STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF PROPOSED NEW REGULATIONS,
20.2.300 – *Reporting of Greenhouse Gas Emissions*
20.2.301 NMAC – *Greenhouse Gas Emissions – Verification Requirements*

AND PROPOSED REPEAL OF REGULATION,
20.2.87 NMAC – *Greenhouse Gas Emissions Reporting* **No. EIB 10-09 (R)**

DIRECT TESTIMONY OF JACKIE ZOROVICH

I. INTRODUCTION

My name is Jackie Zorovich. I have managed The Climate Registry's (TCR) verification and accreditation programs since September 2008. Before joining TCR, I conducted greenhouse gas verifications and developed inventory management plans and environmental management systems as a senior environmental engineer in the private sector. I hold a Bachelor of Science degree in Civil Engineering from Cornell University. My curriculum vitae is attached as NMED-Zorovich Exhibit 1.

II. OVERVIEW OF THIRD-PARTY VERIFICATION

Third-party verification is a systematic, independent, and objective evaluation of a GHG emissions report against the criteria set forth by the New Mexico Environment Department (NMED) in 20.2.300 NMAC. The purpose of third-party verification is to provide confidence to the NMED and other potential data users (investors, suppliers, customers, regulators, local governments, and the public) that the emissions data submitted to NMED represents a faithful,

true and fair account of emissions—free of material misstatements and in compliance with the NMED's reporting procedures and methods for calculating and reporting GHG emissions.

Third-party verification is a widely accepted practice for ensuring accurate emissions data. It has been employed in the context of a number of voluntary and mandatory GHG reporting programs. Third-party verification is required by the California Climate Action Registry (CCAR) and The Climate Registry and is recommended by the Department of Energy's 1605(b) reporting program. It is relied upon by several GHG regulatory programs, including the California Air Resources Board (CARB), the Western Climate Initiative (WCI), the Massachusetts Department of Environmental Protection (MassDEP), the European Union's Emissions Trading System (EU ETS), the United Kingdom's GHG Emissions Trading System, Alberta's Specified Gas Emitters Program, and British Columbia's Greenhouse Gas Reduction Act.

The nature of GHG emissions quantification is different than that of the Acid Rain Program and other criteria air pollutants. There is greater potential for error and inconsistency and thus greater need for a robust verification process. Experience with both voluntary and mandatory GHG reporting programs shows that errors are common in the development of GHG inventories and that third-party verification can cost-effectively ensure accurate and consistent data that is compliant with established reporting requirements and methodologies.

III. VERIFICATION PROCESS

The verification process consists of:

1. Assessment of the risk of material misstatement;
2. Development of a verification and sampling plan;

3. Request for supporting information and documents;
4. Evaluation of emissions data against verification requirements; and
5. Assessment of materiality of errors, omissions & misstatements identified.

A. ASSESSMENT OF RISK OF MATERIAL MISSTATEMENT

Before a verification body can conduct a risk assessment, they first must obtain certain information from the reporter, such as information on the types of emissions sources and monitoring equipment, the GHG data management system, the qualifications of personnel involved in verification plan.

The verification body uses the background information to conduct a risk assessment which identifies the largest emissions sources as well as the data systems, processes, emissions sources, and calculations that pose the greatest risk of generating a material misstatement. A material misstatement occurs when either:

- the individual or aggregate effect of one or more errors, omissions or misstatements would change or influence the judgment of a reasonable person who is evaluating the total reported emissions; or,
- the total reported emissions are less than 95 percent accurate.

Verification bodies identify a lower level of risk associated with high-quality, robust GHG data management systems, than they do with lower-quality, poorly-organized, and/or ineffective data management systems. Likewise, verification bodies identify a lower level of risk when a reporter can demonstrate robust quality assurance mechanisms, such as data checks and internal audits.

B. DEVELOPMENT OF VERIFICATION AND SAMPLING PLANS

The verification body then uses the findings of its risk assessment to design a verification plan and a sampling plan that will allow it to state with a reasonable level of assurance whether or not the emissions report is free from material misstatement and otherwise conforms to the reporting requirements. A reasonable level of assurance is the highest level of assurance that a verification body can provide; absolute assurance is not attainable because of the risk-based sampling approach to verification, as well as other factors such as the use of professional judgment.

The verification plan must document specific aspects such as the scope of the verification, the level of assurance to be provided, the objectives of the verification, the resources required to conduct the verification, and the schedule of activities, including the proposed date of the facility visit, and the sampling plan. In years for which full verification is required, the verification body must visit the reporting facility, as well as the location of central data management, if different than the reporting facility.

The sampling plan identifies the nature and extent of information, documents, and records to be reviewed based upon the risk assessment findings, and considers the type of data checks to be conducted.

C. REQUEST FOR SUPPORTING INFORMATION AND DOCUMENTS

The verification body then follows their verification plan and typically collects a combination of the following types of information:

1. Physical evidence, which is collected through a facility visit to directly observe emitting activities, equipment such as fuel or utility meters, emission monitors, and calibration equipment, as well as implementation of data collection and management processes.
2. Documentary evidence, which is acquired through requests for information that are written or electronically recorded and typically include operating and control procedures, log books, inspection sheets, invoices, and analytical results.
3. Testimonial evidence, which is gathered from interviews with personnel responsible for monitoring, calculating, managing, and reporting GHG emissions data.

D. EVALUATION OF EMISSIONS DATA AGAINST VERIFICATION REQUIREMENTS

The verification body must conduct data checks, which may include input/output tests, checks on the transfer of information between different systems, consistency checks, limits, and reasonableness tests.

The verification team is required to keep a log of any issues identified in the course of verification activities that may affect determinations of material misstatement and nonconformance, and how those issues were resolved.

E. ASSESSMENT OF MATERIALITY OF ERRORS, OMISSIONS, AND MISSTATEMENTS IDENTIFIED

When assessing compliance with the 95 percent accuracy criteria, a verification body evaluates the methods and factors used to develop the emissions data report for adherence to the requirements of 20.2.300 NMAC.

In its materiality assessment, the verification body includes reporting errors such as application of incorrect methodology, use of incorrect emission factors, and incorrect inputs into methodologies, but does not consider inherent uncertainty associated with properly maintained and calibrated monitoring equipment.

IV. ACCREDITATION

ISO 14065 is the international standard against which accreditation bodies such as the American National Standards Institute (ANSI) assess verification bodies to ensure that they have the skills and competencies to perform verification activities. As part of the accreditation process, the accreditation body assesses a verification body's internal systems, processes, quality controls, impartiality and independence to successfully complete emissions verifications.

During the accreditation process, the accreditation body assessors conduct a remote, desktop review of the verification body's documentation, as well as an onsite visit to the verification body's offices. The assessors also observe the verification body conducting a facility visit as part of its verification activities. In order to maintain accredited status, verification bodies must undergo annual surveillance and periodic reaccreditation.

Verification bodies accredited to ISO 14065 must adhere to the verification principles, defined in ISO 14064-3, of independence, ethical conduct, fair presentation, and due professional care. Since ANSI did not have an ISO 14065 accreditation program in place at the time CARB was publishing its mandatory GHG reporting rule, CARB developed its own process for accrediting verification bodies to provide services for its program.

ANSI's fee structure for its GHG accreditation program is publicly available through ANSI's website. NMED-Zorovich Exhibit 2. Currently, the following five GHG programs are

partnered with ANSI to accredit verification bodies seeking to provide services for their programs: The Climate Registry, the Voluntary Carbon Registry, the Climate Action Reserve, , the Chicago Climate Exchange, and the American Carbon Registry. Other GHG programs not directly partnered with ANSI also rely on verification bodies that are accredited to ISO 14065 (for example, the Massachusetts Department of Environmental Protection, the Pacific Carbon Trust, and the Regional Greenhouse Gas Initiative).

If additional GHG programs rely on the same ISO 14065 accreditation, this accreditation becomes even more cost-effective for verification bodies because they can recover the cost of accreditation through multiple schemes. Where individual GHG programs develop program-specific criteria for qualifying verification bodies, it requires additional resources, which translates into additional costs, for each verification body to track and comply with multiple program requirements, including training and/or testing requirements. GHG programs that rely on ISO 14065 accreditation also need fewer resources to ensure the competency of and oversee the activities of the verification bodies that service their program.

V. AVAILABILITY OF ACCREDITED VERIFICATION BODIES

The NMED recognizes verification bodies that have demonstrated knowledge of the reporting requirements in 20.2.300 NMAC and that are either accredited to ISO 14065, or up until January 1, 2013, accredited by CARB. As of August 12, 2010, there are 15 verification bodies that have been accredited by ANSI to ISO 14065 for organizational-level verifications, as well as another 11 firms in the process. A current list is available through ANSI's GHG accreditation directory. NMED-Zorovich Exhibit 3. As of August 12, 2010, 44 accredited verification bodies are listed on CARB's website. NMED-Zorovich Exhibit 4.

VI. ASSESSMENT OF CONFLICT OF INTEREST

A conflict of interest (COI) is a situation in which financial or other relationships between the reporter and verification body render the verification body unable or potentially unable to conduct an impartial assessment.

To protect the credibility and rigor of NMED's GHG reporting program, the relationship between a reporter and its verification body must not create or appear to create a high potential for COI. In accordance with 20.2.301.106 NMAC, verification bodies are required to submit a self-evaluation of the potential for COI with each reporter and to receive written authorization to proceed from NMED before starting verification activities.

20.2.301.107 NMAC includes a list of activities that constitute a high potential for COI that cannot be mitigated, which means that the verification body would not be permitted to provide verification services to the reporter. This list of activities is consistent with the list of GHG consultancy services and additional high COI non-verification services included in The Climate Registry's General Verification Protocol Section 3.2.1. NMED-Zorovich Exhibit 5. 20.2.301.107 NMAC also describes the conditions under which the potential for COI would be deemed low and the verification body would be permitted to proceed with verification activities. In some instances, where the potential for COI is neither high nor low, verification bodies must take steps to mitigate the potential for COI to a low level before NMED will allow verification activities to proceed.

VII. VERIFICATION COST

The cost of GHG verification is dependent on a variety of factors, including but not limited to:

- the risk of material misstatement;
- the complexity of the facility's operations, emitting activities, and data monitoring systems;
- the quality, integrity, and level of organization of the data management system;
- the extent and rigor of the internal quality assurance program; and
- whether the data has been previously verified for purposes of reporting to another GHG program.

There are many steps reporters can take to mitigate the cost of verification, as described in NMED-Zorovich Exhibit 6 (The Climate Registry's *Guide to Understanding Factors that Affect Verification Costs*). In particular, NMED's rule incorporates a three-year verification cycle. Reporters are required to undergo full verification in the first year and then may be eligible for two years of less intensive verification services. Based on the data collected by both CCAR and The Climate Registry, which also use a three-year verification cycle, the cost of verification is generally significantly reduced for less intensive verification services because a facility visit may not be required. *See also* NMED-Zorovich Exhibit 7 (The Climate Registry's public comments on the EPA Mandatory Reporting Rule regarding verification costs).