

MEETING SUMMARY

Community Environmental Working Group

“Striving for Continuous Environmental Improvements at Intel”

Date: March 16, 2016
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
Sarah Chavez, Intel
Dennis O’Mara, Corrales Resident

Non-Members Attending

Natasha Martell Jackson, Intel
Catherine Conran, Corrales resident

Lynne Kinis, Corrales resident

Facilitator

Shannon Beaucaire, Facilitator

CJ Ondek, Recorder

HANDOUTS

- CEWG Draft Agenda, March 16, 2016
- Draft Meeting Summary, February 2016
- Action-Item Progress Report, March 2016
- EHS Activity Report
- Draft 2015 Annual Report
- Draft 2016 Topic Prioritization
- Web site, Facebook and Meeting Guidelines

PROPOSED AGENDA

Welcome, Introductions,
Announcements and Brief Items
EHS Report and EPA 114 Update
Review Action Item Progress Report
2015 Annual Report
February Brainstorming

Review, Prioritize and Discuss 2016 Topics
CEWG Procedures
New Business
Adjourn

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WELCOME, INTRODUCTIONS, ANNOUNCEMENTS, AND BRIEF ITEMS

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

Agenda—Revisions and Approval

No comment.

Meeting Summaries—Revisions and Approval

No comment.

Regulatory Engineering Update

Sarah Chavez said Gabe Flores and Frank Gallegos of Intel participated on behalf of Intel in New Mexico State University (NMSU) Environmental Design Contest, which NMSU has hosted since 1991. Engineering students, business students, etc. form teams to compete in one or more tasks designed to overcome environmentally related challenges. This year's contest is on April 4. Intel had been participating in the contest since the mid-to-late 90s and often provided one of the tasks students can chose to work on. This year Gabe Flores and Frank Gallegos developed a task around the Internet of Things. Ms. Chavez read this task to the group, which is listed below:

Background. Natural resource conservation and optimization including issues associated with water scarcity, energy utilization, sustainability and others have required a fresh look at how data is collected, analyzed and used. Most energy projects require measurement, monitoring and archival of data to allow engineers and scientists to analyze the data and take action. For a usable and sustainable energy management system, once data is collected and analyzed, the data must be published in a manner that is clearly visible, reduces cost, is actionable, and engages people.

Problem Statement. Your team must design an information technology based system that monitors and controls, as many as possible, key inputs and outputs of a typical energy project. Your team must identify all the relevant parameters for a specific project as comprehensively as possible with multiple inputs and outputs that are being considered for your specific application. The project can be associated with any industry: industrial manufacturing; commercial; food; agricultural; municipal water and/or waste; transportation; etc.

Ms. Chavez said 20 teams from across different schools picked a task, but no one picked the task Intel submitted. Frank Gallegos planned to go to NMSU and get feedback on this task and why no one picked it. Ms. Chavez said she, Mr. Gallegos, and Mr. Flores wondered if engineering students working on building a system are taught to think about the kinds of monitoring needed by the system. NMSU would offer another virtual contest in the fall (around September) that also included high school students, and Intel planned to submit the same task. Ms. Chavez said this effort tied in to the work John Bartlit was doing at California Lutheran University and looked at how to engage students at the college level. Ms. Chavez said the department that sponsored the

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contest was the Institute for Energy and the Environment. Participating students had to write a paper, present a poster, etc. John Bartlit said he would look at Intel's submitted task statement and provide feedback.

Information on the specific task can be found online at:

<http://www.ieenmsu.com/outreacheventsinternational-environmental-design-contest2016/task-4-environmental-design-meet-the-internet-of-things/>

Information on the overall contest can be found at:

<http://www.ieenmsu.com/outreacheventsinternational-environmental-design-contest2016/>

ACTION ITEM: John Bartlit will review Intel's submitted task statement and provide feedback.

Other Announcements

Dennis O'Mara said he spoke with Barbara Rockwell about joining the CEWG, and she replied that she would never be interested in joining or attending CEWG meetings. John Bartlit thanked Mr. O'Mara for his effort.

Dennis O'Mara said he had followed up with the ALS Association of New Mexico and spoke with Susan Simmons, interim executive director. He learned that the Board hired a new permanent executive director who would start at the end of March. He planned to speak with both interim and new executive directors as they transition the job's duties. He said he was uncertain about whether the new executive director had knowledge about or a background in ALS or if there was a big learning curve. He said he would try to reconnect in early April. Also, he commented that the ALS Association seemed to have a small staff.

Dennis O'Mara said he contacted the New Mexico Department of Health (NMDOH) and spoke with an environmental epidemiologist named Heidi Krapfl. Ms. Krapfl she said was willing to come to a CEWG meeting to talk about her work but would need approval from upper management first. He suggested the CEWG's send a letter of invitation when the time came. He also suggested having both a speaker from the ALS Association and a speaker from NMDOH at the same meeting, perhaps several months from now.

Dennis O'Mara provided updates on Oregon. He said that the Oregon Forest Service conducted a study that looked at moss and trees in Portland area that included laboratory work on samples. The lab work revealed high levels of arsenic, chromium, and cadmium. The Oregon Department of Environment Quality did not take any action when they learned of these findings. The media learned about the study and the department's inaction and raised the issue with the public. Glass manufacturers were using the chemicals and were responsible for the emissions. Findings showed cadmium levels were 49 times higher and arsenic levels 159 times higher than the state's recommended air

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safety benchmarks. The question on chromium was whether it was hexavalent chromium, which made Erin Brockovich a household name, Mr. O'Mara said.

Mr. O'Mara said that the Oregon Department of Environment Quality (DEQ) Director, Dick Peterson, commented that this wasn't about a glass manufacturer but all industries that might emit toxins; that his department would start rewriting rules and regulations to be more similar to California and Washington states, where the focus was on the relative toxicity of chemicals being emitted versus volume or frequency; and the department would work with the EPA to prompt policy rewrites in other states. Then he resigned.

Dennis O'Mara said that Dale , Feik, a citizen concerned about Intel's emissions in Oregon, started a new organization, filed a petition with the circuit court for judicial review of Intel's permit as well as the permit of another semiconductor business. Mr. Feik was the Plaintiff and the former director was the Defendant. He said that Mr. Feik stated that under this new permit, Intel could become the fifth largest emitter of greenhouse gases in the state, behind the four largest power plants. Also, nickel and lead were being found in high concentrations in the environment. Mr. Feik was working with the U.S. Senators Ron Wyden and Jeff Merkley and Congressman Earl Blumenauer to put pressure on the EPA. Mr. O'Mara quoted a DEQ spokesperson: "This research has revealed and daylighted for us areas where we need to look more closely at our permitting program to determine how we might address these localized areas where there are emissions of concern."

Dennis O'Mara said he tracked down Steve Dickens, an environmental epidemiologist who had analyzed Fred Marsh's data collected in 2002 , which consisted of about 600 responses to a health survey that was sent to every Corrales household. He said Mr. Dickens spent quite a while analyzing the data. His analysis and data got short shrift, since it happened during the period right after Task Force was shut down by NMED. Mr. O'Mara said Mr. Dickens had sent him the best summary slide set and reviewed it with him. He asked Mr. Dickens if he would be willing to present the analysis to CEWG by phone (he now lives in Vermont), and Mr. Dickens agreed. Mr. O'Mara asked if the CEWG was interested in this opportunity. John Bartlit asked if Mr. Dickens shared his analysis with the ATSDR. Mr. O'Mara said he did not know, but Mr. Dickens may have presented at a meeting with community members. Sarah Chavez said if this were the case, then the slideshow might be part of a set of task force documents in a zip file. Lynne Kinis said the community was upset with the ATSDR because the 600 surveys were turned over to the ATSDR but not the analysis. Ms. Kinis reminded that the last meeting of the task force was cancelled two hours before it was supposed to happen because of, the community believed, a report that pointed the finger at Intel. Several weeks later a final "chaotic" meeting was held, and Fred Marsh's data was not really discussed, nor was the analysis.

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CEWG members expressed an interest in seeing Mr. Dickens presentation. Mr. O'Mara said the presentation might take 30 to 40 minutes and suggested doing it at the next CEWG meeting. Lynne Kinis suggested passing on this presentation to Peter Kowalski. Mr. O'Mara said Mr. Dickens gave his approval to share the data, and he would certainly do that.

ACTION ITEM: Dennis O'Mara will coordinate setting up a telephone presentation with Steve Dickens, perhaps for the April meeting. Dennis O'Mara will also share the presentation with Peter Kowalski.

Dennis O'Mara said he wanted to discuss John Bartlit's article on the EPA and the history of regulating HAPs, and he would like it to be an agenda item at the next meeting.

Public Comment

Lynne Kinis suggested using the following mission statement language from the CEWG meeting guidelines of Sept. 12, 2006, in the CEWG advertisement: "The Working Group is committed in making continuous environmental improvements, including the reduction of Intel's chemical emissions and improving community dialogue." She thought it might be more appealing to community members.

Sarah Chavez said that she was not opposed to this idea, but it was not the CEWG's official mission statement. Lynne Kinis said it was the mission statement "plus." Dennis O'Mara said he would see if Carolyn O'Mara could incorporate some of that wording into the ad. She had limited space to work with.

Lynne Kinis commented that she agreed with John Bartlit's suggestion from page 6 of the February Meeting Summary that the CEWG write a letter to Intel to express the CEWG's interests in reducing VOCs/HAPs further and the reasons for doing so, which included the imperfect regulatory structure and history. These last few words referred to ATSDR comments that they did not have enough information to make an assessment, and it was why the community became active and the task force took place, Ms. Kinis said. John Bartlit added that this issue was connected to his article that Dennis O'Mara wanted to further discuss, which was on the history of the regulatory system. These two things could be tied together in a discussion. Ms. Kinis added that this should be part of the CEWG's 2016 goals.

Lynne Kinis said the community received a "Dear Neighbor" letter from Intel on February 27 addressing the ATSDR press release of August 13. She said she was concerned with some of the bullets in the letter. In the section, "ATSDR evaluation found that...Effective administration and compliance of a valid air permit is the best method to ensure air emissions are below level." She said this point meant that the permit should be

written by NMED not Intel. Then a bullet stated that crystalline silica emissions testing “do not indicate that the health of community members is at risk.” She said this last point contradicted ATSDR’s finding that they did not have enough information to evaluate health effects. She concluded that Intel would only share information when it suited their view.

Lynne Kinis said on the morning (between 8 and 9 am) of February 23, a light snow fell in her neighborhood that was pale yellow in color. She was so surprised that she called her neighbor to verify the color. She asked if snow could grab chemicals as it fell to earth, similar to acid rain. Mike Williams said it was possible. Ms. Kinis said that the chemicals were still out there, whether they were registering in Intel emissions or not. She lived very close to emissions, and that concerned her. She wanted this incident noted. She said Intel still needed to have accurate monitoring of emissions. Dennis O’Mara said that was what they were talking about in Oregon; the DEQ was looking at taking a different approach to permitting by including monitoring.

Dennis O’Mara said he spent many hours last August to get ATSDR to amend their initial press release. When they finally got around to issuing the revised version he never read it. He assumed that when they issued the second press release it would clearly state their first recommendation. He said that the ATSDR’s first recommendation—that they could not accurately evaluate VOCs/HAPs around Intel New Mexico from the available information—was in the revised press release. The second part of that point, which concerned ATSDR’s inability to determine health affects, was not in the press release. He wondered why they didn’t include the whole sentence. He said he had no faith in the state of New Mexico’s permit issuing process, and did not agree with the statement in Intel’s “Dear Neighbor” letter that Intel posed no undue risk. He said that since the word “undue” meant “excessive,” in one respect Intel was saying there was risk but it wasn’t excessive; that was Intel’s opinion, but not his opinion. He said Intel had no right to put citizens at-risk from anything, much less chemical emissions.

Hugh Church said that to get to the level of detail discussed here, more complex monitoring systems based on meteorological data were available, but these were very expensive.

Sarah Chavez reminded that Intel’s permit required monitoring of stacks every year, and they tested all their scrubbers and thermal oxidizers. The monitoring did not look at particulates, but not many particulates were being emitted. Also, Intel had been monitoring for a long time, and collected data from within the stacks. That data were available. Ms. Kinis said she would like Intel to collect data from outside the stacks as well as inside the stacks, and to include the meteorological data as a way to look at synergistic effects. Hugh Church said weather had many effects that were long known, and there were many documents that discussed the synergistic effects.

Catherine Conran said this morning between 6:45 am and 7:30 am she smelled a hideous acidic formaldehyde-like stench around her home. She wasn't sure if the stench was coming from Intel or the crematorium. She asked if it were possible for the stench to come from the crematorium, and whether the crematorium was monitored. Dennis O'Mara said he had personally met with crematorium staff and was told about one to two bodies a day were cremated from 8 am to 3 pm. Neighbor complaints about odors tend to come late at night or early in the morning outside crematorium hours, so he called the crematorium a red herring that misdirected attention from Intel, who was allowed to emit about 500 tons of pollutants. John Bartlit added that the crematorium could also be modeled as a way to learn things about its emissions. He stated that crematorium emissions were much less than Intel. Mike Williams said it was difficult to monitor what people were breathing. Dennis O'Mara said the main issue of the crematorium emissions would involve mercury from amalgam fillings, but the quantities would be quite small. Mike Williams said any combustion process might have formaldehyde forming.

EHS REPORT AND EPA 114 UPDATE

Sarah Chavez said she added the hay bale fire from last month to this month's EHS report, and the rest of the items listed were the routine regulatory submittals.

REVIEW ACTION ITEM PROGRESS REPORT

Dennis O'Mara said #13 was completed. Sarah Chavez asked to change #9 to "future meeting" from "pending."

Hugh Church reported #14 was completed. He found the link to City/County information, but there were not any details on modeling of that area; however, there was meteorological data concerned with burn nights. Also, he found a summary on CO, CO² and ozone, but he did not see anything on aldehydes.

Mike Williams reported on #12, and said he wanted to look at the presentation again so needed more time. He would draft a summary of his findings along with questions and send to the CEWG for discussion and approval before sending them out to his contacts. He asked for comments by email before the next meeting. He went on to provide the group with a summary of his progress. Mr. Williams said he looked at the photochemical problem, contacted people who worked with photochemical modeling and asked them to direct him to people who work with aldehydes in the Southwest. He wanted to ask this group questions around nitride oxide at night, aldehydes, etc. He found a scrubber manufacturer to ask questions on scrubber effectiveness and what scrubbers emitted and in what form (droplets, gas, etc.). Another question was around the cost to do 95% control on facilities. He also had a contact from the Texas Commission on Environmental Quality who actually wrote the document on hydrogen fluoride screening levels. He wanted to ask if those levels were appropriate and if droplets would change the

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conclusion.

ACTION ITEMS:

1. Mike Williams will send the group by email a correct update on his contacts and the questions he planned to ask the contacts.
2. The group will review Mr. Williams document and respond by email with any comments by March 30 and agree to the document before the next meeting.

Sarah Chavez said Mike Williams' HF modeling only had the outlet concentrations, and they needed inlet concentration information as well. Mike Williams agreed. John Bartlit also raised the question about screening levels affecting vegetation, and they would need a screening level for vegetation effects and another one for health effects.

Mike Williams said he was not clear on which questions to send to Peter Kowalski. Sarah Chavez said she assumed that he would send Peter Kowalski the entire document and questions. Mr. Williams said he only planned to send relevant questions.

Dennis O'Mara asked for an update on item #7. John Bartlit explained the history of this item and how it didn't seem to have any benefit. He proposed to cancel #7 and instead write a letter to Intel that articulated the CEWG's continual interest in reducing hazardous emissions as it related to the historical form of the regulatory structure. He saw this action as more fruitful. Group members present agreed with Mr. Bartlit's proposal, and consensus was reached on this issue. Mr. Bartlit said he would attempt a first draft of the letter.

CONSENSUS: The group agreed to cancel #7 cancelled and instead write a letter to Intel that articulated the CEWG's continual interest in reducing hazardous emissions as it related to the historical form of the regulatory structure.

ACTION ITEM: John Bartlit will attempt to draft this letter.

Dennis O'Mara asked for an update on #5. Sarah Chavez said there weren't any new updates to report. John Bartlit proposed asking Intel for funding for the CEWG to use to award Intel employees who develop new ways to reduce emissions. This would be a cash award and a way for the CEWG to encourage Intel employees. Catherine Conran agreed with this proposal. She said it was positive and encourages employees to think out of the box. Mr. O'Mara said that Intel had the intellectual capacity to reduce emissions and agreed the CEWG should do something to encourage it. Mr. Bartlit said all levels of employees could participate. Group members agreed that this idea should be developed further and set as a 2016 priority goal.

WRAPPING UP 2015: REVIEW AND FINALIZE ANNUAL REPORT

Sarah Chavez said she went through old reports and pulled examples of how the CEWG handled work done by groups or individuals in the past and sent these examples in an email. Also, the annual reports became progressively shorter every year. She also had the idea to reference the topic index in the report as a way for people to access more detailed information. Dennis O'Mara said he was fine with Ms. Chavez's ideas.

Shannon Beaucaire said she had not received any comments on report items 1, 4, 6 or 7, so she asked if that meant there was agreement with what was written, or if they have to review each item in order. John Bartlit said his name was in item 1, and he didn't care if it was listed or not. Also, he said he and Dennis O'Mara had a phone call to discuss some of the items but did not complete their review before today's meeting.

Hugh Church had a technical comment on file naming, and that was to use two digits instead of one digit, for example, 2016-03-10 versus 2016-3-10. Sarah Chavez said she would try both ways to see which worked best and let Shannon Beaucaire know the outcome.

John Bartlit asked Dennis O'Mara if they were in agreement on the emergency planning section. Mr. O'Mara said yes. Sarah Chavez said mentioning that Mr. O'Mara was the LEPC representative was a good idea.

Sarah Chavez suggested Shannon Beaucaire edit out the names and then send out the revised version. Also, the group agreed to work on the document offline.

ACTION ITEMS:

1. Shannon Beaucaire will revise the document and send to John Bartlit and Dennis O'Mara to review.
2. John Bartlit and Dennis O'Mara will send their revisions back to Shannon Beaucaire
3. Shannon Beaucaire will send this further revised version to the group to review.

Sarah Chavez asked if everyone agreed that the items should be shorter rather than longer. The group agreed that shorter was better.

REVIEW PRIORITIZE AND DISCUSS 2016 TOPICS

Shannon Beaucaire said only one person sent their topic rankings. She asked if everyone had a chance to review and rank the topics, and how they would like to proceed with rankings.

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John Bartlit reminded about Stephen Littlejohn's ranking process, which was to add up all the rankings, and the items with the lowest numbers had the highest priority. Then he presented the numbers at a meeting for discussion. John Bartlit said they never followed the list exactly but used it as a guide. It also helped to plan meeting agendas.

Sarah Chavez said the fair way to move forward was to have everyone rank the topics again and return to Shannon Beaucaire in one week. Then Ms. Beaucaire would add up the rankings and send the results to everyone two weeks before the meeting to consider for discussion. John Bartlit asked Lynne Kinis to also send in her rankings. Ms. Kinis agreed.

ACTION ITEMS:

1. Everyone in the group will rank the topics and return to Shannon Beaucaire within one week, March 23.
2. Shannon Beaucaire will add up results and send to the group two weeks before the next meeting.

Catherine Conran asked how to become a CEWG member. John Bartlit explained that she could easily become a member. Dennis O'Mara said he was the only member who was an area resident, and he had been trying to recruit more community members. He said one of the missions of CEWG is to improve community dialogue, but this was hard to accomplish if the community did not participate. Sarah Chavez also pointed out that members voted on consensus, while the nonmembers only provided comments. She also added that Intel made a conscious decision to have only one CEWG member.

John Bartlit said it was important to have differing views represented at meetings, since there was no point in having meetings if everyone thought the same. He also explained that everyone in attendance received a draft summary of the meeting proceedings and had a chance to change their comments for the public record.

Natasha Martell Jackson said that Intel encouraged community members to attend CEWG meetings in the neighbor letters.

BEGIN DISCUSSION OF PROCEDURES

Mike Williams said he didn't want to be on Facebook. John Bartlit said they all had agreed to that.

Sarah Chavez said she and Shannon Beaucaire attempted to update some procedural items during the transition.

John Bartlit defined consensus. CEWG members were eligible to vote on consensus issues. They could: agree, disagree and block the issue from moving forward, or disagree

and not block forward movement. If anyone disagreed, and blocked movement, then the CEWG refrained from the action. Lynne Kinis said afterwards nonmembers were allowed to make comments on the issue for the record. She added that the meeting tone had changed positively, and there was more of a camaraderie—working together rather than confrontational.

NEXT MEETING: April 20, 2016, 5 to 7 pm, Corrales Senior Center.

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