

## **DRAFT MEETING SUMMARY**

### **Community Environmental Working Group**

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#### ***“Striving for Continuous Environmental Improvements at Intel”***

**Date:** August 20, 2014  
**Time:** 5:00–7:00 p.m.  
**Location:** Corrales Senior Center

#### **Members Attending**

John Bartlit, NM Citizens for Clean Air & Water  
 Mike Williams, NM Citizens for Clean Air & Water  
 Hugh Church, American Lung Assc. in NM

Dennis O’Mara, Corrales resident  
 Sarah Chavez, Intel  
 Edward Pineda, Rio Rancho resident

#### **Non-Members Attending**

Lynne Kinis, Corrales resident

Natasha Martel-Jackson, Intel

#### **Facilitator**

Mark Bennett, Facilitator

CJ Ondek, Recorder

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#### **HANDOUTS**

- Draft Agenda
- Draft Meeting Summary, July 2014
- Action-Item Progress Report, August 2014
- EHS Activity Reports
- *Corrales Comment* article on ATSDR report

#### **PROPOSED AGENDA**

- Welcome, Introductions, Announcements and Brief Items
- EHS Report and EPA 114 Update
- Review Action Item Progress Report
- Proposed Next Steps for Modeling
- Preparation for Release of ATSDR Report
- Other Business
- Adjourn

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## **WELCOME, INTRODUCTIONS, ANNOUNCEMENTS, AND BRIEF ITEMS**

John Bartlit opened the meeting by stating the CEWG mission, which was to work towards continuous environmental improvements at Intel and improved community dialogue. Introductions were made.

### Agenda—Revisions and Approval

No comments.

### Meeting Summaries—Revisions and Approval

No comments.

### ATSDR Update

- John Bartlit said he spoke with Peter Kowalski on August 18 for 30 minutes. During this talk Mr. Kowalski reported that the ATSDR final report was still making its way in the clearance process in Mr. Kowalski's division, and he had received the division's comments and made revisions accordingly. Mr. Kowalski expected the report to go to the ATSDR Associate Director of Science this week, which is the last review stop. Afterwards, the report would go to the outside peer review team, which would take about a month. Thus, Mr. Bartlit concluded, the final report would not be ready for release in September but may be available in October. Mr. Bartlit added that Mr. Kowalski would be traveling to New Mexico to present on the report and accompanied by Patrick Young, who is the ATSDR Regional Representative from Region 6 in Dallas.
- Lynne Kinis asked if they would be able to read the comments and changes when the ATSDR report was released. John Bartlit replied that they would see the original draft report and then the final report, so they would see how it changed. Ms. Kinis asked if they would be able to see the agency the changes or comments were attributed to. Mr. Bartlit said he did not know, but they had NMED's written comments to ATSDR, so they could see changes/comments made by NMED. Sarah Chavez said they would not see ATSDR's internal review. Mr. Bartlit said if they wanted to pursue seeing which agency made which comments and changes, they could pursue that through the Freedom of Information Act. Dennis O'Mara said the ATSDR comments would be mostly technical in nature. If there was a change from the most recent draft to the final, he suggested asking Peter Kowalski about it during his presentation.
- John Bartlit said he was asked by group to ask Peter Kowalski the timing of the report's release. He shared the following email from Mr. Kowalski in response:
  - "The report will be made available several days before the meeting so that interested persons have time to read it. We will post it online and mail copies to the local libraries. We likely will have a press release, too. We will provide some advance notification as well prior to the release."

- Edward Pineda said it was important for the community to know who authored the comments in the final report. John Bartlit said he would express these wishes to Peter Kowalski. Mr. Pineda said they would not have enough time at the meeting with Mr. Kowalski to pursue this issue. Lynne Kinis expressed concern that three days or “several” days were not enough time for the community to review the ATSDR final report.
- John Bartlit said he would call Peter Kowalski to find out what “several days” meant. Mark Bennett suggested he couch his language in terms of public interest and that the public needed enough time to review the report. Mr. Bartlit also reported that he contacted NMED to invite them to the meeting with Peter Kowalski on the ATSDR final report, and they responded that Mr. Bartlit should inform them of the actual meeting date.

**ACTION ITEM:** John Bartlit will call Peter Kowalski to have him define what “several days” of review time means for releasing the final report to the community.

- Dennis O’Mara wondered what the implications were for the ATSDR report’s taking a long time. He asked if the ATSDR had a whole hallway of reports that were 7 to 12 years old that they were investigating, or was this particular report problematic. John Bartlit said this report was not problematic, but Mr. Kowalski implied it was standard operating procedure. Mr. Bartlit said he did take the opportunity to mention regulatory engineering to Mr. Kowalski.

#### Update on Regulatory Engineering

- John Bartlit said he called Sandra Ely, Head of Compliance and Enforcement, Air Quality Bureau, to ask about the possibility of getting a grant to work on regulatory engineering. She said she would get back to him. Sarah Chavez said she spoke with Sandra Ely today, who said that money was available for next generation compliance, but it was very specific and did not fit in with the CEWG’s idea of regulatory engineering.
- Dennis O’Mara asked if NMED issued RFPs. John Bartlit said he did not know.
- Sarah Chavez said she spoke with Sandra Ely about the infrared camera and what to do in New Mexico with remote access. She also told Ms. Ely about Intel’s plans around color-coding data on the Web site around scrubbers and thermal oxidizer equipment operation, and she would bring Intel’s proposal to a CEWG meeting to discuss which options made sense from a public perspective. Ms. Chavez said she would incorporate feedback from the CEWG into their proposal to present to NMED.

**ACTION ITEM:** Mark Bennett and Sarah Chavez will discuss when this topic best fits into the agenda.

- Dennis O'Mara said he researched the EPA online and found a next generation compliance PowerPoint called "Next Generation Compliance and States: Improving Compliance through Regulatory Structure and Advanced Technology" by David Hinden and Katherine Tunis. The authors' email addresses were listed, and Mr. O'Mara emailed them a month ago about the CEWG and its interest, along with NMED and Intel, in regulatory engineering and asked about the possibility of a grant. He said he never heard back from them. Next, Mr. O'Mara tried to find a phone number, but it was impossible to find a phone number for them. His next thought was to write them a letter. The link to the PowerPoint is: [http://www.epa.gov/sbo/pdfs/next\\_gen.pdf](http://www.epa.gov/sbo/pdfs/next_gen.pdf)
- Sarah Chavez said she and Hugh Church recently went to an Air and Waste Management Association meeting where NMED Air Quality Bureau discussed what they would be doing in terms of next generation compliance. They had money for this issue, but most of it would be spent on internal projects such as getting systems updated, file sharing, software, etc. She added that they needed to have a specific project to write the grant for and not just general ideas; the CEWG was nowhere near this. Also, the things that have been discussed in meetings with NMED and Intel were about items that Intel already had in place with onsite operations.
- Dennis O'Mara said that he was hoping that the state had an RFP for demonstration projects, and if so, the CEWG along with Intel and others as partners could be qualified applicants. Sarah Chavez said that they were still looking at their internal systems now and not ready to take next steps.
- Edward Pineda said it was good to develop a constructive relationship with NMED despite bumpy past experiences. They could become more effective friends in the name of the community.

#### Other announcements

Dennis O'Mara said he had not yet received a response from Ryan Flynn, Secretary of NMED, to his recent letter expressing concern over how NMED handled the ATSDR draft report. He said he called the Secretary's office to follow up, and his assistant acknowledged they had received his letter on June 9. His assistant also said he was not in the office, but she would have Mr. Flynn call Mr. O'Mara "tomorrow."

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## EHS REPORT AND EPA 114 UPDATE

- Sarah Chavez said a recent US Supreme Court decision determined that the EPA had improperly extended the federal major source Title 5 program to include sources only for greenhouse gases. Basically, for Intel to align with the Supreme Court decision and state law, they sent a letter to NMED asking for their Title 5 permit to be discontinued. Thus, Intel's Title 5 discontinuation was approved by NMED in August. John Bartlit asked if Intel played any role in the Supreme Court case, including giving any comments. Ms. Chavez said Intel was part of an industry group called the National Environmental Development Association involved in preparing information for the case, but Intel did not provide any comments. Utilities groups in some states were the main parties involved.
- Dennis O'Mara asked what the implications of the Title 5 discontinuation were. Ms. Chavez said that NSR permit was still in effect. Specific reporting requirements connected with the Title 5 no longer applied. Reporting requirements for greenhouse gases still existed under a different federal rule and were reported directly to EPA. Ms. Chavez said there was specific language in the New Mexico administrative code that stated NMED could not enforce what the EPA could not enforce. Edward Pineda asked for more information to be provided on the Supreme Court decision in the Meeting Summary.

**ACTION ITEM:** Sarah Chavez will provide more information on this Supreme Court decision for the Meeting Summary. She will also forward the citation from the New Mexico administrative code.

- Lynne Kinis commented that it was very sad that they were getting rid of Title 5 in the face of global warming. ALEC had control over the decision, and how dare the organizations use a name like "National Environmental Development Association," she stated.
- Sarah Chavez reminded that greenhouse gas reporting rules and testing requirements still existed, even though the permit disappeared.
- Natasha Martell Jackson said that an accident occurred in July at Intel involving a subcontractor who fell and died of his injuries. He was involved in construction-type work. OSHA was involved in the accident investigation and it was ongoing.

## ACTION ITEM PROGRESS REPORT

- Sarah Chavez said that Mark Bennett could take Frank Gallegos's name off #3. She said she sent an email to Intel Oregon and just received a return voice mail today, and she

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would continue to follow up. John Bartlit asked if the Intel Oregon contact would comment on Craig Taylor's presentation. Ms. Chavez said she did not know because of proprietary issues.

- Ms. Chavez updated #4 saying she has asked ERM review available technologies. They came to the same conclusion as Intel, which was that they were unable to find anything that pointed to condensation technology as a viable alternative for chip making. ERM (Environmental Resource Management) was Intel's stack testing consultant. Dennis O'Mara asked if it was feasible to find a second opinion not affiliated with Intel since ERM consulted with Intel. Ms. Chavez pointed out that they would most likely have to pay someone to do this research. John Bartlit suggested checking with a company that sold the technology as well as with the Institute of Clean Air Companies, which had a Web site at <http://www.icac.com/>.
- Sarah Chavez updated #5—the ERT drill. She said that the proposal was to do a case study that would involve outside resources and include a drill to demonstrate how Intel's emergency process worked. Dennis O'Mara said that Frank Gallegos didn't exactly say that last month, and what he said then did not jive with what Mr. O'Mara was looking for. However, Ms. Chavez's version was more in line with his concerns, although he thought there would be some kind of exercise. Ms. Chavez said they would walk through the fire that occurred onsite and explain how the events unfolded and then the response. This incident involved an outside agency. Mr. O'Mara said the question he was interested in was what happened if an accident occurred that spread into the community, which aligned with the Code Red project. Ms. Chavez said that this exercise was observable, and the group needed to figure out the logistics. Mr. O'Mara said he was interested in seeing this drill and he did not want to burden the rest of the CEWG with having to attend.

**ACTION ITEM:** Dennis O'Mara and Sarah Chavez will work out the details in his observing the ERT drill he requested.

- John Bartlit said he completed items #14 and #15.
- Dennis O'Mara said to mark #13 as ongoing. On #10, he asked Sarah Chavez to provide an update. Ms. Chavez reported that she had spoken with Frank Gallegos about it, and they would have an agenda item on it. Currently, information was available online about what Intel did on continuous environmental improvement. Mr. O'Mara said he was less interested in what Intel has done up to now than in what they planned to do in the future and what changes were in the works in the future.

## PROPOSE NEXT STEPS FOR MODELING

Mike Williams presented on his proposed next steps for modeling.

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- Referring to his first slide, he said that hydrogen fluoride (HF), hydrogen chloride (HCL), and chlorine gas (CL<sub>2</sub>) were routinely measured in scrubber emissions in units of parts per billion (volume of pollutant divided by volume of exhaust gas). When talking about emissions measurements, he was referring to concentrations that were in the stacks. Mr. Williams said they needed to figure out the emissions and screening levels. Mr. Williams said that the Texas Commission of Environmental Quality appeared to have the best screening levels. The screening levels could be expressed in one of two ways: parts per billion or in micrograms per cubic meters. Mr. Williams created the table below that compared the two measures as per chemical compound. Here the micrograms per cubic meters were not corrected for sea level. From looking at the table, HCL had higher screening levels and was therefore much less toxic. CL<sub>2</sub> had the lowest screening levels and therefore appeared to be the most interesting target for modeling.

#### TCEQ ESLs

<b>Contaminant</b>	<b>micrograms per cubic meter</b>	<b>parts per billion</b>
HF	18	22
HCL	190	130
CL <sub>2</sub>	15	5

- In discussing slide 2, Mr. Williams asked about pollutants not detected in the scrubber stack exhaust. There were other contaminants that did not show up in the emissions in high enough levels. Because there was no data on this, Mr. Williams said he looked at the risk assessment estimates for emissions for other scrubber contaminants. He looked at each contaminant and what was emitted in pounds per year, weight in screening levels (ESL) measured in micrograms per cubic meter, and then the ratio of emissions to ESL and created a table to list the numbers. The ratio for HF using the risk assessment numbers was a ratio of 700. In comparison, the highest ratio on this table was ammonium chloride (NH<sub>3</sub>F), with 7,327 lbs. per year as HF, 18 micrograms per cubic meter as HF for a ratio of 407. HF was included in the numbers because having both HF and NH<sub>3</sub>F in the stacks gave two different plumes with two different results. To compare, Phosphene had a very low ratio at 4.5 because very little of it was emitted in the stacks.
- Mike Williams concluded that CL<sub>2</sub> was the best choice for more detailed modeling study with measured emissions. Also, if they were going to target NH<sub>3</sub>F, they would need to determine if it was measured as HF and included in the current HF emissions or did they need to add its emissions to those of HF and increase the HF estimates. Sarah Chavez said they would have to collaborate with ERM to get the data for Mr. Williams to use in the modeling.

- As for the next steps timeline, Mike Williams and Sarah Chavez said they should be able to accomplish something within the next few months.

**ACTION ITEMS:** 1. Mike Williams and Sarah Chavez will communicate with ERM to get data on  $\text{NH}_3\text{F}$ .  
2. Mike Williams will continue with the modeling project.

- Lynne Kinis said that in the task force Intel presented information, and member Steve Martinez took that information and proved that Intel's risk assessment chart numbers were incorrect because of the way they used emission factors. She was wondering if Mr. Williams could get a copy of that to compare. Mike Williams said he did get information and learned that the data was different for two reasons: 1. Improvements since that time, and 2. He used the median emissions.
- Mark Bennett asked if the archive information would be listed under "emission factors". Sarah Chavez said she did not remember seeing anything on this. John Bartlit said these numbers should be in the task force report. Ms. Kinis said she did not have a hard copy of the task force report. Ms. Chavez reminded how difficult it was to find information in the task force report because of the many files.
- Sarah Chavez said the task force documents were not on the CEWG Web site, but she made CDs of the task force documents. They were hard to look through. Lynne Kinis said she would try to contact Steve Martinez for more information.

**ACTION ITEM:** Lynne Kinis would try to contact Steve Martinez for more information on his calculations of Intel's risk assessment chart numbers.

## **PREPARATION FOR RELEASE OF ATSDR REPORT**

Mark Bennett said the CEWG would look at Jeff Radford's article entitled "Intel Pollution Report Coming Mid- May?" as a way to prepare for the ATSDR report release.

- Lynne Kinis said, as referenced on the bottom of the second and top of the third pages of the article, ATSDR made several pointed recommendations to NMED, none of which they implemented. Some of these recommendations were requesting additional air monitoring and better regulatory oversight at Intel. Ms. Kinis suggested that the CEWG pressure NMED to implement some of ATSDR's recommendations, especially around "ATSDR's...challenge to Intel's emission factors used to calculate pollutant releases." She also added that these recommendations were old but had never been addressed.



- John Bartlit said the CEWG could review all their activities around emission factors over the years, which would be faster than pushing NMED to do something. He reminded that the NMED focused on the entire state and not just Intel; whereas the CEWG focused entirely on Intel. He said that in the past he felt that spending time on emission factors wasn't important because it didn't change actual emissions. Lynne Kinis interjected that it could point a finger to something causing illness. Mr. Bartlit agreed and said they could put more CEWG person hours into emission factors and start by summarizing the progress and looking at the history of emission factors, how they've changed, and why they've changed. They might even be able to come up with a continuous improvement that had resulted in changes and improvement and knowledge and emission factors during time of CEWG. Mr. Bartlit said that Mr. Williams was wrestling with emission factors, and looking at emissions factors might be a good follow on project to his current modeling project. Also, this idea would fit under the new model of small committees.
- Sarah Chavez reminded that since 2005, Intel gave two presentations to the CEWG on emission factors. Also, between 2005 and 2010, NMED held a public meeting whenever Intel updated their emission factors. Before these meetings, a lot of discussion occurred between Intel and NMED behind the scenes; also, the whole point of the stack testing was to validate that the emission factors were in line with Intel's numbers. They did this process for 12 years, and as a result a lot of data had been collected on Intel emissions over the years and a lot of work had been done on continuous environmental improvement, she said.
- Edward Pineda said if he read the article correctly, the comments made by ATSDR were a promise that the community was waiting to be fulfilled. He suggested, as a first step, to take this article and create a small group to verify the validity of ATSDR's comments. In the community there were still people who didn't believe in emission factors. So if they found out that some of these suggestions were based on scientific reasons, then they could accumulate proof that work still needed to be done on emissions factors. The goal would be to have the community have some degree of belief in emission factors.
- Dennis O'Mara asked to what extent the emission factors changed during the 10-year period Ms. Chavez described previously. Sarah Chavez replied that Intel started with a single emission factor for the site, then moved to emission factors based on technology, with each technological process having an emission factor. Next Intel moved to developing emission factors based on the stack testing results for HF, total VOCs, HCL and other major pollutants. The same process was followed for some of the combustion emission factors, like for NOCS and CO. Ms. Chavez said that as they collected more data, Intel began to move away from developing their own emission factors towards using emission factors from testing methods prescribed by the EPA and NMED

- John Bartlit asked if Intel Worldwide moved in a comparable direction. Ms. Chavez said yes, more and more sites were moving in a similar way, but New Mexico was further ahead because they had been testing and collecting data for much longer. John Bartlit said perhaps they could investigate which emission factors were most important to know best and which didn't matter. Mr. Pineda asked how they would judge the important of emission factors. Mr. Bartlit suggested looking at screening levels to provide a relative barometer. Mr. Pineda suggested the title, "How good are the emissions factor in protecting the community's health" as the CEWG's next document. Mr. Bartlit replied that this topic was beyond the scope of the CEWG's capacity.
- Lynne Kinis said that she was aware they were discussing scientific issues and that scientific processes took time. The CEWG had been studying and trying to find answers, and the bottom line was that people were dying, and there wasn't any time left. Emissions can go down but still have potency to kill. Also, Ms. Kinis said that at an NMED permit presentation, Daren Zigich said, "When Intel came and wants to change their permit they tell us what they want and we do it." Therefore, she said, the ATSDR was trying to say to NMED with its recommendations, "shake it up. Don't let that happen." Ms. Kinis said that was why she brought up the issue. The ATSDR was astute enough to see this discrepancy but didn't have the regulatory muscle. They had to couch what they said very subtly, which was why the CEWG should keep asking NMED what they were doing about it. Ms. Kinis said she was against Mr. Bartlit's proposal because too much time would be spent on studying rather than taking action, and people were dying. She said she was arguing for needling NMED based on the initial ATSDR draft. The ATSDR draft called for additional air monitoring and better regulatory oversight in the way Intel calculated its emissions.
- Sarah Chavez said some of what was in the interim report was no longer relevant due to the way Intel changed emission factors.
- Dennis O'Mara said they could look at the list of recommendations and ask for a status check. These recommendations were nine years old now, and the implication was that NMED had not addressed ATSDR's recommendations.
- John Bartlit said the CEWG responded to the ATSDR by doing crystalline silica testing. He said he believed the CEWG could get things done quicker than agencies, since only 1% of their resources were focused on Intel.
- Mark Bennett summarized the discussion. The first suggestion from Lynne Kinis and Edward Pineda was to take statements from the ATSDR interim report that made implications about the

- NMED's regulatory rigor and turn it into questions for NMED to respond to what they have done in response. The second suggestion was to have the CEWG focus on reviewing different emission factors to see if they could come to a different understanding of the issue as well as to raise more questions.
- Edward Pineda raised the past issue of the New Mexico Department of Health's (NMDOH) making a statement about the health impact of emissions on the community. He recommended that the CEWG write to the NMDOH to see if they had any up to date information on health impacts in Corrales and Rio Rancho. John Bartlit reminded that Jonathan Samet reviewed the report and agreed with it. Dr. Samet was a presidential appointee to the National Cancer Institute's advisory board. Mr. Bartlit said that the ATSDR peer reviewers were not only reviewing the ATSDR final report but also the CEWG's crystalline silica report and the NMDOH report and may provide comments next month.
- Edward Pineda said that the CEWG should have a small planning committee to coordinate meetings while Peter Kowalski was in New Mexico to discuss these issues again as well as what was being done to protect the community's health, and the technical ways of monitoring and establishing emission factors and Intel permits. He suggested defining the purpose of the meetings now and log enough time for comments, discussion, and to reach some conclusions.
- Mark Bennett asked what the ideal outcome was for this set of meetings and how to prepare for them. John Bartlit said they all wanted to move faster, and the CEWG was moving faster than the agencies.
- Sarah Chavez asked what they would do if these issues were not raised in the final report. What was the best use of time regarding process versus emission factors questions? For example, Intel was not calculating emission factors the same way as in 2009. So how would this be noted?
- John Bartlit asked how much work would it be for Sarah Chavez to develop a timeline by September of Intel's emission factors changes since 2009. Ms. Chavez said she could provide a high level timeline, but pointed out that NMED would have problem answering specifics because they have had several permit writers since then and might not necessarily know detailed answers to specific questions. NMED would most likely call Intel for the specific information. Dennis O'Mara commented that this suggested there was no institutional memory at NMED. John Bartlit said the remarkable thing about Peter Kowalski was that he was involved in the issue for 10 years.

- Lynne Kinis said she would question Peter Kowalski on whether NMED had reported back to them on their issues of concern, and she hoped Richard Goodyear was present to hear his response.
- Dennis O'Mara said that the final report might say something different than the interim report, and if so then they could ask pointed questions of both reports. He asked what could they do now. John Bartlit said that the group agreed that when the time was closer to the release of the final report, they would create a smaller group to look at the draft report and make recommendations. If the final report were released in October, then September would be the best time to appoint the small group and make a specific planning and preparation agenda item.

### **ADDITIONAL BUSINESS**

### **MEETING ADJOURNED**

**NEXT MEETING:** September 17, 2014, 5 to 7 pm, Corrales Senior Center.