The Fenceline Community Experience and Unmet Needs in Environmental Policy

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Introduction

149 petroleum refineries currently operate within the United States, many of which have communities located nearby. These “fenceline communities” are exposed to a continuous source of pollution, and at times, large pollution events including leaks, spills, and explosions.

This research project analyzed two public comment databases to find themes that characterize the experience of living next door to refineries and used these themes to explore needed policy change.

Methods

• Two public comment databases were used in this project: the Louisiana Bucket Brigade’s community reporting site (IWitness data), and the EPA’s database of public comments on fenceline monitoring provisions for its 2015 Refinery Rule.
• The two databases were individually sorted and analyzed in order to identify main themes and arguments in each.
• Themes were then compared and contrasted.

Findings

Although many aspects of the fenceline experience can be gathered from these two data sets, three themes found in both data sets are particularly meaningful:

1. Communities want real-time, continuous monitoring.

The EPA’s current method of air monitoring, passive sampling, records two week averages of air quality. As a result, there is a significant time gap between when a pollution event occurs and when communities know. This time gap leaves communities feeling unprotected and uninformed.

(Speaking of the night her daughter was hospitalized due to breathing complications) “I read in the paper Christmas morning that at that moment 8 o’clock that night 216.8 parts per billion was emitted into the air sulfur dioxide...OK? I did not know this”

-IWitness Commenter

2. Communities and refineries don’t trust each other.

Fenceline communities suspect that refineries (and at times government entities) withhold or manipulate information about their emissions. Refineries fear that fenceline communities will misconstrue published data or wrongfully blame them for pollution.

 “[P]etrochemical refineries in the city often release noxious fumes overnight so people do not notice.”

-IWitness Commenter

3. Refineries affect all aspects of life in fenceline communities.

Community members’ daily routine, experience outdoors, time with family, health, and more are all disrupted by the constant presence of the refinery and refinery pollution. Fenceline communities also juggle with a lack of information on what they are being exposed to at any given time leading to recurring anxiety and frustration.

“We were sitting outside just a moment ago and the smell was so bad that it ran us inside. We were afraid to inhale any of that.”

-IWitness Commenter

Conclusion

• The comments made on the EPA rule expressed the specific policy requests of the community. The IWitness data conveyed the day-to-day experience of fenceline communities and provided context through the experiences for these policy requests.

• Together the two databases showed that current environmental policies are not comprehensive enough to protect fenceline communities or address their concerns. The worry, frustration, and anxiety that surrounds much of the fenceline experience will not improve unless communities have access to continuous real-time data they are able to trust.

• It’s necessary to implement continuous/real-time monitoring in order to meet the needs of the communities, including to increase the accountability of refineries, help decrease the communities’ distrust towards refineries, and provide communities with answers and offer closure after pollution events.

Future Work

Further work could be conducted to analyze the effectiveness of state specific regulations on oil refineries.

REFERENCES:

• “Chemical Accidents.” IWitness Pollution Map. map.labucketbrigade.org/