FINAL MEETING SUMMARY
Community Environmental Working Group

"Striving for Continuous Environmental Improvements at Intel"

Date: May 15, 2019
Time: 5:15–7:00 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 Association in New Mexico
Sarah Chavez, Intel
Dennis O'Mara, Corrales resident, Corrales Residents for Clean Air and Water

Non-Members Attending

Alexander Lowry, Intel
Erika Edgerley, Intel
Jessie Lawrence, Facilitator
CJ Ondek, Recorder

HANDOUTS

- CEWG Draft Agenda
- April Draft Meeting Summary
- May EHS Activity Report
- Action-Item Progress Report

PROPOSED AGENDA

- Welcome, Introductions, and Brief Items
- Standing Agenda Items
- UNM Cancer Study
- Intel NMED Emissions Permit Presentation
- Prioritization of Future Agenda Items and Discussion of Future Work
- Action Item Progress Report
- Adjourn

WELCOME, INTRODUCTIONS, ANNOUNCEMENTS, BRIEF ITEMS
John Bartlit opened the meeting by stating the CEWG mission, which was to make environmental improvements at Intel, reduce chemical emissions at Intel, and improve community dialogue. Introductions were made.

Agenda—Revisions and Approval
No comments.

Meeting Summary—Revisions and Approval
No comments.

Other Announcements
None.

Public Comment
None.

STANDING AGENDA ITEMS
EHS Report
Sarah Chavez said there was nothing out of the ordinary in terms of reports or activities on site at Intel.

- Dennis O'Mara said he saw an article in the *Corrales Comment* about continuing efforts on the part of residents to get Intel to address the water runoff issue. The article said there was significant activity underway and/or planned, and he asked Sarah Chavez to elaborate. Sarah Chavez said since the end of last year Intel hired a consultant to do a survey and a different consultant to develop a design to improve drainage in certain areas. She added that Intel continued maintenance on the east slope. Intel did not yet have a timeline on when the design to improve drainage would be implemented but guessed sometime in late summer. Mr. O'Mara said that the article mentioned that residents of Corrales were responsible for managing water on their own property and preventing it from running off into other properties. Intel was not actually part of Corrales but in an unincorporated part of Sandoval County. He added that the hay bales were not "cutting it". Ms. Chavez said Intel wanted the storm water runoff to go to the river, and the hay bales were meant to slow down the sediment and not capture it. That would continue to be ongoing maintenance for Intel, she said.

- John Bartlit asked about community-wide communication on the matter. Ms. Chavez said once Intel had a final design they would send a communication to the community, most likely in June.

- Jessie Lawrence asked if it made sense for Intel to report back to the CEWG on progress. Dennis O'Mara said that would be helpful. Sarah Chavez said she would not be at the June meeting but someone would most likely be taking her place.

Regulatory Engineering
No comment.

LEPC Update
Dennis O'Mara said the next LEPC meeting was scheduled for sometime in July.

UNM CANCER STUDY
Jessie Lawrence said that she had communicated with Dr. Chuck Wiggins last week, who informed her that the Cancer Study report was passed on to the NMDOH. He told her that he would like to speak at the June CEWG meeting and was hopeful that would still happen. Ms. Lawrence asked how the group would like to proceed. Should they shoot for scheduling him at the July meeting? Sarah Chavez reminded that the CEWG had set a timeframe around getting the report in enough time to review and establish questions before Dr. Wiggins presented the report at a meeting. The agreement was that at least two weeks was needed for members to review the report and then discuss questions via email.

Ms. Lawrence asked if the timeline delayed Dr. Wiggins' coming to a June meeting, should they cancel the June meeting. Mike Williams asked how much longer was needed for the emissions permit presentations. Sarah Chavez said she had about three to four more presentations before finishing. Alex Lowry said he could give a presentation in Ms. Chavez' absence in June. Ms. Lawrence said to keep in mind that they might have a short agenda depending on what they hear back from Dr. Wiggins.

INTEL NMED EMISSIONS PERMIT PRESENTATION
Sarah Chavez continued with part 3 of Intel's NMED Emissions Permit review. She summarized that the review was of Permit 325-M11R8, which was the current full version of the permit. Permit 325-M11R9 was an administrative revision in the form of a letter only. Parts 1 and 2 of this reviewed covered sections A100 to A106, which included the following:

Part	FACILITY SPECIFIC REQUIREMENTS	Page #	High Level Summary
A100	Introduction	A3	What permit this is and permit fee requirements

A101	Permit Duration (expiration)	A3	How long the permit lasts
A102	Facility: Description	A3	Short description of facility, where it is located and what the modification is
A103	Facility: Applicable Regulations	A4	Summary of NM and EPA air quality regulations that apply to the site
A104	Facility: Regulated Sources	A5	List of regulated emission sources - fab, boilers, cooling towers
A105	Facility: Control Equipment	A6	List of abatement equipment - scrubbers, thermal oxidizers
A106	Facility: Allowable Emissions	A12	Tables of permitted emissions - for site, some by specific equipment

Sarah Chavez said today she would cover sections A107 to A111.

Slide:
A107 Facility: Allowable Startup, Shut Down and Maintenance (SSM)
NMED Definitions (20.2.72.7)

- DD. **"Startup"** means the setting into operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing in of batch process units.
- BB. **"Shutdown"** means the cessation of operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing out of batch process units.
- Maintenance is not defined in the regulations. Typically defined by the manufacture of equipment.
- Emissions during the routine or predictable startup, shutdown, or scheduled maintenance (SSM) of process or air pollution control equipment are considered to be part of the normal operation of a source.

- Sarah Chavez said shed used NMED's definitions of "startup" and "shutdown." John Bartlit asked if these definitions were the same as EPA definitions. Ms. Chavez said she did not know but NMED definitions were most likely consistent with the EPA.

- On the emissions during the routine or predictable startup, shutdown, or scheduled maintenance, Ms. Chavez said Intel complied with all limits in Table 106 A, and had recordkeeping requirements noting when these things happened.

Slide:
A108: Facility Allowable Operations

A. Continuous operation allowed
B. Types of changes that are allowed within the permit and criteria that has to be met
C. Changes allowed to the tools and production equipment within the permit
D. Required tracking for HAPs listed in Appendix X

Sarah Chavez said this slide listed the four conditions that NMED required for Intel to operate their facility. Intel was allowed to operate continuously—24/7. The second bullet concerned the "things" Intel was allowed to do within the permit and the criteria that had to be met to "do those things." The third bullet concerned changes around tools and production equipment without having to modify the permit. The last bullet concerned required tracking for HAPs listed in Appendix X. As long as changes met these criteria the permit did not have to be modified.

Dennis O'Mara asked if bullet D referred to all 187 HAPs. Ms. Chavez said these were part of that same list and were included in the semi-annual report if used or emitted. John Bartlit asked if Intel ever had a case where unusual maintenance caused Intel to report extra emissions. Ms. Chavez said no.

Slide:
A109: Facility Reporting Schedules

- Semi-annual requirement to submit report to show compliance with the facility wide emission limits

Sarah Chavez said Intel was required to submit a semi-annual report to show compliance with emissions limits in tables in section 106. It showed compliance with the annual rate of all the various pollutants. It was posted on the Explore Intel site and was a rolling total that changed every month.

Slide:
Tabular Format (from 12/04/2018 NMED Meeting)

Requirement – Defines what the emission limit is and/or what must be done
Monitoring – How frequent and what must be monitored to determine compliance
Recordkeeping – Frequency and content of the records to document compliance for future review.
Reporting – Defines how NMED is provided access to the records

Sarah Chavez said she pulled this tabular format directly from the December 2018 meeting. This format was used in sections A110 and A111.

Slide:
A110 Facility: Fuel Sulfur Requirements

- Applies to all combustion sources
- Notes specific requirements for sulfur content of fuels
- Thermal Oxidizers, Ammonia Treatment System and BSSW only burn natural gas

Sarah Chavez said this section referred to sulfur requirements; Intel was required to only combust natural gas containing no more than 0.75 grains of total sulfur per 100 dry standard cubic feet. With regards to liquid (diesel) fuel, the diesel fuel sulfur content should not exceed 15ppm (USLD). There were no monitoring requirements. Intel was required to keep records of sulfur content compliance in thermal oxidizers and ammonia treatment systems. Intel used pipeline quality natural gas that met the requirements.

Slide:
A111 Facility: 20.2.61 NMAC Opacity

- 20.2.61.7B "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.
- Applicable to all combustion sources that aren't regulated by a federal requirement
  - For Intel, applies to thermal oxidizers, ammonia treatment system and BSSW since they only operate on natural gas

Sarah Chavez said this was about visible emissions. She said Intel used a testing consultant who was "opacity certified," which was a process using the human eyeball, to determine opacity. Dennis O'Mara asked if Intel ever failed to meet this test. Alex Lowry said in 2017 Intel was required to retest within 60 days; he did not know what caused the failure. Sarah Chavez reminded this was specific to combustion sources only (and not water towers, for example).

Sarah Chavez said the permit section that she would cover next was about equipment-specific requirements.

PRIORITIZATION OF FUTURE AGENDA ITEMS AND DISCUSSION OF FUTURE WORK

- Jessie Lawrence asked the group to review potential future agenda items and discuss where they wanted to go next and steps needed to make that happen.

- John Bartlit raised the "dying plants" item. He said this was a big issue years ago—plants as indicators of pollution. He asked if the group wanted to keep it on the list. Dennis

O'Mara said to keep it on the list. He had something "in the works" in this area but could not talk about it yet.

- Ms. Lawrence said if there was momentum behind this topic then someone would have to take the lead to find an appropriate expert. Mr. O'Mara said he had an expert in mind around pollution and plants in general. John Bartlit said he could do some Internet research to learn what might be possible. He asked Mr. O'Mara for a bit more direction.

  ACTION ITEM: John Bartlit said he could do initial Internet research around this topic to see what was possible and send an email to Jessie Lawrence about his findings.

- John Bartlit asked if there was any follow up the CEWG could do on the NMSU contest. He said he received an email from NMSU "looking for tasks." He asked if the CEWG might want to propose a task. Ms. Lawrence asked about a timeframe. Mr. Bartlit said they started the contest process in the fall, and needed to have tasks before that. These could be regulatory engineering-type tasks, or something the CEWG cared about.

- Dennis O'Mara said that Intel was hiring 300 more people, and asked that Intel provide an update along those lines. What was Intel initiating with this new hiring? Erika Edgerley said to go to Intel's blog to see which jobs were being hired for. The link was: www.Intel.com/jobs

REVIEW ACTION ITEM PROGRESS REPORT

- Jessie Lawrence asked about item #8. Was the group interested in adding drone technology and regulatory monitoring as a future agenda item? John Bartlit said he wrote a recent article on this issue. The regulatory application of drones needed to be developed along with the technology development. He said school teams and advisors had a poor grasp of regulations. Alex Lowry said that environmental engineering curricula did not address the "why" of the work they were doing, i.e., regulations. John Bartlit suggested developing a task around a regulatory agency.

- Dennis O'Mara asked for a status report on item #4—the list of chemicals Intel used in their semi-conductor process. Sarah Chavez said she hoped to have a full list later in summer.

ADJOURN

NEXT MEETING: June 19, 2019, 5:15 pm to 7:00 pm, Corrales Senior Center.