

DRAFT
CITIZEN PROTOCOL
Procedures for Contracting, Analysis, and Reporting

Community Environmental Working Group
November 12, 2008

Introduction

Because of ongoing public concern about air quality, the Community Environmental Working Group (CEWG) developed this protocol as a methodology the whole community can trust. Addressing sampling, testing, analysis, and reporting, the document establishes a set of requirements that could be used for any measurement needed in the future. Appendix A outlines the process used to develop the Protocol, and Appendix B lists the members of the ad hoc committee with their qualifications.

The requirements outlined here are intended to be compatible with, but may expand beyond, current New Mexico Environment Department (NMED) standards.

This document addresses several key questions:

- Who collects the data?
- How do they collect it?
- Who pays for the process?
- What is the contract vehicle for collecting the data?
- What are the boundary conditions?
- How are data analyzed and interpreted and who analyzes and interprets the data?
- How are the results reported?
- To whom are they reported?
- How is disagreement resolved?

Determining What to Test and When

Because all testing under this protocol expands beyond current regulatory requirements, Intel must approve each proposed test if it is done on Intel property. If Intel denies permission, it must provide its reasons for doing so. Permission granted by Intel may not be withdrawn once contractors are in place.

Testing under this protocol is limited to substances with regulatory (EPA, NIOSH, etc.) standards and approved regulatory (EPA, NIOSH, etc.) sampling methods. Applicable regulatory (EPA, NIOSH, etc.) guidance on sampling, chain of custody, double-blind analyses, data/statistical evaluation, etc. shall be used, if relevant. The CEWG will make

Filename: Citizen Protocol Draft v 16 (2)

Approved: 12-19-08

Prepared or presented by: Stephen Littlejohn

Prepared for: CEWG

Date prepared or presented: October 12, 2009 (added to Appendix B)

a good faith effort to document the following for each proposed test for review and approval by Intel. If any of the following information is not available, the CEWG will indicate that it will be provided by the contractor(s). Intel will base its approval or rejection in part on the information provided.

- What is the purpose of the test?
- What specifically will be tested and how will the results be reported?
- What are the proposed sampling, calibration and test methods that are going to be used?
- What is the length of time for each sample
- What is the data going to be compared to?
- What levels would be considered acceptable?

If testing of non-regulated substances or substances with no approved regulatory (EPA, NIOSH, etc.) sampling methods is proposed, the CEWG must provide the following information for review and approval by Intel.

- What is the rational and validity of the proposed test?
- What specifically will be tested and how will the results be reported?
- How would sampling, calibration and test methods be defined and approved?
- What will be the length of time for each sample
- What is the data going to be compared to?
- What levels would be considered acceptable?

Prior to any sampling Intel will provide the expected % operational capacity, or production level, to the CEWG for review. The CEWG must review this information and determine whether it is comfortable that this level will provide representative results of Intel's normal operation. The CEWG must approve this prior to any testing. Intel does not have the ability to alter production in any way, (i.e. increase or decrease for any testing). If % operational capacity is not deemed to be sufficient to provide representative results then testing will be postponed until the production level is deemed sufficient.

Funding, Managing, and Contracting

Funding should be sought from outside sources such as grants from sources such as EPA, NMED, private foundations, businesses, and individuals. In the event that funding cannot be found, Intel may provide funds; but in either case, the testing will be managed by an outside independent agency, as described below.

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The CEWG will establish a Protocol Task Force, specific to the desired test, to select an independent Management Agency. The Protocol Task Force will consist of representatives from Intel, the community, and the CEWG, and it may be augmented by specialists recommended by the CEWG. NMED will be informed and asked to participate.

The Management Agency must (1) possess appropriate credentials, (2) be independent and have no conflict of interest, (3) be approved unanimously by the Protocol Task Force, and (4) be approved by consensus of all stakeholders present at a CEWG meeting. The selection of the Management Agency must appear as an agenda item of the CEWG and announced to the community in advance.

Once selected, the Management Agency will:

1. Procure the services of an appropriate contractor (vendor) to do the testing using the contracting process outlined in Appendix A. The Task Force will require each applicant to submit a sampling, measurement, and analysis plan (below). Pre-selection interviews and visits may be conducted to examine facilities, equipment, certificates, and personnel.
2. Review and approve the submitted sampling and measurement plan to ensure that it meets the requirements of these guidelines.
3. Inform the Task Force of the vendor selected along with qualifications and the procedures and criteria used for selection.
4. Provide safeguards against conflicts of interest and favoritism, including nepotism.
5. Execute a confidentiality agreement with the vendor.
6. Include a reporting requirement for the vendor.
7. Approve subcontractors as requested or as needed.

Vendors

Vendors hired to conduct the testing must meet the following qualifications:

- A specialist who can demonstrate and document applicable training and successful experience in the area of industrial stack sampling and testing.
- Not a stakeholder and no conflicts of interest
- Accredited
- U.S. firm

If at all possible, the vendor will not be an Intel provider. If a qualified non-Intel vendor cannot be found, an Intel vendor may be hired. If an existing Intel provider is hired, safeguards ensuring objectivity would have to be in place. The vendor could be a university.

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To ensure objectivity, any vendor hired under this Protocol must use blind sampling. Samples submitted to the lab for analysis shall not identify the location or source. In other words, vendors must guarantee that the sample stream is provided to the lab in such a way that those conducting the analysis have no way of knowing that Intel is the source.

Sampling, Measurement, and Analysis

The vendor will develop a sampling and measurement plan consistent with recognized scientific standards and the requirements of the RFP. The plan must allow for adequate for statistical analyses and meet appropriate data quality objectives, which must be defined before the first sample is collected. This plan will consist of at least two parts, and special requirements may be added, depending on the nature of the test.

1. The *sampling methodology* shall identify (a) location(s) of sampling, (b) when the sampling will take place, (c) how much will be sampled and the length of time for each sample, (d) provisions for proper preservation and storage, and (e) data required to be collected during testing such as production levels and temperature.
2. The *measurement methodology* shall identify how the variables will be measured and the operational parameters of equipment to be used including detection limits and error rates. Temperature ranges for testing will also be identified as appropriate. Other boundary conditions such as sample hold time, safety considerations, and other relevant conditions will also be included. Appropriate thresholds of detection and confidence limits will also be identified.
3. A *schedule and timeline* shall identify the approximate dates of sampling, testing, and reporting.

The sampling and measurement plan must be consistent with EPA and NIOSH (National Institute for Occupational Safety and Health) standards. The quantity of samples and tests must be enough to render representative and conclusive results. Back-up samples or split samples must be collected and properly preserved and stored (archived).

The vendor will execute the plan and analyze the data. The vendor will conduct a validation test when appropriate and feasible. This can be performed by a subcontractor.

Intel will be allowed to conduct simultaneous sampling utilizing the same method as determined by the vendor and any additional methods deemed appropriate.

Reporting

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The vendor will provide a report to the CEWG. Intel will have access to it through its representatives on the CEWG. The report will include at a minimum the raw data, a quality control statement, and results and analysis. A comparative analysis will also be required to put the results in context. This could be (a) time comparison, (b) ratio between variables (e.g., amorphous vs. crystallized silica), or (c) comparison to a standard. The executive summary and final conclusions must be notarized.

Only the CEWG will be permitted to release the information to the public. The report will be handled in the following way:

1. Upon receiving the report, the CEWG will post it as a draft on the CEWG website. The draft will be clearly marked that it is not for circulation.
2. The report will then go to the Protocol Task Force for discussion. The Task Force will resolve questions and disagreements with the vendor as needed.
3. Once the Task Force is confident in the results, the report will be posted in final form on the website and presented at an open CEWG meeting.
4. Open public dialogue on the results will be encouraged.
5. Results will be considered acceptable and valid if they have met all the requirements outlined in the protocol including:
 - a. Specified and approved test methods were utilized.
 - b. Accurate comparisons were made as specified.
 - c. % operational levels were approved.

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APPENDIX**Appendix A—Vendor Contracting Process****Appendix B—Document Development Process****Appendix C—Ad Hoc Committee Members and Biographies****Appendix D—Possible Tests****Appendix E—CEWG Mission Statement**

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APPENDIX A

Vendor Contracting Process

1. The management agency will develop the specifications for the testing and vendor requirements.
2. The management agency will identify selection criteria with weighting.
3. The management agency will write a request for proposals (RFP) for distribution. Appropriate alternative documents may be used when the cost is small.
4. The agency will advertise the RFP or alternative document generally through normal channels and will send it as well to firms known to do the kind of work required.
5. Proposals submitted in response to the RFP will be screened using the firms' plans and qualifications.
6. Qualified vendors will be identified in the screening process, and these will be asked to submit price bids.
7. Based on the criteria and bids, a short list will be created if needed.
8. Interviews and visits to the finalist applicants will be conducted as needed.
9. A top applicant will be selected.
10. The contract will be awarded.

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Document Development Process

A Vital Need for Community Engagement

Our chief challenge in developing this document was to gain sufficient support among diverse groups so that the community could trust the results of testing, regardless of what these results might turn out to be.

Results may confirm or disconfirm previous testing; and it is important that the Citizen Protocol itself not be blamed for results that support or reject any community group's presuppositions, including those of Intel itself, about emission levels. This means that community groups had to participate in developing the protocol.

Several announcements, drafts, and invitations were sent out to the 60 individuals on our community contact list and published in the newspaper.

In developing the draft, difficult dilemmas had to be faced. No solution is perfect, but we are confident that we considered these dilemmas carefully in making decisions about how to proceed.

Timeline:

- August 12, 2006** The agenda for the August 16 CEWG meeting was distributed by email to the community with an invitation to attend and discuss a protocol for data collection and associated contracting, along with other agenda items.
- August 16, 2006** Data collection protocol and associated contracting appeared on the agenda of the CEWG. The Group established the name "Citizen Protocol," named the ad hoc committee, and identified silica as a possible pilot test.
- August 31, 2006** The ad hoc committee met to begin drafting the document.
- September 24, 2006** An editorial on the silica problem appearing in the *Corrales Comment* mentioned the Citizen Protocol as a potential way to achieve independent testing.

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- October 1, 2006 (?)** October CEWG report advertisement announced the formation of an ad hoc committee to work on the Citizen Protocol and invited members of the community to attend the next meeting.
- October 12, 2006** The ad hoc committee met to continue working on the document.
- October 13, 2006** A draft of the Citizen Protocol was distributed to the community by email with an invitation to attend the upcoming CEWG meeting, where it would be discussed.
- October 18, 2006** The ad hoc committee gave a report on the emerging Protocol and copies were distributed. Community and CEWG members were invited to submit comments and suggestions to the facilitator.
- October 29-30, 2006** Fred Marsh, a community member, and John Bartlit, Acting Chair of the CEWG, exchanged emails on issues of trust and the Citizen Protocol.
- November 1, 2006** November CEWG advertisement featured the emerging Citizen Protocol and invited members of the community to attend the next meeting.
- November 6, 2006** The ad hoc committee met to continue working on the document.
- November 9, 2006** John Bartlit, Acting Chair of the CEWG, described the emerging Protocol at a meeting of the Environmental Improvement Board (EIB).
- November 10, 2006** A revised version of the Citizen Protocol was distributed to community by email, along with the CEWG agenda and an invitation to attend and discuss the document.
- November 15, 2006** The CEWG met to discuss the Protocol along with other agenda items. The revised protocol was distributed at the meeting. The Group decided to consult widely on the Protocol and to invite individuals and groups with special interest, along with the general public, to the next meeting of the subcommittee to help revise the emerging draft.
- November 17, 2006** Stephen Littlejohn, the facilitator, sent an email request to the CEWG and the community for names and contact information of any individual or group that should receive a special invitation to the next ad hoc committee meeting.

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- November 22, 2006** Stephen Littlejohn, the facilitator, sent an email invitation to the CEWG and community to attend the November 28 meeting of the ad hoc committee and to participate in the ongoing development of the document. A special invitation was also emailed to Alex Puglisi, the Sandia Pueblo Environment Director, who was identified as an individual who should receive a special invitation to attend.
- November 28, 2006** The ad hoc committee met to continue working on the Protocol.
- November 29, 2006** Teresa Fleming emailed the CEWG a list of possible funding sources for the Protocol.
- December 8, 2006** A revised version of the Citizen Protocol was distributed to community by email, along with the CEWG agenda and an invitation to attend and discuss the document.
- December 13, 2006** The ad hoc committee presented a written and oral progress report at the regular CEWG meeting, and the report was discussed in some depth.
- December 28, 2006** Stephen Littlejohn sent copies of the progress report and draft Citizen Protocol to the following parties for consultation: Steve Martinez, Jeff Radford, Fred Marsh, NMED, Sandia Pueblo, and the Environmental Improvement Board.
- January 7, 2007** Stephen Littlejohn, the facilitator, sent an email invitation to the CEWG and community to attend the January 9 meeting of the ad hoc committee and to participate in the ongoing development of the document.
- January 9, 2007** The ad hoc committee met to continue working on the Protocol. In addition to making additional improvements in the draft, the committee discussed funding, legal review, and possible neutral fiscal agents.
- January 13, 2007** A revised version of the Citizen Protocol was distributed to community by email, along with the CEWG agenda and an invitation to attend and discuss the document.
- January 13, 2007** The current version of the document was posted on the CEWG website.

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- January 17, 2007** The draft was discussed again at the regular CEWG meeting.
- January 29, 2007** Stephen Littlejohn approached Doug Mickeljohn of the New Mexico Environmental Law Center about getting a legal review of the draft. Mickeljohn had to decline because of personnel limitations.
- February 5, 2007** Mary Uhl of the NMED wrote a letter agreeing to have the draft reviewed by appropriate bureaus and subsequently spoke with Stephen Littlejohn on the telephone reaffirming her willingness to do so.
- February 12, 2007** Stephen Littlejohn invited Barbara Rockwell to comment on the document and suggested a meeting to discuss it. Barbara subsequently declined to participate, referring Stephen to her book and her sole interest in clean chip making processes.
- February 16, 2007** Stephen Littlejohn called and wrote an email to Bill Olson of the Ground Water Quality Bureau (NMED) inviting someone in his bureau to comment on the draft.
- February 21, 2007** Stephen Littlejohn gave an update on the Protocol at the regular meeting of the CEWG.
- March 7, 2007** We received an email from George Shuman of the Ground Water Bureau providing input into the draft.
- March 21, 2007** Stephen Littlejohn gave an update on the Protocol at the regular meeting of the CEWG.
- March 28, 2007** Stephen Littlejohn approached Paul Biderman of the UNM Institute for Public Law about providing a legal review of the draft. Paul was unable to find resources to do this in house, but did refer Stephen to other lawyers who might do so. These individuals subsequently indicated they were unable to do so.
- April 4, 2007** Stephen Littlejohn sent an email query to the community list asking for ideas about how the Citizens Protocol might be used in conjunction with the community-owned FTIR tool. Marcy Brandenburg responded indicating that the CRCAW would not be interested in cooperating in this way.

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- May 20, 2007** The CEWG began an online deliberation of next-step options for the CP.
- June 20, 2007** The CEWG decided at its regular meeting to proceed to develop a pilot study under the Citizen Protocol and to use this to approach the U.S. Institute for Environmental Conflict Resolution for a possible legal review and ideas about sponsorship and funding.
- July 2, 2007** Stephen Littlejohn sent an email to the community list asking for suggestions about the CP pilot project. Various suggestions were received.
- July 18, 2007** The CEWG identified Silica as the topic for a pilot test at its regular meeting.
- October-
November, 2008** Intel Legal Department and other Intel staff reviewed the most recent draft and suggested changes. The CEWG reviewed and approved these changes with modification.
- April 15, 2009** In light of the ATSDR recommendation that testing for crystalline silica be done, the CEWG decided to charge its ATSDR follow-up committee with preparing documents to raise funds and initiate the use of the Citizen Protocol for this purpose.
- June, July, &
August, 2009** The ATSDR follow-up committee explores the use of the Citizen Protocol to test for crystalline silica, with emphasis on raising the money necessary to do so.
- September 16,
2009** At its regular meeting, the CEWG explores the advantages and disadvantages of proceeding with a silica test using the Citizen Protocol.
- October 21, 2009** At its regular meeting, the CEWG decides . . .

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APPENDIX C

Ad Hoc Committee Members and Biographies

Frank Gallegos

Mr. Gallegos was born in Albuquerque NM and went to NM State University where he obtained a BS in Civil Engineering and an MS in Environmental Engineering. He has been with Intel for 9 years and has worked as an Environmental Engineer, Safety Engineer and is currently the NM Site Environmental/Safety Manager for Intel.

Edward Pineda

Edward Pineda is a retired Naval Engineering Officer. He received a BSME and MSME from US Naval Engineering School and an MSCE from Naval Polytechnic Academy. Edward was Assistant Director for Latin America at the American Society for Testing and Materials. He was Project Engineer and Principal Engineer for liquefied natural gas and industrial gases plants at Air Products and has been a consulting and environmental engineer with various industrial companies in US and Latin America, participating in environmental impact assessment and resolution of environmental conflicts between investors/polluters, communities, and regulators. Having returned to the US in 1999, Edward currently lives in Rio Rancho, where he continues his participation in city, environmental and community activities.

Mike Williams

Mike Williams has BS, MS, and Ph.D degrees from UCLA in engineering. He has approximately 35 years of experience in air quality modeling and measurements. He is a co-founder of New Mexico Citizens for Clean Air and Water and has provided atmospheric modeling assistance to several conservation organizations. He also served as the chairman of the Southwest Regional Conservation Committee of the Sierra Club.

Marian Wrage

Marian Wrage has a B.S. Geology (1983) from Northern Arizona University. She is currently Environmental Programs Manager with the City of Rio Rancho and formerly worked at Assaigai Analytical Laboratories in Albuquerque, NM as Senior Project Manager for 8 years, QA/QC Manager for 2 years and Asbestos Laboratory Manager for 3 years. Prior to that, Marian worked in California as Laboratory Director of Applied Petrography, an asbestos lab, for 4 years. She is currently on the Board of Directors of Girl Scouts of Chaparral Council, New Mexico.

Stephen Littlejohn, facilitator

Stephen Littlejohn, Ph.D., is the current facilitator for the Community Environmental Working Group. He has been a professor of communication for 36 years and has practiced mediation and

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facilitation internationally for the past 13 years. Stephen is a partner in Domenici Littlejohn, Inc., a communication-consulting firm. He is author of seven books and numerous articles on communication, mediation, and conflict management. He serves in a neutral capacity as facilitator of the ad hoc committee and the CEWG.

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APPENDIX D**Testing Discussed in CEWG Meetings****Silica—amorphous and crystalline****Boiler testing****Thermal oxidizer testing--FTIR****Scrubber testing—ammonia and other****Cooling towers****Water re-use****Tracer gases or odorants****Phosgene****Comparative VOC analysis between normal operations and downtime**

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APPENDIX E**CEWG MISSION STATEMENT**

The Working Group is committed to making continuous environmental improvements, including the reduction of Intel's chemical emissions, and improving community dialogue.

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