

DRAFT MEETING SUMMARY

Community Environmental Working Group

"Striving for Continuous Environmental Improvements at Intel"

Date: January 16, 2008
Time: 5:00-7:00 p.m.
Location: Your Place Or Mine

Members Attending

John Bartlit, Acting Chair
Sarah Chavez, EHS Department, Intel
Frank Gallegos, Intel EHS Manager

Mike Williams, NM Clean Air & Water
Hugh Church, American Lung Association
Edward Pineda, Rio Rancho resident

Technical Support Staff

Andrew Moen, Intel Environmental Eng.
Liz Shipley, Intel

Public

Roberta King, Corrales resident
Lynne Kinis, Corrales resident
Rick Rittmiller, Corrales resident
Eric Maddy, Sandoval County On-Line Reporting Enterprise (The SCORE)

Facilitator

Stephen Littlejohn, Domenici Littlejohn, Inc. David Bergeron, recorder

HANDOUTS

- Draft Agenda
- Draft December 19, 2007 Meeting Summary
- EHS Activity Report
- This month's newspaper ad
- Copy of article by John Bartlit on Modeling from Los Alamos Monitor, January 15, 2008
- Notes from Stack Height Committee Meeting January 7, 2008
- Notes from Stack Height Committee Meeting January 10, 2008
- Action-Item Progress Report
- Copy of email from Edward Pineda, Subject: Stack Height Report Dated January 16, 2008

WELCOME AND INTRODUCTIONS:

John Bartlit and Stephen Littlejohn started the meeting by thanking Megan Woodward, the owner of Your Place or Mine Catering, for the great service she has provided the CEWG for the past three years.

John Bartlit stated that the CEWG mission is to continue to make improvements and improve community dialog. After a round of introductions, he asked for comments about the agenda.

- Edward Pineda expressed concern that amount of time allotted to discuss the stack height report. Mr. Bartlit agreed that the group should take whatever time needed to discuss this issue thoroughly. Mr. Littlejohn pointed out that there were items that could be delayed as they are not time-sensitive. It was agreed by the group that whatever time was needed would be spent discussing the stack height issue.
- Mr. Pineda asked that the issue of vice chair, discussed at the previous meeting, be added to this month's agenda.

Mr. Littlejohn then asked if there were comments or corrections to the meeting summary for last month. Lynne Kinis said she had several questions but that she would hold them until the group got to the stack height report.

PUBLIC COMMENT

Lynne Kinis suggested moving Public Comment to the end of the meeting. Mr. Bartlit reminded the group that it was put at the beginning of the meeting so that it would not get left out on evenings where other issues took up more time. Mr. Pineda added that there had been occasions where Public Comment brought items of importance to light. Ms. King responded that as a member of the public she would not hesitate to express herself, but that in general, if she had issues that were related to agenda items, she would reserve them until that issue came up at its time on the agenda. It was decided that Public Comment would be left at the beginning of the meeting.

STACK HEIGHT

Mr. Bartlit provided background on this issue. Stack height has been a continuing issue publicly for some time. The Radian Risk Assessment of 1996 raised this issue, and it has come up several times since. Intel has said that they would give CEWG the issue to provide advice. The Group will need to make a recommendation at its February 20 meeting.

Sarah Chavez explained that the deadline is necessary in order for Intel to have sufficient time to make engineering revisions to accommodate a stack height change for the installation of the thermal oxidizers.

Members of the sub-committee include Mike Williams, Sarah Chavez, Edward Pineda, Ralph Williams, Hugh Church, and Lynne Kinis. Roberta King attended as an observer. Notes from the sub-committee meetings are attachments to the meeting summary.

Mr. Williams presented the following report on behalf of the committee:

- The committee was concerned that using the available weather data from just one year (93-94) may not give results as reliable as would a broader sampling. The modeling data for fine particle emissions is quite close to the standard (90% of the standard), which makes reliability even more important.
- However, the time required to employ additional weather data would make meeting the February deadline impossible because the newer data format produced by the National Weather Service cannot be integrated easily into the model. (This problem is explained in greater detail in the attached committee meeting summary.) The committee will compensate for the restricted weather data in the decision-making process described below.

- The committee will generate a recommendation in the following way: Ralph Williams will run the model for the current height and again at increasing increments. Since running the model only takes a couple of days, Ralph can quickly see what increment would yield the greatest effect. He will look for a sharp drop in concentration, using the target metric of 40% reduction. This criterion was established by setting a 30% reduction rate and adding an additional 10% to compensate for restricted weather data. Hopefully, a reduction of greater than the 40% will be possible. Ralph should have results by next Thursday.
- Mr. Bartlit asked for clarification on what Mr. Williams meant by reduction. This refers to a reduction from the model concentrations of the RTO stacks for fine particles as you change the stack heights at the maximum concentration point outside the fence. Mr. Williams added that the maximum point probably occurs inside the fence. There is probably downwash, so a stack height determined by "good engineering practice" (GEP) would put the maximum point outside the fence, but hopefully the concentrations will be significantly less than the maximum concentrations that are now occurring.
- Downtime presents the special concern of a cold (or heavy) plume. A heavy plume is one where the density of emissions is higher than the air around them causing them to settle on the ground and spread horizontally. A heavy plume stays very close to the ground and produces much higher concentrations. Mr. Williams said the committee wants to evaluate the situation during the downtimes. Such results will depend on the density of the gases and the volume flow. The committee will be looking at the parameters going into the concentrator stacks in order to complete this analysis.
- Mr. Bartlit commented that the stack for downtime and regular time could be different heights.
- Mr. Mike Williams expressed another concern – are there opportunities to route all the RTOs to the same stack, which could give a higher plume rise and presumably lower concentrations. In the new system, there will be two stacks for every RTO. Ms. Chavez said emissions will all go out one stack during downtime and the other during operation.
- Right now the committee will only be looking at is the oxidizer configuration. That is all the information that will be available by next Thursday. The downtime is actually a different situation. Downtime is not an annual average, but a short duration like 24 hours.

The report was followed by discussion:

- Mr. Pineda said that the CEWG should take very seriously the opportunity it has been given to propose changes to Intel. Recommending stack height is a complex, technical subject that deserves proper analysis of many parameters and will require a good execution plan. It will require sufficient data for input into approved models. Several runs of the model will be needed to obtain results representative of the dispersion of actual emissions and to determine their ground level concentrations. It is therefore not wise to impose deadlines on this assignment which can only be met by using shortcuts that will produce results with poor validity and doubtful credibility.

- Mr. Pineda continued: This group has had this problem before with the community. The objective of this exercise should be to decrease the level of toxic emissions to which residents are exposed, which is part of our mission. To accomplish this crucial objective, the experts should be given enough time to present a sound and trustworthy report.
- Mr. Pineda asked Ms. Chavez to clarify the schedule for installation of the new units. Ms. Chavez said the first Munters unit will be installed this year. There is not an exact date yet. After installation of the first Munters, there will also be two Durr thermal oxidizers operating on site. As far as Intel knows, that will be the case until 2013. In 2013, the Intel engineers plan to evaluate the Durr units to determine if they need to be replaced. Munters will be used if replacement is needed.
- Mr. Littlejohn stated the CEWG needs to give guidance to the sub-committee on whether additional weather data should be integrated into the model, which is a clear objective for tonight's meeting.
- Mr. Bartlit pointed out that if the decision on the stack height is delayed, Intel will build the stack to the existing height. If at some point in the future, the CEWG recommends a higher stack, there is an added cost to Intel to make the change at that point. There would also be added emissions to the community in the time that the stack is not raised. Both sides could be suffering some disadvantage from delay. Shutting down the unit at some future point would impact production and could make increasing the stack height more difficult to do. Mr. Bartlit suggested that delaying stack height improvement could have negative effects. He suggested that making improvements--as many and as much as possible--was always the goal.
- Mr. Williams pointed out that the modeling results should provide the information needed to make the decision.
- Ms. Kinis commented that after going over the meeting summary for December, she had many questions. She agreed with Mr. Pineda's concerns about the time constraints being put on the modeling. Ms. Kinis asked Mr. Williams to identify the inputs into the model. Mr. Williams indicated wind direction, wind speed, temperature profile and background atmospheres. One of these will enhance mixing or inhibit mixing. The model takes into account things like sun angle, cloudiness, time of day. From those things, Ralph will be able to tell how much heat is coming from the sun to the ground. At nighttime the energy from the ground is cooling off and escaping to outer space, and the critical factors include whether it is cloudy, how cloudy, what are the winds doing?
- Ms. Kinis said her reading indicated it was necessary to know the temperature at different heights in order to have an adequate scientific model. Mr. Williams added that it is critical to know how deep the mixing layer is. That means you need to know something about the temperature profile over hundreds of years. That is part of the problem in using the data from the National Weather Service, which includes temperature soundings that go all the way from the ground up to 30,000-35,000 feet. The upper part is not relevant, but the lowest 1000 feet is important. That information cannot be gotten from the local tower, it must be taken from the balloon measurements.

- Ms. Kinis asked why that information could not be gotten from the tower, and Mr. Williams answered that the model needs data how deep emissions are mixing. The model looks at the temperature profile from the morning sounding, which occurs at 5:00 a.m. in our area. In the morning, there will probably be a fairly deep stable layer with the temperatures increasing with height. As the day progresses, once the sun starts heating the earth, it will start changing the profile. The ground temperature increases as it is heated, and this information provides the mixing depth. As the day goes on, by looking at the surface temperature and extrapolating the slope of the line, you get what a dry adiabatic lapse rate. Once you know this slope, you can figure out where the mixing height is, which is what Ralph Williams is basically going to use for the model. It's not highly sensitive except for when the mixing height is pretty low, which can happen late in the afternoon when the plume is mixing rapidly with little effect. At this point, the plume will sink down to the ground.
- Ms King asked if this weather balloon information comes from the on-site. Mr. Williams responded that he thought the temperature Ralph Williams is using is from both on-site and from the weather service from the airport. Ms. King asked for further clarification on the weather balloon. Does the information from the weather balloon include data over Corrales and Bernalillo, or is it just information where the weather balloon is located? Mr. Williams said the balloon rises several kilometers from where it is launched. It provides a temperature profile that is relatively accurate over a wide area once it gets away from the surface environment. These temperature profiles are a primary source of data for weather forecasters.
- Ms. King commented that they are not very accurate according to what has been heard lately. Mr. Williams said that is probably true. One of the problems with the sounding balloons is light winds. They are not very effective in providing wind speed and direction in light winds. The balloon gets trapped in big eddies and can provide misleading information. There are some problems, but the temperature profile is probably not the big problem.
- Mr. Bartlit asked whether one could calculate a 40% *reduction* of concentration more accurately than one could calculate the *exact level* of concentration. Mr. Williams responded that he thought that the calculation for reduction would be more accurate, but not much.
- Ms. Chavez noted that that model data are validated and monitored for accuracy. She asked whether the models were designed to compensate for all the variability in the balloon soundings? Mr. Williams said that the models do so to some extent and are checked against empirical data. However, the model is not checked against actual concentrations at particular points in time because a few degrees difference in the wind direction can make a huge difference. By looking at a lot of data, we get about the right frequency of high concentrations of about the right magnitude – that does not mean we get today's data exactly right. In other words, the predictiveness of the model is very good across averages, but not necessarily at specific data points in time. The model gets the maximum points of concentrations pretty well, but it may not get their location exactly right.
- Ms. Chavez said that the model results for the permitting case is a worst case scenario.

- Ms. Kinis suggested that since we are under the constraints of time why not just make the stack higher than the highest building, model this, and see what happens. Mr. Williams responded that higher stack heights might not necessarily reduce concentrations.
- Ms. Kinis thought the height should be taller than five storeys, which is the height of Intel's highest building. Mr. Williams said he thought that Ralph Williams would run the model and then start increasing the height until the concentrations started dropping dramatically. Mike felt we should let the models tell us, rather than just picking some arbitrary height. Ms. Kinis said she was thinking the time constraints, versus good engineering practice, and good scientific modeling practice.
- Mr. Williams said that this set of models are adequate. The concern is the metrological end of things. The group is talking about the long-term concentration. The frequency of wind direction may not be representative of that. It might be off by 30-40 percent. Prediction of plume behavior and decreases in concentration with added height might be okay. We are looking at relative changes, and we should be able to do that better than we can predict absolute values. In the absolute case, you need to worry about exactly what frequency you get these conditions. If we take the stack height up until we start seeing a dramatic drop in concentrations, then we know we are outside of the weight of the building.
- Ms. Kinis read from the Radian report: "To escape downwash influences of a flow obstacle, a plume should be emitted or should rise as a result of momentum to a height of to at least the obstacle height plus 1.5 times the height or width of the obstacle, which ever is less. This is known as GEP." If the obstacle is five stories, then the stack should be seven and a half stories high. Intuitively, the stacks should be seven and half stories. Mr. Williams said it is essentially two and half times the building height so it is not seven and a half, but twelve and a half.
- Ms. Kinis asked for clarification about the RTOs. After some discussion, Ms. Chavez clarified that when Intel did the technical revision application, the agreement was made with NMED that Intel would do the revision for all five units even though NMED knew and Intel knew that some units would not be installed until 2013 or later. She further clarified that the Durrs are operational and that Intel has done a lot of work to minimize the downtime. Intel continues to evaluate these units and if something happens to them before 2013 or the company decides they cannot continue to operate them, the transition may happen earlier than 2013.
- Ms. Kinis asked what will happen every time the Durrs go down after Intel gets the one Munters installed in the spring, and Ms. Chavez explained that from now until 2013 when a unit goes down, there will be no abatement of that particular unit, but Mr. Gallegos reported that Intel has purchased two Munter systems which should be installed sometime this year and that one of these would provide redundancy. (Mr. Gallegos said he intended to talk about this later on the agenda.)

- Gallegos continued to explain: The initial idea was to purchase a Munters system and then plumb all the systems so that eventually Intel could have redundancy in those areas, but the company was able to purchase two units. There will be redundancy on the lateral exhaust that comes off that system towards the end of this year. The new process coming up is where some of that exhaust will be going. Intel currently has two newer Durrs installed when Intel expanded to 300 millimeters. These units will continue to operate until they go "end of life," which should be several years out. At that time, Intel would look at replacing them with Munters and continue to add redundancy to both systems. Those Durrs systems operate about 99% of the time, so they are down on occasion for preventative maintenance or power loss, but for the most part they are operational the majority of the time.
- Mr. Bartlit said that the redundancy is something the CEWG has talked about and pushed for years, and the public has pushed for it many more. We have partial redundancy coming this year, not total.
- Mr. Williams offered that there is no reason that the stack height needs to be the same on units installed later. Later on if we find we could do better by having still higher stacks, we could do this. In the mean time, increasing existing stacks would be better than no action.
- Ms. King asked if there is currently a separate stack for each RTO? Ms Chavez answered yes. Ms. King asked how many Durr RTO's are being run now. Ms. Chavez answer two. Ms. King asked why the third was not running. Ms. Chavez answered that Intel just shut down the 11 South unit – the one doing the 8 inch production. Ms. King asked if Intel was going to build new stacks for the new Munters. Ms. Chavez answered yes. Mr. Gallegos added that the time is critical because Intel needs the information on the stack height so they build it to the size desired.

After some discussion, the following options emerged:

1. Recommend RTO stack height before the February deadline based on the use of meteorological data we have now within the model.
2. Delay a recommendation altogether pending additional weather data.
3. Recommend now, but leave open the opportunity to make additional height recommendations for the same units after integrating more data into the model.
4. Recommend heights now for stacks to be installed in the near future and use additional data to recommend heights stacks installed in subsequent years.
5. Combination of 3 & 4.

The following discussion ensued:

- Ms. King asked if Ralph Williams's analysis would use emissions from the RTOs and the scrubbers or just the RTOs? Mr. Williams responded just the RTOs and added that the model would only compare RTO results.
- Mr. Pineda said the beauty of option number 3 is built-in redundancy. One unit could be shut down, while the other is being used. With proper advance planning, engineering and purchasing of materials, we could add an additional

section to the stack. If you have too many RTO's shutdown, you may get pressure from Santa Fe about your permit, and if you are putting crude emissions on the record, you may have to cut your production. Out of that may come the decision to expedite the redundant unit and have something that will allow Intel to abate the emissions and not cause the residents to suffer from unabated emissions and keep the production under Intel's control.

- Mr. Bartlit said that Intel has not shut down production in the last ten years. It seems unlikely Intel will shut down production in the future. NMED is not going to require them to shut down because the situation is better now than it was in years past.
- Mr. Bartlit said he thought Intel would be willing to do either 1 or 2, but that 3 would require considerably more negotiation because of costs and scheduling issues.
- Mr. Gallegos said that Intel has agreed to get a recommendation from this group and take it back to Management at the site and go from there. Mr. Bartlit added, if we did make another recommendation for another new stack in two years, Intel would consider it. If they would consider it now, they will consider it then.
- Mr. Church asked Mr. Gallegos what the funding issues were? Mr. Gallegos said that if the CEWG recommends a certain height, it would be cheaper to do it sooner than later. Intel will have to evaluate those costs. Once they get the CEWG's recommendations, he will meet with the facility engineers to discuss these recommendations. The cost of future stack heights is another issue.
- Ms. Chavez said it would take fifteen man-days for each year of weather data to be integrated into the model, which includes the adjustment for the new format for the National Weather Service data plus additional necessary quality assurance.
- Ms. King made the statement that Ralph Williams would not be using that data, that he only will use the information from the RTO's.
- Ms. Kinis said she heard that if the CEWG makes a recommendation by the February 20 deadline and then later recommends additional stack height, Intel would say 'no' because of the need for additional funding.
- Mr. Gallegos said that after CEWG makes its recommendation, Ms. Chavez will meet with the facilities engineers who will come up with a cost estimate and that will be taken to Intel's management. They will then make the decision then whether to raise the stack height or not to raise it. Intel will make the decision on whether it will be done or not. Mr. Bartlit said that all engineering decisions are done this way, and there is no way around this process.
- Ms. Kinis said she thought that if CEWG came back later (under recommendation number three) after further study and recommended additional height, she heard Mr. Gallegos say, "It is not going to happen." Mr. Gallegos said that it would need to go through the previously stated process of review by the engineers, a cost estimate, and then a management decision. He said he would make Intel management aware of the three recommendations as being for the present as well as the future.

- Ms. Kinis asked why Intel did not ask the CEWG for a recommendation in October to provide more time, and Ms. Chavez said it came up in the October Open House and it was then discussed at the October meeting of CEWG. It was mentioned then that the group needed to start looking at this issue, and the Group has discussed it at every meeting since then. All along, Intel has known it was going to be installing these units in the spring/summer timeframe. She apologized if they were not clear about this, but we have been talking about how this group would go about making a recommendation to increase the stack height since the October meeting. Mr. Gallegos added that as soon as the CEWG began talking about a committee, he discussed with Ms. Chavez that they needed to check internally to understand what the deadline would be for this group to make a recommendation. That is when Ms. Chavez came back with the February date. Mr. Bartlit added that all knowledge is incremental. We all learn more the more we talk and talking takes time.
- Mr. Gallegos added that schedules sometimes change with Intel. Sometimes things may be pulled in or pushed out, so right now the date we have is February 20, but it may change depending on the schedule.
- Mr. Pineda suggested designing and building a new stack with a tie-in. You leave a manifold to which you can add a dock that will connect to a new unit. He also suggested that in the procurement process, a time limit could be set for this option so that if it is not needed, it can be cancelled at no additional cost.
- Mr. Pineda said he feels that if the CEWG does not give Intel a recommendation, the company will retaliate by making the decision without the CEWG's advice. Ms King added that they would keep it as-is – the status quo. Mr. Gallegos said Intel would not retaliate with a different stack height, but would use the height submitted to the state modeled at 23.2 meters, which is similar to the current stack height. The community has said they would like to see if Intel could raise stack height, and the company would like to get a recommendation from the CEWG on this issue.
- Mr. Pineda asked that an environmental manager for Intel put in writing the stack height presented to NMED. Mr. Gallegos said that information was already in the technical permit revision, and Ms. King said it was the same as the stacks are now. Mr. Pineda said that Intel should indicate in writing that if a recommendation is not forthcoming by February 20, it will proceed with the previous height indicated. Mr. Bartlit said Intel has already made that declaration, but Mr. Pineda disagreed. Ms. Chavez said Intel was obligated to do this because it was submitted in the permit based on the model and approved by the state.
- Mr. Pineda asked if Intel intended to do what they had already told NMED they would do, or is Intel really giving CEWG the opportunity to recommend something that would be better than that? Mr. Pineda said he knows the stack height needs to be higher than 23 meters because of the buildings and the weather influence around the Intel facility. Mr. Bartlit answered that Intel has given the CEWG a very good opportunity to make a recommendation and they have said they would put it forward.

- Bartlit went on to share his opinion that this is a great opportunity. He said he does not think the group wants to discourage such opportunities by failing to act or acting slowly. If the group is successful in getting the stack height changed by doing good modeling and good engineering in a timely manner, the CEWG will gain more opportunities to make further improvements later. Mr. Bartlit's view is that if the CEWG fails to get its job done in a timely manner it will not look good for the group. Intel has given the CEWG a marvelous opportunity – which he said may collapse at the end—but the group should do its job.
- Mr. Pineda said that the modeling to be reviewed at the next committee meeting should show how significant restricted weather data is, so that the committee can determine how realistic a recommendation would be.
- Mr. Williams said the weather data is not going to change the shape of the curve; it is going to push it up or down. He felt that the weather data does not add that much information. It may let you be more precise about what is actually going to occur, but it does not tell you if there is going to be a bigger percentage change for a given stack height.
- Mr. Pineda strongly suggested that the Stack Height Committee schedule another meeting before the February CEWG meeting to finalize its recommendation to the CEWG. Mr. Littlejohn said that there would be plenty of time to have more than one meeting.
- Littlejohn also pointed out that the group could make a recommendation now for the new stacks based on the information currently available and leave open the other options for the future. Mr. Bartlit said he felt that number four was almost a given, that if Intel will take the group's recommendation for a stack height now, Intel would take a recommendation later for future stacks.
- Ms. Chavez said that if the group wants to do further research approval would need to be sought. It is not in Intel's budget to do analysis of this additional data. Mr. Bartlit added that if the group could be more efficient, then money could be put in the hardware instead of the data, a course of action that would benefit everyone.
- Mr. Littlejohn reminded the group that the committee added 10% to the criterion metric to compensate for lack of perfect data. Mr. Bartlit said this increase might bring about an even better result than you would get with the other data.
- Ms. King thought that somewhere in the weather processing department someone should have made a transition from the software that was used in the past to something compatible with what is being used now. She asked if anyone had researched this.
- Ms. King asked about an issue that Hugh Church brought up at the sub-committee meeting. The model crashes when it encounters qualitative data such as "light, variable wind" (LV). Why can't the number one be substituted for this category so that the model will accept it as numerical? Mr. Williams said he didn't understand why the model didn't just skip the time period in which this qualitative category was used. If the category is "light and variable," there is no wind speed. Ms. King said the lowest number used now seems to be two. Why could they not use a number lower than that – 1 or 1.5 to replace LV. Mr.

Williams said that even that is wrong. What should be done is just not to calculate for that hour. Mr. Littlejohn said these seemed to be issues related to the modeling, which need to be discussed as we look forward to the possibility of adding more data and re-modeling later.

- Littlejohn summarized a possible consensus: The group should pursue option 1, using the process described earlier, and leave open the other options after the February meeting. The committee could come back with recommendations on options 3 & 4 as well. The group agreed.
- Ms. King asked to make a Public Comment. She has heard it said that that the level of discussion experienced tonight helps the group learn from each other. This is what she wants for NMED and Intel public meetings rather than open houses, which limit discussion and prevent participants' learning from each other's misconceptions. She thinks there should never be another open house where the facts are presented without an opportunity for everyone there to hear all the questions, comments, and discussion.

ADDITIONAL BUSINESS

Meeting Summary

Mr. Littlejohn asked Ms Kinis if she had questions about last month's meeting summary. She said she would save those comments for the stack height committee meeting.

Acting Vice Chair Discussion

The group returned to the question of whether a more-or-less permanent acting vice-chair should be appointed in case Mr. Bartlit misses or is late to a meeting.

- Mr. Pineda asked for members to express their preference on this issue. He said that he would favor having the facilitator ask for a volunteer and then get the group's consensus.
- Mr. Bartlit said his view that a decision reached at the last meeting. He said that he supported the change that Mr. Pineda's suggested that the Facilitator name a person or ask for a volunteer, and then the group give their consent by consensus.
- Mr. Littlejohn said that the language would be changed as follows: ***A volunteer or nominee for acting vice-chair would be approved by consensus of the group.***

EHS Report

Ms. Chavez stated that there was nothing significant in the report. Mr. Littlejohn asked if there was any discussion about the EHS report, and there was none.

Update on Citizen's Protocol

The Citizen Protocol is moving very slowly and is frustrating. Mr. Littlejohn had summarized legal review in a previous email. There was a promise from the DOE to have an employee look at the pilot test and the protocol, but the contact person there said they were not going to be able to help after all. [Littlejohn corrected this statement by email after the meeting, saying that possible DOE help was still alive.]

Littlejohn recommended that the Citizen Protocol be put back on the CEWG agenda to talk about next steps and a strategy for implementing the pilot test and the protocol. There are issues related to finding a fiscal agent and funding. The group might want to set up a committee to look at these problems.

- Mr. Bartlit said there were a couple of people at the NMED meeting in Corrales who were interested in the Citizen's Protocol besides the people in CEWG and the people who normally come. One was Jeff Radford who has expressed continued interest in the progress. There was another gentleman that expressed interest as well.
- Mr. Littlejohn said the group had put an enormous amount of work into the Citizen's Protocol. The group consulted extensively, and should continue to push to find solutions to the funding problem so the CP can be tested in the pilot.

Presentation on Epidemiology

Mr. Littlejohn asked if the group was interested in having an epidemiologist give a presentation about the methodology used to determine health affects. If this is of interest, the group needs to discuss how to find such a person.

- Mr. Pineda said he thought this was both important and necessary, although stack height is currently a priority. A presentation in a month or two would be the beginning of a study on the relationship between emissions and health effects. Preparation for such a presentation could begin now.
- Ms. King asked if the group would be looking for an MD or a PhD epidemiologist. She said at the point at which she was having problems, she went to the poison control office to find out how to locate an MD who knows about pollution health effects. She was told that there is only one licensed epidemiologist in New Mexico. She was later told by a friend that this individual, Dr. Fisher, was on Intel's payroll.
- Ms. Kinis asked about using a PhD epidemiologist. Mr. Littlejohn said the University might be a good source. Also, the Center for Disease Control could perhaps give the group some leads.
- Mr. Pineda suggested Len Flowers, formerly used by the Corrales Citizens for Clean Air and Water.
- Mr. Bartlit said that the group should not start with someone who has been involved with the issue of Intel emissions, but someone who can talk about how epidemiology is done, the methodology. Epidemiology means the study of large populations. It does not mean study of a person. Ms. King stated that it is the study of what is happening to the people. Mr. Bartlit added that it is what is happening to large numbers of people.
- Mr. Pineda suggested that a university professor might be a place to start. Ms. Kinis suggested that the health department might be a possibility. Mr. Littlejohn said would pursue a number of possibilities.
- Mr. Bartlit strongly recommended that the person should talk about epidemiology --not about the Intel situation-- in order to begin to learn what epidemiologists do.

The group can go other places later, but if it starts with someone who has a long history with this issue on any side, it could miss the opportunity to learn about methodology first. Ms. King said she did not believe anyone at the University has been involved with Intel.

- It was suggested that Len Flower and Dr. Fisher would not be appropriate because of their connections to the history of these issues with Intel.

ACTION ITEM: Stephen Littlejohn will identify possible speakers and get back to the group.

Thermal Oxidizers

He asked if anyone had anything to add to the previous discussion on the Thermal Oxidizers.

Mr. Gallegos just reminded the group that there were two and that they will be going in pretty close together on the timing.

Automated Notification System

Mr. Littlejohn summarized the idea that people could volunteer to be notified by Intel notify people under certain circumstances.

- Mr. Bartlit asked if CodeRed could be used by Intel. Ms. Chavez said Intel had checked with the people who run and maintain CodeRed and they will not allow anyone to use the CodeRed system for anything other than its intended purposes, which is a defined emergency. The schools had asked about using the CodeRed system for shutting down the schools in inclement weather and they would not allow anyone at all to use it, so it is not an option for Intel. Mr. Bartlit clarified that if Intel had a bona fide emergency, CodeRed could be used through channels. Ms. Chavez said that the downtime and other concerns not formally defined as emergency would not qualify for CodeRed.
- Mr. Pineda acknowledged that Intel could not use the CodeRed system, but felt the group should continue to recommend to Intel a way to call those in the community who might want to be notified of certain events, even if it was a small group.
- Ms. King felt the most effective way was a siren that people could hear and then turn on their televisions or radios to find out information about what was happening. Mr. Bartlit said the siren would have the problem of giving an emergency warning that does not necessarily qualify as a community emergency by CodeRed standards. It would have the effect of sending a false alarm to most people. Because if you send out an alarm that is heard by everyone, everyone has to assume that it is something like the CodeRed. Ms. King said she likens this idea to the sirens at the fire department, meaning that a response of some sort is under way. People hear the siren and know to get out of the way. Ms. King added that if the siren was used for something that was affecting the health of the people in the immediate area, including downtime, the people in that area could check on what was happening. Intel could have a notice someplace or a phone line that people could call into or an announcement on the television. Mr. Bartlit said he thought that one thing that could be done was to talk to the

emergency responders about the siren idea. They might have an opinion about that. The group should at least know what their opinion is.

- Ms. King asked how many phone calls Intel could make at once.
- Mr. Pineda said that the siren would be non-specific but a telephone call would tell those on the list what was actually happening now. The message might even contain instructions to stay inside, close the windows or pack and leave for the rest of the day.
- Mr. Gallegos added that aesthetics might be a consideration. If you were to ask people in the community if they wanted alarms sounded if thermal oxidizers went down or preventative maintenance was being done, they might not want it. As the reduction of emissions is looked at, the overall community and its wishes needs to be considered as well. There is another part of the community with a different opinion, and Intel has to be aware of both sides.
- Ms. Kinis said that the wishes of those people who have requested notification of any kind of emergency or unscheduled downtime and who wanted to be notified of these events should be notified by either a phone call or email. Any secretary could make the calls.

ACTION ITEM: Stephen will contact Chief Tobin to get his opinion of a siren.

MEETING ADJOURNED

NEXT MEETING:

February 20, 2008, 5 PM

Future Agenda Items:

- Stack height
- Automated notification system
- Health effects methodology
- Cooling tower pathogen study
- Citizen Protocol