

MEETING SUMMARY

Community Environmental Working Group

“Striving for Continuous Environmental Improvements at Intel”

Date: November 19, 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

Non-Members Attending

Lynne Kinis, Corrales resident
 Natasha Martel Jackson, Intel

Bill Dail, Corrales resident
 Nancy Bartlit, Los Alamos resident

Facilitator

Mark Bennett, Facilitator

CJ Ondek, Recorder

HANDOUTS

- Draft Agenda
- Draft Meeting Summary, October 2014
- Action-Item Progress Report, November 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
- Preparation for Release of ATSDR Report
- Update on Oregon Citizen Settlement Agreement
- 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 Monday, November 17, who confirmed the ATSDR final report would not come out in December. Mr. Kowalski told Mr. Bartlit that the ATSDR Associate Director for Science handled the external peer review process, and he assured Mr. Bartlit that the process with the peer review panel was moving forward. Mr. Kowalski had mentioned that he was part of a temporary ATSDR incident team working on protocols to improve the training of Ebola workers sent to Africa, but that should not affect the release of the final report.

- John Bartlit said Mr. Kowalski also confirmed that the first community meeting on the final report would be with the original petitioners, Corrales Residents for Clean Air and Water (CRCAW), and it would be a public meeting most likely held at the Old Church in Corrales. John Bartlit said that this meant the CEWG would have time to attend the first meeting and provide Mr. Kowalski with any new questions beforehand.
- Dennis O'Mara asked if Mr. Kowalski knew that the committee was looking at the draft report. Mr. Bartlit responded that Mr. Kowalski knew that they were framing questions to ask.

Regulatory Engineering

Sarah Chavez said Intel was still working to get data points on scrubbers and thermal oxidizers on to the real time Web site to show whether the equipment was operating and treating emissions. Intel ran into a problem with finding someone with the ability to write the code necessary to post the data on to the Web site, but hoped to accomplish the task in the next couple of weeks. Ms. Chavez said she would email the group once the data was posted in order to check that the color-coding made sense to the public and to provide feedback. Also, she was searching for a different parameter to show continuous operation of the factory. She had looked at what was used during silica testing, but unfortunately, it was specific to HMDS. She had a couple of other ideas to explore. John Bartlit asked if Intel had received feedback on the Web

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site from the Air Quality Bureau. Ms. Chavez responded yes and that she had incorporated some of it into the content.

Other Announcements

- Dennis O'Mara said he had invited Bill Dail and another Corrales resident to come to the CEWG meeting and consider becoming a member. Mr. Dail attended the meeting but the other resident was unable to come tonight but would come to the next meeting.
- Mark Bennett said Robi Shields had resigned from the group.
- Lynne Kinis said that in the spirit of being candid, the CRCAW—the petitioner group—would not attend the meeting with Mr. Kowalski if the CEWG also attended. She said they wanted nothing to do with the CEWG because of the way it was initially set up. John Bartlit said that Mr. Kowalski said it would be a public meeting, and CEWG members were members of the public and therefore could attend. Ms. Kinis said that in the past Mr. Kowalski held a meeting privately with the petitioners, and then held many public meetings afterwards. Sarah Chavez added that this was a final report and not a draft report that was open to feedback, which might be why all meetings were public. John Bartlit said that he mentioned to Mr. Kowalski that the CEWG was agreeable to a public meeting.
- John Bartlit shared that Mike Williams was flying to San Francisco the next day to accept a Sierra Club Special Achievement Award. The Sierra Club states this award is 'for strong and consistent commitment to conservation over an extended period of time.' The Sierra Club honored Mike for his work as 'a national authority on clean air issues.'

Public Comment

No public comments.

EHS REPORT AND EPA 114 UPDATE

Sarah Chavez said it was a quiet month and the EHS report had only a couple items. Lynne Kinis said she experienced noise pollution early in the evening. Ms. Kinis said it was manufacturing sounds, and she usually did not hear any sounds. Sarah Chavez asked for the date and time frame so she could check.

ACTION ITEM PROGRESS REPORT

- Sarah Chavez gave an update on #3, condensation technology. Intel thermal oxidizers had fairly low inlet concentrations. She looked at performance testing inlet and outlet data between 2009 and 2011. She found that Intel tested 7 thermal oxidizers and there was not a correlation between inlet and outlet concentration. For example, if inlet concentrations were low, that did not mean that outlet concentration would be low, too.

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Ms Chavez gave examples of a unit with an inlet of 25 parts per million (ppm) and an output concentration of 1.1 ppm, and another unit with 43 ppm inlet and a .4 ppm outlet. In this example, the unit with the lower inlet concentration actually had a higher outlet concentration. Therefore, the idea of adding a technology to reduce input concentration did not necessarily mean it would correlate with lower output concentrations. The units were designed and set up already close to detection limits, so it was unlikely to see any improvements at the end of the stack. Ms. Chavez concluded that adding an additional device to reduce input concentrations before it reached the thermal oxidizer would most likely not reduce what was coming out the stacks. John Bartlit added that where input concentrations are at higher levels removal efficiency is improved and more emissions can be captured.

- Mike Williams asked if the detection limit was variable. Ms. Chavez said she did not know and would have to ask ERM.
- Ms. Chavez said she would share these performance results data on the seven stacks, which were part of the permit process, with the group to review. She added that the data varied widely. Ms. Chavez added that she shared information from ERM on condensation technology with Dennis O'Mara.

ACTION ITEM: Sarah Chavez will: 1. distribute the performance results data to CEWG members for review and 2. Ask ERM about variable detection limits.

- Mark Bennett asked Lynne Kinis if she would like the information discussed as part of her packet. Ms. Kinis responded yes.
- Lynne Kinis commented that if Intel could not change its production process because it would cost too much money, well then nothing was more valuable than a human life. Intel had been remiss in not spending the money to reduce chemical emissions that were making people ill.
- Sarah Chavez provided an update on #10—investigating zero emission factors. She said Intel had a few chemicals using zero emission factors, and gave three reasons why they were listed as zero emissions: 1. The chemical can be completely consumed or converted in the process; 2. It could be a solid source with negligible vapor pressure; and 3. The chemical is not detectable in tool testing. Intel used three chemicals that were hazardous air pollutants (HAPs) or VOCs. Two of them converted to other chemicals, HCL and chlorine, and another broke down to ammonia. Also, Intel used only small quantities—less than one pound a quarter—of the chemicals. The number of zero emission chemicals Intel used varied over time.

- Lynne Kinis said if Intel knew the synergistic effects the broken down zero emission compounds had with other emissions. Sarah Chavez said Intel had done FTIR testing on all the stacks and chemicals coming out of stacks, and they had not identified any new chemicals coming out other than what they had anticipated and included on emission report. Ms. Kinis said other FTIR tests (NMED, the community) conducted in conjunction with the task force picked up phosgene. Intel did not use phosgene, yet it showed up in the FTIR in three different places. Ms. Chavez said that both NMED and ERM identified false positives. Ms. Kinis said her point was that it didn't mean the original chemical did not shoot off and mix with something else to create phosgene or another chemical equally as dangerous. Ms. Chavez replied that Intel tested regularly and did not identify any dangerous new chemical emission, and if they did see something, it would be evaluated and reported.
- Lynne Kinis said she was trying to point out that using the term zero emission factor was "absolutely ridiculous." What a chemical broke down to could mix with other chemicals to create a dangerous situation. Ms. Chavez said that Intel used less than a pound of these chemicals. Ms. Kinis said it could take less than a pound to kill thousands of people. She said that Jim Casciano had told the task force that the phosgene in the FTIR tests came from car traffic on Route 528. Ms. Kinis said she had asked Mr. Casciano how traffic on 528 compared to traffic in LA, Houston, New York and other crowded cities, and why the residents in these cities hadn't died from phosgene poisoning from car exhaust.
- Mark Bennett asked what needed follow up with this conversation. Sarah Chavez said she did not know what else she could do to assure Ms. Kinis. John Bartlit said he had written a column on synergism that talked about what it was, how little scientists knew about it, and what was being done about it that he could share with the group. Mr. Bartlit said the issue of phosgene was raised in the interim report, and they could ask the ATSDR questions about phosgene and wait to see how it was addressed in the final report. Mike Williams said the ATSDR draft report also talked about phosgene.
- Mike Williams updated on #14. He had written a summary (handed out at tonight's meeting) on additional scrubber contaminants that went along with HF modeling. He asked if the group would prefer it as a separate stand-alone document or if it should be merged with his HF modeling report. Sarah Chavez suggested two stand alone documents since the ATSDR already looked at the HF modeling report.

ACTION ITEM: Mark Bennett will send the scrubber contaminant document to the group.

- On item #15, Sarah Chavez shared an EPA link that converted kilowatt hours into meaningful comparisons on how much electricity was saved:
<http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>
- On item #16, Sarah Chavez gave Intel's projected emissions reductions as a result of energy conservation efforts that resulted in less boiler use:
 - 3900 metric tons—CO₂
 - 2,900 lbs—NO_x
 - 15 lbs—CO
 - 540 lbs—particulates
 - 200 lbs—VOCs
 - 130 lbs—HAPs (hexane)

She reminded that boiler use was seasonal and weather dependent so these were approximations based on the average usage.

- Sarah Chavez said she would not be able to update item #17 until February or so.
- Mark Bennett reported on #19. The Corrales Senior Center could hold 72 people and had tables and chairs to accommodate that number. They just needed to know the date to make sure it was available. A recreational facility in the village had greater seating capacity. Considering that a public meeting would be held with the petitioners first, perhaps attendance might not be so high. Lynne Kinis said parking might be an issue.
- On item 21, Mark Bennett said he put the previous (2009) ATSDR report in the CEWG online archive.
- Dennis O'Mara commented on #6. He said Sarah Chavez had given an impressive and comprehensive report on Intel's internal continuous environmental improvement strategies, but he wished to reemphasize that there was nothing in her report about Intel's reducing emissions. He said Intel's main focus should be reducing emissions. He wanted to challenge Sarah and Intel on the point that it should not be up to the CEWG to present strategies to reduce emissions, but Intel should always have this item in front of them as an objective pursuit of process to accomplish, and he did not see that happening.
- John Bartlit said he did not disagree but saw it as part of the CEWG mission. The most useful improvements over the years have come about from comments made by CEWG meeting participants. Ideas about taller stacks and changing maintenance schedules and changing cooling towers have come about from CEWG meeting participants. It was Intel's job to do it, but what CEWG did Intel could not do by itself. Dennis O'Mara clarified his statement and said it should not be only up to the CEWG.

- Sarah Chavez said she disagreed because Intel had an emissions reduction goal, but it was greenhouse gas related. Other emission reductions activities were connected to energy conservation, the numbers she just gave the group, for example. Energy conservation projects that reduced boiler use also resulted in emission reductions. These things might not be what the group was concerned about, but still Intel was spending money to reduce emissions and it was part of their company goal. Ms. Chavez said that the biocide pilot—item #17—might also reduce emissions in New Mexico, and she would report on that at a future CEWG meeting.
- Dennis O'Mara said his main focus was what came out of the scrubbers and stacks and he did not see anything on Intel's agenda about reducing these kinds of emissions. Sarah Chavez said that was a fair statement, but Intel was still working to reduce emissions. Mark Bennett suggested that Sarah Chavez could carry Dennis O'Mara's message back to her supervisors.
- Lynne Kinis said that Intel did not even worry about greenhouse gases until the EPA said they were emitting too much. Sarah Chavez said Intel had been working on greenhouse gas emissions as far back as 15 years ago. Lynne Kinis said she was trying to make the point that Intel did not act until they were forced to by some kind of authority. An example she used was raising stack heights. Ms. Kinis said Intel initially rejected CEWG's proposal to raise the stack heights due to aesthetic reasons, and then two years later they relented. John Bartlit added there were reports on the CEWG web site on the whole history of raising stack heights.

PREPARATION FOR RELEASE OF ATSDR REPORT

The small group committee presented their progress.

- John Bartlit said that since the final report was delayed at least two more months, and the first public meeting would be with the petitioners, they had more time. He said the subcommittee did some work, but he was not sure how to proceed under these new circumstances. Dennis O'Mara said the first thing that needed to happen was to make preparations for the CEWG meetings with Peter Kowalski, and begin those discussions tonight. He said perhaps they should not talk about the report content until the next meeting. Mike Williams commented that there were many color slides in the draft report, and they couldn't distinguish between gradations. They might need color copies.
- Dennis O'Mara said John Bartlit created a list of possible questions to ask Peter Kowalski. These questions were more generic than report specific, so perhaps they could review these questions and formulate some other questions. The subcommittee decided to focus on the report recommendations and use those as the points of discussion at the meeting table, but now with the delay that discussion should be postponed. Sarah Chavez

asked what the overall goal was with this information. Mark Bennett said the goal was to send Peter Kowalski questions in advance so he could come with the answers. The CEWG would have their December meeting to discuss report content.

- John Bartlit presented the questions he had developed for Peter Kowalski and said they were about the process and context of the ATSDR report and not substance. The questions were as follows:
 1. What is the cost of the total ATSDR health consultation effort from 2004 to 2014?
 - a. If the cost is not known precisely, is it in the range of \$100,000 – \$200,000; \$200,000 – \$500,000; \$500,000 to \$1 million. More than \$1 million?
 2. How many health consultations or similar studies have you [Peter Kowalski] led or been heavily involved in for the ATSDR?
 3. Of these investigations you have been involved in, how many resulted in a clear finding of public health effects? Is this number typical of all such investigations by ATSDR?
 4. How many of these investigations were unable to find conclusive evidence of public health effects?
 5. How would you characterize the Intel NM Report in this regard?
 6. What knowledge, if any, is learned from reports that are unable to find clear evidence of public health effects?
 7. Why did the ATSDR engage in extensive communications with the CEWG regarding the Intel NM report?
 8. Why did the report take so long in being finalized and released?
- Lynne Kinis asked why Question 1 was important. John Bartlit said it showed the magnitude of effort gone into the study or the magnitude of waste. These were taxpayer dollars spent on this community, and it was important to understand the cost to taxpayers and the outcome connected with spending. Every process can be improved. Also, it was important to understand efficiency around the process. Ms. Kinis asked how it would change anything. Mr. Bartlit said it wouldn't change anything with the current report, but in the context of regulatory engineering, it could change efficiency and reduce dollars spent on the process of regulating and future studies. Lynne Kinis said she didn't care about the cost; she cared about results.
- Dennis O'Mara said he did not have any questions to add to the list, but he had questions on the report content and recommendations. For tonight, he said he wanted to discuss the meeting "nuts and bolts." He asked if they needed to make a decision tonight on location, either the Senior Center or the Old Church, as an alternative. The chances were

good that the church would be available on weeknights. Another choice was the recreation center.

ACTION ITEM: Mark Bennett said he would check into the Old Church availability.

- Dennis O'Mara said he had not thought much on format, but they had talked about it being similar to regular CEWG meetings. He asked if the meeting should be in a different format. Also, they needed to develop a step-by-step agenda. Another topic was who to invite. He said his list included Corrales and Rio Rancho politicians, such as mayors and Village Council members, emergency response personnel, CRCAW, neighborhood associations, Corrales Historical Society, and Compadres de Corrales. Mark Bennett pointed out that the CEWG meeting could be expansive and invite many different groups while the CRCAW meeting would be smaller. Hugh Church asked about inviting Bernalillo County/Albuquerque Air Quality Control Board or other environmental officials. Lynne Kinis suggested inviting Corrales and Rio Rancho newspapers.
- Dennis O'Mara brought up advertising. John Bartlit said ATSDR would do some advertising. Natasha Martell Jackson said they could adjust the monthly CEWG ads to reflect the meeting with ATSDR, and these ads went into five papers. Mr. O'Mara said also to put meeting information on the Web site and place meeting posters at the library and the Senior Center.
- Hugh Church asked about inviting NMED. Dennis O'Mara asked if they needed to formally invite them, since he assumed they would come. John Bartlit said that he had mentioned it to Richard Goodyear, who asked John to let him know when the meeting was scheduled.
- Dennis O'Mara asked about doing a press release. John Bartlit said the ATSDR would issue a press release, but that did not mean the CEWG couldn't. Natasha Martell Jackson said the goal of the press release was to invite media to cover the event. She asked how the CEWG message would differ from the ATSDR press release. Mr. O'Mara said first it was outreach before the meeting, and then afterwards, it was how the CEWG wanted to share their interpretation of the report.
- Lynne Kinis said she would rather not do a usual CEWG meeting but rather have John Bartlit introduce Peter Kowalski and then have him take it from there. John Bartlit said that was similar to what he had in mind. He said he would welcome attendees, state the CEWG mission, and then hand the meeting over to Peter Kowalski. The meeting would still be facilitated, however.

- Lynne Kinis suggested asking Peter Kowalski if he planned to directly invite to the meeting people with medical issues that he had met with previously, or if he planned to meet with them to follow up on their current health status.
- Mike Williams suggested asking how the process could be more effective in the future, what sort of resources to devote to these kinds of problems so that when a similar study was made they had resources to draw from. John Bartlit revised the question as what information would the ATSDR have liked to have available from the community to help them forward. Mr. Bartlit said he would draft a couple of similar questions and send to the group for review.

ACTION ITEM: John Bartlit will draft additional questions and send to the group for review.

- John Bartlit said there was a difference between someone reporting symptoms and medical records from doctors, and he had no idea what kind of information Peter Kowalski got from doctors and individuals. But that would be useful information to know. Dennis O'Mara said the ATSDR would have had to receive medical releases from individuals to get records. Lynne Kinis said she did not recall ATSDR asking her to sign any releases or giving her any questionnaires asking about specific health problems and emissions.
- Mike Williams suggested another question around data sets and the kinds of data set thresholds that were good enough to draw health effects conclusions. John Bartlit added another question: In how many of these studies do you find health effects and in how many do you not find health effects, and what were the differences in the data sets.
- Mark Bennett asked the group to think about if they wanted to invite Intel to update any information pertinent to the report, which might add to the richness of the discussion. Sarah Chavez suggested the CEWG give Intel a list of questions in advance so they could have the answers for the next meeting before Peter Kowalski came to town.

ACTION ITEM: The CEWG will draft a list of questions for Intel to update any information relevant to the ATSDR report.

- Mike Williams said it might be worth asking Mr. Kowalski the results of his 2009 recommendations—which ones were acted on and did they produce anything.
- Dennis O'Mara said he would draft something for the subcommittee meeting and work on it for the December CEWG meeting. Sarah Chavez said he could use the 2009 interim report as a way to parse out the recommendations.

ACTION ITEM: Dennis O'Mara will draft a working document to share with the subcommittee to hone and then to present at the December meeting.

- Mark Bennett suggested devoting the entire December meeting to drafting the agenda and preparing for the meeting with Peter Kowalski. He would hold on to the documents until the next meeting. Everyone agreed.

UPDATE ON OREGON CITIZEN SETTLEMENT AGREEMENT

- Sarah Chavez said Intel Oregon had failed to identify fluoride emissions as requiring a permit, and that resulted in two separate agreements. The first was called a Mutual Agreement of Order (MAO) with the regulatory agency that resulted in civil penalty of \$143,000. Of that money \$114,000 went to fund a supplemental environmental project, which was to purchase school buses with lower emissions. The second agreement was with the community, and this agreement set the framework for Intel Oregon to do something similar to what was done in New Mexico. Intel Oregon would form a community advisory board similar to the CEWG and conduct various risk assessments, modeling, health studies, emissions evaluations and involving multiple agencies. Intel Oregon would fund a risk assessment and select an external evaluator to work with them. After the risk assessment, Intel Oregon was requested to develop a comprehensive testing and monitoring plan that would resemble the extensive testing and monitoring done at the New Mexico site over the years. Ms. Chavez said Intel Oregon would most likely contact CEWG facilitators (Mark Bennett and Stephen Littlejohn) to learn best practices. Intel Oregon had two campuses, and their main plant was older and larger than Intel New Mexico.
- Lynne Kinis said she did not hear any of the settlement going towards emissions, which was the main issue. Intel's giving money to communities did not resolve the problem. She added that a large percentage of residents in the Oregon community moved. Ms. Kinis also commented that in New Mexico, Intel hired ERM as an outside consultant, and CRCAW did not trust ERM or any vendors/consultants paid by Intel.
- Sarah Chavez said in Oregon, Intel had to fund a consultant to conduct the risk assessment as well as an independent consultant to analyze the resulting data. The community had a say in who Intel hired to analyze the data, but she was not sure if they had any input on who conducted the risk assessment.

ADDITIONAL BUSINESS

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MEETING ADJOURNED

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

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