CEWG ANNUAL REPORT 2014

The Community Environmental Working Group, which began in August 2004, is a volunteer organization that meets monthly to pursue its mission of continuous environmental improvement and improved community dialogue on environmental issues related to Intel New Mexico. The Group explores and discusses concerns and ideas from all relevant interest groups, including Intel and the surrounding community.

The work of the CEWG this year has focused more on developmental projects that, in the short term, do not lead to verifiable emission reductions. Rather, the intention is to find more opportunities for improvements over time. The numbered results below, except for #4, may lead to reductions, but still require more work to do to highlight the best opportunities.

In 2014, the Community Environmental Working Group achieved these results:

1. Modeled short-term peak concentrations of hydrogen fluoride ("spikes") in the community and compared results to screening levels to examine potential risk. The modeling was extended for HCl and Cl_2;

2. Encouraged improved emergency plans and training of emergency responders at Intel, between Intel and local emergency responders, and the community;

3. Pursued regulatory engineering projects that offer alternative approaches to environmental improvement. An initial example can be seen at www.exploreintel.com/newmexico View Live Abatement. Intel developed improvements to the website to provide more real time operational information about plant functioning and emission control systems;

4. Reviewed the status of using supercritical CO_2 for cleaning chips to reduce water use;

5. Prepared for the release of the report by the Agency for Toxic Substances and Disease Registry (ATSDR) regarding community health concerns, developing questions to clarify study methods and assess findings on local health issues; and

6. Discussed the possibility of adding condensation and/or other processes to enhance emission control at Intel.

PREVIOUS CEWG ACCOMPLISHMENTS
2004 – 2013

Many of the changes listed below are beyond what can be accomplished by regulatory agencies under current law**.** Actual accomplishments always fall short of what might be desired, yet they still add to useful progress. Although CEWG discussions were an impetus for these improvements, the Group cannot take full credit. They are attributable as well to various members of the public, public agencies, and Intel management and engineers.

2004 – 2006

1. Intel formed a team that made changes that reduced the amount of isopropyl alcohol emitted.
2. Intel compressed the preventative maintenance schedule for the oxidizers, cutting unabated downtime emissions 70%.
3. Intel changed the preventative maintenance schedule to avoid downtimes during the months when air dispersion is restricted, thereby reducing the impact of unabated emissions on surrounding communities.
4. Coordination between Intel and emergency responders improved, and the emergency response program was tested in full-scale drills and real events.
5. Intel donated $10,000 to Corrales for additional fire department training.
6. Intel established an Odor Team to investigate reported odors, which led to improvements in cooling tower sampling and filtration to monitor bacteria and pH. By improved monitoring, Biocide use in the north cooling towers was reduced 70-80 % with the potential of reducing odors.
7. Intel created a quadrant map to better identify the location of reported odors.
8. Intel improved the methanol abatement process and reduced emissions from 40% to 4%.
9. Intel moved the shipping and storage containers away from the weather tower so as not to interfere with weather data.

2006 – 2007

10. The CEWG developed a Citizen Protocol to establish trustworthy ways to contract, analyze, and report testing data.

2007 – 2008

11. Sandoval County purchased an automated system for public emergency notification meeting national standards. The CEWG publicized it.
12. Intel increased RTO stack height from 23.2 meters to 30 meters from the ground.
13. Intel automated its biocide use.

2008 - 2009

14. Intel removed rain caps from boiler stacks, increasing exit velocity and effective height of stack flow, reducing resultant particulate concentrations on the ground by 37% and carbon monoxide by 69% on an 8-hour average.

15. Intel reduced usage of HMDS, a chemical that produces silica when burned in the thermal oxidizers by a factor of 3 since 2005 and a factor of 8 since 1994.

2009-2010

16. Intel increased the pH in the scrubbers to eliminate odor stemming from 1-heptanethiol.

2010- 2011

17. Intel replaced old Durr oxidizers with four new Munters units for better reliability and less downtime. These are arranged so that they are not clustered, which further reduces ground-level concentrations.
18. Intel installed redundant oxidizer units that significantly reduced downtime.
19. Intel increased the RTO stack height from 30 meters to 40 to reduce the maximum ground-level concentrations of pollutants.
20. Intel and the CEWG conducted a test (over four days and four nights) for crystalline silica emissions, coordinated by a community-based Silica Testing Task Force (STTF), observed by community representatives, and analyzed by NIOSH (the National Institute of Occupational Safety and Health). Report indicated no significant levels of crystalline silica in emissions during the four test dates.
21. Intel created a website at ExploreIntel.com to report real-time data to the public.

2012-2013

22. Hydrogen Fluoride spikes modeling study.
23. Code Red research study.
24. Continued communication with ATSDR urging completion of its report.