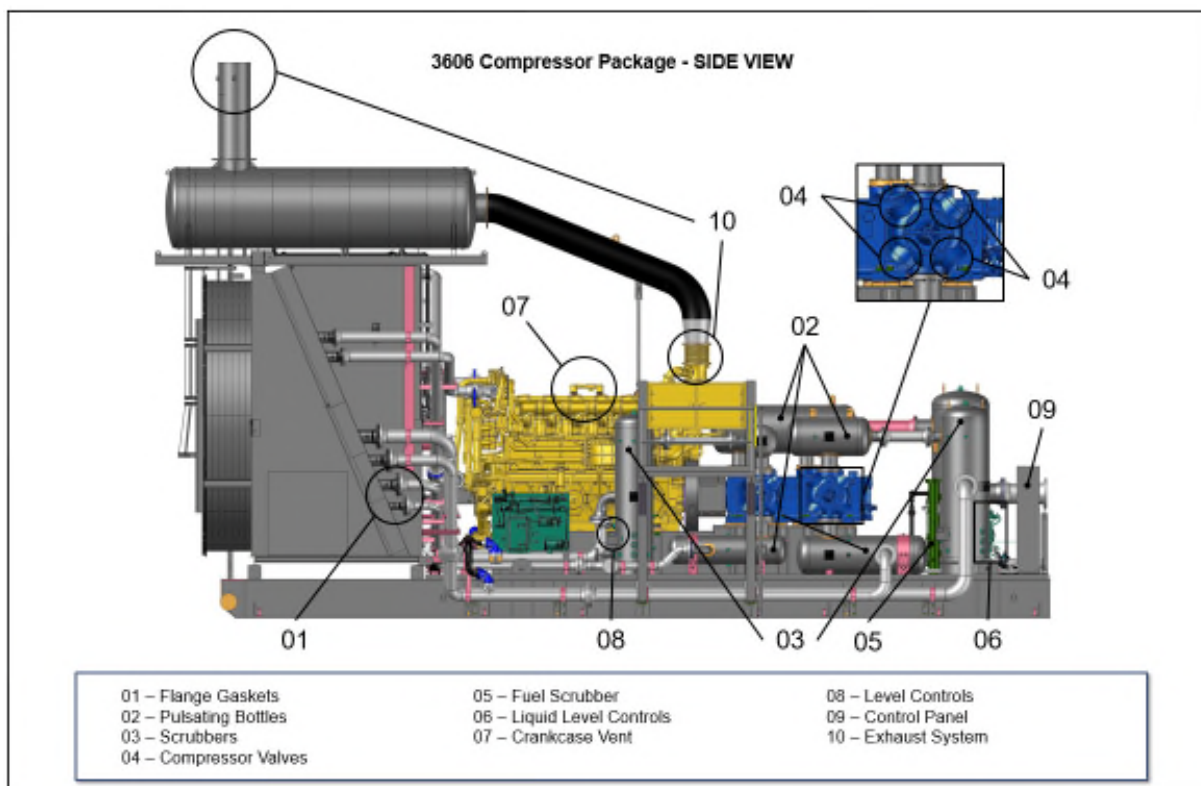
1 interpretations of the nature and scope of the requirements, an analysis of those requirements makes
2 clear that they are extremely onerous and overly burdensome on source owners and operators,
3 including contract compression service providers, even if those requirements are read in their most
4 constrained and limited light.

5 *(1) Too Many Tagging Points Depending on How the Proposed Rule is Interpreted*

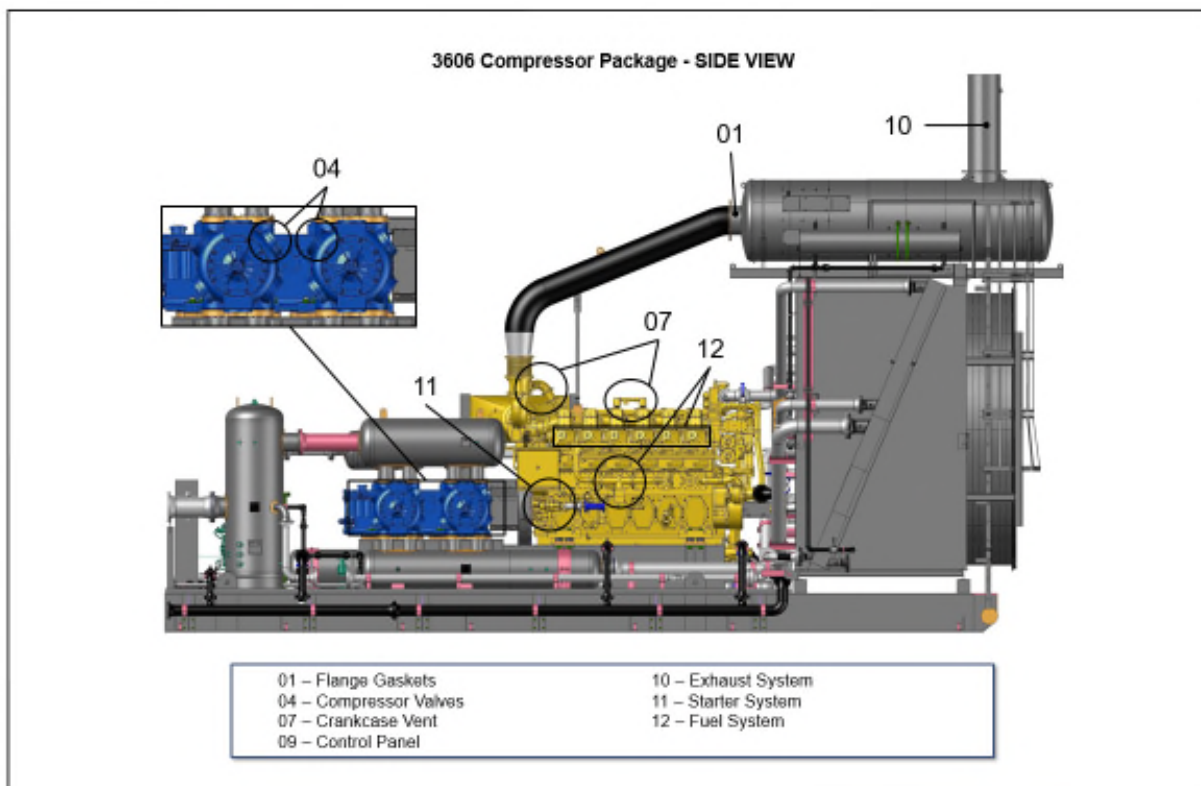
6 Our compression packages at the major component level consist primarily of an engine
7 (which may employ an air/fuel ratio control system and catalyst), a compressor, a control panel, a
8 cooler and a “skid” which serves as the foundation for the entire compression package. Depending
9 on the size and type of the compressor package involved, there could be between 10 and 20 smaller
10 components and devices, such as pneumatic controllers. Factoring in every pipe, hose, joint, valve,
11 flanges and the like that could conceptually leak natural gas if it were to suffer a failure, there are
12 another 145 “sources” on average. In total, the “sources” subject to the requirements as drafted
13 could average 160 per compression package. That is 160 tagging, database entry, maintenance
14 record maintaining obligations on each and every natural gas compression package deployed in
15 New Mexico, or an estimated 76,200 EMT tags among the GCA members alone as of December
16 2020.

17 To illustrate the complexity of our natural gas compression packages, below are images
18 depicting a relatively standard piece of equipment.

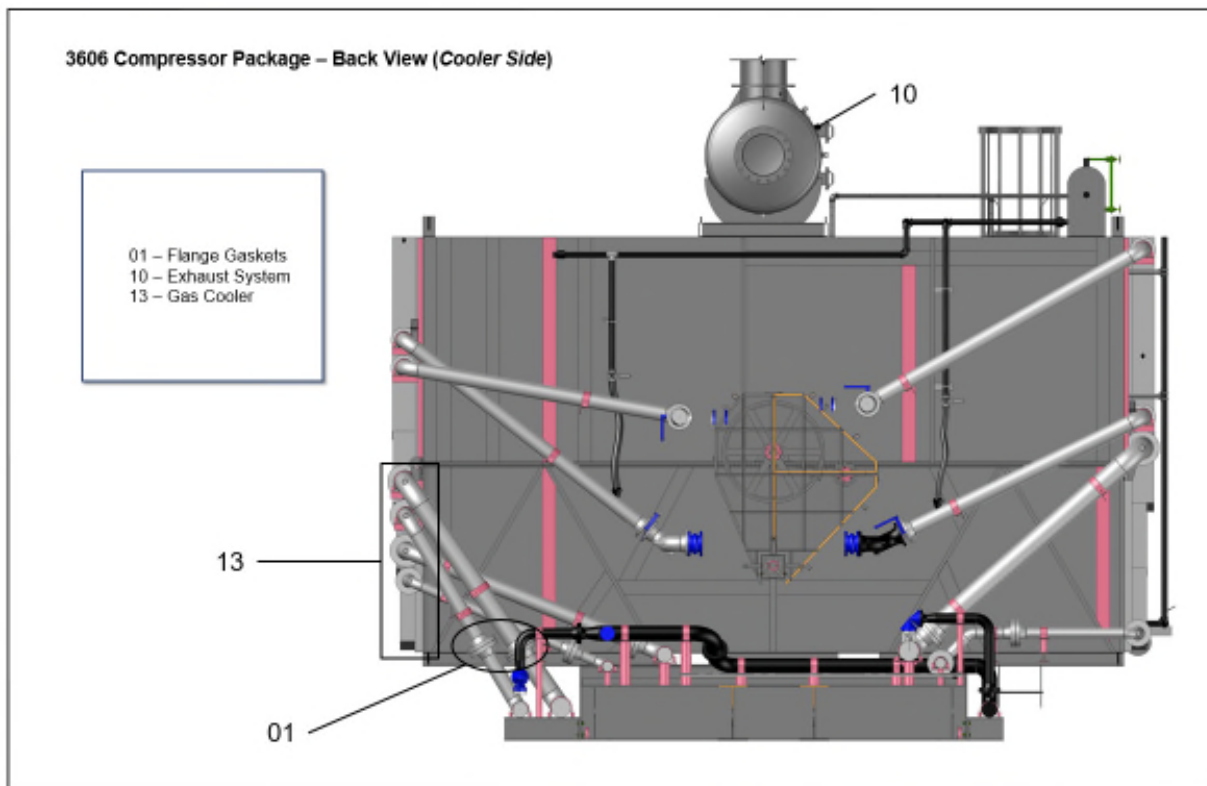
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1



2



(2) Many Sources Are Replaced, Not Maintained

The Proposed Rule is drafted as if all “sources” are of a type that is repaired and maintained and provides no accommodation for the numerous “sources” that are removed and replaced when they fail, their function diminishes or they are otherwise proactively replaced as part of a preventive maintenance plan, such as fuel valves.

For expended and expendable “sources,” the Proposed Rule’s requirements are not just burdensome, but seem wholly unjustified.

(3) Compression Packages and Their Individual Components are Swapped Out and Move In and Out of Various Jurisdictions

Contract compression service providers provide those services using compression packages that move all over the United States and under contracts ranging anywhere from six months to multiple years depending on the customer’s needs. At the end of a compression services contract,

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1 these compression packages are transported to another site in need of compression services, often
2 resulting in them moving from state-to-state.

3 Because of their non-permanent placements, our compression packages may be in New
4 Mexico for a relatively short period of time before being moved to another site for another customer,
5 and it might never return. Utilizing an EMT in the context of sometimes relatively short contract
6 compression service assignments would result in service providers tagging, logging and tracking
7 information into the EMT related databased that operationally will not in any way require
8 maintenance, repair or replacement before the compression services contract term ends.
9 Specifically, the EMT-embedded information for the estimated 160 “sources” on a compression
10 package deployed on a six-month compression services contract would not change during its term
11 at that site, providing no valuable or actionable data to NMED, providing no emissions benefit (but
12 likely causing an emissions detriment, as explained elsewhere) and simply creating a significant
13 burden and resulting in a significant cost for service providers, facility owners and operators and
14 ultimately New Mexico energy consumers.

15 When a component is replaced on a compression package, the replacement does not always
16 come from within New Mexico. As a result, the EMT tagging requirement—at least to the extent
17 it is tied to the other components on the same compression package and/or the compression package
18 as a whole—becomes ineffectual, and at a high cost in terms of time and effort, as that new
19 component would be assigned a new EMT that would not correlate with the original compression
20 package. In other words, the EMT system would track individual components independently and
21 not provide any longer term value as it relates to the original compression package as a cohesive
22 whole.

23 *(4) Tagging Impracticalities*

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1 Many “sources” are too small to adhere a tag sufficient to bear a RFID, QR or barcode and
2 those of sufficient size to allow such attachment pose other problems, such as heat destroying the
3 integrity of adhesive options and welding creating significant burdens, potential structural integrity
4 problems and our safety concerns (i.e., welding at a natural gas operation).

5 Some perceived “sources” are not conducive to bearing hanging tags and hanging tags could
6 pose a safety risk (e.g., interfering with the safe use of repair tools or risking “grabbing” the clothing
7 of our field service technicians (“FSTs”)).

8 Some tag-requiring sources could be physically inaccessible for tagging and/or for safe
9 reading. Few tags could be read without the necessity of shutting off the equipment for safety
10 reasons, which creates shut down and start up emissions otherwise avoidable absent this EMT
11 concept.

12 Additionally, compression service sites are outdoors and involve large, industrial equipment
13 that operates 24/7/365, so the tags would quickly become unreadable absent an FST manually
14 cleaning each of the estimated 160 tags regularly before scanning them, tags will become corroded,
15 tags will become faded from UV rays, tags will fall off and tags will become damaged and non-
16 readable. Once a tag is missing, the data associated with that tag is lost unless there is also a
17 “directory” of tags that shows each and every source that can be used to create a new tag with the
18 same readable code.

19 *(5) Contract Compression Service Providers Serve Many Customers*

20 Contract compression service providers serve hundreds of discreet customers throughout
21 New Mexico. Each such customer could choose a different tagging protocol and tagging format
22 (RFID, QR or bar code) and impose those differing requirements on their service providers. A
23 significant amount of time would be required to analyze, adopt and comply with those disparate

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1 requirements, and would require each of our FSTs to carry different readers and different tag types
2 to each customer site since most FSTs serve multiple customers.

3 Similarly, each such customer will have its own unique database that contract compression
4 service providers might be obliged to navigate to get data into and reports out of with respect to the
5 “sources” on those service providers’ supplied equipment. Additionally, if the database is created
6 and maintained at the customer/facility owner or operator level and the contract compression
7 services are terminated and the compression package is redeployed to a different customer, there
8 is no way to preserve the history of the compression package’s “sources” because the tags would
9 be specific to the customer.

10 The Proposed Rule’s implication of contract equipment and service providers by necessity
11 creates a labyrinth-like maze of systems and processes that make our safe, environmentally
12 compliant provision of that equipment and those services materially more challenging and, as
13 outlined below, more expensive.

14 *(6) Relies on Non-Existent Database System*

15 Compliance with this Proposed Rule hinges on the development of an owner or operator-
16 created database, a database that does not currently exist, that NMED has not offered to create and
17 that would instead need to be created independently by each of the hundreds of owners and
18 operators in New Mexico.

19 *(7) Voluminous and Often Unavailable Data Required to be Accessible in the EMT*

20 Proposed Rule 20.2.50.112.A(3) NMAC provides the minimum data each EMT must
21 provide. While a limited portion of that data is viable for most or all sources (e.g., a unique unit
22 identification number and type of source (subject to NMED clarification of the meaning of
23 “source”), as set forth below, the other information on this non-exclusive list is either impossible,

challenging or impractical/unnecessary to provide:

- **20.2.50.112.A(3)(b) NMAC requires location of the source.**

- As mentioned above, some components of compression packages—and often the entire compression package itself—are fluid as to location and, as a result, this EMT system would, in the context of our industry, provide little or no consistent data, in particular as it relates to location.

- **20.2.50.112.A(3)(d) NMAC requires for each source, the VOC (and NO_x, if applicable) PTE in lbs./hr. and tpy.**

- The lack of clarity around the meaning of “source” means it might include any device that has the potential to be a source of emissions. Not all such sources have a defined release rate and, instead, only release emissions on an unexpected, unplanned basis and this information is not available for these types of sources. Furthermore, component manufacturers do not guarantee a PTE emissions factor, so there is no basis to make this determination. Even if they did, these values would vary depending on operating, site and gas conditions, which are different from facility to facility.

- **20.2.50.112.A(3)(e) NMAC requires for a control device, the controlled VOC and NO_x PTE in lbs./hr. and tpy.**

- Control device manufacturers do not guarantee a PTE emission factor. Rather, their guarantee provides a statement of what the control device can achieve under lab conditions, not what the control device may achieve with variable operating, site and gas conditions, namely fuel. Further, even if applicable to real world conditions, control device guarantees are provided

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1 in percent reduction and would need to be converted to pound per hour
2 (lb/hr) and ton per year (TPY) measurements. Currently, there is not a
3 standard provided federally or by a state to calculate such numbers, so each
4 EMT would have entirely different data that would likely be incomparable
5 to other control devices or even other users of the same control device,
6 therefore providing no value. These measurements are better tracked
7 through the existing permit application process.

8 • **20.2.50.112.A(3)(f) NMAC requires make, model, and serial number.**

9 o Either this information is visible on the source already or the information
10 does not exist (namely serial number).

11 • **20.2.50.112.A(3)(g) NMAC requires a link to the manufacturer's maintenance**
12 **schedule or repair recommendations.**

13 o These are not always available online and, even if they are, my testimony
14 explains at length why a contract compression service provider's
15 maintenance schedule and repair recommendations are the appropriate
16 measure. These schedules and recommendations are refined over decades of
17 industry effort, expense and experience and, as such, should not be made
18 available in any non-confidential form, including a scannable EMT, as they
19 represent proprietary intellectual property and/or competitively sensitive
20 trade secrets.
21

22 For all of the above mentioned reasons it is my opinion that the minimum required EMT
23 data does not mitigate precursor ozone emissions, the viable data is already provided to NMED by
24 the Permit/NOI holders (i.e., our customers) and is, therefore, repetitive without benefit, and the

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1 other information on the non-inclusive list is either impossible or impracticable/challenging to
2 obtain with little to no merit and largely negatively impacts to safety.

3 ***v. Extremely Expensive***

4 Development, implementation, maintenance, monitoring and reporting as called for by these
5 requirements will be extremely expensive both for facility owners and for the service providers that
6 utilize equipment that might contain “sources,” such as we contract compression service providers.

7 Our back office operations already run leanly so that we can focus our labor attention to the
8 safe, compliant and continuous provision of contract compression services to our customers. The
9 development of the tools, equipment, systems and processes that would be required to comply with
10 these requirements would require the engagement of additional staff members in our Information
11 Technology Department and on my team, which develops systems and processes necessary to
12 comply with applicable law in the field. Technology projects such as this at minimum cost in the
13 hundreds of thousands of dollars. By way of example, a contracts database implementation we
14 undertook a few years ago cost in excess of \$400,000, and that was with a well-defined scope and
15 clearly defined roles and responsibilities.

16 Our Supply Chain Management Department would likely need to add staff to source the
17 scanning tools (one of each type for each of our >900 FSTs to ensure compliance with our
18 customers’ varying systems) and the tags (thousands of unique tags carrying one or more of the
19 scanning formats).

20 We would probably need to add staff to our Air Quality Team and Health Safety &
21 Environment Department to review, manage and maintain the data from the thousands of sources
22 associated with our contract compression packages and to produce quality review and submit the
23 CDR.

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1 Most impactful and costly is the increase in headcount that would be required in the field to
2 apply, maintain, clean and scan the EMT and research and replace lost EMT's. The market for FSTs
3 is already extremely tight as a result of a high demand for highly skilled technicians, not just from
4 within the energy industry, but also from other industries competing for the same low supply. If we
5 were fortunate enough to find the additional FSTs to perform these requirements, we would have
6 to do so at a pay rate inflated artificially by, among other things, customers and service providers
7 in New Mexico scrambling to add them as a result of the Proposed Rule, notably including Proposed
8 Rule 20.2.50.112.A (3)-(10) NMAC.

9 Adding to all of those expenses is the requirement of owners or operators to retain and pay
10 for third party data and system auditors, which cost is accompanied by the administrative burden
11 that any audit imposes on the audited entity.

12 ***vi. Without Clear Environmental Benefit and Proposed Changes are Without***
13 ***Environmental Detriment***
14

15 Despite my decades of developing and implementing policies, practices and procedures
16 geared toward complying with environmental requirements, I am unable to articulate a tangible
17 environmental benefit that would justify these requirements even if they were non-onerous and free
18 to implement. The EMT and CDR requirements would not be free to implement, of course, and
19 appear to establish an extremely onerous program that would significantly increase our costs of
20 operations, which costs ultimately gets passed on to and paid for by New Mexico energy consumers
21 – all without increasing the enforceability of the Proposed Rule or the compliance demonstration
22 information available to NMED.

23 As mentioned above, some tag-requiring sources could be physically inaccessible for
24 tagging and/or for safe reading without the necessity of shutting off the equipment, which creates

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1 shut down and start up emissions otherwise avoidable absent this EMT concept.

2 Customer demand to add and/or scan EMT tags would result in additional emissions
3 stemming from our FSTs driving to and from these mostly remote locations.

4 It is important to note that The GCA is not seeking to eliminate the extensive compliance
5 demonstration and recordkeeping requirements established in the Proposed Rule. While The GCA
6 seeks to eliminate the unnecessary overlay of the EMT and CDR requirements, this change would
7 not eliminate the underlying requirement to contemporaneously track each compliance event for
8 each source subject to emissions standards and monitoring under the Proposed Rule. See GCA
9 Exhibit 8.

10 Likewise, the Proposed Rule would retain the requirement to create an electronic record of
11 all monitoring events that includes: date and time of the testing, monitoring, or inspection event;
12 name of the personnel conducting the testing, monitoring, or inspection; identification number and
13 type of unit; a description of any maintenance or repair activity conducted; and result of any
14 required testing, monitoring, or inspections. Proposed Rule 20.2.50.112.C(1) NMAC. As set forth
15 in Proposed Rule 20.2.50.112.C(2) NMAC, those records must be retained for five years.

16 The Proposed Rule would also require an owner or operator to provide requested
17 compliance demonstration information to the NMED upon request. Proposed Rule
18 20.2.50.112.D(1) NMAC. In an attempt to ensure prompt responses to such requests but also to
19 account for weekends and holidays, The GCA has suggested a change to the proposed rule that
20 would provide an owner or operator three business days, as opposed to 24 hours, to respond to such
21 a request. See GCA Exhibit 8. The compliance demonstration requirements of the Proposed Rule
22 are comprehensive and, even with the changes requested by The GCA, generally exceed the
23 compliance demonstration requirements established in federal or other state rules that regulate

sources in the oil and gas industry.

vii. Conclusion

Proposed Rule 20.2.50.112.A(3)-(10) NMAC would impose requirements that are too unclear to comply with; would be extremely onerous and impractical; are conditioned upon a database that does not exist; and would be extremely expensive to implement without any evidence of a resulting emissions benefit. As an energy industry and contract compression service professional for in excess of three decades, I do not see how these requirements can be assessed, implemented, followed or measured as currently written. As such, and unlike the other Proposed Rule sections upon which I am testifying, it is my expert opinion that these sections of the Proposed Rule be stricken in their entirety from Proposed Rule 20.2.50 NMAC rather than being modified.

The changes to the EMT/CDR requirements in the Proposed Rule that The GCA is seeking will not adversely affect the enforceability of the Proposed Rule, or diminish an owner or operator's obligation to create and keep records demonstrating compliance with all of the requirements of the Proposed Rule. The GCA simply seeks to eliminate the EMT/CDR overlay for the reasons outlined above.

C. The Proposed Rule's Fugitive Emissions/LDAR Regulations: Time to Tag Any Leak Discovered by AVO Inspection

i. Proposed Rule 20.2.50.116.C(1)(e) NMAC

Proposed Rule 20.2.50.116.C(1)(e) NMAC calls for a leak discovered by AVO inspection to be tagged and reported to "management [of the facility] or their designee" within three "calendar days" of discovery. Although contract compression service providers do not own facilities and will not be a part of the reporting to management process (unless we discover a leak on our equipment), our customers—the facility owners and/or operators—will likely ask that we tag any leaks

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1 discovered on our equipment on their behalf.

2 For a variety of logistical reasons explained below, The GCA simply asks that “calendar
3 days” be changed to “business days” so that The GCA can more readily satisfy the requirement if
4 asked to do so on our customers’ behalf. Noteworthy is the fact that this recommendation does not
5 include any requested extension of the time period during which the associated leak must be
6 repaired under Proposed Rule 20.2.50.116.E NMAC, so The GCA’s modest proposal has no real
7 impact from the standpoint of emissions control. The GCA is not seeking a change to the repair
8 deadline, and that deadline flows from when a leak is detected, not when the leaking component is
9 tagged.

10 ***ii. Indirect Responsibility Requires Time to Convey***

11 Although this proposed rule applies to the owner or operator of a facility, not the owner or
12 operator of the contract equipment located at that site, it is not uncommon for responsibilities like
13 these to be delegated to or expected of the contract service provider and equipment owner/operators,
14 like contract compression service providers.

15 This indirect implication on our industry provides the basis for The GCA to comment, and
16 the additional time required (a) for our directly obliged customers to convey the leak discovery and
17 the tagging need to us and (b) for us to queue up the appropriate FSTs for the task is one of the
18 reasons this modest additional time to conduct the tagging is warranted if there is an interceding
19 weekend or holiday.

20 ***iii. Remote Facility Sites***

21 Our customers’ facilities at which we provide contract compression services using our
22 compression packages are often quite remote and, unlike our average customers’ personnel, our
23 FSTs are not always present at those facilities. As such, travel is almost always required, sometimes

1 from regional maintenance offices that serve as a central hub for multiple customers and those
2 customers' multiple sites.

3 ***iv. Reduced Labor Availability on Weekends and Holidays / Increased Labor***
4 ***Costs***

5 Although contract compression services are a must-run service with 24/7/365 operations, in
6 light of the nature of the labor market for qualified FSTs, we try to honor holidays and weekends
7 for all but a limited number of "on-call" FSTs. With that reduced weekend and holiday manpower,
8 we attempt to direct those limited on-call FSTs toward highly impactful, urgent and emergency-
9 type priorities. The reallocation of limited weekend and evening labor resource to administrative,
10 non-technical, non-environmentally impactful tagging of identified leaks could result in a longer
11 response time for the more urgent and technical service needs. These latter more urgent and
12 technical tasks have the potential to have an environmental impact, whereas the completion of the
13 tagging process does not.

14 While we do call upon the services of non-on-call FSTs in the case of unexpected urgencies,
15 we endeavor to limit our reliance on our FST labor force during their hard-earned periods of
16 downtime.

17 If we are required to address the administrative task of tagging within three "calendar days"
18 rather than the proposed three "business days," we will be compelled to either (a) reprioritize our
19 weekend and evening work among our limited number of on-call FSTs away from higher priority,
20 higher impact tasks toward administrative tagging efforts, (b) increase the number of FSTs on-call
21 (reducing their aggregate weekend and holiday time) or (c) increase FST headcount, which results
22 in increased prices for our customers and end consumers, and which is increasingly more difficult
23 in this technical service niche.

1 ***v. Potentially Detrimental Environmental Impact***

2 The day or two delay in the administrative task of tagging in these instances creates no harm
3 to the environment and the “calendar day” related earlier tagging creates no benefit. However, as
4 mentioned earlier, if tagging is required on weekends and holidays, the assigned FSTs might be
5 delayed in responding to environmentally impactful tasks. The reliance on “calendar days” rather
6 than “business days” has no environmental upside, but does have a potential downside.

7 ***vi. “Business Day” Acknowledgment in the Proposed Rule and in NESHAP***
8 ***Subpart ZZZZ***

9
10 Perhaps in light of the aforementioned logistical reasons, among other reasons, both this
11 Proposed Rule and NESHAP Subpart ZZZZ refer to “business days.”

12 The Proposed Rule refers to “business days” three times: 20.2.50.112.A(9)(a),
13 20.2.50.112.C(1) and 20.2.50.115.C(1)(e) NMAC.

14 NEHSAP Subpart ZZZZ refers to “business days” no less than seven times, including as it
15 relates to oil changes instigated by bad samples, which must be performed with two “business
16 days.”

17 ***vii. Conclusion***

18 Based on my experience and in light of the foregoing testimony, I believe Proposed Rule
19 20.2.50.116.C(1)(e) NMAC should be revised to allow three “business days” rather than three
20 “calendar days” to manage the task of tagging if requested by the responsible party, our customers.

21 **D. Deadline for NMED Approval of Alternative Monitoring Requests**

22 ***i. Proposed Rule 20.2.50.112.B(1) and (2) NMAC***

23 Proposed Rule 20.2.50.112.B(1) NMAC establishes inspection requirements that apply to
24 the owner or operator of sources subject to emission standards and monitoring, to ensure proper

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1 maintenance and operation. Proposed Rule 20.2.50.112.B(2) NMAC further establishes a process
2 by which an owner or operator can seek approval for “an equally effective, enforceable, and
3 equivalent alternative monitoring strategy” and requires NMED to issue a written response
4 approving or denying the requested alternative monitoring strategy, but does not establish any
5 timeline for that response.

6 The GCA requests that a timeline be established for NMED’s response to a request for
7 approval of an alternative monitoring strategy. Such a request should not be allowed to languish or
8 be denied by omission if NMED fails to act, as operational decisions and processes are dependent
9 on the timely receipt of the requested response.

10 The GCA requests that language be added to Proposed Rule 20.2.50.112.B(2) NMAC to the
11 effect that NMED will respond within a reasonable time, but in no event more than 90 days after
12 receipt of an owner or operator’s request for approval of an alternative monitoring strategy. See
13 GCA Exhibit 5. This is a reasonable period of time to respond, and is supported by principles of
14 good governance.

15 ***ii. Conclusion***

16 As a person who has significant experience working with sources subject to environmental
17 monitoring requirements, I recognize the value that the Proposed Rule adds by creating the potential
18 for use of an alternative monitoring strategy. Similar concepts are found throughout state and
19 federal environmental regulations. At the same time, as a person who has significant experience
20 working to establish policies and procedures tied to environmental regulations, I appreciate the
21 value that would be added by a requirement that NMED respond within a reasonable time, as well
22 as a 90-day deadline for NMED’s response.

23 The GCA’s requested change will help with regulatory certainty, and also help ensure that

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1 an unreasonably delayed approval could not frustrate the purpose of the alternative monitoring
2 program included in the Proposed Rule.

3 **IV. Testimony Conclusion**

4 In conclusion, I and The GCA ,on whose behalf I submit this written testimony, understand
5 and respect our collective obligation to do what we feasibly can to protect the environment in all
6 jurisdictions in which we operate, including New Mexico, while also helping, together with our
7 customers, provide New Mexico citizens' jobs and the fuels that help power their vehicles and
8 homes.

9 The GCA's proposed modifications to the Proposed Rule are offered with a goal of
10 maintaining the integrity of NMED's core objectives, while helping make the Proposed Rule's
11 requirements clearer to those affected, more feasible, more cost-effective, less environmentally
12 detrimental, more technologically viable, and less unduly administrative and burdensome. We
13 believe The GCA's proposed modifications satisfy those objectives, and respectfully ask the EIB
14 to enact our suggested changes after giving them due consideration.

15 This concludes my direct testimony in this matter.