

MEETING SUMMARY

Community Environmental Working Group

“Striving for Continuous Environmental Improvements at Intel”

Date: December 17, 2008
Time: 5:00-7:00 p.m.
Location: Corrales Flying Star, Hospitality Room

Members Attending

John Bartlit, Acting Chair	Hugh Church, American Lung Association
Sarah Chavez, EHS Department, Intel	Carrie Freeman, Intel Public Affairs
Mike Williams, NM Clean Air & Water	Edward Pineda, Rio Rancho Resident

Technical Support Staff

Frank Gallegos, Intel
 Andrew Moen, Intel

Public

Roberta King, Corrales resident	Jay Stimmel, Interested citizen
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Facilitator

Stephen Littlejohn, DLI Communication Consultants	CJ Ondek, Recorder
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HANDOUTS

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| ▪ Draft Agenda | ▪ Citizen Protocol Draft Language Changes |
| ▪ Draft Meeting Summary
November 19, 2008 | ▪ Information on Silica |
| ▪ Action-Item Progress Report | ▪ Intel Air Dispersion Modeling |
| ▪ EHS Activity Report | ▪ NMED Notice of Open House |
| ▪ Ad Copy for December | |
| ▪ Draft Prioritized List of Topics | |

AGENDA

- Welcome, Introductions, and Announcements
- Citizen Protocol Changes
- Rain Cap Modeling
- Topic Priorities
- Information Resources for Silica Discussion
- Additional Business

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Prepared or presented by: CJ Ondek & Stephen Littlejohn	
Prepared for: CEWG	
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- Adjourn

WELCOME, INTRODUCTIONS AND ANNOUNCEMENTS

John Bartlit opened the meeting by stating the CEWG mission. Participants introduced themselves. He next asked if there were any revisions to the agenda. None were indicated. Mr. Bartlit asked if there were any revisions to the Meeting Summary. None were indicated. [Later in the meeting, an inaccuracy was discovered, and this will be corrected. See page 8.]

- Edward Pineda asked if there would be a review of the Intel water treatment revision permit, since it was not on the agenda. Sarah Chavez said she would answer any questions when she discussed the air dispersion modeling.
- Stephen Littlejohn asked the group if the name cards are functional. Edward Pineda said that the name cards worked well for visitors and first time meeting attendants. John Bartlit mentioned putting the names on both sides of the name card. Mr. Littlejohn said that he would do so. Mr. Pineda asked if name cards were only for members and if regular attendees from the public should have name cards. Roberta King indicated as a non-member she did not want one.

➤ **ACTION ITEM: Stephen Littlejohn will place names on both sides of the name cards.**

Ammonia Treatment

Sarah Chavez reported that Intel technology development staff in Oregon said it was not possible due to the newness of the treatment system. Until the system was actually up and running and proven to work for the waste streams it was designed for, they would not add additional waste streams. The treatment system was specifically designed to treat the ammonia fluoride in waste streams to meet wastewater limits for fluoride. Adding ammonia streams would dilute the fluoride waste and could cause problems with the fluoride treatment system. In six months to a year, when the system was proven to function as it was designed, then the matter could be reconsidered, but the change could not happen right now.

- John Bartlit asked if Intel staff considered adjusting capacity so the potential for additional ammonia waste streams could be realized in the future. Sarah Chavez explained that capacity in this particular system was achieved by having a tank collection system intact prior to the treatment system, so the potential existed as long as it were possible to add another tank to store the waste.
- Edward Pineda commented that in the e-mail notice, the title should accurately reflect the substance being treated in the waste treatment system, and if that could not be done, a footnote should be added that identifies the substance being treated. He also raised the

issue of redundancy—additional capacity in case of a malfunction or annual maintenance. Ms. Chavez said that redundancy was built into the system due to the collection tanks. Mr. Pineda asked what would happen if the system failed. Ms. Chavez reiterated that the system's purpose was to treat wastewater, and Intel had the option to truck the wastewater offsite to a treatment facility. She also clarified that it was not part of the air permit issue. Mr. Pineda asked if Ms. Chavez would provide a backup system description in writing in case of failure. Ms. Chavez reminded Mr. Pineda that a failure would have no impact on air emissions. Mr. Pineda responded that, as good environmentalists, the group should be concerned with wastewater pollution. Ms. Chavez said that she would provide information about the wastewater contingency system as well as how it would be monitored. John Bartlit commented that Intel and NMED needed to use the same project name so as to avoid confusion. Mr. Pineda supported this comment.

- **ACTION ITEM: Sarah Chavez will provide information on backup processes for the ammonia wastewater treatment system.**

Public Comments

- Roberta King said she was confused about administrative and technical revisions due to the different numbers and names used by Intel and NMED. The wording on the documents was not consistent—whether it was an administrative or technical revision—and the numbers on the documents going back and forth did not seem to coincide. Edward Pineda added that the title should be consistent and the document should clearly state whether it was a technical or administrative revision. Sarah Chavez said that the revision numbers do not indicate whether it was a technical or administrative revision. Mr. Pineda suggested using a footnote for the sake of clarity, and said documents should serve the community, not just an elite group of people. It should be simple and understandable. Mr. Bartlit said that bureaucracies have their systems, which was not compatible with the community's system. Just getting the different entities together was a major challenge.
- Edward Pineda asked if NMED was concerned only with air emissions or with all kinds of emissions. Sarah Chavez replied that the Bernalillo County Water Utility Authority is the primary regulator of Intel's wastewater. NMED monitored Intel's air emissions, hazardous emissions and solid waste. Roberta King asked who oversaw regulations for Albuquerque wastewater treatment. Ms. Chavez responded that it was the Environmental Protection Agency (EPA).
- John Barlit asked if it would be useful to create a one-page listing of regulating responsibilities, namely, which entity regulated who and what. Mike Williams suggested adding water quantity to this list. Ms. Chavez agreed to draft this list.

- **ACTION ITEM: Sarah Chavez will draft a listing of regulating responsibilities.**

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CITIZEN PROTOCOL CHANGES

Stephen Littlejohn indicated that he had redrafted the sections of concern, and both Sarah Chavez and Mike Williams— members of the CEWG committee overseeing the draft effort— approved his draft. Ms. Chavez showed these changes to the Intel legal department, who gave their approval.

- Edward Pineda asked if CEWG reviewed the draft with the Intel legal department. John Bartlit responded that in fact a very substantive review occurred, which took place over several meetings. He referred to page 12 of the draft, which indicates an Intel legal review.
- Mr. Pineda asked if the document was ready for a first trial. Mr. Littlejohn answered yes, the only obstacle now was funding.
- Roberta King said that the document “was utterly ridiculous” because Intel controlled what the group could do; the group would be unable to move forward with their intentions. Mike Williams reminded the group that Intel could only veto what happened “inside the fence,” Approval would not be required for testing that occurred beyond the borders of their property. Edward Pineda said that the legal review of the document greatly restricted the Citizen Protocol activities inside the fence. Mike Williams said that it was difficult to imagine a context that where the CEWG could go onto another group’s property and test without that group’s approval; only the government had the power to do this.

Seeing that there were no objections to the current draft, Mr. Littlejohn declared consensus of the CEWG members for approval. Roberta King, also in attendance, objected because of the reasons listed above. Mr. Pineda said that absent group members should be listed; it was pointed out that the Meeting Summary listed meeting attendees.

RAIN CAP MODELING

Sarah Chavez reported that Intel talked with engineers and the boiler manufacturers and determined that the rain caps could be removed without impacting boiler operations. As part of the technical permit revisions, Intel agreed to model ground level concentrations both with and without the rain caps to observe the effects of rain cap removal. Ms. Chavez summarized the handout entitled, “Intel Air Dispersion Modeling: Effects of Removing Boiler Rain Caps,” which identifies what had changed since the last modeling, what had remained the same, and the effect of removing rain caps. (See attached handout.) After reviewing the initial slides, Sarah Chavez explained the table showing the effects of removing the boiler rain caps. In sum, the modeling shows a 39% reduction in ground level concentrations for particulate matter for the 8th highest 24 hour period, a 37% reduction for particulate matter for an annual period, a 78%

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reduction in carbon monoxide concentrations over a 1 hour period, and a 69% reduction in carbon monoxide over an 8 hour period.

- John Bartlit asked if the removal of the rain caps was a direct result of the work done by the CEWG stack height committee and dialogue. Sarah Chavez said that was a fair assessment, since Intel would never have looked at removing the rain caps if CEWG did not raise the questions.
- Edward Pineda asked if a temporary cover would be used to protect the equipment from inclement weather and the possibility of corrosion. Sarah Chavez said that this action was deemed unnecessary from engineering and manufacturing standpoint, since a drainage system was in place that handled a significant amount of rain. John Bartlit added that these manufacturing companies had significant experience running boilers without rain caps, and boilers could operate permanently without a rain cap. He also asked if Intel used rain caps in other facilities in the United States. Sarah Chavez replied that Intel used rain caps in Arizona and Oregon, and pointed out that Oregon received much more rain than New Mexico.
- Roberta King asked if the Munter stack heights were actually raised to 30 meters or whether that height used only for the sake of modeling. Sarah Chavez stated that the stacks were actually built to 30 meters, and although Munters were previously modeled at 23.2 meters they had never actually been 23.2 meters. Ms. Chavez stated that a total of 3 stacks have been built at 30 meters each.
- John Bartlit said that the results were striking and surprising, especially the 70-80% reduction in the carbon monoxide ground level concentrations. Mike Williams said that the beneficial effects might have been overstated due to the way the rain caps were modeled, without accounting for a buoyancy effect. Mr. Bartlit pointed out that the standardized model was used. Hugh Church said that one of the effects of taking off the rain caps was to increase the plume height. Sarah Chavez said that the plume height increase was seen in the changed velocity. Mike Williams suggested that there might have been some plume height/buoyancy that was not captured in the earlier modeling, and those results may have been more pessimistic than reality.
- Edward Pineda asked Mr. Williams and the other experts present in the room to take the opportunity to educate the public on how the dispersion resulted in the beneficial effects. Mike Williams and John Bartlit agreed. John Bartlit suggested discussing the rain cap issue and the stack height issue together, since there were gains and losses in both. The whole story, he added, always told more than the pieces. Mr. Littlejohn asked the group if they should wait to see Mike Williams' draft before making any posts to the website. The group agreed, and it was suggested that Ralph Williams from Intel review Mike Williams' draft and perhaps add to it.

➤ **ACTION ITEM: Mike Williams will draft a document for the website focusing on the beneficial effects of removing rain caps. Ralph Williams from Intel should review this draft.**

- Roberta King asked Sarah Chavez to put the technical information on slide 4 in simple English. Sarah Chavez explained the terms and said that she would add additional material to clarify the handout.
- Sarah Chavez explained that the metric of “8th highest in 24 hours” was an EPA standard derived from data taken over the course of one year and ranked. Mike Williams explained that the 8-hour period was based on epidemiology data. Effects at the 98th percentile level seemed to be statistically significant, and the EPA chose to regulate on what was statistically significant. John Bartlit reminded the group that the numbers were set by federal EPA requirements.
- Edward Pineda reiterated that the best solution for the public was to use a footnote to clarify terms, but if it became too lengthy, a reference that guided the public to the place where the term was defined in depth, “kind of like a glossary,” would be helpful. Sarah Chavez said she would update the handout with clarification before posting it on the website. Stephen Littlejohn asked Ms. Chavez to send him the document, and he would add the footers and return to her for posting on the website.
- Mike Williams asked if unlabeled contours for a specific source listed on the modeling report complied with the fine particle standards. Ms. Chavez said that she did not know and would have to investigate and get back to him.
- Sarah Chavez said that the last column on slide 4 was the ratio of without/with rain caps. She said that she would add a column that indicated a “reduction” in particulate matter—the smallest sized particulate matter that was regulated. There was agreement that this additional column would be useful.
- Roberta King asked if the modeling was done on the basis of the stacks being clustered—as they were currently—or separated. Sarah Chavez replied that it was done on the basis of clustering because that was how they were currently situated. Edward Pineda said that this point needed to be either in a bullet point or defined in a footnote, and it should state that the previous modeling was done with the stacks clustered, and the current modeling was also done with the stacks clustered. Ms. Chavez clarified that modeling was done for the entire site.

- There was confusion over the terms “same” and “changed” as listed in the handout, and Stephen Littlejohn asked that these terms be clarified for the next version of the handout. John Bartlit said the group faced a problem often faced—to tell the whole story “is thick and confusing because of the details” and to simplify it omitted a lot of details. Sarah Chavez suggested adding a footnote on the last modeling saying that it was a “Munters technical permit modeling,” along with the date.
- Roberta King asked for clarification on combustion equipment. Sarah Chavez replied that three kinds of equipment rely on combustion of natural gas. These include (1) the new ammonia treatment system that burns natural gas as part of wastewater treatment; (2) boilers, used for plant heating and air conditioning; and (3) thermal oxidizers, used to treat solvents. All combustion sources emit NO_x, CO, VOC, and SO₂, as listed on slide 2, and are therefore regulated.
- Regarding the “wastewater ammonia treatment unit,” Edward Pineda asked that terms be used consistently so as to avoid confusion.
- John Bartlit said that Sarah’s handout provided a great opportunity to work on community communication improvement, and it provided a test case. Technical, semi-technical and non-technical people were needed on a committee to work out the meaningful communication. Stephen Littlejohn said that once Ms. Chavez revised the document, he would send it out to the group for feedback.
- Edward Pineda asked what triggered the need for a new ammonium fluoride treatment system. Sarah Chavez said that a process change at Intel that increased the amount of ammonium fluoride used. The new system was necessary to meet the permit standards for fluoride in the wastewater.

➤ **ACTION ITEMS:**

Sarah Chavez will revise the handout as discussed and send to Stephen Littlejohn for group distribution and feedback before posting on the website.

Sarah Chavez will look up whether the unlabeled contours meet fine particle standards and get this information to Mike Williams.

TOPIC PRIORITIES FOR FUTURE DISCUSSION

Stephen Littlejohn directed the group to the handout “Topics Ranked in Survey,” based on an e-mail survey. The higher priority items would be placed on the agenda first.

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- Edward Pineda suggested ranking topics according to the criterion of continuous environment improvement, distinguishing between complicated topics and those providing a higher payoff environmentally.
- John Bartlit said that if the group chose to look at the most important pollutants to reduce, the best place to start would be the risk assessment done by Intel several years ago. This assessment showed which risks were higher. Since that was a different task from choosing topic priorities for future agendas, Mr. Bartlit suggested adding this topic to the list of topic suggestions.
- Roberta King said she ranked the topic “reduced monitoring/increased technology” zero based on her understanding of what the statement meant. Mr. Bartlit clarified the proposed topic, as he meant to explain it at the previous meeting. He did not mean to imply that monitoring should be reduced in order to save money. Instead, he meant that some of the monitoring budget could be spent in better ways and still meet EPA and NMED regulations. In his view, the group might recommend reallocating money from some monitoring to achieve actual environmental improvement. He indicated that NMED and EPA would have to agree with monitoring reductions. The approach would be a “linked package.” Roberta King read Bartlit’s description of this topic from the previous meeting summary, and Mr. Bartlit agreed that this segment from the meeting summary did not accurately summarize what he meant to express. He agreed to send a correction to Mr. Littlejohn for the final version of the meeting summary.

➤ **ACTION ITEM: John Bartlit will correct November’s Meeting Summary.**

- Mr. Littlejohn asked Ms. King if, after having had Mr. Bartlit clarify his statement, she still believed item 1 was a “waste of time.” Ms. King said that she felt the group would be “spinning its wheels” on this topic.
- Ms. King said that she was concerned that silica testing would be dropped if “reduced monitoring” were a priority. Sarah Chavez said that the monitoring Mr. Bartlit was referring to was monitoring that was required by the air permit—the quarterly testing on the thermal oxidizers, the annual testing on the scrubbers—and his suggestion was to look at not doing it so often.
- Edward Pineda said that the group needed to be careful with wording ideas as clearly as possible so the public and community interpreted the ideas correctly.
- Edward Pineda asked if Intel was going to do a risk assessment every five years. Sarah Chavez said that as far as she knew, there were not any plans to conduct another risk

assessment. Mr. Pineda suggested that Intel commit to doing risk assessments on a regular basis.

- Sarah Chavez suggested starting with silica testing and writing up the portion needed to get Intel's buy in. This could be done before funding was acquired. Mr. Bartlit said that having an agreement with Intel to do the testing might help get funding.
- Edward Pineda said that the item ("reduced monitoring/increased technology") seemed counterproductive and should be dropped in importance. Mr. Pineda said he wanted to drop it to the last category of importance and asked the group for their opinion. Carrie Freeman said that she felt it was an important item to discuss but not to carry out numerous meetings if conclusions were not reached. Because of the different opinions on the topic, not discussing it would be missing an opportunity. Also, she believed that the topic could lead into potential topics discussing data in general, and what Intel had been doing repeatedly over the years. Mr. Bartlit said the topic was kind of like rain caps, it had been going for years and years and until questions were raised, no one thought about removing them. This data had been gathered and sent around for years and nobody asked "why."
- Roberta King said that ATSDR report was in the hands of the EPA and just waiting for the political transition, therefore it was unavailable. Mike Williams said that the question of the ATSDR report was not about importance but of availability. When it became available again, then it should become a priority topic.
- Mike Williams asked about the "baseline monitoring" topic. Mr. Littlejohn said that "monitoring" was a mistype on the handout but correct on the survey; it should read "baseline modeling."
- Edward Pineda discussed the topic of "NMED and the public engagement panel." He said that the only way industry would do more testing and provide more control was if the regulator added more regulation. The question then was how could the public convince NMED to create new regulations and more demanding regulations? Mr. Littlejohn said that Mr. Pineda's point was well captured in the questions the group drafted for the panels. He also reminded the group that he was not able to recruit the panels. If the group moved the item up in priority, he would try again immediately to recruit a panel, if not, he would wait some time before trying again. Mr. Pineda said that because of feasibility, the item should remain lower on the list. The group agreed.
- The next topic looked at was "CEWG membership." Mr. Pineda said that he did not think it was wise to drop the subject. Mr. Bartlit suggested everyone keeping an open eye to potential members who would contribute. The group agreed to leave the item on the list but as a lower priority item.

- Littlejohn went on to ask about the topic “future CEWG-management dialogue and working relationship.” Mr. Pineda asked that the minutes clearly state that the CEWG would welcome meeting with Intel management in the near future. The group agreed to leave it in the middle priority category.
 - Regarding the “ammonia treatment system,” Sarah Chavez said it would be at least a year before the system was installed, so the topic would not need to be discussed for a while. The group agreed to drop the topic to a lower priority to be discussed at a relevant time.
 - Regarding the “performance track program,” John Bartlit said it would only be a 15-minute report, and it could be used as an agenda “filler.” The group agreed to let it remain where it was.
 - Regarding the “reduced monitoring/increased technology” topic, John Bartlit said that the group would need to first define the topic, and then get agreement on it. The group agreed to revisit and prioritize the topic after reading the corrected statement in the meeting summary. Littlejohn agreed to email Bartlit’s revised statement to the group.
 - Stephen Littlejohn said he would e-mail a revised list of priority topics with some questions, and the group would decide if they wanted to review the topic again at another meeting. He reminded the group that the more time spent on process issues, the less time spent on discussing environmental improvement.
- **ACTION ITEM: Stephen Littlejohn will e-mail a revised list of priority topics for group consideration.**

INFORMATION RESOURCES FOR SILICA DISCUSSION

Stephen Littlejohn directed the group’s attention to a handout entitled “Silica: Information Currently Available to the CEWG,” which summarizes the silica information sources accessible to CEWG members. Mr. Littlejohn asked the group if there was any other source that should be listed on the handout.

- John Bartlit suggested referencing sources. Mr. Littlejohn said that he could add a column indicating this information. Mr. Bartlit also suggested adding website information to the handout. Mr. Bartlit said that in general, the group reserves the right to not look at all the sources, but it would be good to know about them. Mr. Littlejohn said he would clarify the source and how to access the documents.

- Sarah Chavez said she would ask Intel's industrial hygienist to add his resources to the list. She clarified that these resources would be external and not Intel internal sources.

➤ **ACTION ITEMS:**

Stephen Littlejohn will revise the chart and send it to the group by e-mail before the next meeting.

Sarah Chavez will ask Intel's industrial hygienist to share his external silica information resources.

EHS REPORT

Sarah Chavez reported that there was not a lot of activity on the EHS report; there were no complaints. There was a brief downtime listed when diesel was reported in the boiler, but there was not anything wrong with the boiler.

- John Bartlit asked if Intel used the EHS report for anything. Ms. Chavez responded no because Intel has similar information from other sources to consolidate the EHS report. Carrie Freeman confirmed this.
- Since there was little time left, the group decided to postpone the discussion of Intel's response process to next meeting. Mr. Bartlit asked Ms. Freeman if she could prepare an outline for the next meeting, and she agreed to do so. Mr. Bartlit asked Ms. Freeman to include process updates and a timeline. Ms. Freeman stated one major point: when people called complaining about an odor, if they did not specifically request someone to come to the site, then no one would come. Frank Gallegos said that sometimes a person might not smell an odor but feel a certain way, so that issue had to be worked out in the procedures.

➤ **ACTION ITEM: Carrie Freeman will draft an outline for the next meeting that will include process updates and timelines and send to Stephen Littlejohn for distribution.**

MEETING ADJOURNED

NEXT MEETING

January 21, 2009, 5 P.M. at the Corrales Flying Star Hospitality Room

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